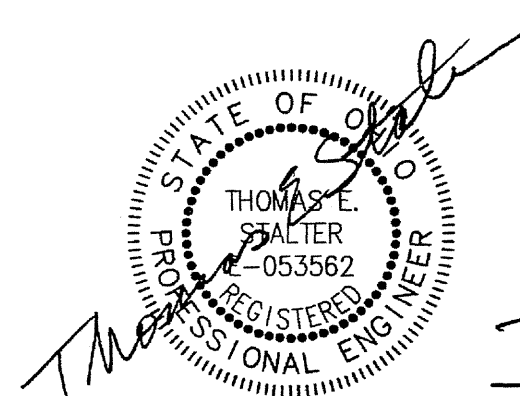
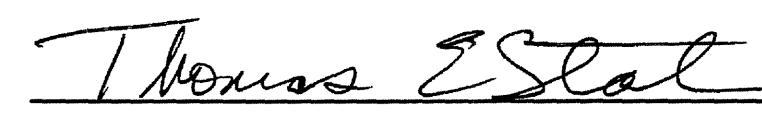


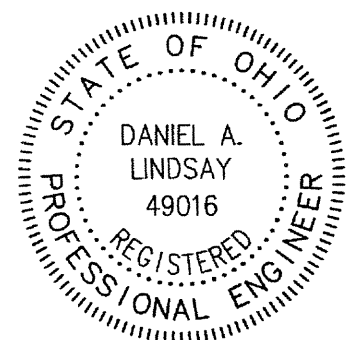
CONTRACT A - CSO RETENTION BASIN, PUMP STATION AND MAINTENANCE BUILDING CONTRACT B - CSO INTERCEPTOR SEWER VILLAGE OF OAK HARBOR OTTAWA COUNTY, OHIO 2007


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DESIGN ENGINEERS

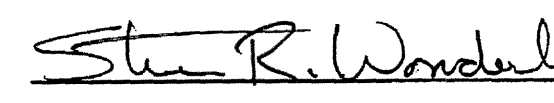


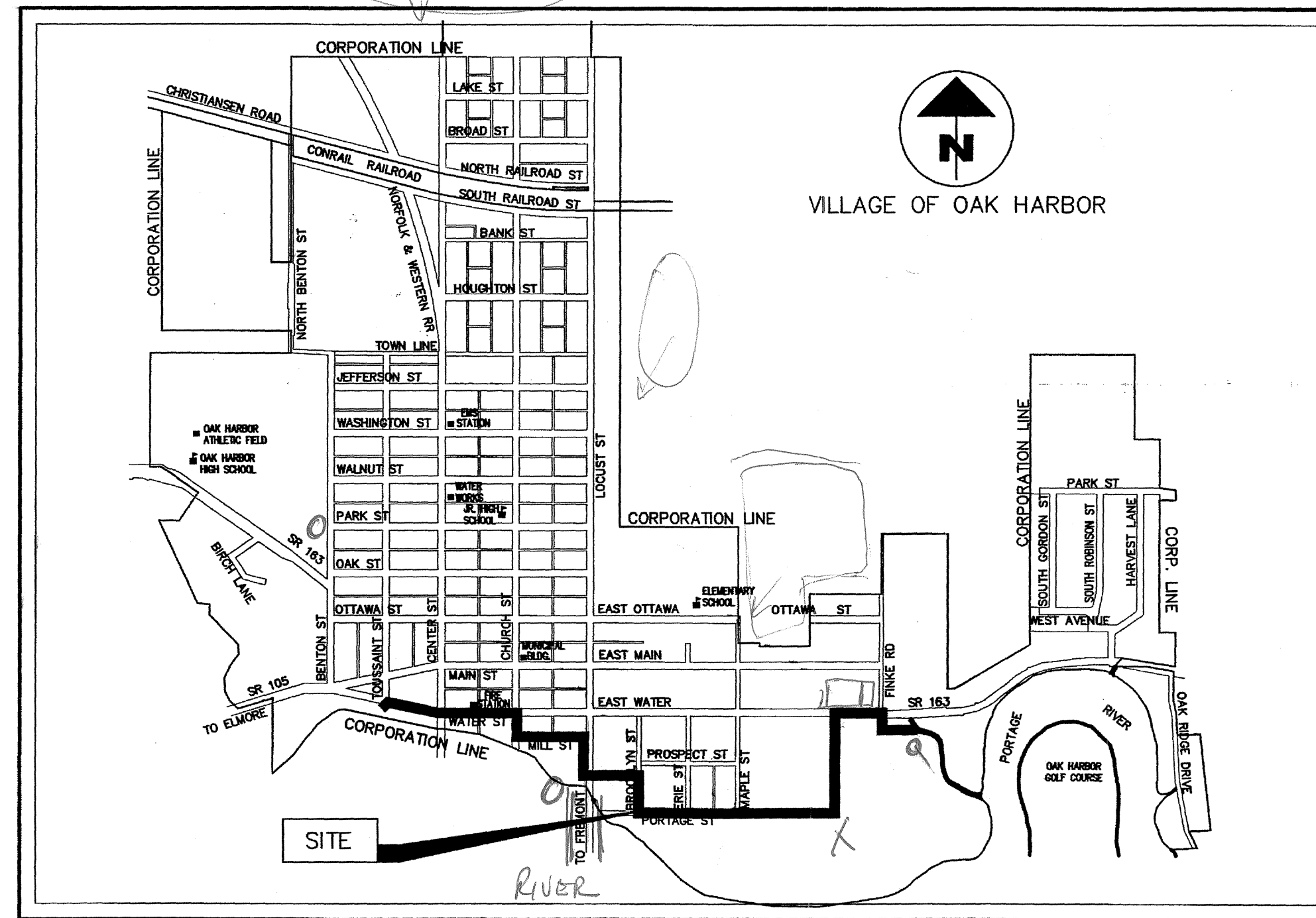

 THOMAS E. STALTER, P.E. - 53562 DATE 9/19/06




 DANIEL A. LINDSAY, P.E. - 49016 DATE 9/19/06




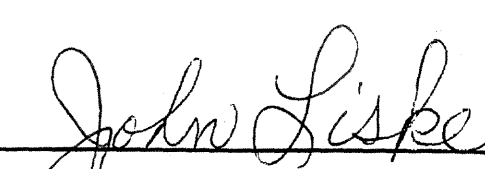

 STEVEN ROBERT WONDERLY, P.E. - 45621 DATE 9/19/2006

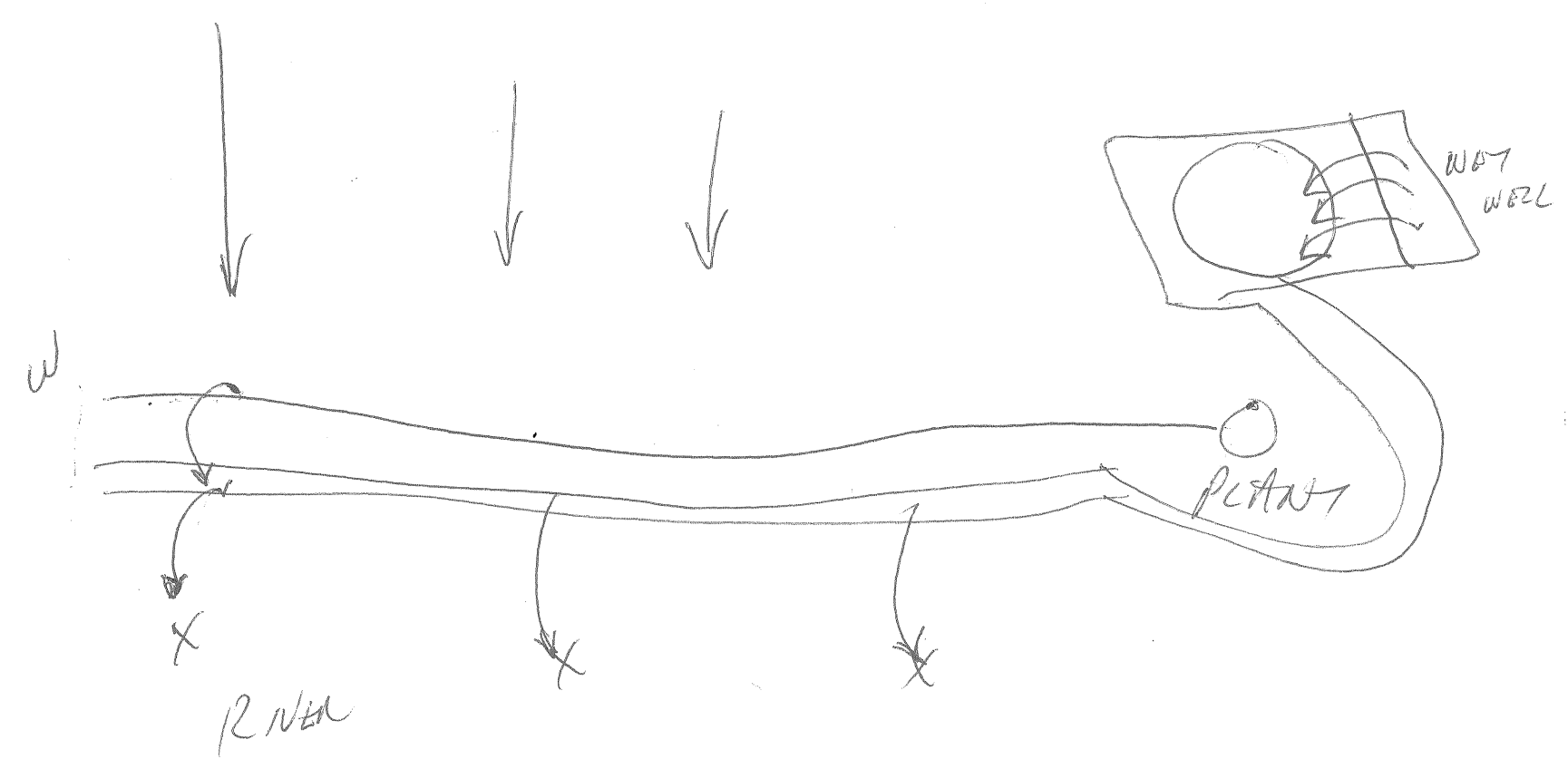


SITE MAP
NOT TO SCALE

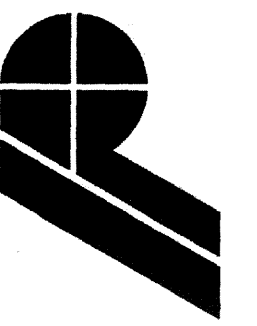
APPROVALS

APPROVED:  DATE 09-08-2006
 MAYOR - VILLAGE OF OAK HARBOR, OHIO

APPROVED:  DATE 09-08-06
 VILLAGE ADMINISTRATOR



POGGEMEYER DESIGN GROUP, INC.
 ARCHITECTS ENGINEERS PLANNERS
 1168 NORTH MAIN STREET (419) 352-7537 BOWLING GREEN, OHIO 43402



SET NO.

44

ISSUANCE

DATE	DESCRIPTION

REVISION

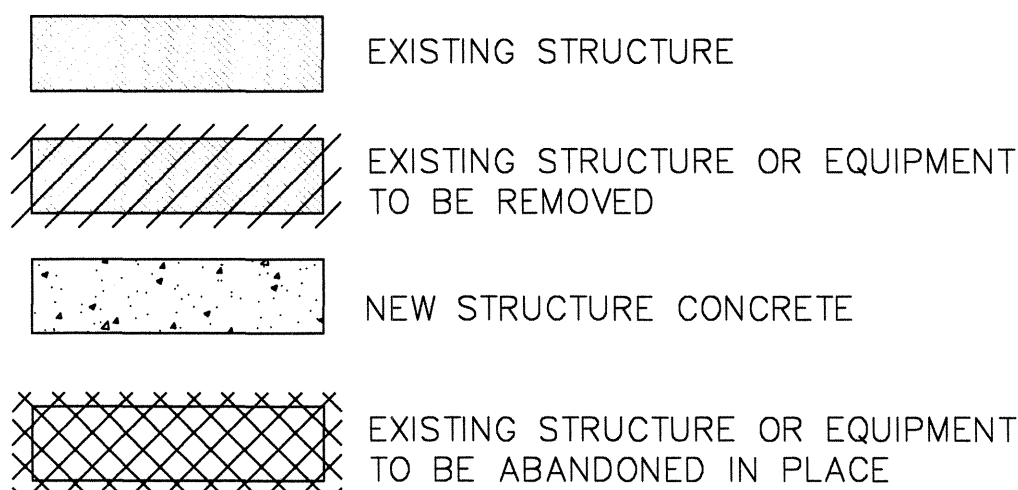
DATE	DESCRIPTION

C. S. O.
IMPROVEMENT
VILLAGE OF
OAK HARBOR
OTTAWA COUNTY
OHIO

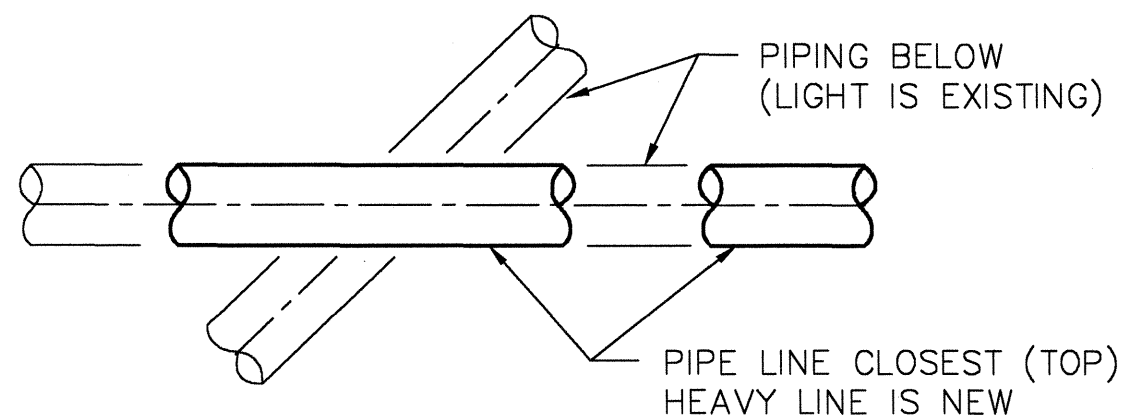
PDG NO. 1590-120

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BUILDING LEGEND

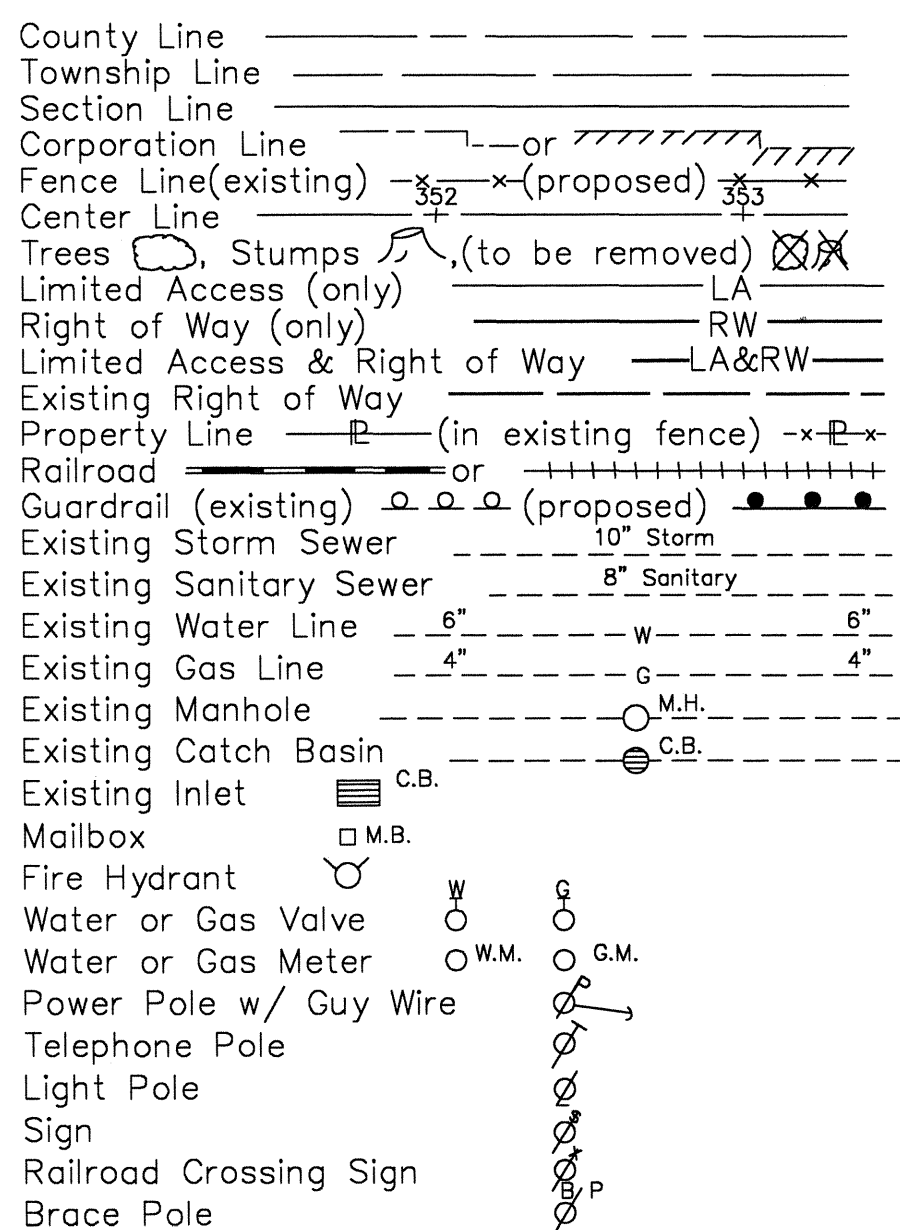


PIPING LEGEND

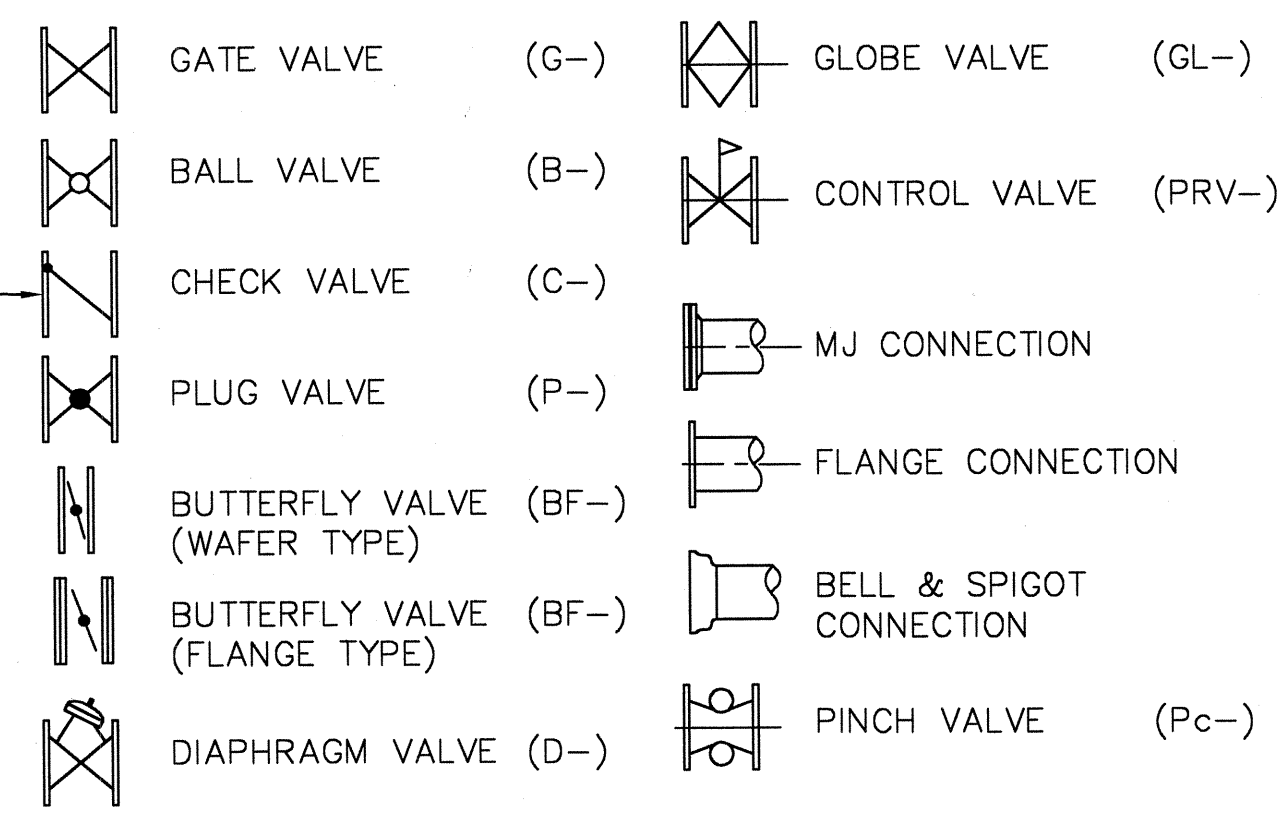


NEW PIPING AND EQUIPMENT UNDER CONTRACT LABEL "NEW" UNLESS OTHERWISE NOTED.

TOPOGRAPHY LEGEND



VALVE SYMBOL LEGEND



NOTE 1.) VALVE DESIGNATION AND TYPE APPLIES TO SCALE DRAWINGS ONLY. SCHEMATIC DIAGRAMS DO NOT REPRESENT ALL TYPES.
 2.) PROVIDE GEARED AND HANDWHEEL ACTUATOR FOR VALVES 6" AND LARGER UNLESS OTHERWISE NOTED. PROVIDE CHAIN WHEEL ON VALVES HIGHER THAN SIX (6) FEET.

PIPING ABBREVIATIONS

MATERIAL	SERVICE
BSP BLACK STEEL PIPE	NG NATURAL GAS
CMP CORRUGATED METAL PIPE	CW CITY WATER
CPP CONCRETE PRESSURE PIPE (PRESTRESSED)	HW HOT CITY WATER
CPVC CHLORINATED POLYVINYL CHLORIDE PIPE	NPW PLANT WATER (NON-DRINKABLE)
Cu COPPER TUBING OR PIPING	PW POTABLE WATER
DI DUCTILE IRON PIPE	CA COMPRESSED AIR
GS GALVANIZED STEEL PIPE	SS SANITARY SEWER
CP CONCRETE PIPE (PLAIN)	RW RAW WATER
PVC POLYVINYL CHLORIDE PIPE	DW DIGESTED WATER
ST STEEL PIPE	SL SLUDGE
S.ST STAINLESS STEEL PIPE	PE PLANT EFFLUENT
PE POLYETHYLENE	
FRP FIBERGLASS REINFORCED POLYESTER	

VALVE SCHEDULE OPERATOR DESIGNATION

OL LEVER AND WEIGHT OR SPRING	C CHAIN
FB FLOOR BOX	L LEVER
TW TEE WRENCH	VB VALVE BOX
G GEAR	BG BEVEL GEAR
HW HANDWHEEL	EB EXTENDED BONNET
MO MOTOR OPERATED	PN PNEUMATIC OPERATED

INSTALLATION NOTES:
 1.) VALVES INSIDE BUILDINGS SHALL BE OF FLANGE TYPE
 2.) VALVES UNDERGROUND INSTALLATION SHALL BE MECHANICAL JOINT UNLESS NOTED OTHERWISE
 3.) VALVES SHALL BE INSTALLED WITH OPERATOR ON THE VERTICAL OR HORIZONTAL POSITION. CONTRACTOR TO CONSULT WITH THE ENGINEER FOR ANY OTHER INSTALLATION ORIENTATION.
 4.) ALL CHECK VALVES SHALL BE INSTALLED ON THE HORIZONTAL OR VERTICAL POSITION UNLESS OTHERWISE NOTED.

PROJECT GENERAL NOTES:

- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, ELEVATIONS, TYPE OF CONNECTIONS, MATERIALS, MECHANICAL AND ELECTRICAL INTERFACING AND ALL UTILITIES IN THE AREA BY MEANS OF PROBING, EXCAVATING OR OTHER ACCURATE METHODS PRIOR TO COMMENCING CONSTRUCTION. DRAWINGS ARE NOT TO GUARANTEED TO BE ACCURATE. CONTRACTOR TO SHORE OR SUPPORT UTILITIES OR STRUCTURES AS REQUIRED WITHOUT ADDITIONAL COST TO THE OWNER. COST FOR LOCATING UTILITIES SHALL BE INCLUDED IN THE PROJECT ORIGINAL BID PRICE.
- ALL PIPING SHALL BE SUPPORTED PER SPECIFICATIONS. GENERAL CONTRACTOR SHALL DETAIL, FABRICATE AND INSTALL PIPE SUPPORTS AS REQUIRED.
- DUCTILE IRON PIPE (PRESSURE LINE) BELOW SLABS SHALL HAVE RETAINER GLANDS UNLESS OTHERWISE NOTED.
- CONTRACTOR TO COORDINATE AND APPLY STANDARD MISCELLANEOUS DETAILS AS REQUIRED.
- ALL PIPE INSTALLATIONS THRU EXISTING & PRE-CAST STRUCTURES SHALL BE DONE BY USING A LINK-SEAL ASSEMBLY OR EQUAL AND WITH S.S.T. HARDWARE. IN SURFACES EXPOSED TO WATER CONTRACTOR TO GROUT SMOOTH W/ NONE-SHRINK GROUT CAVITY AT L-SEAL.
- PROPOSED WORK UNDER THIS CONTRACT IS LABELED "NEW" UNLESS NOTED OTHERWISE. WHERE THERE IS A COMBINATION OF PROPOSED AND EXISTING CONDITIONS WORK IS LABEL "NEW" AND EXISTING NOT LABEL. IN PROPOSED BUILDING ALL EQUIPMENT IS "NEW" AND PROPOSED WORK IS NOT LABEL "NEW".
- ALL MATERIALS IN CONTACT WITH POTABLE WATER SHALL MEET THE REQUIREMENTS OF NSF STANDARD 60 AND 61.

PUMP STATION STRUCTURE

OCCUPANCY GROUP: F-2
 CONSTRUCTION TYPE: 28

SQUARE FOOTAGE
 ALLOWABLE (RESTRICTIONS BASED ON USE GROUP F-2)
 BASE (TABLE 503) 23,000 SQ.FT.
 OPEN PERIMETER 8,455 SQ.FT.
 FIRE SUPPRESSION 0 SQ.FT.
 TOTAL ALLOWABLE 23,455 SQ.FT.

ACTUAL PROPOSED:
 NEW CONSTRUCTION 870 SQ.FT.
 EXISTING 0 SQ.FT.
 TOTAL PROPOSED 870 SQ.FT.

OCCUPANT LOAD: N/A-NON-OCCUPIED
 STRUCTURAL LOADS: SEE STRUCTURAL DRAWING

MAINTENANCE BUILDING

OCCUPANCY GROUP: S-1
 CONSTRUCTION TYPE: 5B

SQUARE FOOTAGE
 ALLOWABLE (RESTRICTIONS BASED ON USE GROUP S-1)
 BASE (TABLE 503) 9,000
 OPEN PERIMETER 6,750
 FIRE SUPPRESSION 0
 TOTAL ALLOWABLE 15,750

ACTUAL PROPOSED:
 NEW CONSTRUCTION 6,000
 EXISTING 0
 TOTAL PROPOSED 6,000

OCCUPANT LOAD: 6,000 SF @ 300 SF/ OCC = OCCUPANTS
 STRUCTURAL LOADS: SEE STRUCTURAL DRAWING

UNDERGROUND UTILITIES

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3.	OVERALL SITE PLAN
4.	EQUALIZATION BASIN SITE PLAN
5.	MAINTENANCE BUILDING SITE PLAN
6.	DRIVEWAY IMPROVEMENT PLAN
7.	PUMP STATION FOUNDATION PLAN
8.	PUMP STATION TOP PLAN AT ELEVATIONS 592.25
9.	PUMP STATION - SECTION 1 AND DETAILS
10.	PUMP STATION - SECTIONS 2 AND 3
11.	PUMP STATION - SECTIONS 4, 5 AND DETAILS
12.	EQUALIZATION BASIN MIXER LOCATION PLAN
13.	EQUALIZATION BASIN SECTIONS AND DETAILS
14.	MAINTENANCE BUILDING EXTERIOR ELEVATIONS
15.	MAINTENANCE BUILDING FOUNDATION PLAN SECTION AND DETAILS
16.	MAINTENANCE BUILDING FLOOR PLAN SECTION AND SCHEDULES
17.	MAINTENANCE BUILDING ROOF PLAN SECTION AND SCHEDULES
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19.	STRUCTURAL DETAILS AND GENERAL NOTES
20.	STRUCTURAL DETAILS
21.	TRENCH AND PIPING DETAILS
M0.1	MAINTENANCE BUILDING - MECHANICAL NOTES, SCHEDULES, AND SCHEMATICS
M1.1	MAINTENANCE BUILDING - MECHANICAL PLANS
M2.1	MAINTENANCE BUILDING - PIPING SCHEMATICS
E1	BASIN AREA AND MAINTENANCE BUILDING ELECTRICAL SITE PLAN
E2	PUMP STATION CONTROL PANEL SCHEMATIC
E3	PUMP STATION SINGLE LINE AND WIRING DIAGRAMS
E4	PUMP STATION ELECTRICAL PLAN
E5	PUMP STATION ELEVATION AND DETAILS
E6	MAINTENANCE BUILDING SCHEDULES AND DIAGRAMS
E7	MAINTENANCE BUILDING ELECTRICAL LIGHTING PLAN
E8	MAINTENANCE BUILDING ELECTRICAL POWER PLAN
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SWP3-2	SWPP SITE PLAN
SWP3-3	SWPP NOTES
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4.	WATER STREET PLAN & PROFILE 21+00-28+00
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8.	EASEMENT PLAN & PROFILE 9+00-15+00
9.	BROOKLYN STREET PLAN & PROFILE 9+00-15+00
10.	PORTAGE STREET PLAN & PROFILE 19+00-30+00
11.	PORTAGE STREET PLAN & PROFILE 30+00-39+00
12.	VILLAGE PROPERTY PLAN & PROFILE 9+00-20+00
13.	WATER STREET PLAN & PROFILE 54+00-64+00
14.	C.S.O. DETAILS
15.	C.S.O. DETAILS
16.	SEWER DETAILS
17.	WATERLINE DETAILS
SWP3-1A	SWPPP PLAN FOR INTERCEPTOR SEWER
SWP-2A	SWPPP FOR INTERCEPTOR SEWER



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**CSO IMPROVEMENTS
 E.Q. BASIN AND PUMP STATION
 VILLAGE OF OAK HARBOR, OHIO**

**LEGENDS
 AND
 INDEX**

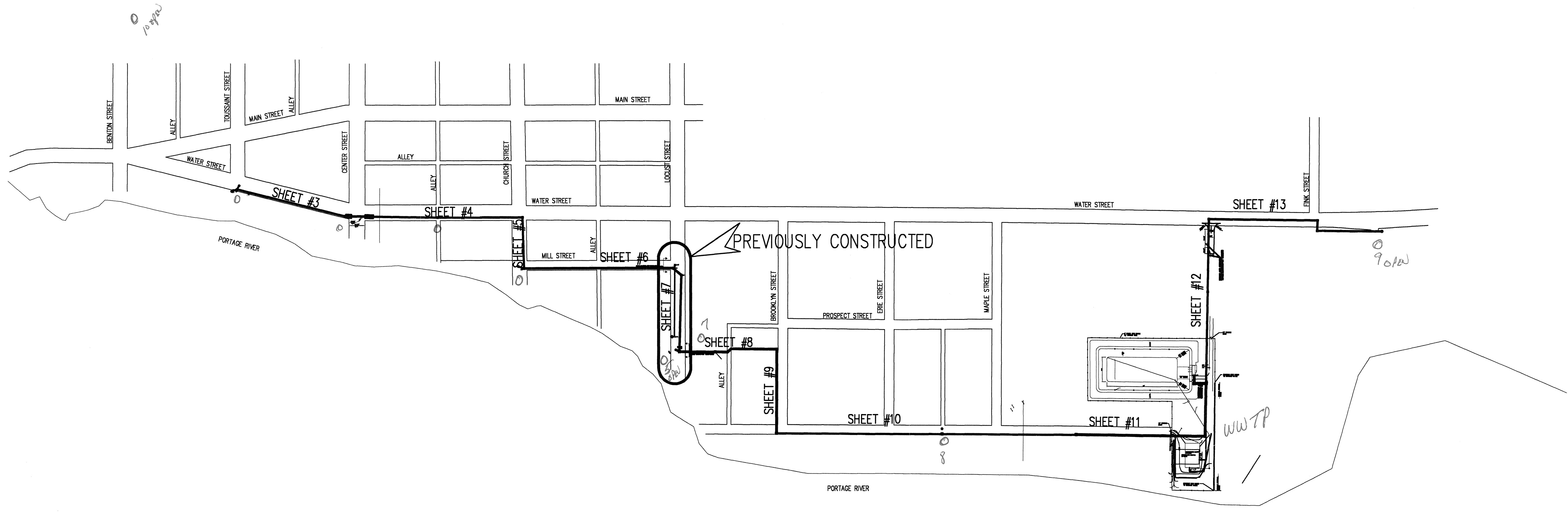
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 W.M.V. S.R.W.
 REVISION

2
 OF
 32
 JOB NUMBER
 1590-120

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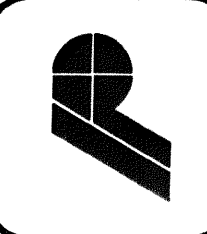
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QTY.	UNIT	DESCRIPTION
17	L.F.	18" SANITARY SEWER
351	L.F.	42" SANITARY SEWER
40	L.F.	54" SANITARY SEWER
66	V.F.	OVERFLOW INTECEPTOR STRUCTURE
11	V.F.	SANITARY MANHOLE
4	EACH	SANITARY MANHOLE FRAME AND COVER
1	EACH	PLUG OVERFLOW STRUCTURE
300	L.F.	6" WATERLINE
1	EACH	6"X8" TAPPING SLEEVE AND VALVE
4	EACH	RECONNECT EXISTING WATER SERVICE
1	EACH	CURB INLET REPLACEMENT
2	EACH	CATCH BASIN REPLACEMENT
380	L.F.	12" AND UNDER STORM SEWER REPLACEMENT
60	L.F.	OVER 12" STORM SEWER REPLACEMENT
1	L.S.	MISCELLANEOUS RESTORATION
1	L.S.	TRAFFIC CONTROL
1	L.S.	BONDS AND INSURANCE (2%)
1	L.S.	PROJECT VIDEO



VILLAGE OF OAK HARBOR
OTTAWA COUNTY, OHIO

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(419) 352-7537

**SANITARY SEWER IMPROVEMENTS
VILLAGE OF OAK HARBOR
OTTAWA COUNTY, OHIO**

**GENERAL
PLAN**

NO.	DATE	BY	CHECKED BY

2
OF

JOB NUMBER
1590-120

CONTRACT B-1

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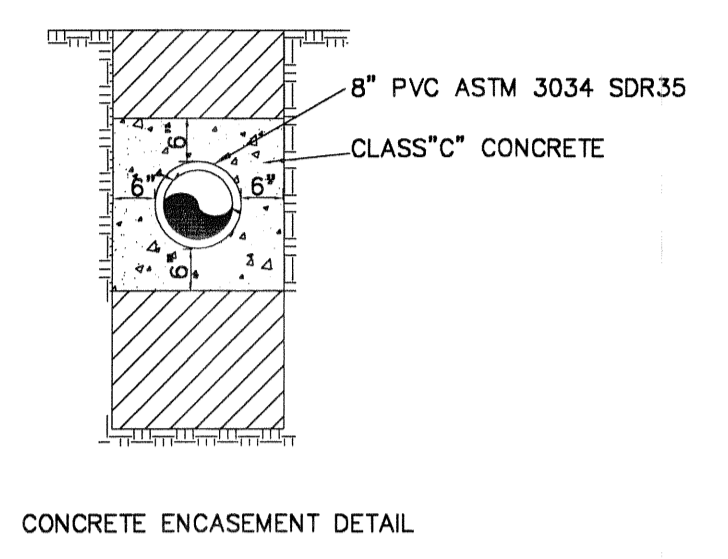
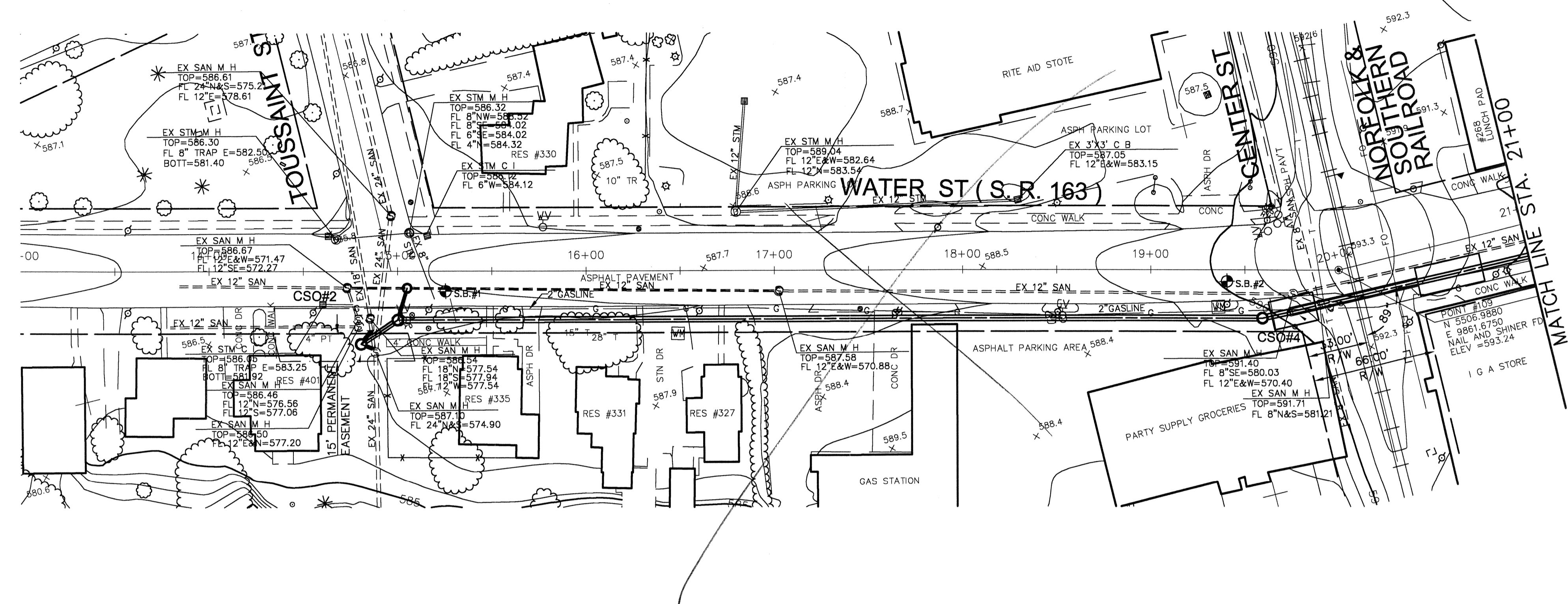
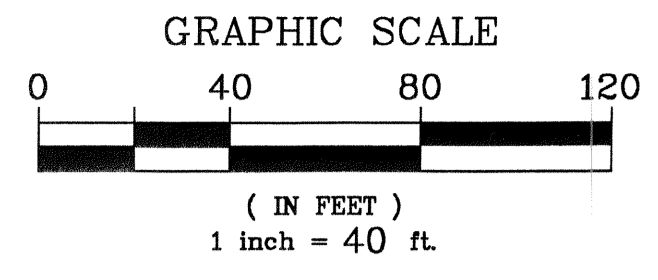
NOTE: ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED.

NOTE: IT IS THE CONTRACTOR'S RESPONSIBILITY TO SUPPORT AND PROTECT ALL UTILITIES EXPOSED DURING ANY EXCAVATION PERFORMED AS A RESULT OF THIS PROJECT.

NOTE: A MINIMUM OF TEN (10) FEET HORIZONTALLY AND EIGHTEEN (18) INCHES VERTICALLY FROM ANY SANITARY SEWER OR SEPTIC LINE MUST ALWAYS BE MAINTAINED UNLESS OTHERWISE APPROVED BY THE OHIO EPA. NO ENTRY OR CONTACT WITH A SEWER MANHOLE IS PERMITTED.

NOTE: CONTRACTOR TO SHORE / BRACE AS REQUIRED TO PROTECT BUILDING FOUNDATIONS AND EXISTING STRUCTURES ADJACENT TO EXCAVATIONS.

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NOTE: PIPE LINE AND CROSSINGS TO BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH LAST APPROVED AMERICAN RAILWAY ENGINEERING AND MAINTENANCE OF WAY ASSOCIATION SPECIFICATIONS FOR PIPELINES CONVEYING FLAMMABLE AND NON-FLAMMABLE SUBSTANCES.

NOTE: CONTRACTOR SHALL FOLLOW ALL REQUIREMENTS OF NORFOLK SOUTHERN'S NSCE-8 SPECIFICATIONS. PROVIDE CONSTRUCTION SEQUENCE PRIOR TO COMMENCING WORK.

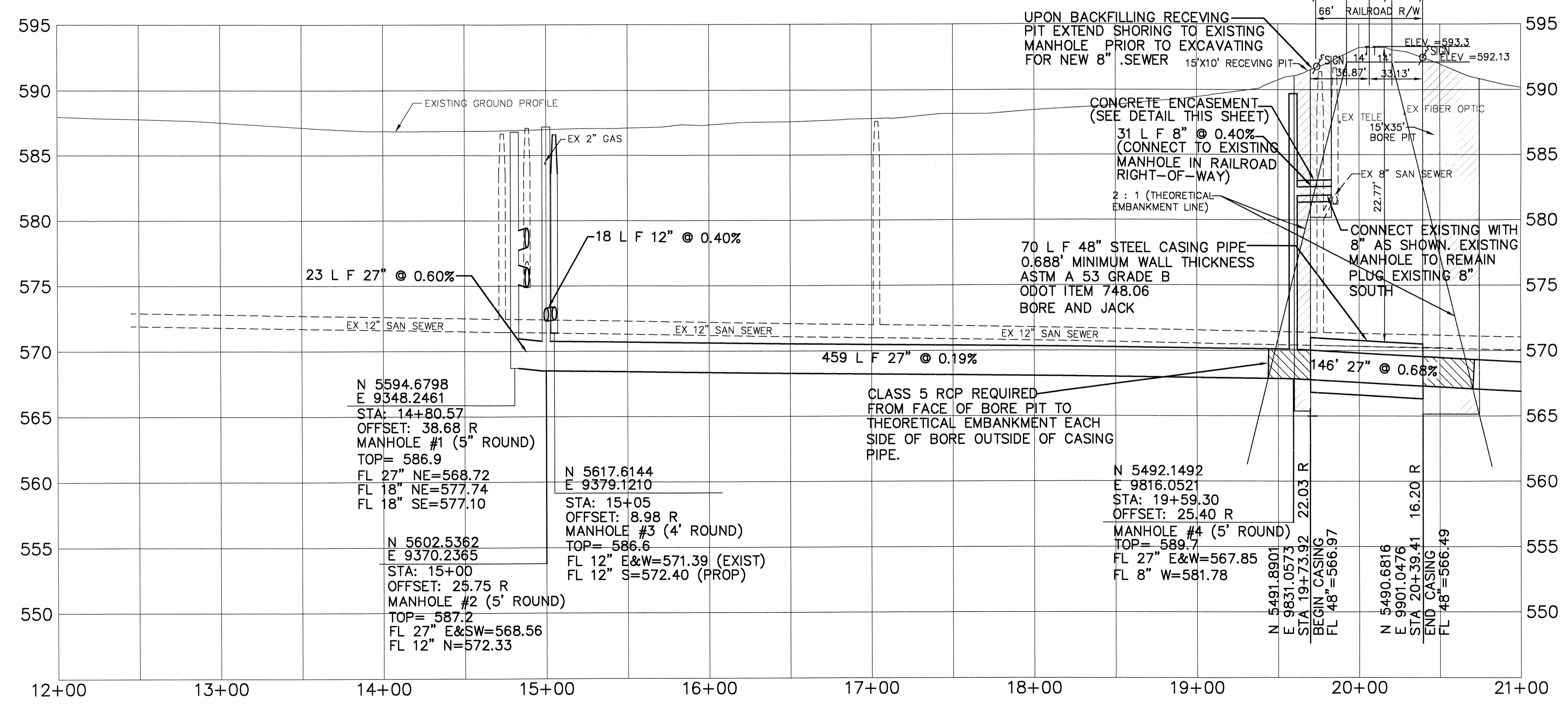
NOTE: BLASTING NOT PERMITTED.
 NOTE: CROSSING ID # 473754T

NOTE: SHEETING AND SHORING IN ACCORDANCE WITH NORFOLK SOUTHERN'S NSCE 8 SPECIFICATION WILL BE REQUIRED FOR EXCAVATION. SHORING SHALL COMPLY WITH APPROVED SHORING DETAILS, BOWSER-MORNER, DATED 2-17-07 INCLUDED WITH THE SPECIFICATIONS. ALL SHORING SHALL BE OF SHEET PILE CONSTRUCTION. SOLDIER PILE AND TIMBER CONSTRUCTION WILL NOT BE ALLOWED. EXTENDED SHORING AS REQUIRED FOR EXCAVATION \ CONNECTION OF 8\"/>

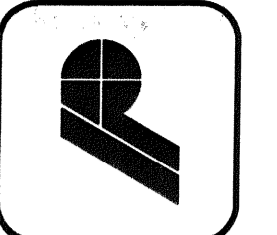
NOTE: OSHA RATED RAILING AND CONSTRUCTION FENCING SHALL BE MAINTAINED AROUND THE BORE PIT AND RECEIVING PIT AT ALL TIMES. IF A PIT MUST REMAIN OPEN OVERNIGHT, IT SHALL BE COMPLETELY COVERED WITH STEEL PLATE.

NOTE: ALL SHEET PILE SHALL REMAIN IN PLACE AT THE COMPLETION OF CONSTRUCTION. CUT OFF PILING 2' BELOW FINISHED GRADE. REMOVE CROSS BRACING ONLY AFTER BACKFILL IS PLACED TO WITHIN 2' OF BRACING.

NOTE: BACKFILL BORE AND RECEIVING PIT COMPLETELY WITH ODOT ITEM 703.17 STONE COMPACTED IN 8\"/>



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 ARCHITECTS
 ENGINEERS
 1168 NORTH MAIN STREET
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**SANITARY SEWER IMPROVEMENTS
 VILLAGE OF OAK HARBOR
 OTTAWA COUNTY, OHIO**

**WATER STREET
 PLAN & PROFILE
 13+00 - 21+00**

DESIGNED BY	RAO
CHECKED BY	DAL
REVISION	

3 OF

JOB NUMBER
 1590-120

CONTRACT B

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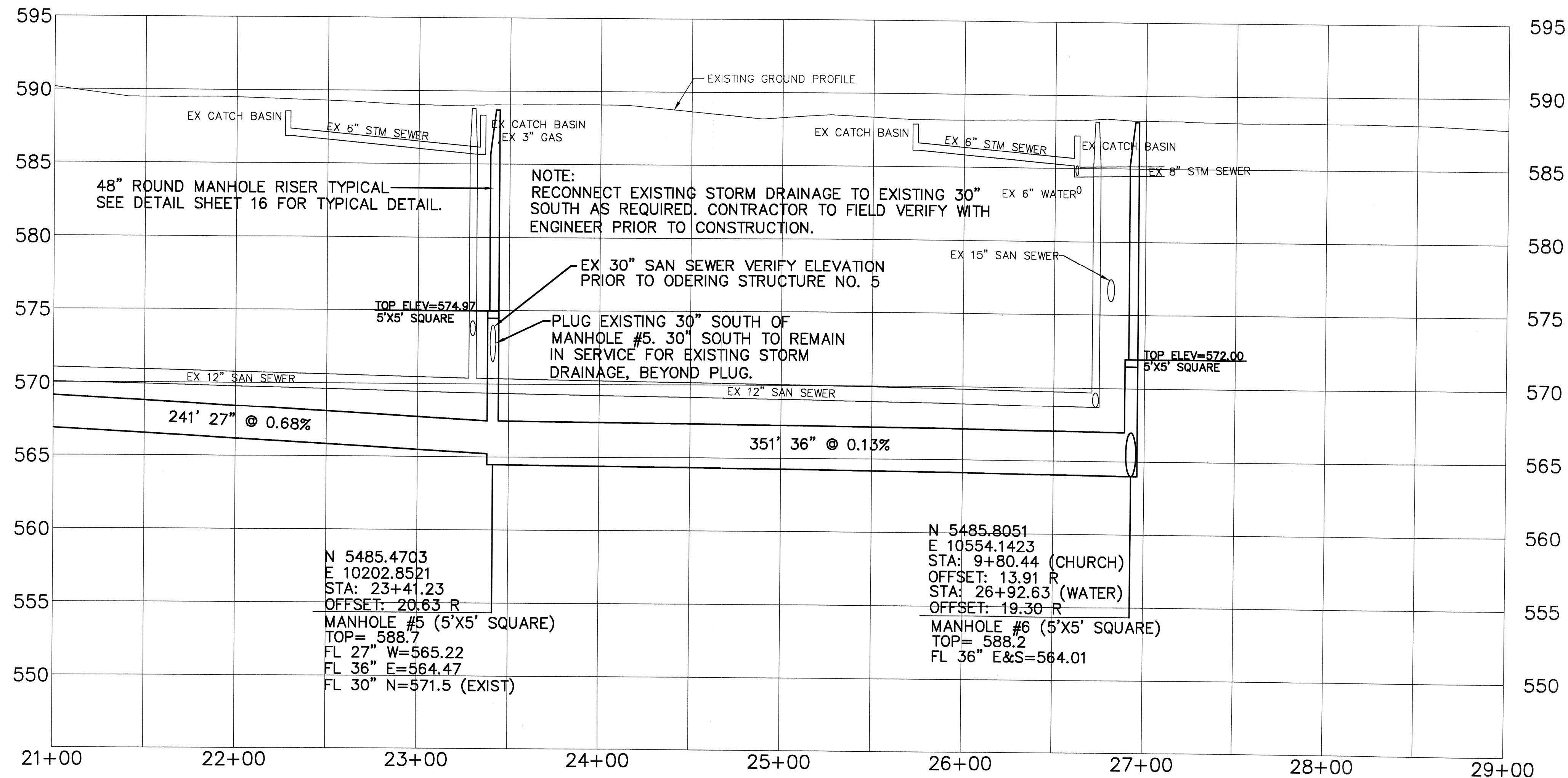
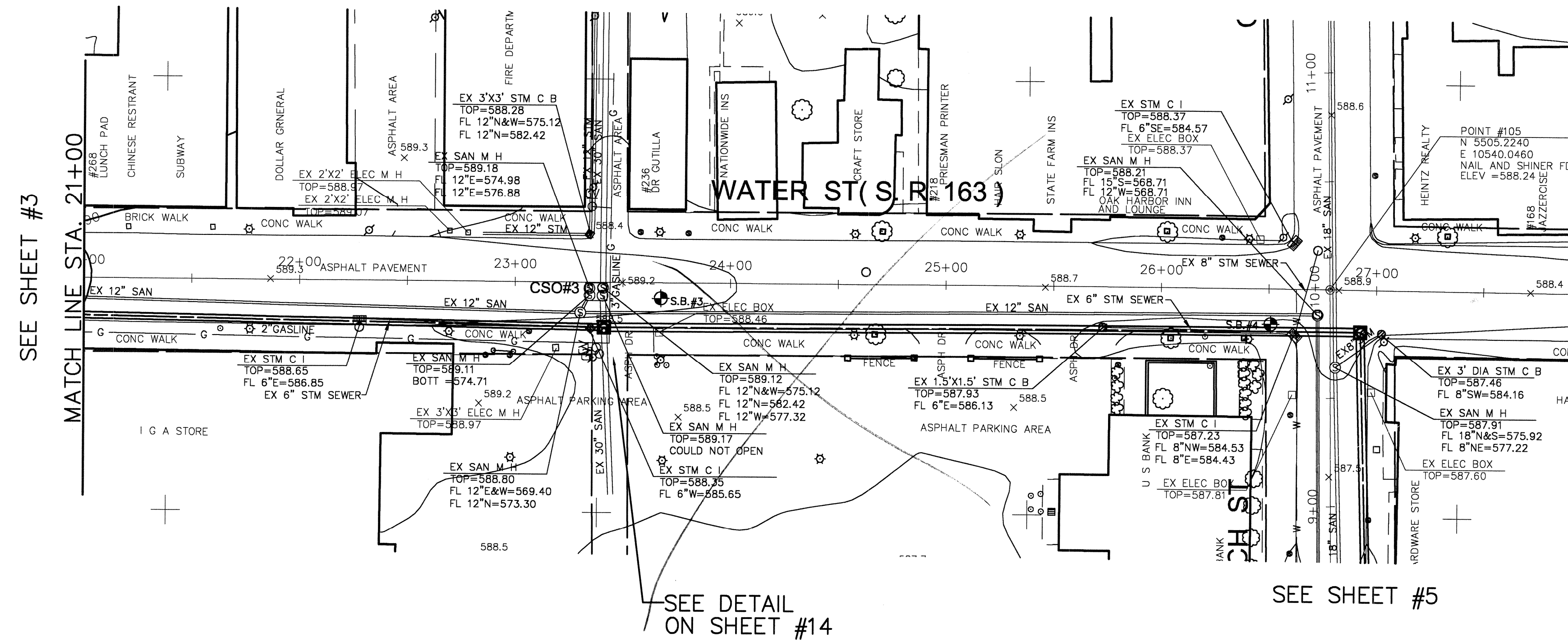
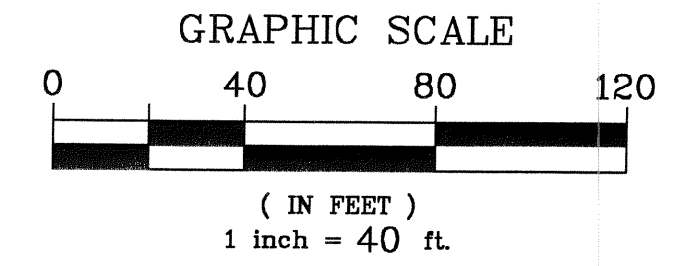
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SANITARY SEWER IMPROVEMENTS
 VILLAGE OF OAK HARBOR
 OTTAWA COUNTY, OHIO

WATER STREET
 PLAN & PROFILE
 21+00 - 28+00

DESIGNED BY	RAO
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REVISION	

4 OF

JOB NUMBER
 1590-120

CONTRACT B

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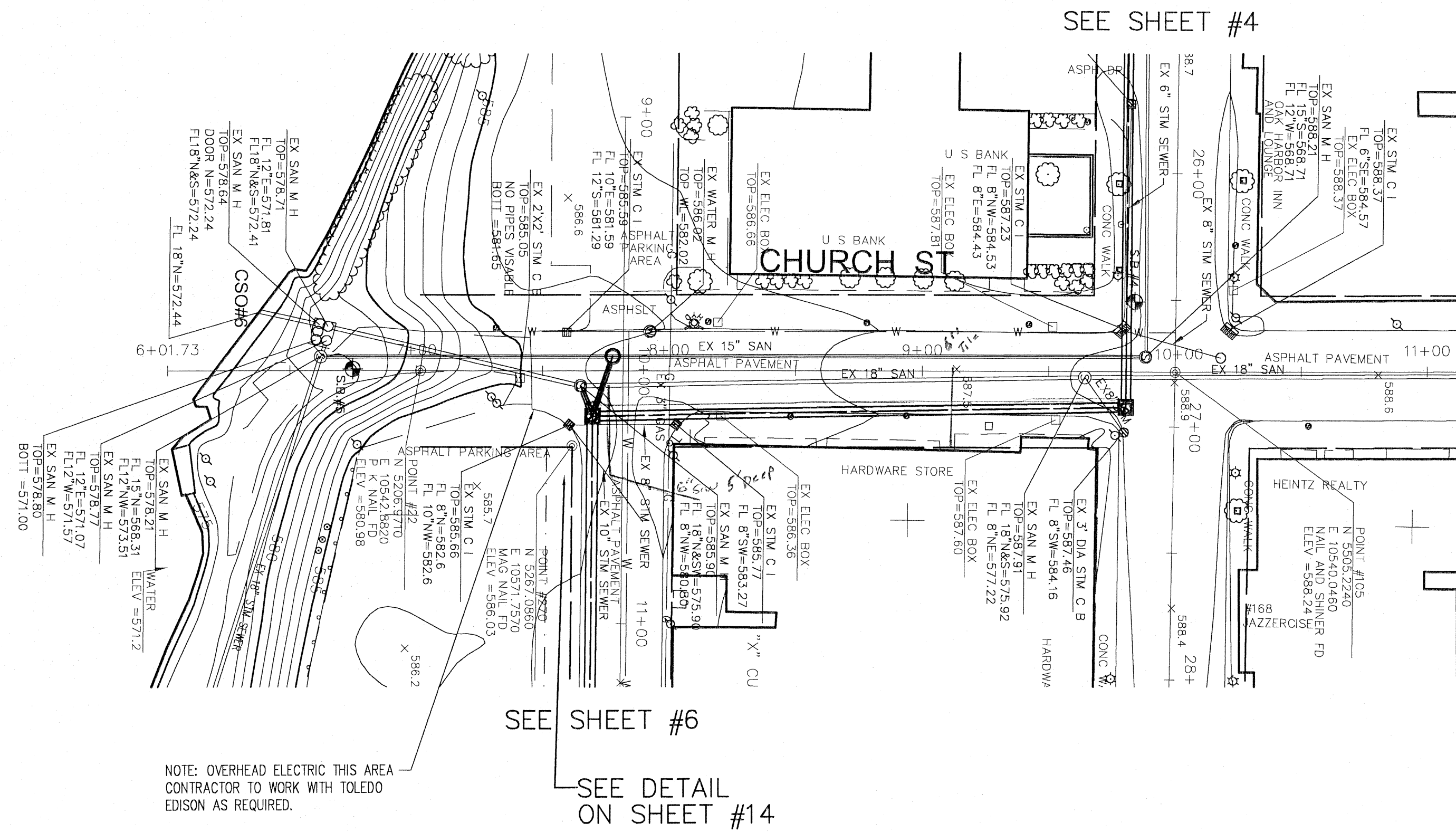
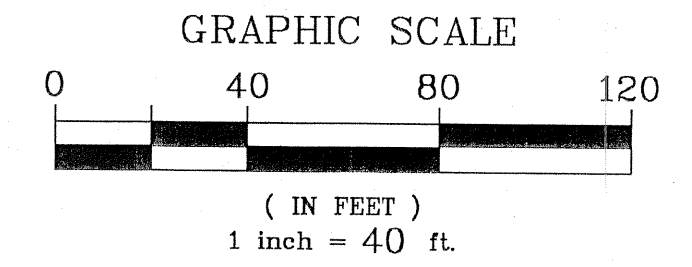
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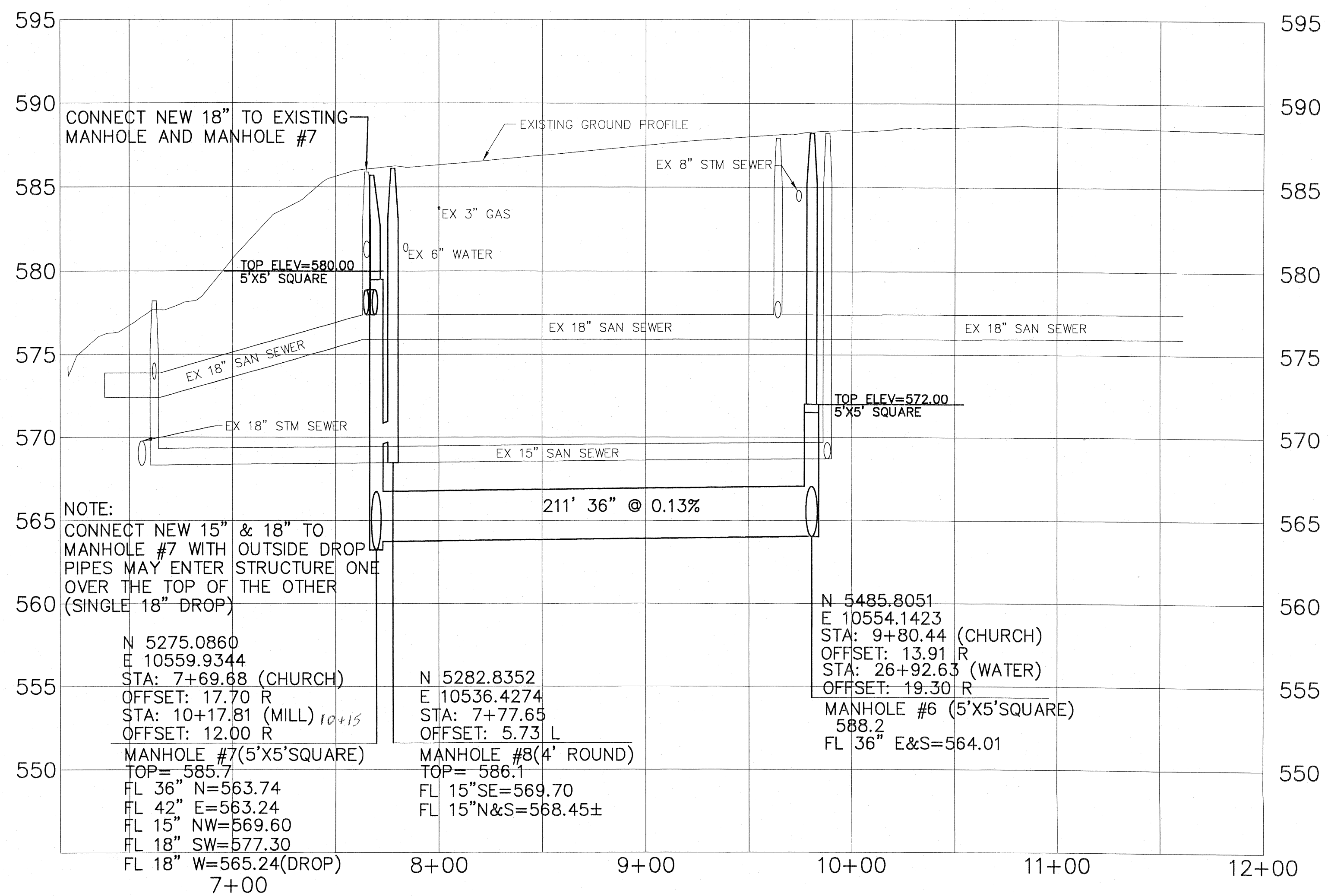
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UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
Call 1-800-352-2764 (Toll Free)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY



NOTE: OVERHEAD ELECTRIC THIS AREA CONTRACTOR TO WORK WITH TOLEDO EDISON AS REQUIRED.



I:\1990\120\UNV\PP\3.dwg 6/2/2007 4:07:30 PM EDT



POGEMEYER DESIGN GROUP, INC.
PLANNERS
ARCHITECTS ENGINEERS
1168 NORTH MAIN STREET
BOWLING GREEN, OHIO 43402
(419) 352-7537

**SANITARY SEWER IMPROVEMENTS
VILLAGE OF OAK HARBOR
OTTAWA COUNTY, OHIO**

**CHURCH STREET
PLAN & PROFILE
6+00 - 11+00**

DRAWN BY	CHECKED BY
RAO	DAL
REVISION	

5
OF
JOB NUMBER
1590-120

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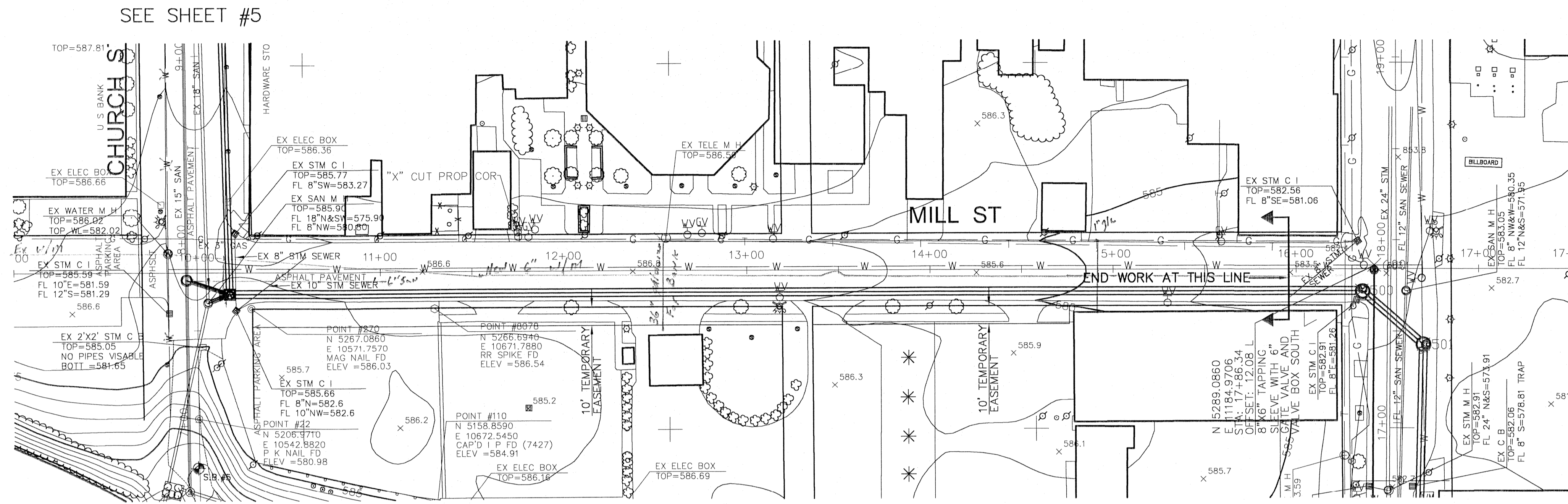
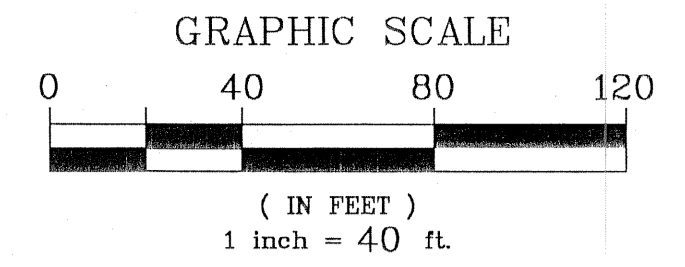
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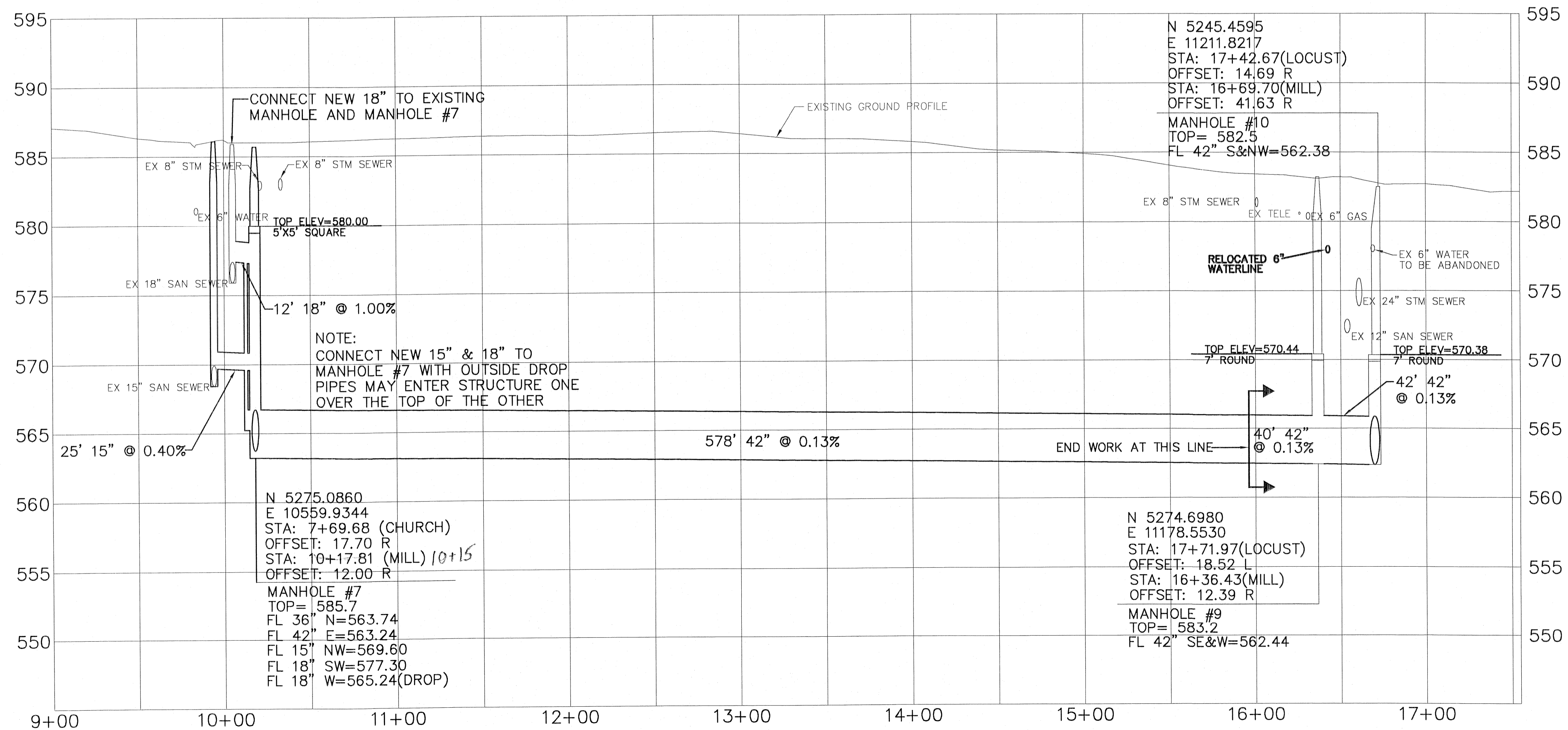
UNDERGROUND UTILITIES
BEFORE YOU DIG
Call 1-800-392-7274 (Toll Free)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY



SEE SHEET #7

NOTE:

WORK ON THIS SHEET
STA 10+00 TO STA 15+96.4
MILL STREET



I:\1590\120\ENW\PP\6.dwg 6/5/2007 4:12:25 PM EDT

CONTRACT B-1

POGGEMEYER DESIGN GROUP, INC.
PLANNERS
BOWLING GREEN, OHIO 43402
ARCHITECTS
1168 NORTH MAIN STREET
(419) 352-7537

SANITARY SEWER IMPROVEMENTS
VILLAGE OF OAK HARBOR
OTTAWA COUNTY, OHIO

MILL STREET
PLAN & PROFILE
9+00 - 16+00

DRAWN BY: RAO
CHECKED BY: DAL
REVISION:

6 OF

JOB NUMBER
1590-120

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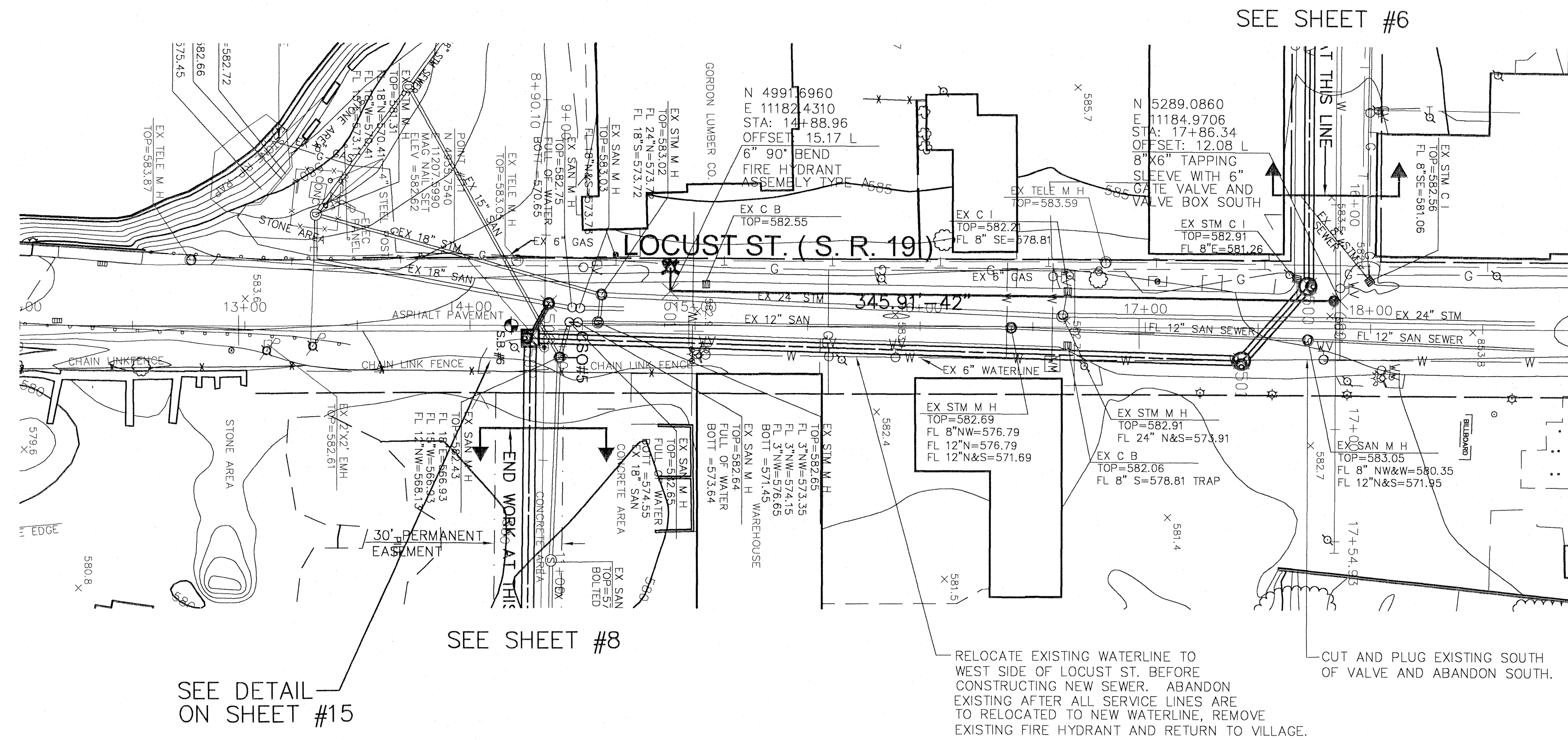
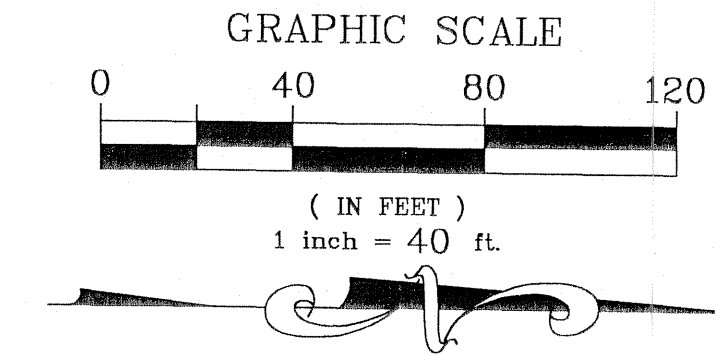
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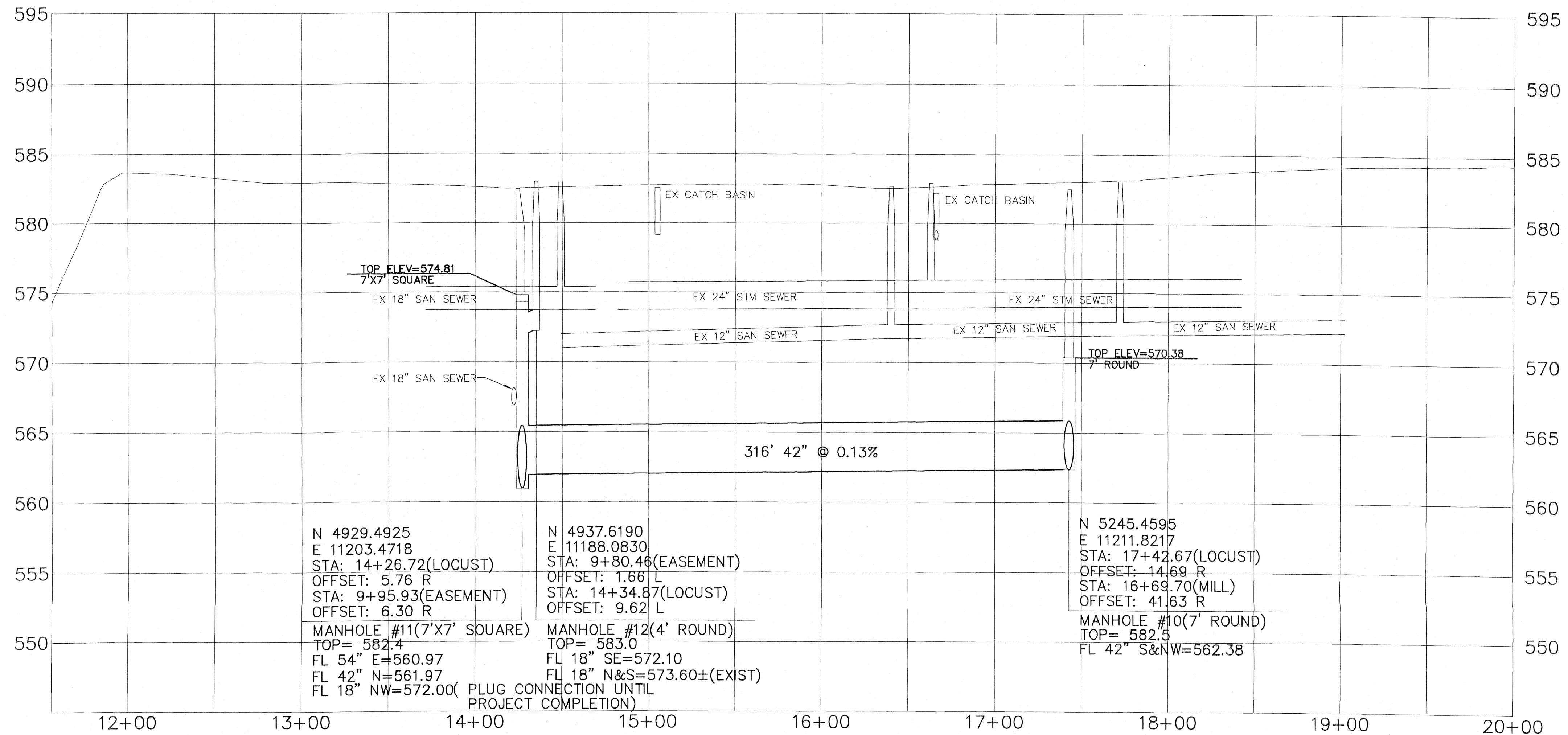
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TWO WORKING DAYS
BEFORE YOU DIG
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OHIO UTILITIES PROTECTION SERVICE
NON-EMERGENCY
MUST BE CALLED DIRECTLY



THIS SHEET PREVIOUSLY CONSTRUCTED



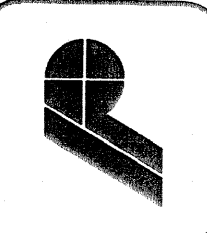
N 4929.4925
E 11203.4718
STA: 14+26.72(LOCUST)
OFFSET: 5.76 R
STA: 9+95.93(EASEMENT)
OFFSET: 6.30 R
MANHOLE #11(7'X7' SQUARE)
TOP= 582.4
FL 54" E=560.97
FL 42" N=561.97
FL 18" NW=572.00(PLUG CONNECTION UNTIL PROJECT COMPLETION)

N 4937.6190
E 11188.0830
STA: 9+80.46(EASEMENT)
OFFSET: 1.66 L
STA: 14+34.87(LOCUST)
OFFSET: 9.62 L
MANHOLE #12(4' ROUND)
TOP= 583.0
FL 18" SE=572.10
FL 18" N&S=573.60±(EXIST)

N 5245.4595
E 11211.8217
STA: 17+42.67(LOCUST)
OFFSET: 14.69 R
STA: 16+69.70(MILL)
OFFSET: 41.63 R
MANHOLE #10(7' ROUND)
TOP= 582.5
FL 42" S&NW=562.38

I:\1990\120\DWG\PPV\2.dwg 6/5/2007 4:14:56 PM IDI

CONTRACT B-1



POGEMEYER DESIGN GROUP, INC.
PLANNERS
ENGINEERS
ARCHITECTS
1168 NORTH MAIN STREET
BOWLING GREEN, OHIO 43402
(419) 352-7537

**SANITARY SEWER IMPROVEMENTS
VILLAGE OF OAK HARBOR
OTTAWA COUNTY, OHIO**

**LOCUST STREET
PLAN & PROFILE
12+00 - 19+00**

DRAWN BY: RAO
CHECKED BY: DAL

REVISION:

7 OF

JOB NUMBER
1590-120

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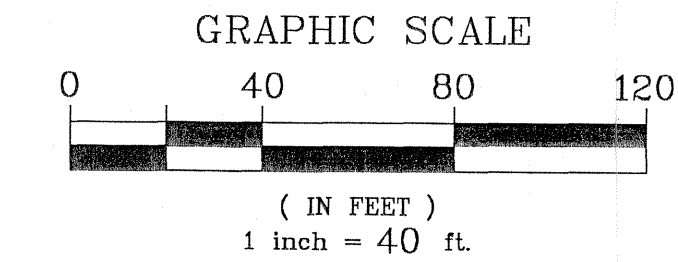
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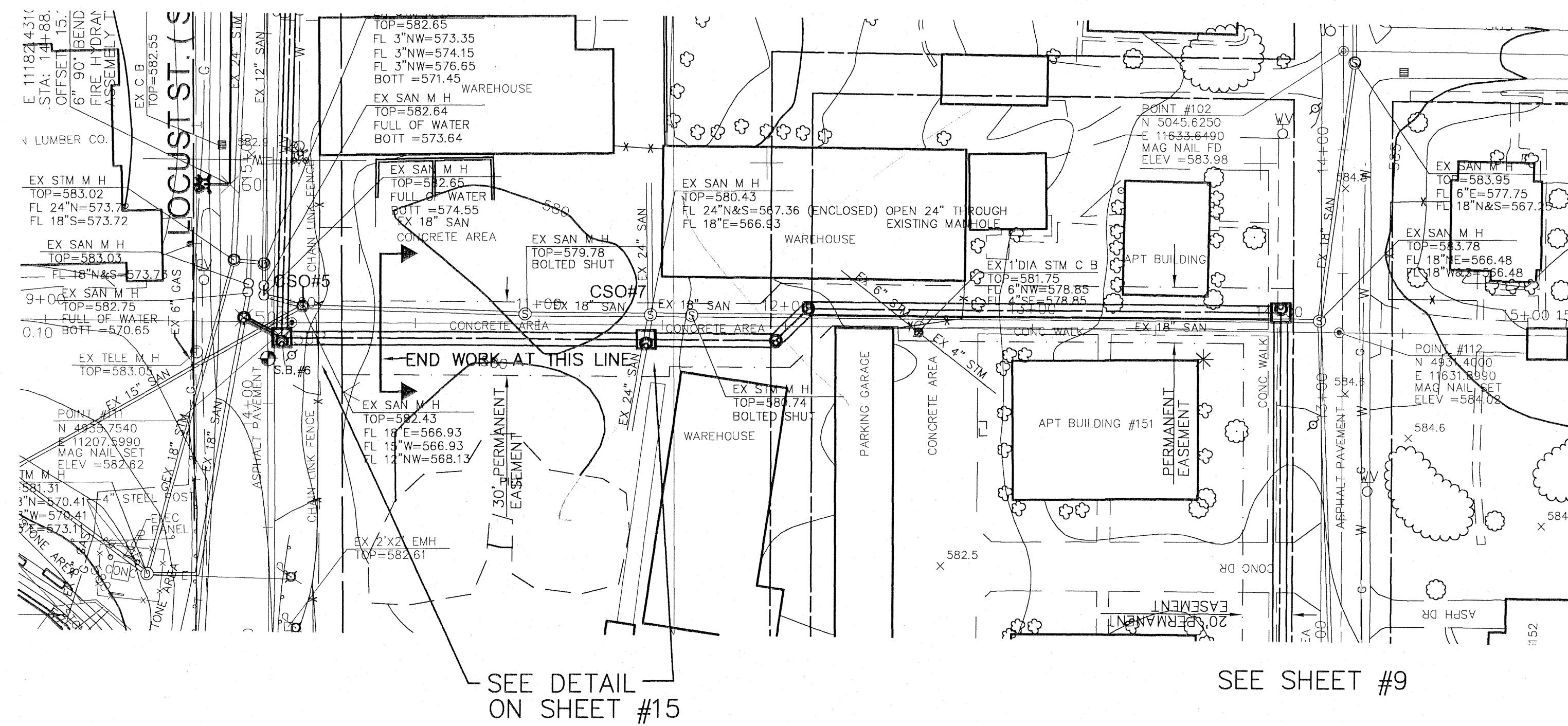
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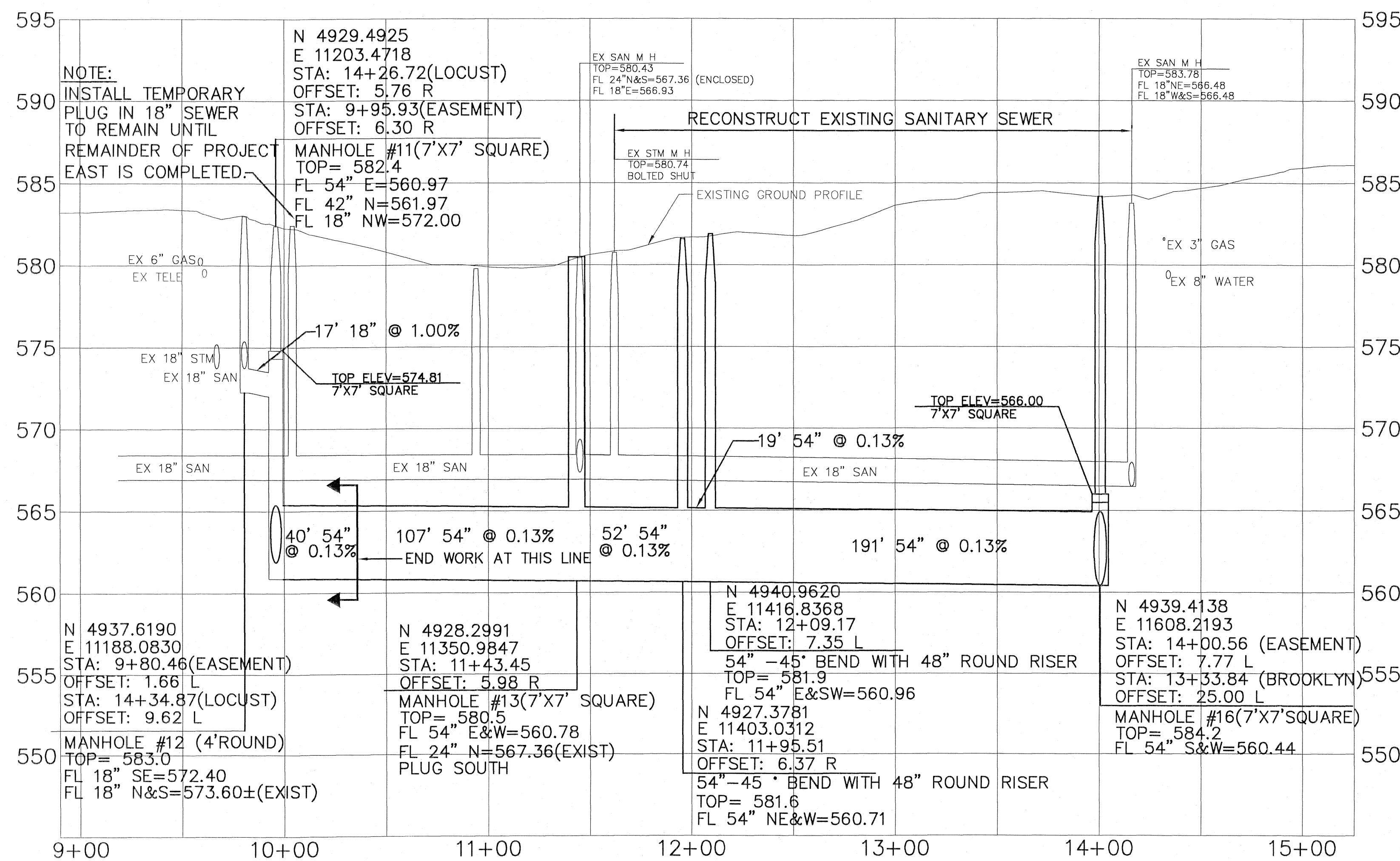
UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
Call 1-800-362-2784 (Toll Free)
OHIO UTILITIES PROTECTION SERVICE
NON-EMERGENCY
MUST BE CALLED DIRECTLY



SEE SHEET #7



NOTE:
WORK ON THIS SHEET
STA 10+20.5 TO STA 14+00.56
EASEMENT



I:\1590\120\DWG\PP\6.dwg 6/5/2007 4:17:31 PM EDT

CONTRACT B-1

POGGEMEYER DESIGN GROUP, INC.
PLANNERS
ENGINEERS
ARCHITECTS
1168 NORTH MAIN STREET
BOWLING GREEN, OHIO 43402
(419) 352-7537

SANITARY SEWER IMPROVEMENTS
VILLAGE OF OAK HARBOR
OTTAWA COUNTY, OHIO

EASEMENT
PLAN & PROFILE
9+00 - 15+00

DRAWN BY: RAO
CHECKED BY: DAL

REVISION:

8 OF

JOB NUMBER
1590-120

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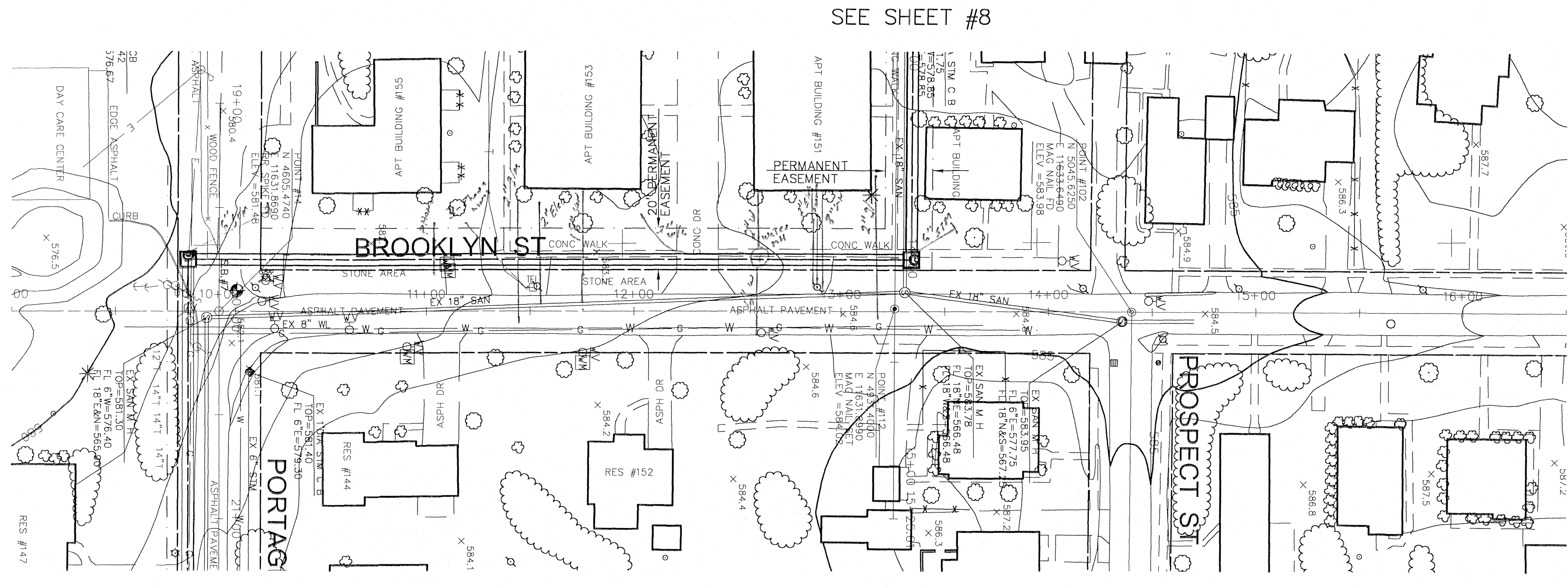
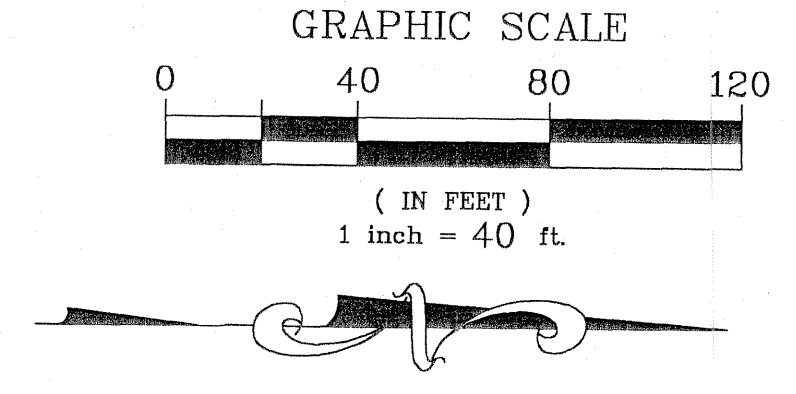
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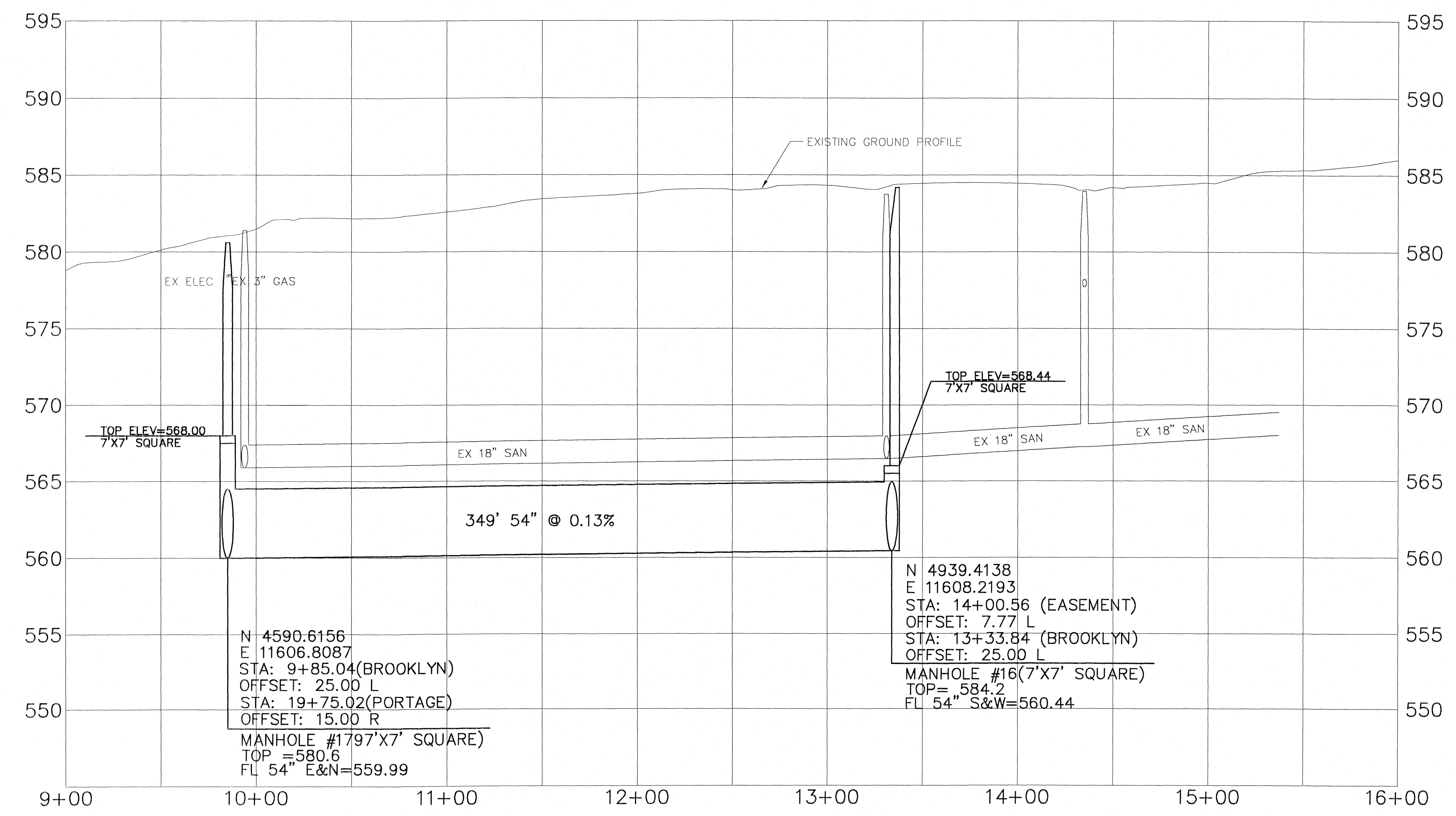
UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
Call 1-800-362-7194 (Toll Free)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY



SEE SHEET #8

SEE SHEET #10

6" STM Provided For
5' DEEP AP'S



POGGEMEYER DESIGN GROUP, INC.
ARCHITECTS ENGINEERS PLANNERS
1168 NORTH MAIN STREET BOWLING GREEN, OHIO 43402
(419) 352-7537

**SANITARY SEWER IMPROVEMENTS
VILLAGE OF OAK HARBOR
OTTAWA COUNTY, OHIO**

**BROOKLYN STREET
PLAN & PROFILE
9+00 - 15+00**

REVISION	DATE	BY	CHECKED BY

9 OF 9
JOB NUMBER 1590-120

CONTRACT B

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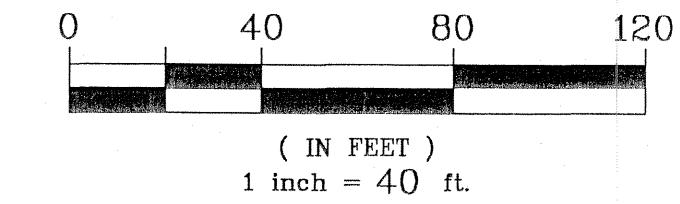
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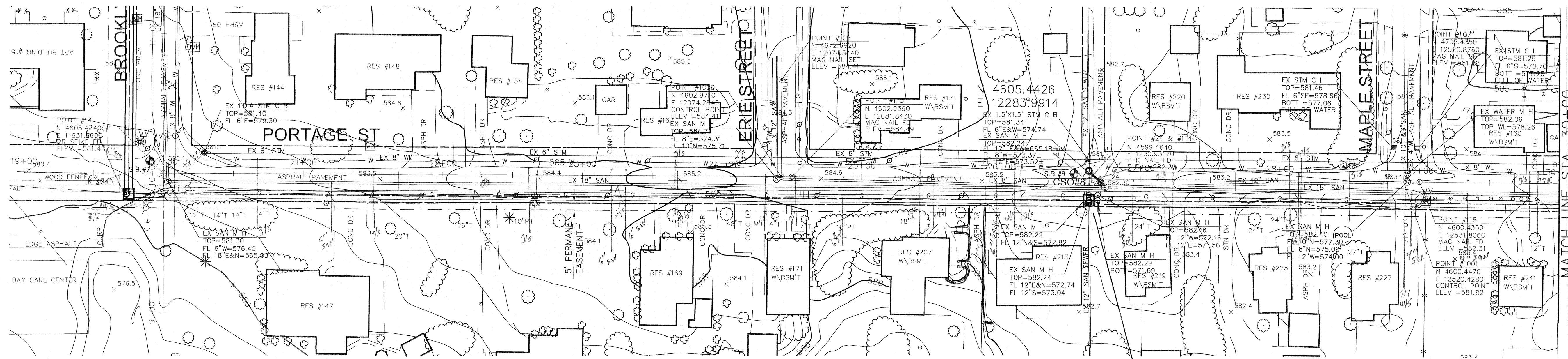
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UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
Call 1-800-392-2778 (Toll Free)
OHIO UTILITIES PROTECTION SERVICE
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MUST BE CALLED DIRECTLY

GRAPHIC SCALE



SEE SHEET #9



MATCH LINE STA. 30+00
SEE SHEET #11

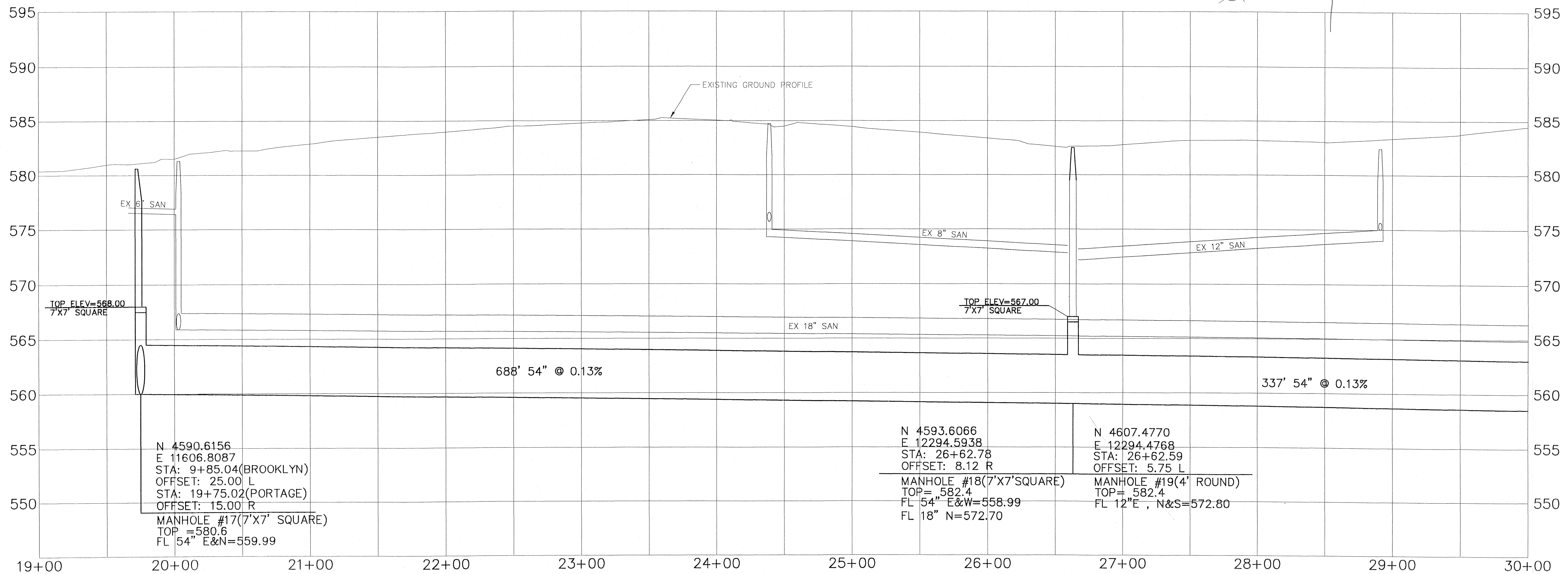
22x30
Sho MH Buried
3' under Pavement

(Contractor will
bring all Buried
MH's up to grade)

Found Ex MH
over 1st sand with
1-3\"/>

SEE DETAIL
ON SHEET #15

NOTE: REMOVE C S O #8
STRUCTURE AND PLUG
8" TO THE SOUTH



N 4590.6156
E 11606.8087
STA: 9+85.04(BROOKLYN)
OFFSET: 25.00 L
STA: 19+75.02(PORTAGE)
OFFSET: 15.00 R
MANHOLE #17(7'X7' SQUARE)
TOP = 580.6
FL 54" E&N=559.99

N 4593.6066
E 12294.5938
STA: 26+62.78
OFFSET: 8.12 R
MANHOLE #18(7'X7' SQUARE)
TOP = 582.4
FL 54" E&W=558.99
FL 18" N=572.70

N 4607.4770
E 12294.4768
STA: 26+62.59
OFFSET: 5.75 L
MANHOLE #19(4' ROUND)
TOP = 582.4
FL 12"E, N&S=572.80

I:\1590\120\ENV\PP\10.dwg 6/2/2007 4:19:37 PM EDT

POGEMEYER DESIGN GROUP, INC.
PLANNERS
ARCHITECTS
1168 NORTH MAIN STREET
BOWLING GREEN, OHIO 43402
(419) 352-7537

**SANITARY SEWER IMPROVEMENTS
VILLAGE OF OAK HARBOR
OTTAWA COUNTY, OHIO**

**PORTAGE STREET
PLAN & PROFILE
19+00 - 30+00**

DRAWN BY: RAO
CHECKED BY: DAL

REVISION

10
OF

JOB NUMBER
1590-120

CONTRACT B

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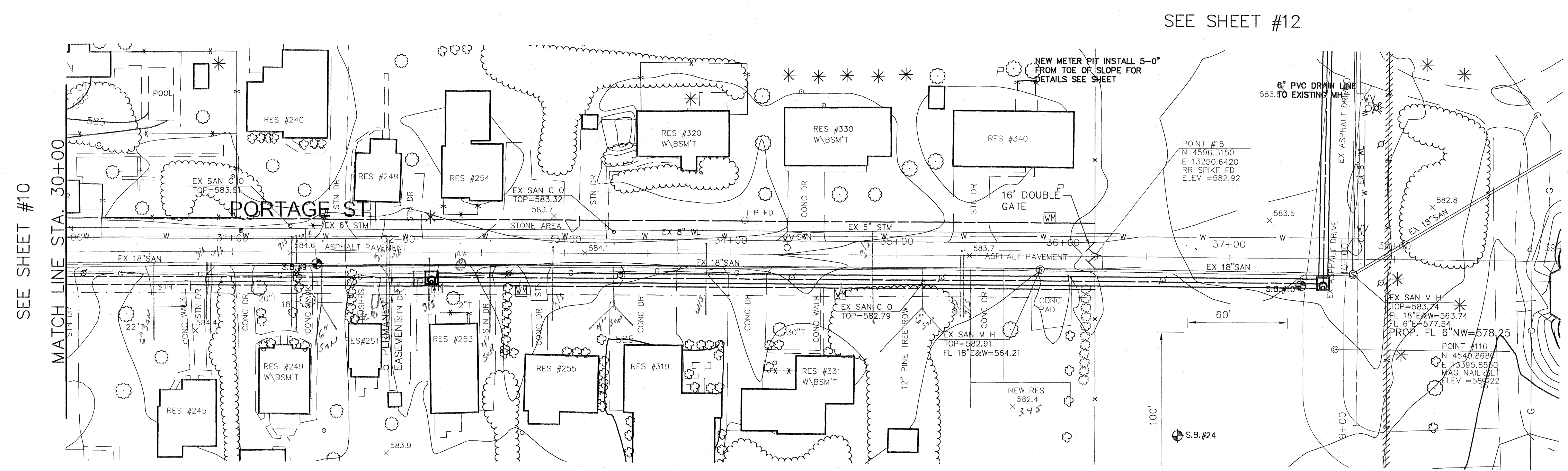
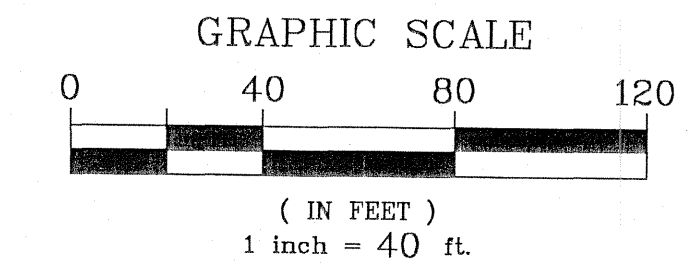
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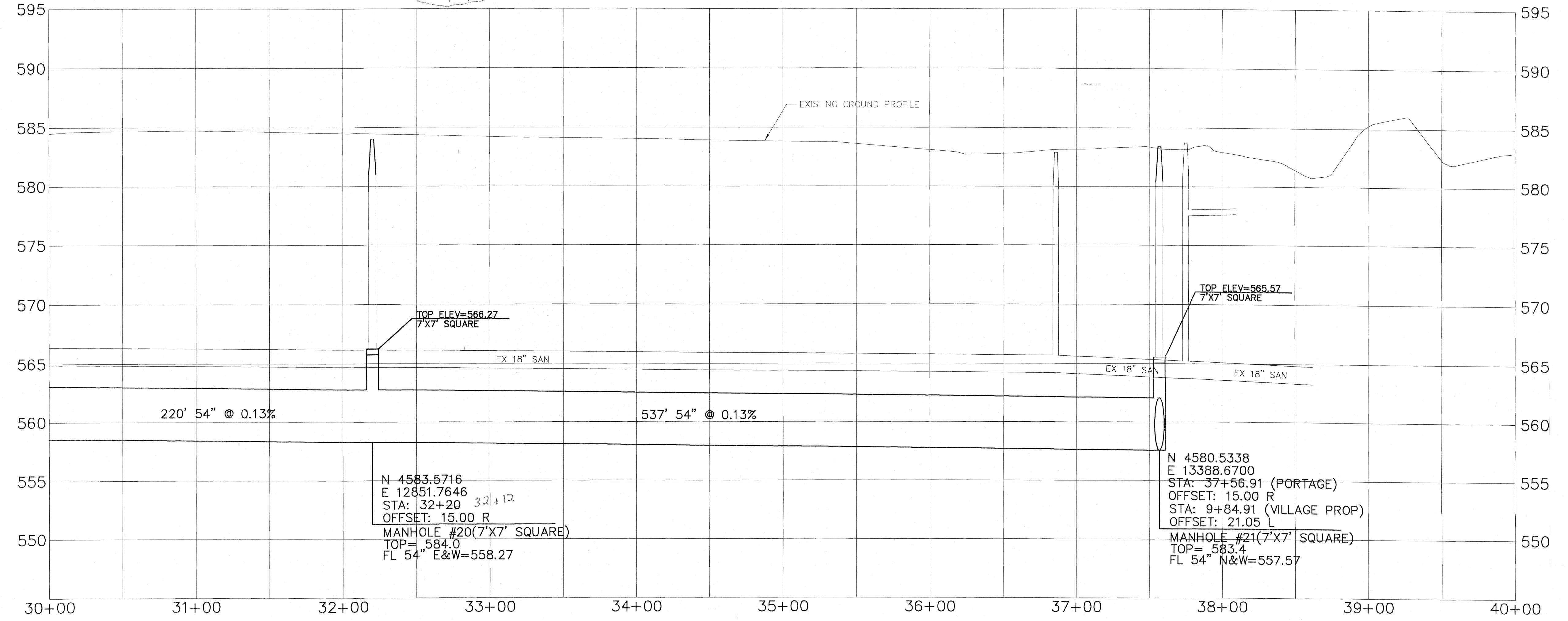
UNDERGROUND UTILITIES
BEFORE YOU DIG
 Call 1-800-252-2784 (Toll Free)
 OHIO UTILITIES PROTECTION SERVICE
 NON-MEMBERS
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SEE SHEET #10

32+39
 Existing Sewer
 Manhole
 Portage Street

Portage St
 9' minimum
 setbacks to
 North side
 of Road



F:\1590\20\DW\PP11.dwg 6/5/2007 4:20:27 PM EDT

POGGEMEYER DESIGN GROUP, INC.
 PLANNERS
 ARCHITECTS
 ENGINEERS
 1168 NORTH MAIN STREET
 BOWLING GREEN, OHIO 43402
 (419) 352-7537

SANITARY SEWER IMPROVEMENTS
 VILLAGE OF OAK HARBOR
 OTTAWA COUNTY, OHIO

PORTAGE STREET
 PLAN & PROFILE
 30+00 - 39+00

NO.	DATE	REVISION	CHECKED BY	DRAWN BY

11
 OF

JOB NUMBER
 1590-120

CONTRACT B

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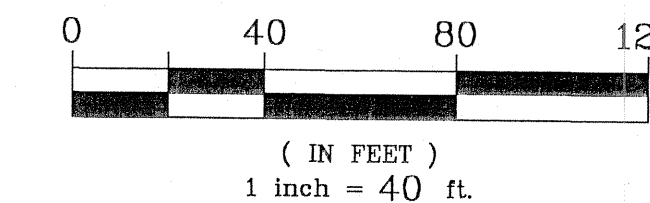
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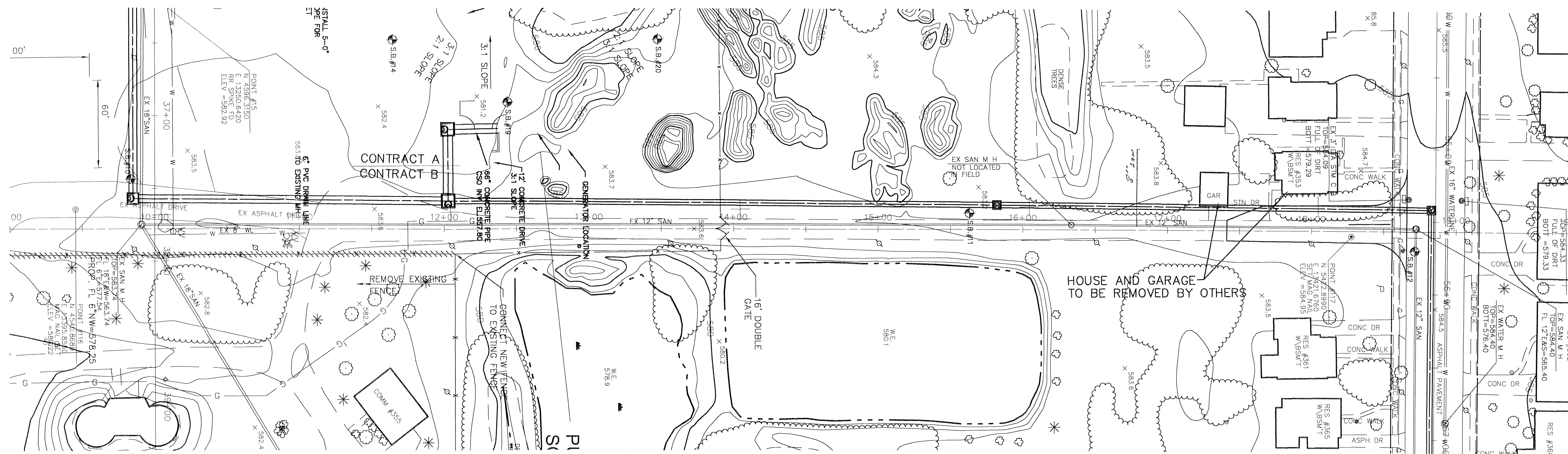
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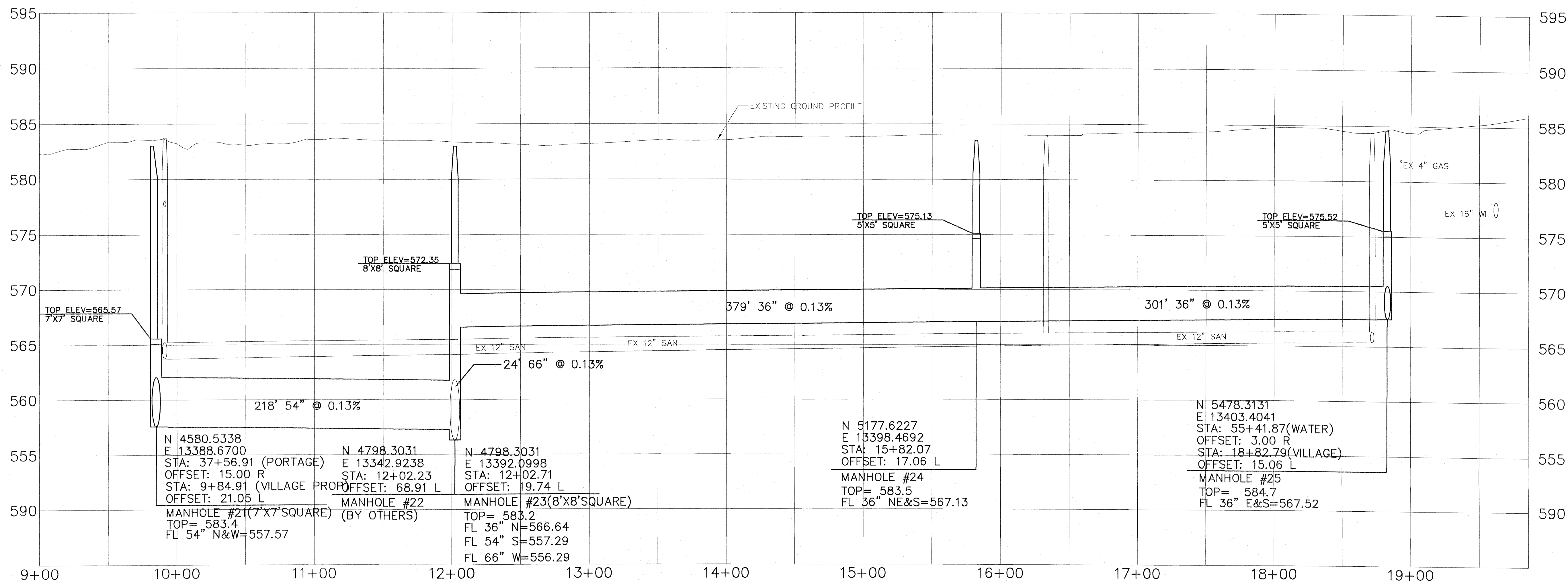
GRAPHIC SCALE



SEE SHEET #11

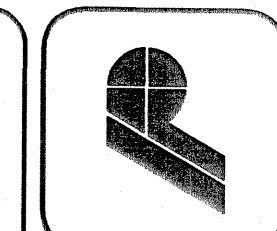


SEE SHEET #13



CONTRACT B

I:\1590\120\ENV\PP\12.dwg 6/5/2007 4:21:20 PM EDT



POGEMEYER DESIGN GROUP, INC.
PLANNERS
ARCHITECTS
ENGINEERS
1168 NORTH MAIN STREET
BOWLING GREEN, OHIO 43402
(419) 352-7537

SANITARY SEWER IMPROVEMENTS
VILLAGE OF OAK HARBOR
OTTAWA COUNTY, OHIO

VILLAGE PROPERTY
PLAN & PROFILE
9+00 - 20+00

REVISION	DRAWN BY	CHECKED BY
	RAO	DAL

12
OF
JOB NUMBER
1590-120

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NOTE: SERVICES SHOWN ARE FOR BIDDING PURPOSES ONLY. LOCATIONS WILL BE ESTABLISHED IN THE FIELD DURING CONSTRUCTION. SERVICES WILL TERMINATE AT R-O-W AS SHOWN AT 6 FEET BELOW GRADE.

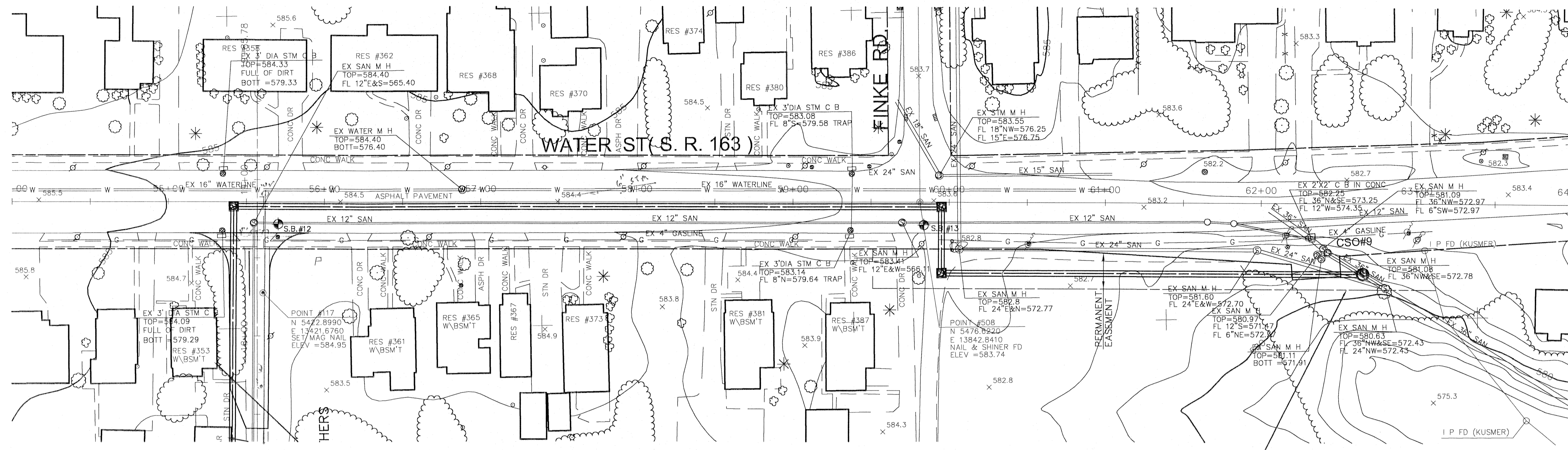
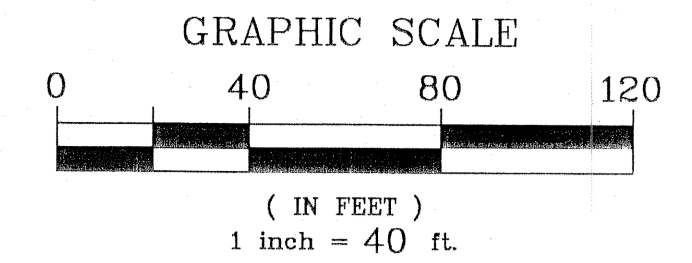
NOTE: ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED.

NOTE: IT IS THE CONTRACTOR'S RESPONSIBILITY TO SUPPORT AND PROTECT ALL UTILITIES EXPOSED DURING ANY EXCAVATION PERFORMED AS A RESULT OF THIS PROJECT.

NOTE: A MINIMUM OF TEN (10) FEET HORIZONTALLY AND EIGHTEEN (18) INCHES VERTICALLY FROM ANY SANITARY SEWER OR SEPTIC LINE MUST ALWAYS BE MAINTAINED UNLESS OTHERWISE APPROVED BY THE OHIO EPA. NO ENTRY OR CONTACT WITH A SEWER MANHOLE IS PERMITTED.

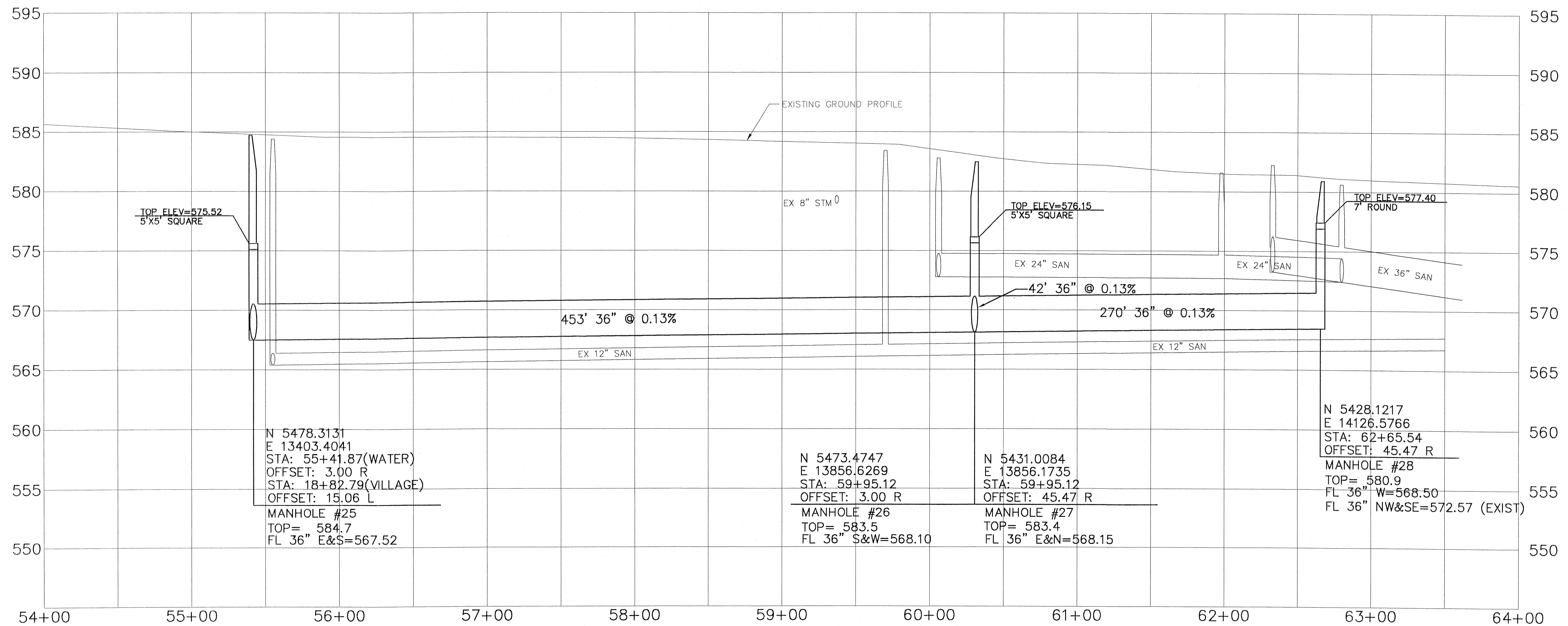
NOTE: CONTRACTOR TO SHORE / BRACE AS REQUIRED TO PROTECT BUILDING FOUNDATIONS AND EXISTING STRUCTURES ADJACENT TO EXCAVATIONS.

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
681-462-3822 (OH 7th Fl)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY



SEE SHEET #12

SEE DETAIL ON SHEET #15



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PLANNERS
ARCHITECTS ENGINEERS (419) 352-7537
1168 NORTH MAIN STREET
BOWLING GREEN, OHIO 43402

SANITARY SEWER IMPROVEMENTS
VILLAGE OF OAK HARBOR
OTTAWA COUNTY, OHIO

WATER STREET
PLAN & PROFILE
54+00 - 64+00

DATE	BY	CHECKED BY
	RAO	DAL

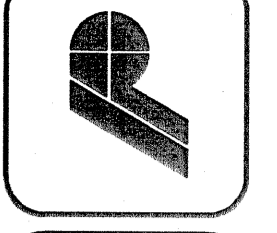
13 OF

JOB NUMBER
1590-120

CONTRACT B

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UNDERGROUND UTILITIES
BEFORE YOU DIG
 THE MICHIGAN STATE
 Call 1-800-362-2784 (Toll Free)
 DMS UTILITIES PROTECTION SERVICE
 NON-MEMBERS
 MUST BE CALLED DIRECTLY



POGEMEYER DESIGN GROUP, INC.
 PLANNERS
 ARCHITECTS
 ENGINEERS
 1168 NORTH MAIN STREET
 BOWLING GREEN, OHIO 43402
 (419) 352-7537

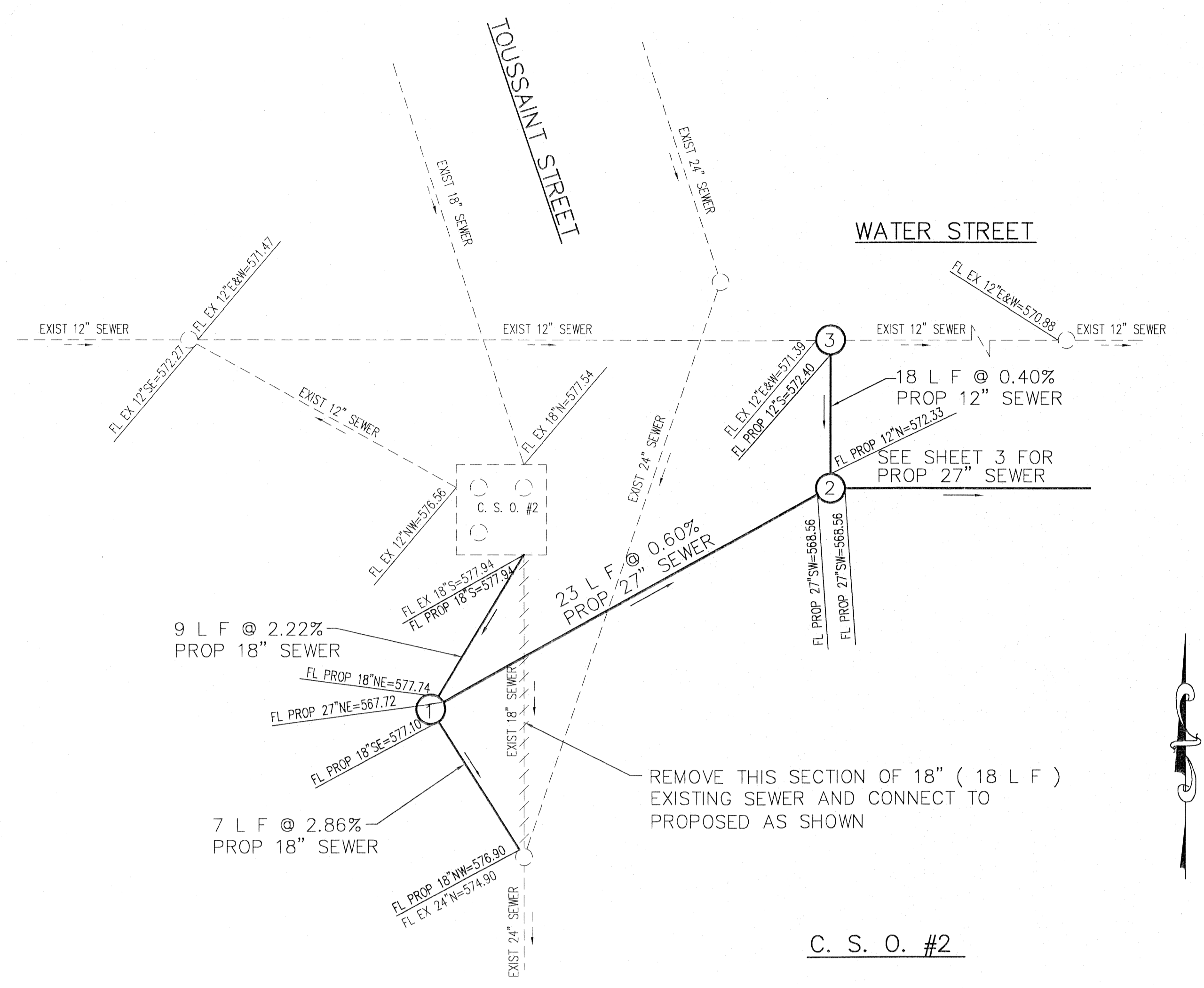
**SANITARY SEWER IMPROVEMENTS
 VILLAGE OF OAK HARBOR
 OTTAWA COUNTY, OHIO**

C. S. O. DETAILS

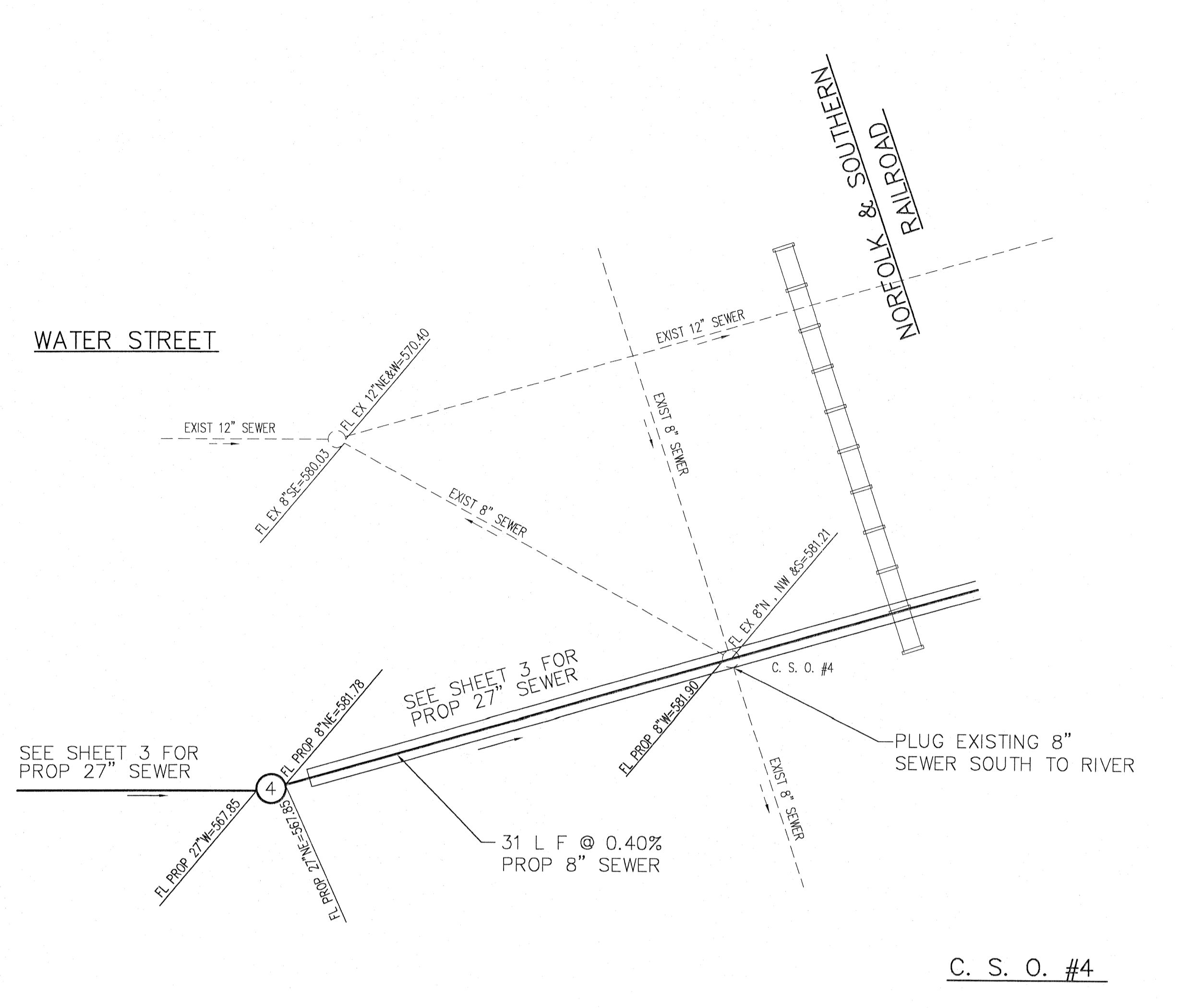
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REVISION

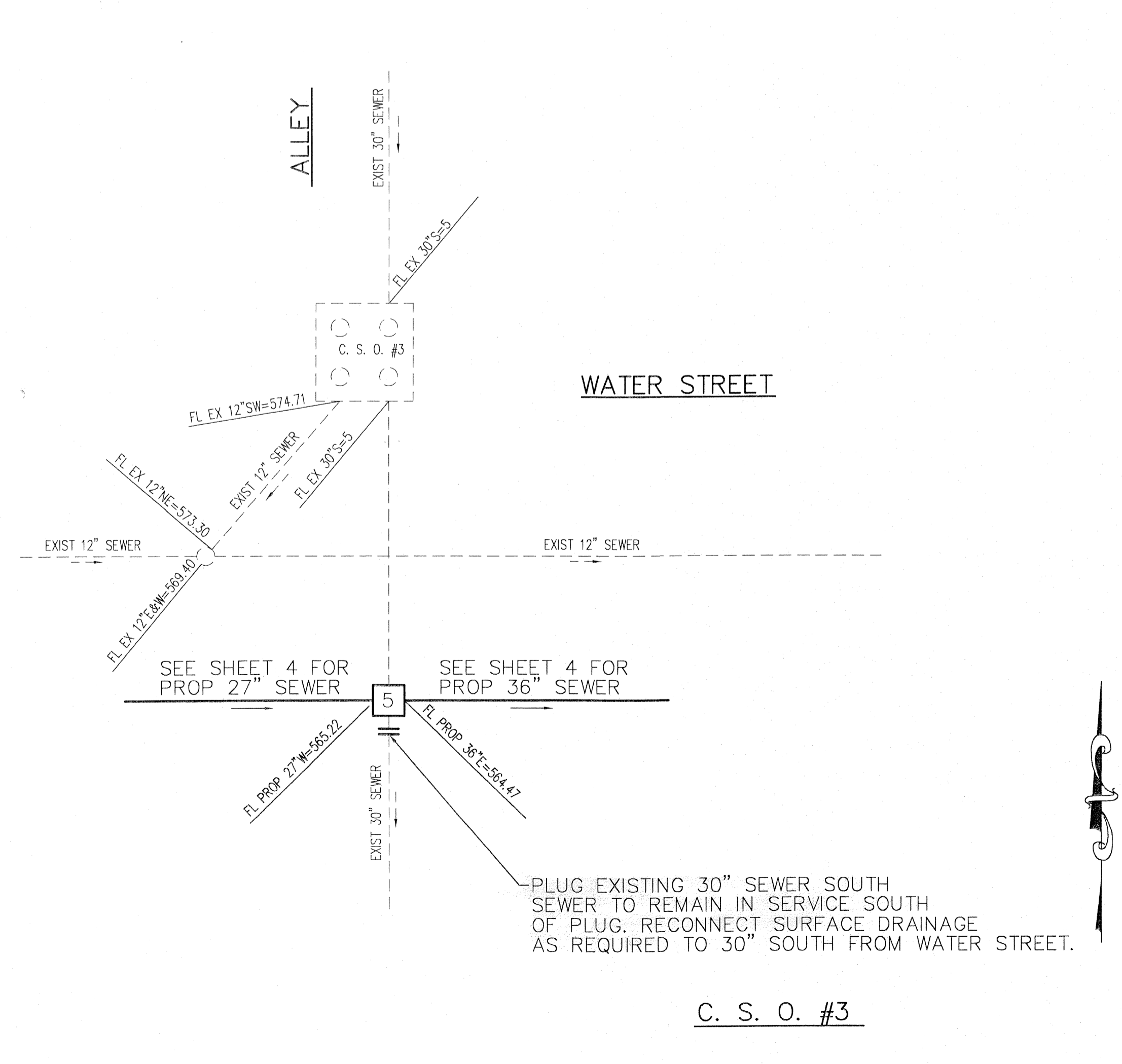
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 OF
 JOB NUMBER
 1590



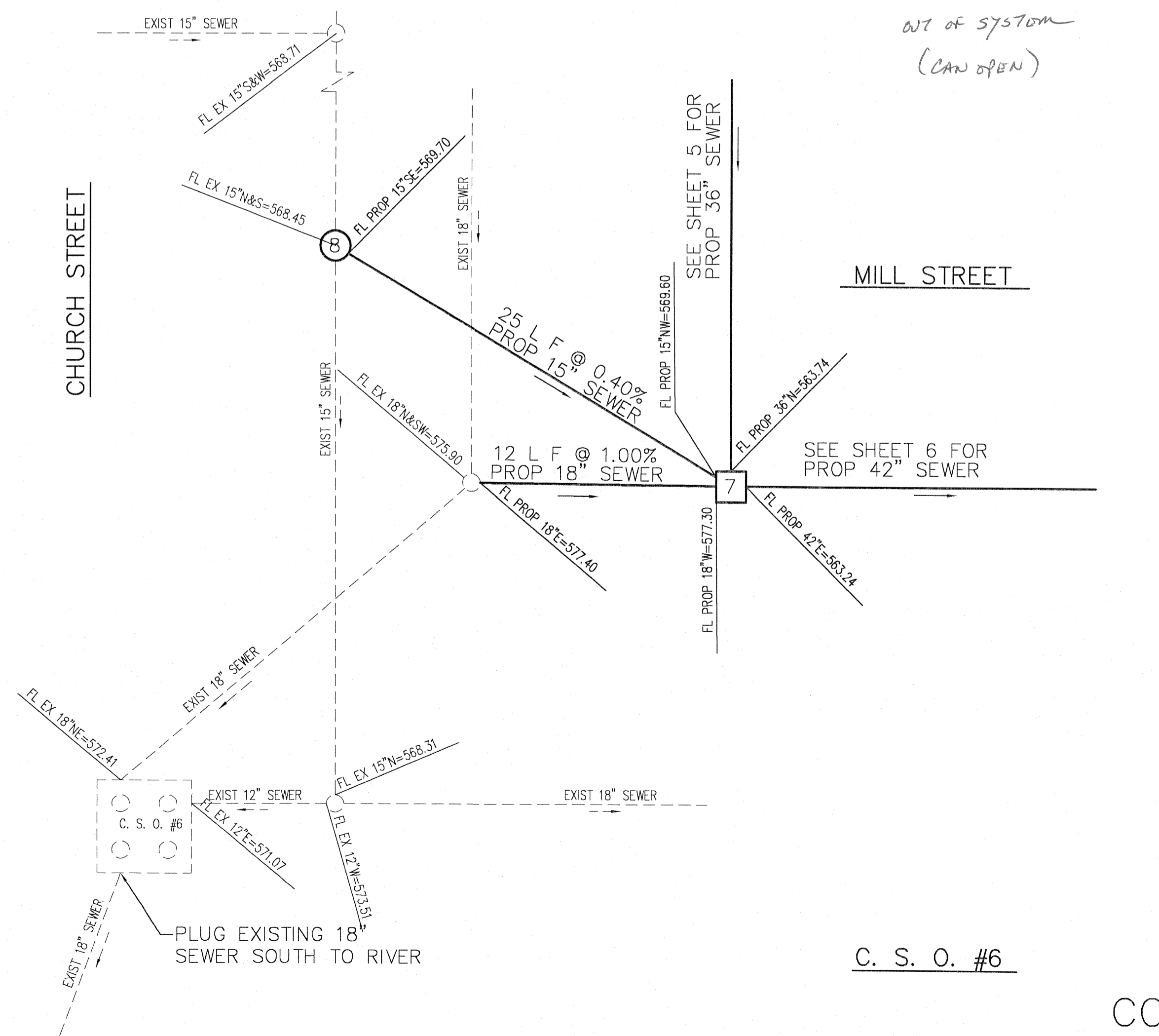
C. S. O. #2



C. S. O. #4



C. S. O. #3



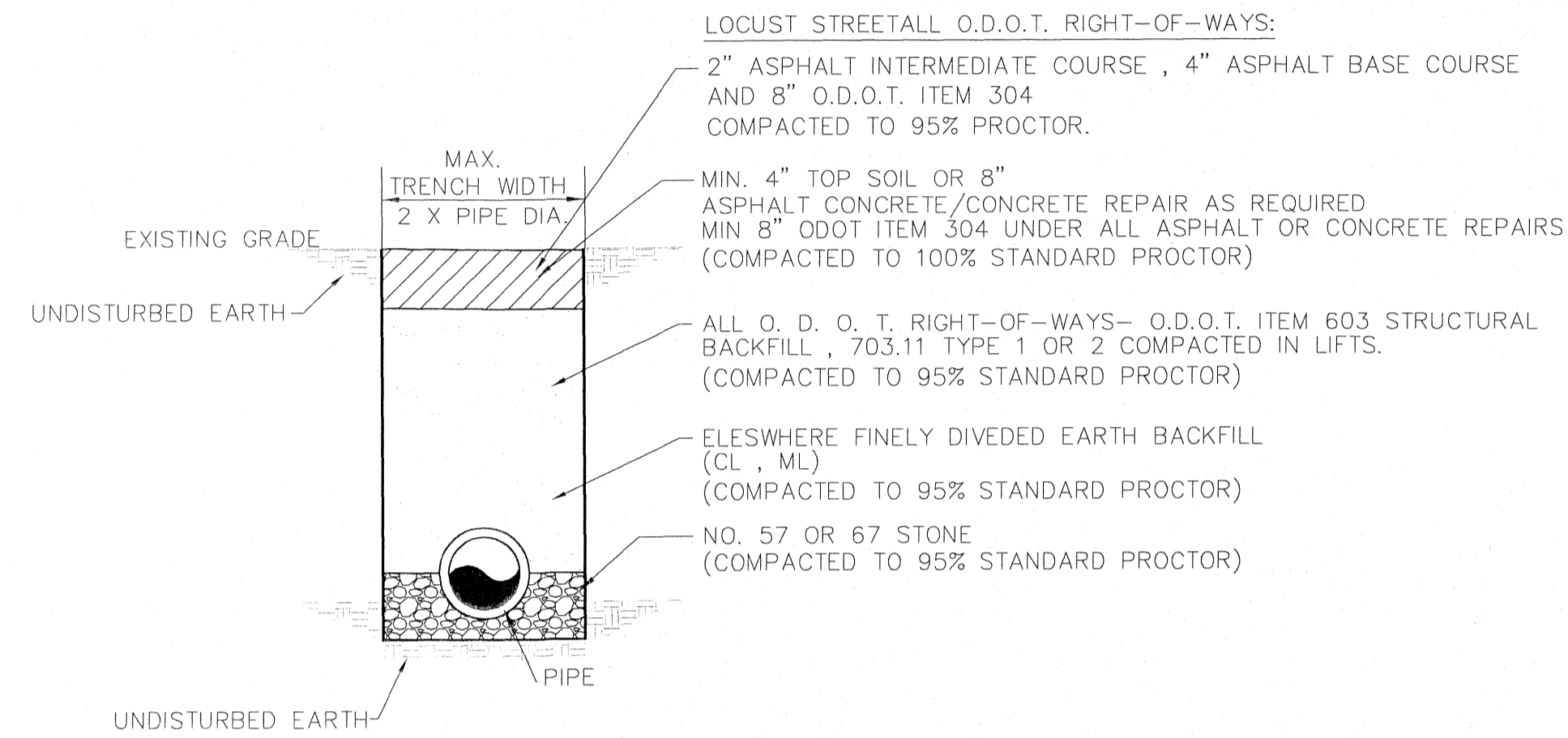
C. S. O. #6

CONTRACT B

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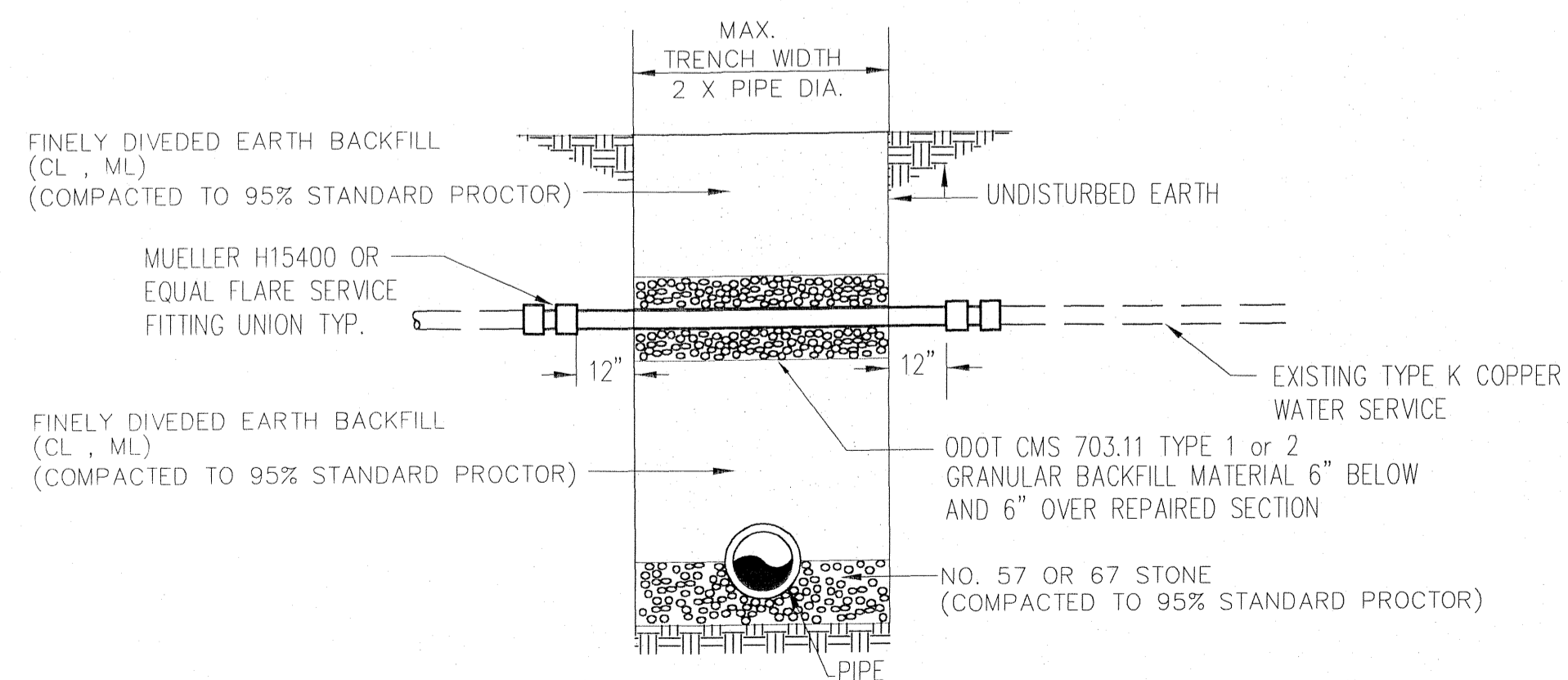
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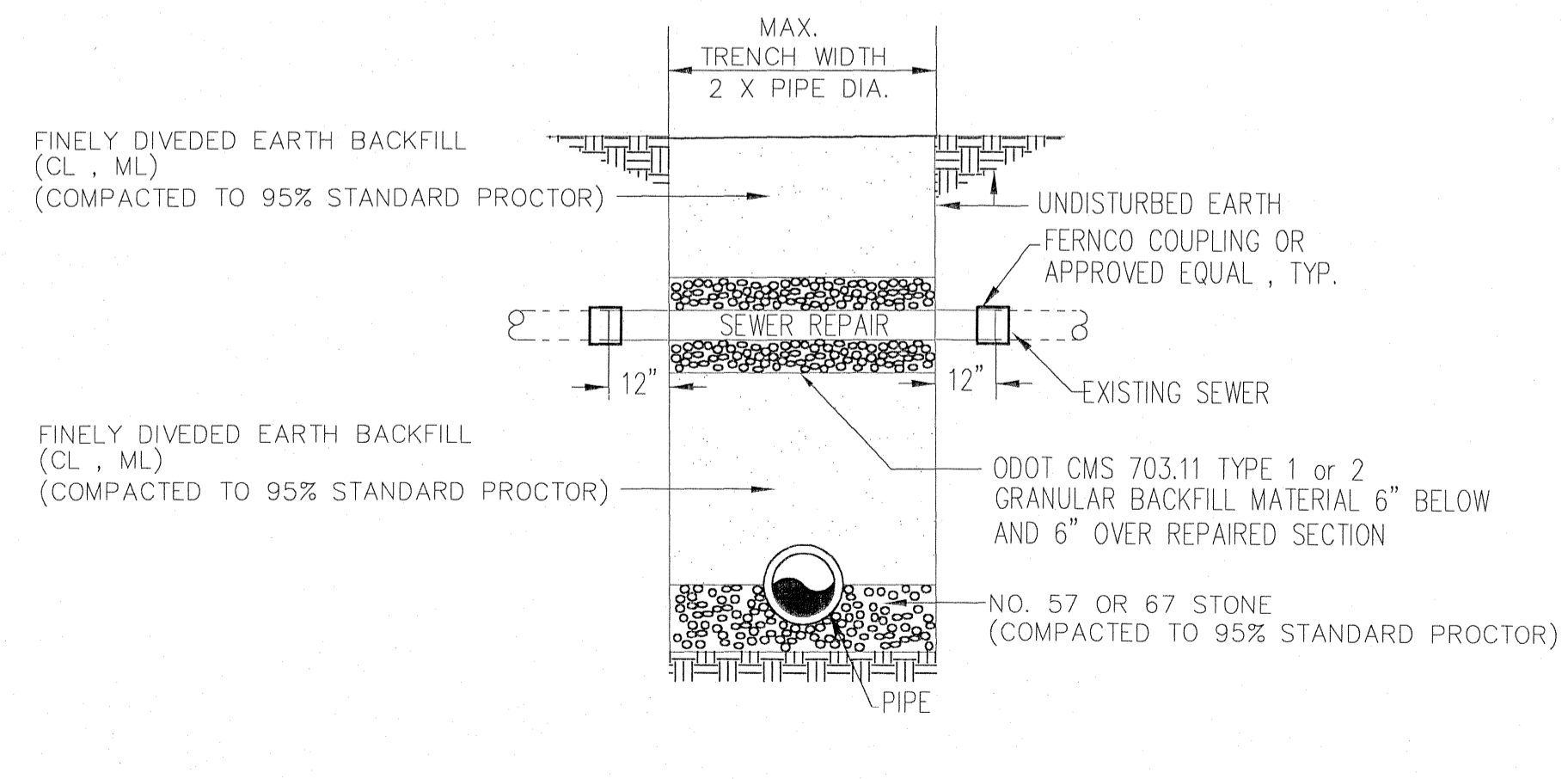
SEWER TRENCH DETAIL

N.T.S.



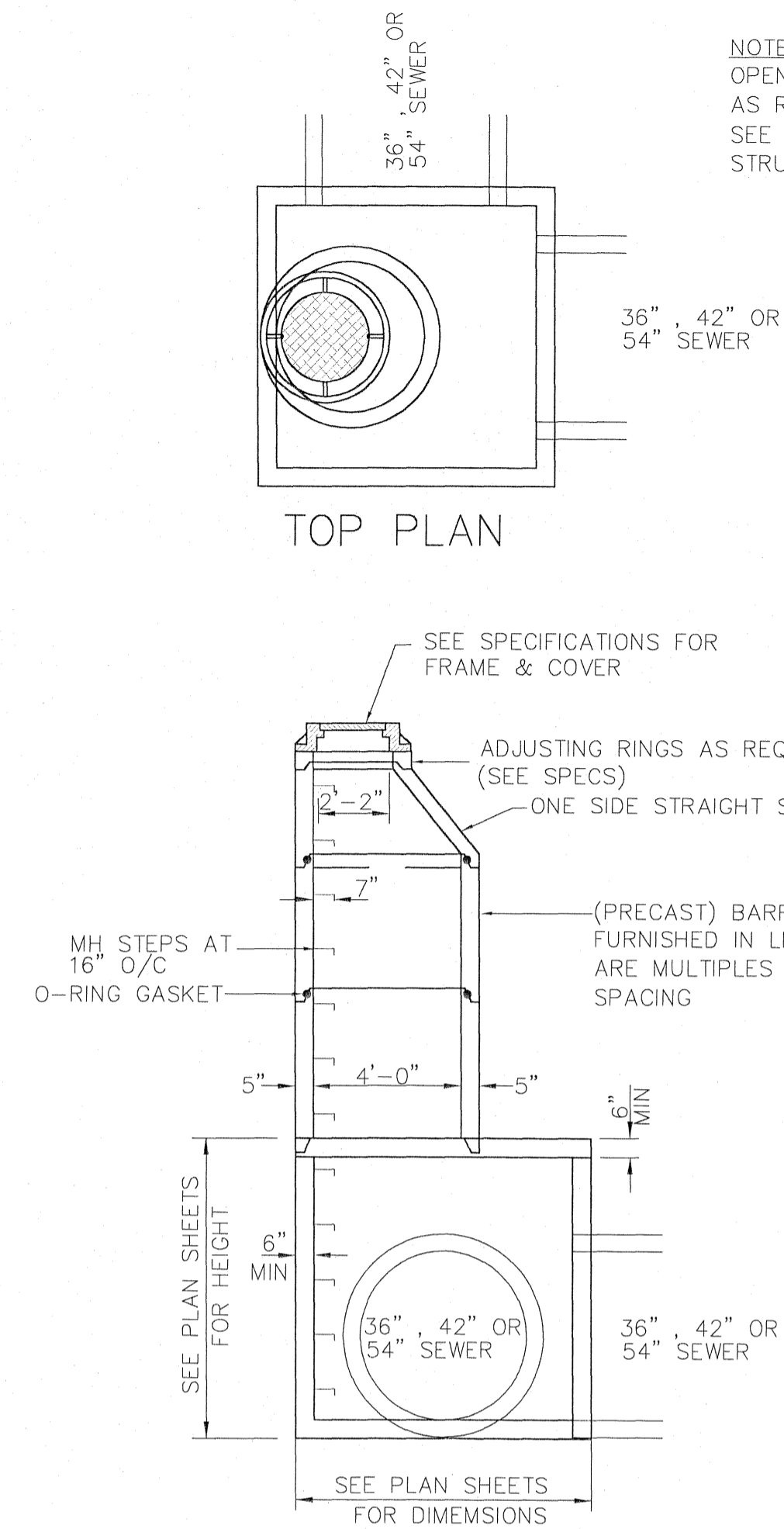
COPPER WATER SERVICE LINE (TYPE K) REPAIR DETAIL

N.T.S.



SEWER REPAIR OVER SANITARY SEWER

N.T.S.



MANHOLE DETAIL

N.T.S.

NOTE:
OPENINGS TO BE ALIGNED TO PROVIDE CLEARANCE AS REQUIRED FOR EXISTING UNDERGROUND UTILITIES. SEE PLAN SHEETS FOR LOCATIONS OF INDIVIDUAL STRUCTURES.

NOTE:
PRECAST SANITARY MANHOLES SHALL CONFORM TO A.S.T.M. SPEC'S. DESIGNATION C-478 AND THE JOINTS BETWEEN THE SECTIONS SHALL CONFORM TO A.S.T.M. SPEC'S. DESIGNATION C-443.

NOTE:
BACKFILL AROUND NEW STRUCTURES SHALL BE ODOT 703.11 TYPE 1 OR TYPE 2 MIN. 6" BELOW AND 4" EACH SIDE. BACKFILL TO EXTEND TO EXISTING GRADE.

UNDERGROUND UTILITIES
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ENGINEERS
ARCHITECTS
1168 NORTH MAIN STREET
BOWLING GREEN, OHIO 43402
(419) 352-7537

**SANITARY SEWER IMPROVEMENTS
VILLAGE OF OAK HARBOR
OTTAWA COUNTY, OHIO**

**SEWER
DETAILS**

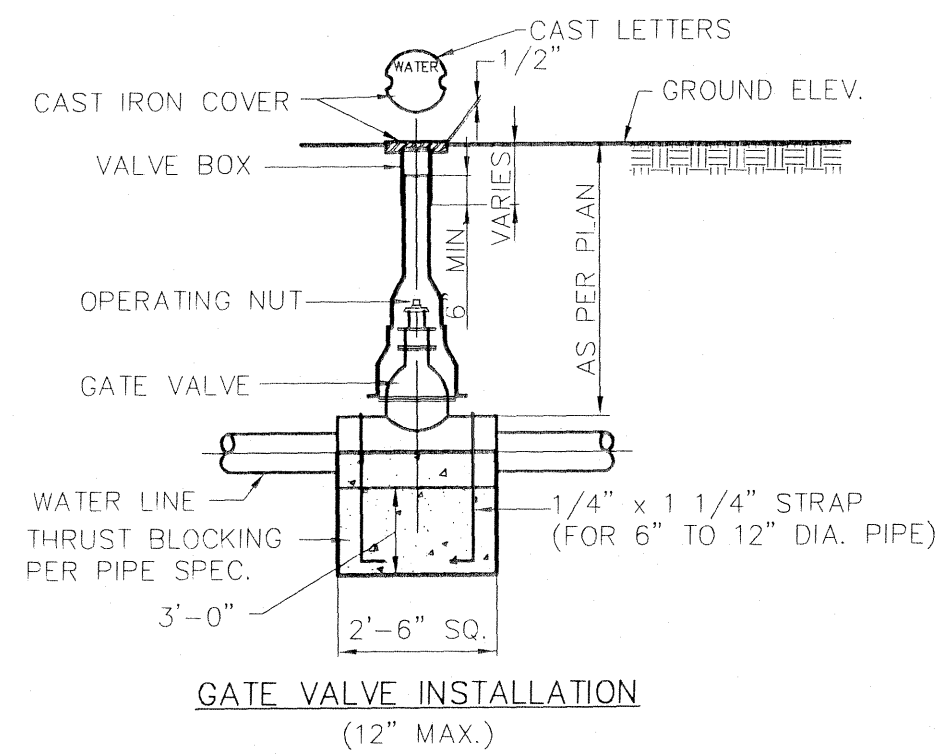
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RAO	DAL
REVISION	

16
OF

JOB NUMBER
1590-120

CONTRACT B

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INSTALLATION OF VALVES UNDER PRESSURE CONDITIONS, ALL VALVES (INCLUDING THOSE IN HYDRANT RUN-OUTS) REQUIRE ANCHORAGE AGAINST THRUST CREATED WHEN VALVE IS CLOSED. JOINT RESTRAINTS ARE REQUIRED EACH DIRECTION FROM VALVE FOR A DISTANCE (L_{de}). SEE JOINT RESTRAINT REQUIREMENTS FOR DEAD END LINES FOR THIS DISTANCE.

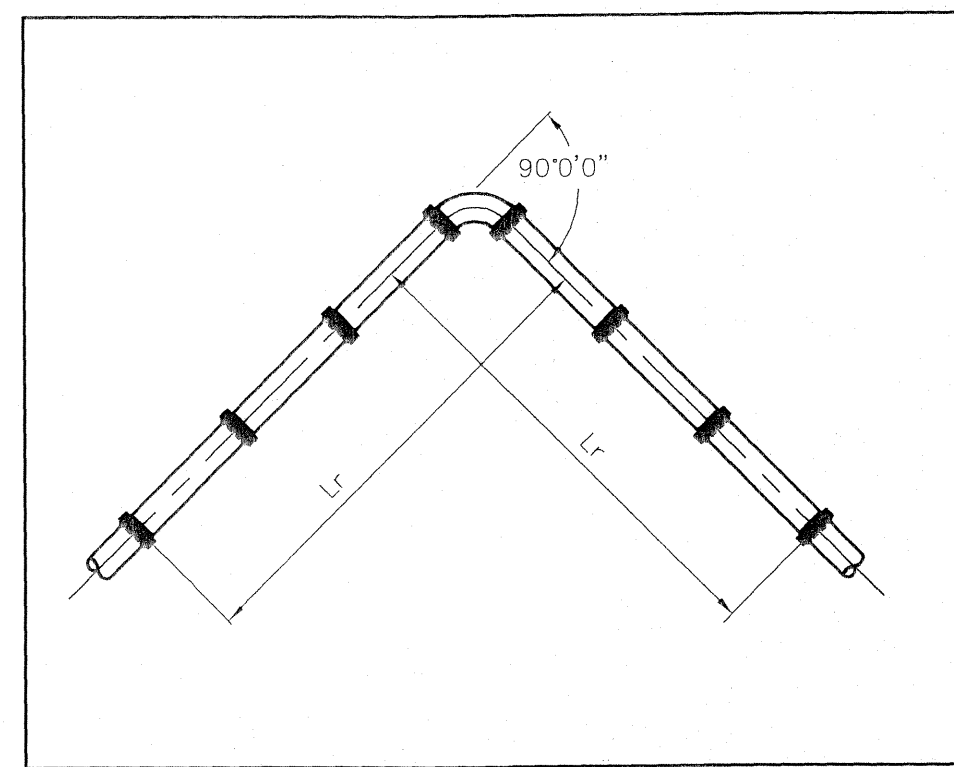


FIGURE 1. HORIZONTAL BEND

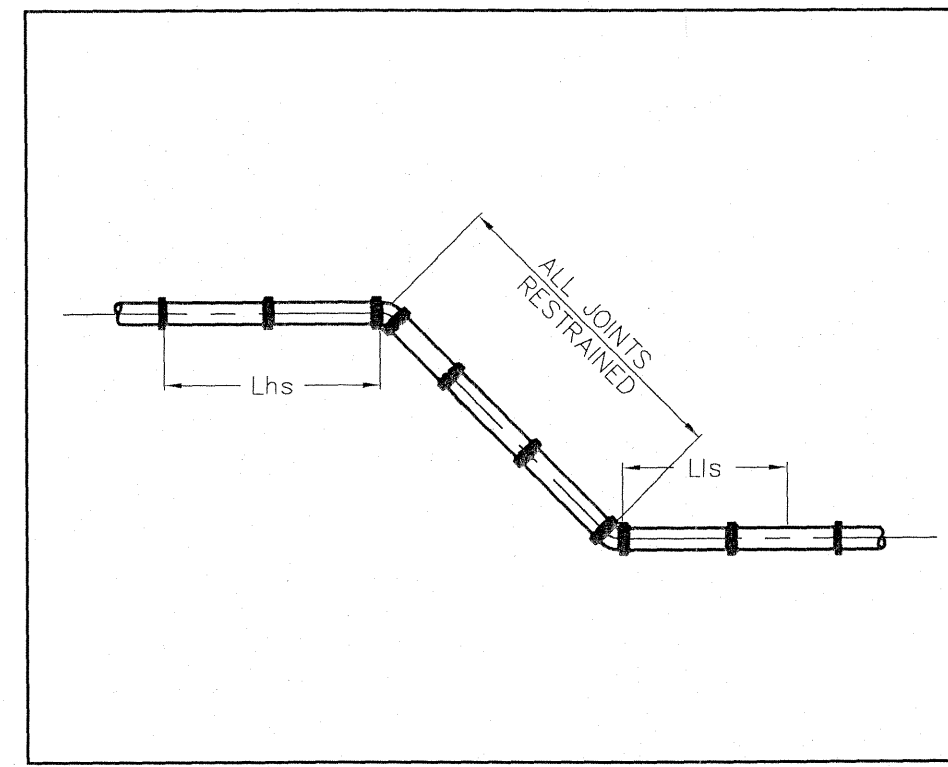


FIGURE 2. VERTICAL DOWN BEND AND OFFSET BEND

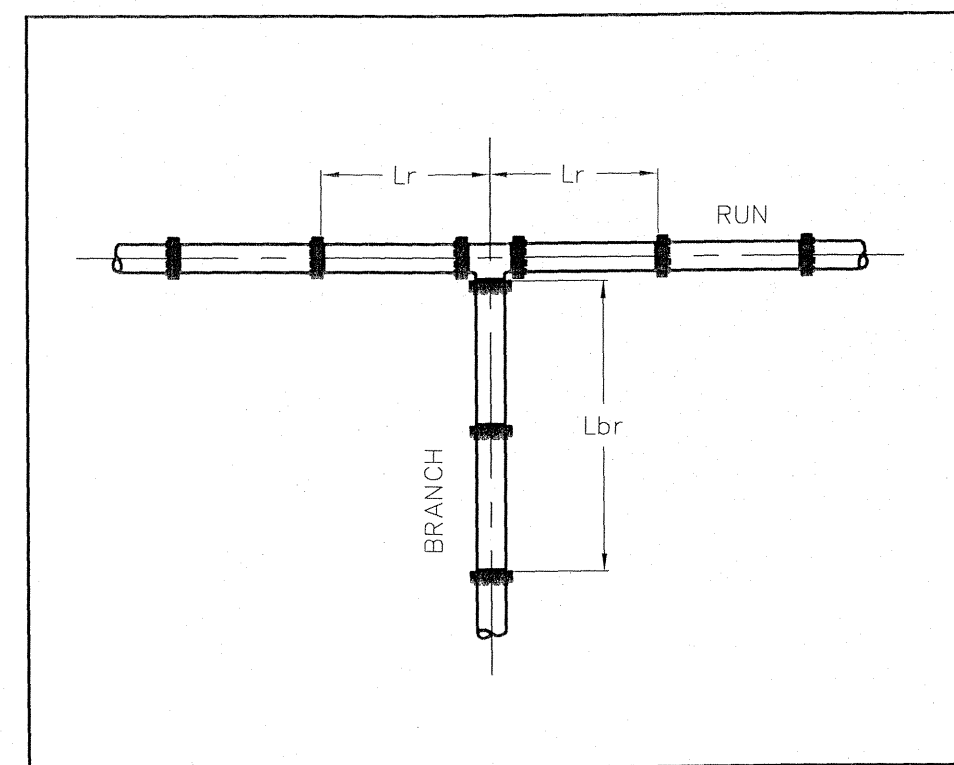


FIGURE 3. TEE

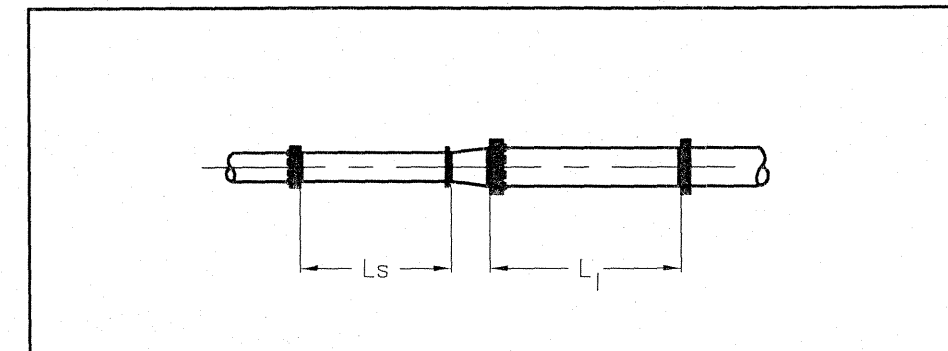


FIGURE 4. REDUCER

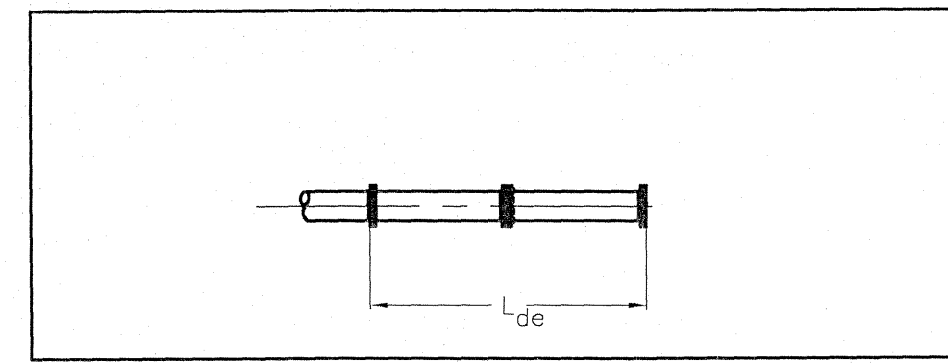


FIGURE 5. DEAD END

MINIMUM LENGTH OF PIPE RESTRAINED (FEET)

SIZE	HORIZONTAL BENDS			VERTICAL BENDS				DEAD END
	90°	45°	22.5°	45°	22.5°	22.5°	22.5°	
6"	20	8	4	18	6	9	3	44
8"	26	11	5	24	8	11	4	58
10"	32	13	6	29	10	14	5	69
12"	37	16	7	34	12	16	6	82
14"	43	18	8	39	13	19	6	94
16"	48	20	10	44	15	21	7	106
20"	59	24	12	53	19	26	9	129
24"	69	29	14	62	22	30	11	151

PVC PIPE

SIZE	HORIZONTAL BENDS			VERTICAL BENDS				DEAD END
	90°	45°	22.5°	45°	22.5°	22.5°	22.5°	
6"	21	9	4	12	6	3	3	28
8"	27	11	5	15	8	7	4	37
10"	33	14	7	18	10	9	5	44
12"	39	16	8	22	12	10	6	52
14"	44	18	9	25	13	12	6	60
16"	50	21	10	28	15	13	7	68
20"	61	25	12	34	18	16	9	82
24"	72	29	14	40	22	19	10	96

DUCTILE IRON

SIZE	HORIZONTAL BENDS			VERTICAL BENDS				DEAD END
	90°	45°	22.5°	45°	22.5°	22.5°	22.5°	
6"	36	15	7	28	11	14	5	68
8"	48	20	10	37	15	18	7	89
10"	57	24	11	44	18	21	9	107
12"	68	28	13	52	21	25	10	126
14"	78	32	15	60	24	29	12	144
16"	88	36	17	67	27	32	13	163
20"	107	44	21	82	33	39	16	198
24"	125	52	25	96	39	46	19	232

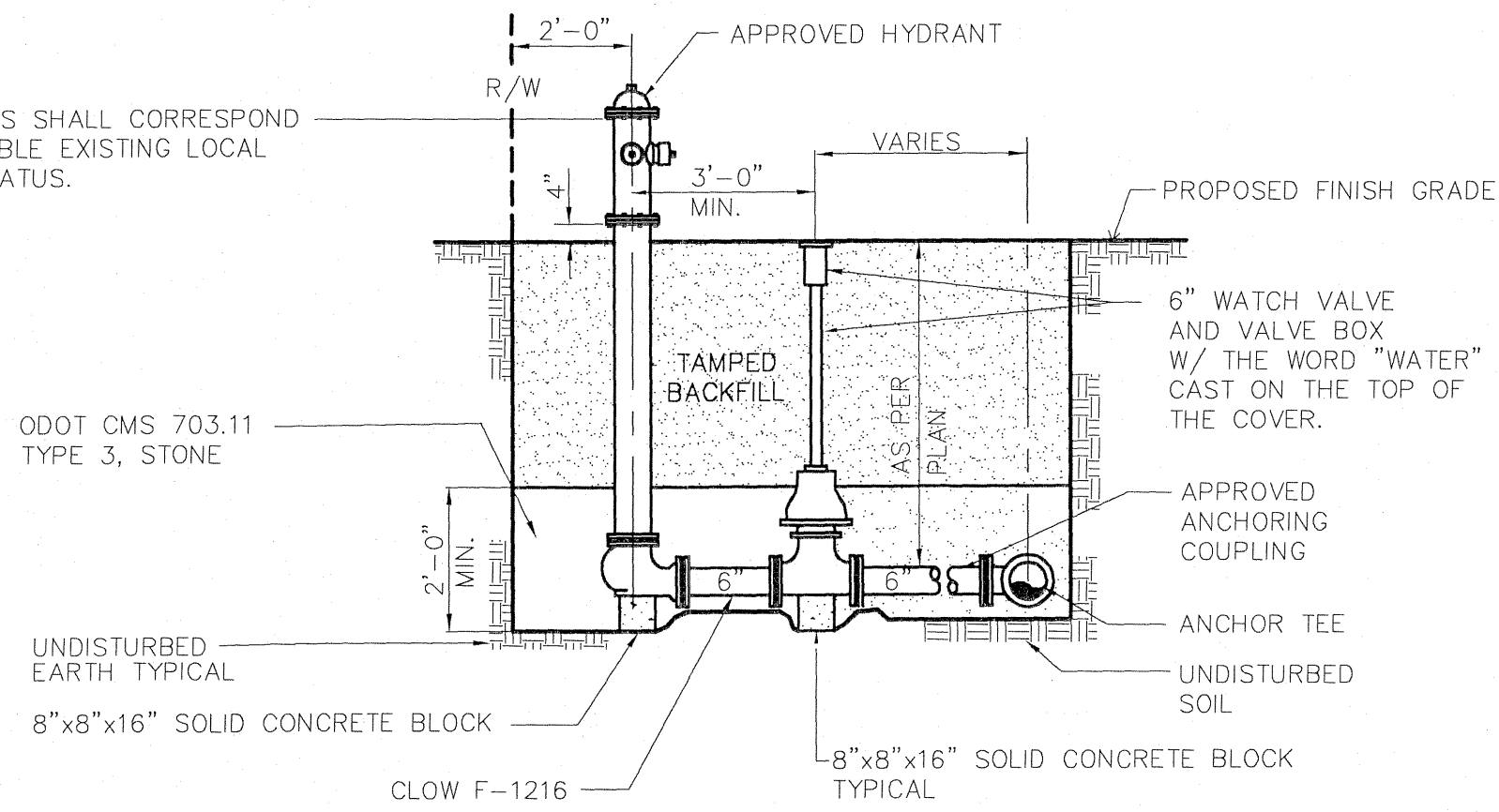
DUCTILE IRON W/ POLYETHYLENE WRAP

SIZE	HORIZONTAL BENDS			VERTICAL BENDS				DEAD END
	90°	45°	22.5°	45°	22.5°	22.5°	22.5°	
6"	21	9	4	12	6	3	3	28
8"	27	11	5	15	8	7	4	37
10"	33	14	7	18	10	9	5	44
12"	39	16	8	22	12	10	6	52
14"	44	18	9	25	13	12	6	60
16"	50	21	10	28	15	13	7	68
20"	61	25	12	34	18	16	9	82
24"	72	29	14	40	22	19	10	96

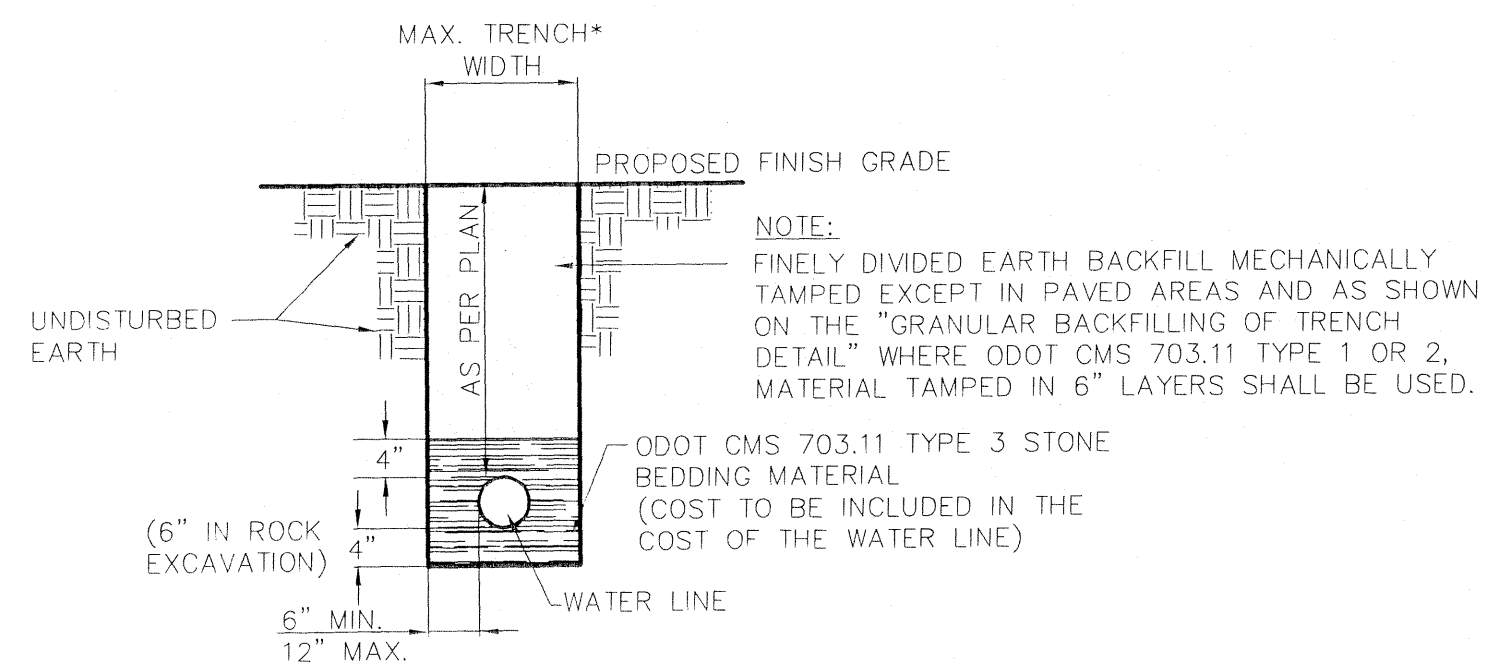
MECHANICAL RESTRAINTS

150 PSI GROUND COVER = 4'

NOTE: ALL NOZZLES SHALL CORRESPOND TO APPLICABLE EXISTING LOCAL FIRE APPARATUS.

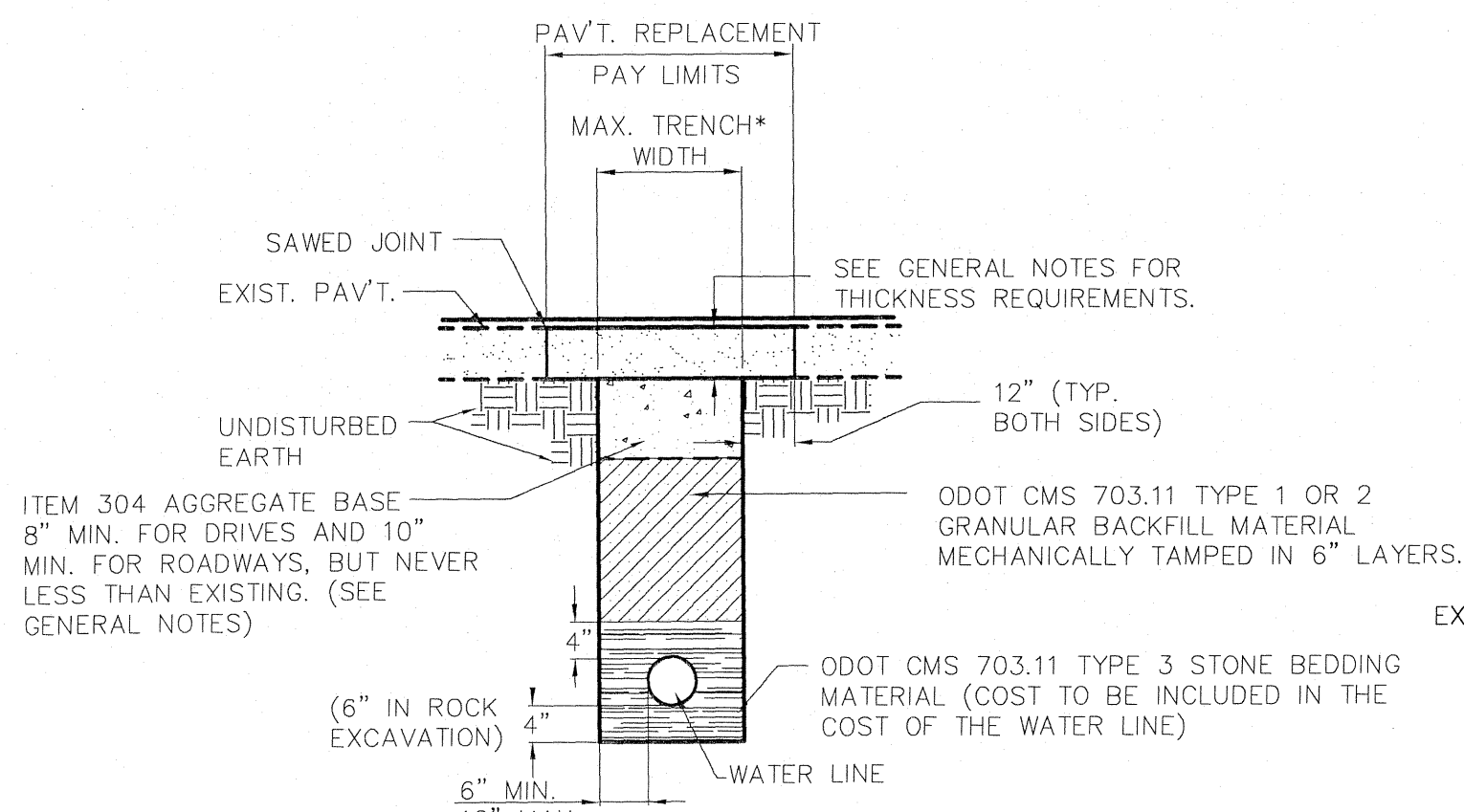


STANDARD HYDRANT ASSEMBLY - TYPE "A" PERPENDICULAR TO WATER MAIN



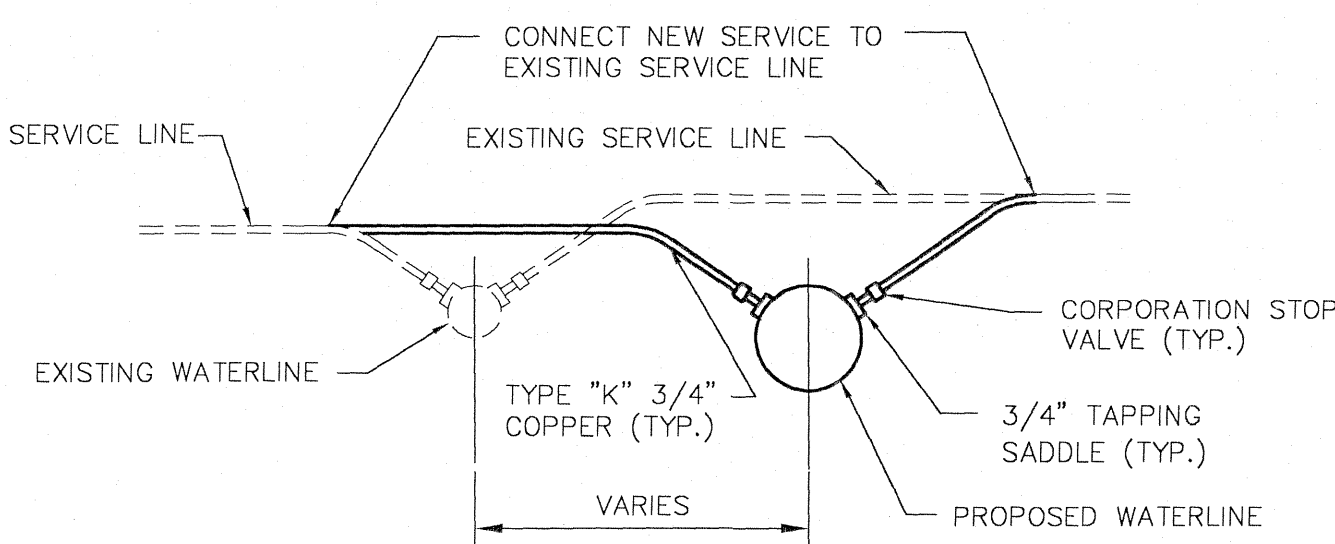
P.V.C. WATER LINE TRENCH DETAIL

* FOR PAY LIMITS ONLY, MAXIMUM TRENCH WIDTH SHALL BE THE SAME AS THE TRENCH WIDTH AT THE TOP OF THE PIPE.



WATERLINE TRENCH DETAIL IN ASPHALT PAVEMENT

* FOR PAY LIMITS ONLY, MAXIMUM TRENCH WIDTH SHALL BE THE SAME AS THE TRENCH WIDTH AT THE TOP OF THE PIPE.



PROPOSED WATER SERVICE CONNECTION

RUN SIZE

BRANCH SIZE	6"	8"	10"	12"	14"	16"	20"	24"
6"	*	*	*	*	*	*	*	*
8"	*	*	*	*	*	*	*	*
10"	30	18	5	*	*	*	*	*
12"	49	39	28	18	7	*	*	*
14"	66	57	1	39	30	20	1	*
16"	81	74	66	58	50	42	25	8
20"	110	104	97	91	85	78	65	51
24"	135	130	125	120	115	109	98	87

TEES PVC PIPE

MINIMUM LENGTH OF PIPE RESTRAINED (FEET) (L_{br})

RUN SIZE

BRANCH SIZE	6"	8"	10"	12"	14"	16"	20"	24"
6"	9	3	*	*	*	*	*	*
8"	22	18	13	8	3	*	*	*
10"	33	29	25	21	17	13	5	*
12"	42	39	36	33	30	26	20	13
14"	51	49	46	43	41	38	32	26
16"	60	58	56	53	51	48	43	38
20"	76	75	73	71	69	67	63	59
24"	91	90	88	87	85	84	80	77

TEES DUCTILE IRON PIPE

MINIMUM LENGTH OF PIPE RESTRAINED (FEET) (L_{br})

RUN SIZE

BRANCH SIZE	6"	8"	10"	12"	14"	16"	20"	24"
6"	21	7	*	*	*	*	*	*
8"	53	42	31	19	7	*	*	*
10"	79	70	60	51	42	32	12	*
12"	102	95	87	80	72	64	47	30
14"	124	118	111	105	98	91	77	63
16"	145	140	134	128	122	116	104	92
20"	184	180	175	171	166	161	152	142
24"	220	217	213	209	205	202	194	186

TEES DUCTILE IRON PIPE W/ POLYETHYLENE WRAP

MINIMUM LENGTH OF PIPE RESTRAINED (FEET) (L_{br})

RUN SIZE

BRANCH SIZE	6"	8"	10"	12"	14"	16"	20"	24"
6"	21	7	*	*	*	*	*	*
8"	53	42	31	19	7	*	*	*
10"	79	70	60	51	42	32	12	*
12"	102	95	87	80	72	64	47	30
14"	124	118	111	105	98	91	77	63
16"	145	140	134	128	122	116	104	92
20"	184	180	175	171	166	161	152	142
24"	220	217	213	209	205	202	194	186

LARGE SIZE

REDUCTION SIZE	6"	8"	10"	12"	14"	16"	20"	24"
6"	32	24	43	60	75	89	116	140
8"	43	23	43	63	81	97	127	152
10"	54	28	48	70	89	109	143	172
12"	65	34	57	83	104	127	166	200
14"	76	41	67	97	121	147	191	231
16"	87	48	77	110	137	167	216	263
20"	110	61	97	141	174	210	274	337
24"	135	74	114	167	204	244	316	391

REDUCERS PVC PIPE

MINIMUM LENGTH OF PIPE RESTRAINED (L₁) (FEET)

LARGE SIZE

REDUCTION SIZE	6"	8"	10"	12"	14"	16"	20"	24"
6"	20	16	27	38	49	57	74	89
8"	27	18	30	42	54	63	81	97
10"	33	22	36	49	62	72	91	109
12"	39	28	44	58	73	84	106	127
14"	44	34	51	67	83	95	121	144
16"	50	40	58	76	93	107	137	163
20"	61	49	70	91	111	127	163	198
24"	72	58	82	106	129	149	191	232

REDUCERS DUCTILE IRON PIPE

MINIMUM LENGTH OF PIPE RESTRAINED (L₁) (FEET)

LARGE SIZE

REDUCTION SIZE	6"	8"	10"	12"	14"	16"	20"	24"
6"	21	16	27	38	49	57	74	89
8"	27	18	30	42	54	63	81	97
10"	33	22	36	49	62	72	91	109
12"	39	28	44	58	73	84	106	127
14"	44	34	51	67	83	95	121	144
16"	50	40	58	76	93	107	137	163
20"	61	49	70	91	111	127	163	198
24"	72	58	82	106	129	149	191	232

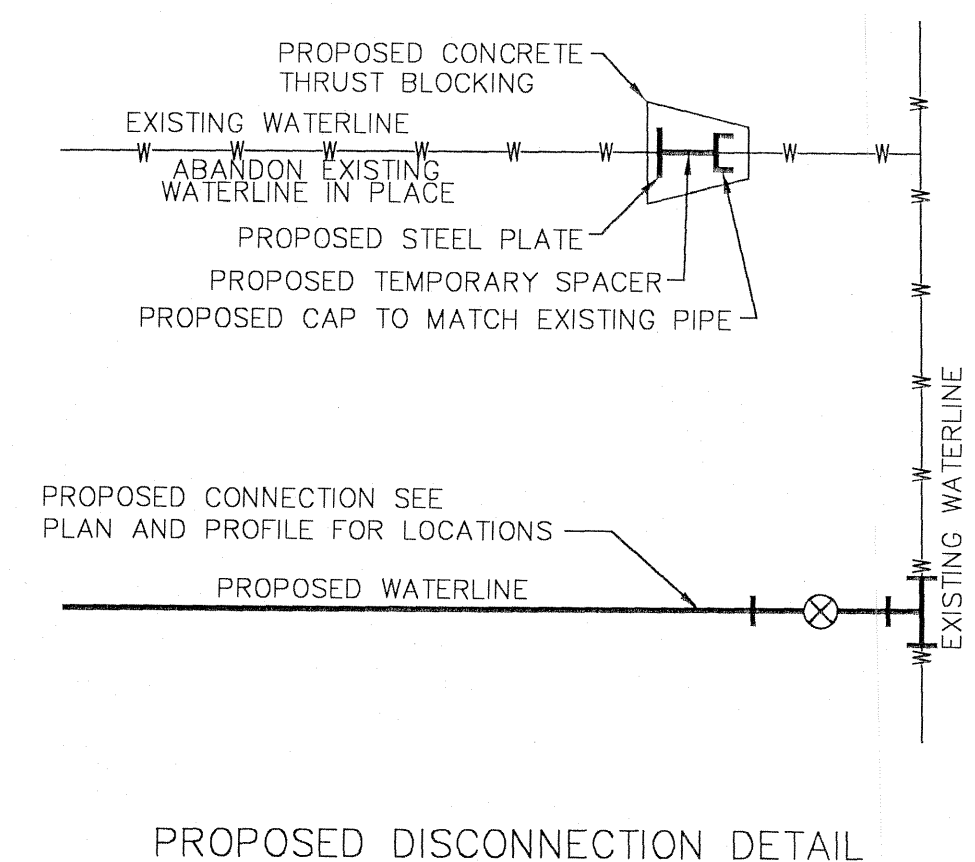
REDUCERS DUCTILE IRON PIPE W/ POLYETHYLENE WRAP

MINIMUM LENGTH OF PIPE RESTRAINED (L₁) (FEET)

LARGE SIZE

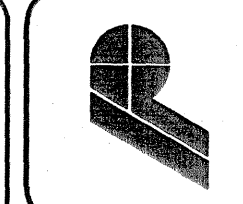
REDUCTION SIZE	6"	8"	10"	12"	14"	16"	20"	24"
6"	21	16	27	38	49	57	74	89
8"	27	18	30	42	54	63	81	97
10"	33	22	36	49	62	72	91	109
12"	39	28	44	58	73	84	106	127
14"	44	34	51	67	83	95	121	144
16"	50	40	58	76	93	107	137	163
20"	61	49	70	91	111	127	163	198
24"	72	58	82	106	129	149	191	232

L₁ - IF A SPECIFIED LENGTH OF PIPE, L₁ (FEET), ON THE SMALL SIDE OF THE REDUCER IS FREE OF BENDS, VALVES, TEES OR OTHER FITTINGS, RESTRAINTS ARE NOT NECESSARY FOR THE REDUCER; OTHERWISE THE LARGER SIDE OF THE REDUCER SHALL BE RESTRAINED THE MINIMUM LENGTH (L₁) (FEET).



PROPOSED DISCONNECTION DETAIL

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PLANNERS
ARCHITECTS
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1168 NORTH MAIN STREET
BOWLING GREEN, OHIO 43402
(419) 352-7537

**SANITARY SEWER IMPROVEMENTS
VILLAGE OF OAK HARBOR
OTTAWA COUNTY, OHIO**

**WATERLINE
DETAILS**

DRAWN BY: RAO
CHECKED BY: DAL
REVISION:

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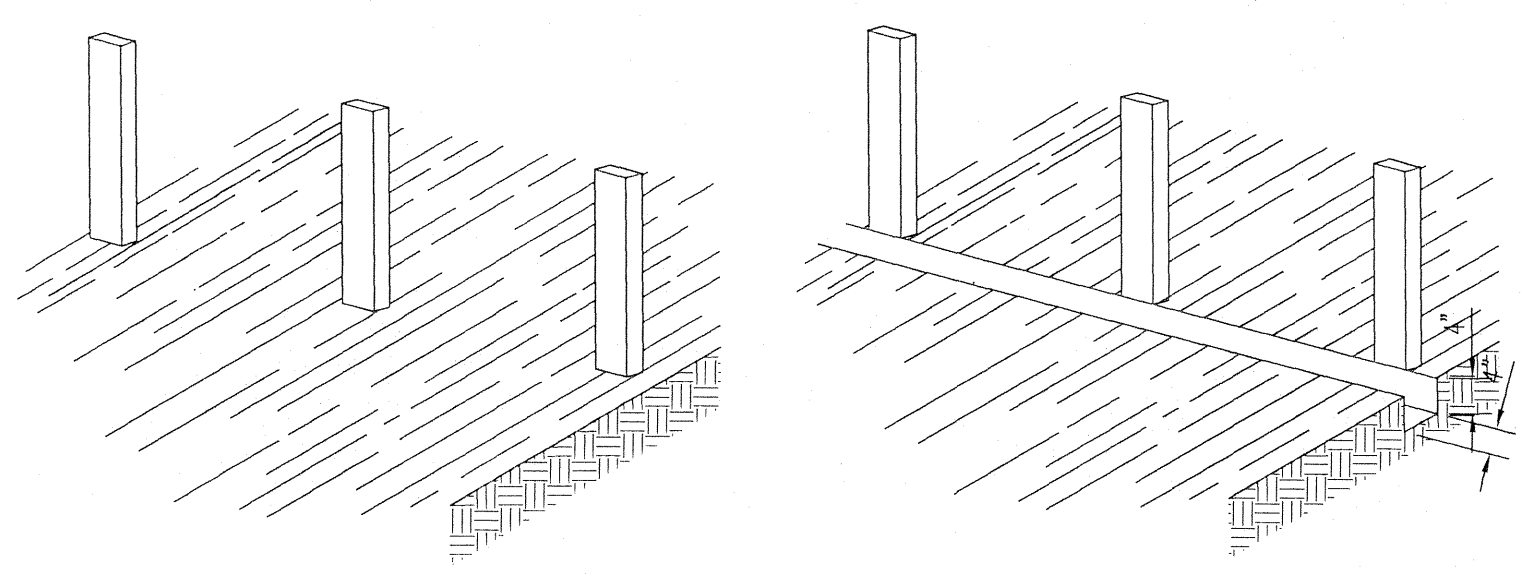
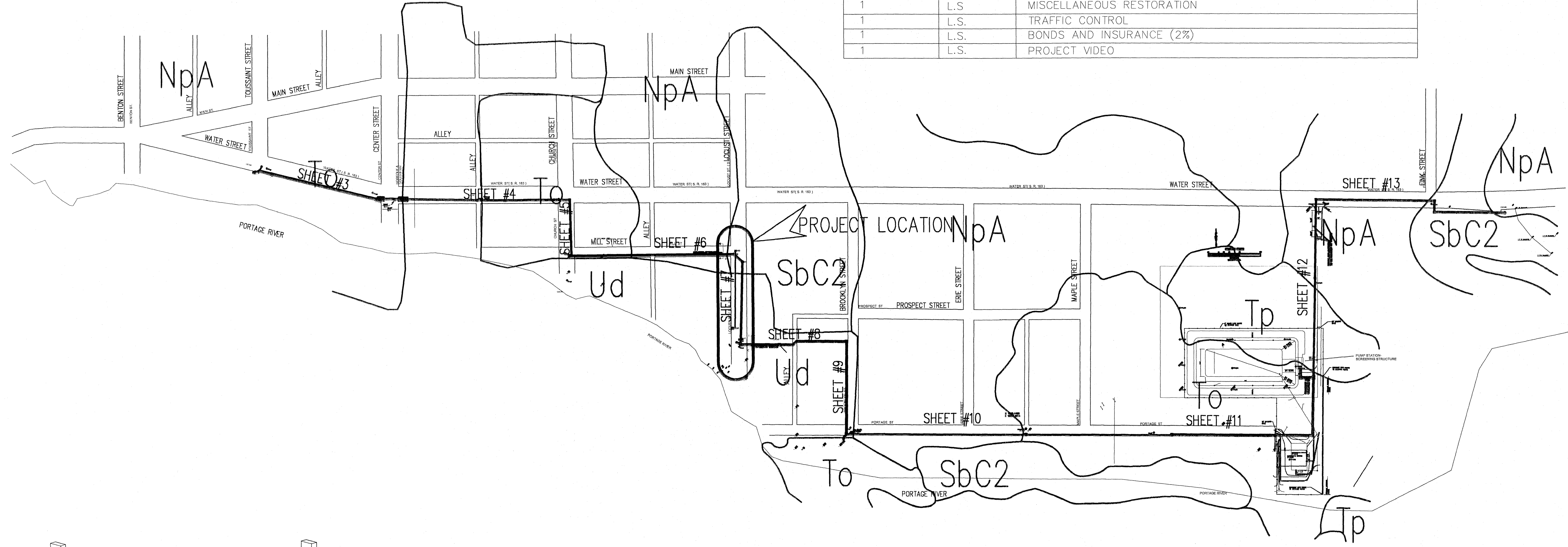
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QTY.	UNIT	DESCRIPTION
17	L.F.	18" SANITARY SEWER
351	L.F.	42" SANITARY SEWER
40	L.F.	54" SANITARY SEWER
66	V.F.	OVERFLOW INTECEPTOR STRUCTURE
11	V.F.	SANITARY MANHOLE
4	EACH	SANITARY MANHOLE FRAME AND COVER
1	EACH	PLUG OVERFLOW STRUCTURE
300	L.F.	6" WATERLINE
1	EACH	6"x8" TAPPING SLEEVE AND VALVE
4	EACH	RECONNECT EXISTING WATER SERVICE
1	EACH	CURB INLET REPLACEMENT
2	EACH	CATCH BASIN REPLACEMENT
380	L.F.	12" AND UNDER STORM SEWER REPLACEMENT
60	L.F.	OVER 12" STORM SEWER REPLACEMENT
1	L.S.	MISCELLANEOUS RESTORATION
1	L.S.	TRAFFIC CONTROL
1	L.S.	BONDS AND INSURANCE (2%)
1	L.S.	PROJECT VIDEO

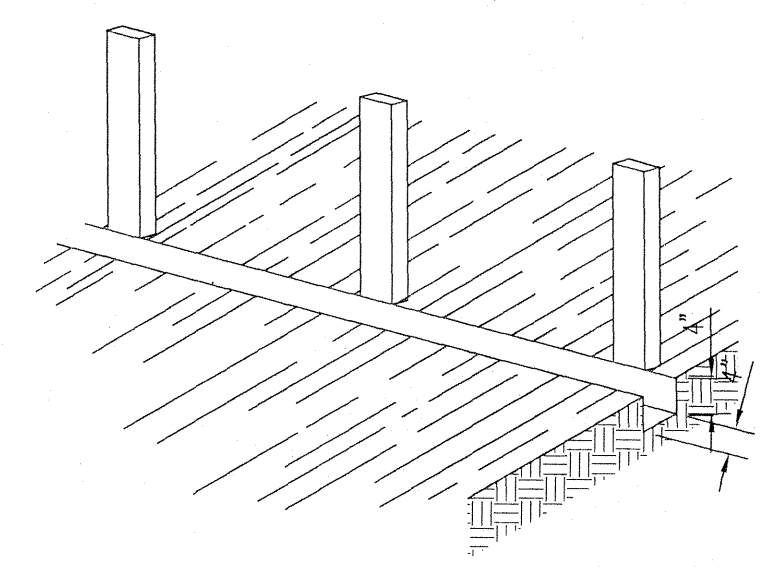
UNDERGROUND UTILITIES
BEFORE YOU DIG
 TWO WORKING DAYS
 Call 1-800-362-3764 (Toll Free)
 OHIO UTILITIES PROTECTION SERVICE
 NON-MEMBERS
 MUST BE CALLED DIRECTLY

NOTE:
 INSTALL INLET PROTECTION AT ALL CATCH BASINS WHICH MAY COLLECT STORM WATER RUNOFF FROM CONSTRUCTION AREA.
 INSTALL SILT FENCE AS NECESSARY ALONG STORM SEWER ROUTE TO PREVENT OFFSITE FLOW OF SILTATION FROM CONSTRUCTION PROCESSES.
 DEWATER TRENCHES AS NECESSARY USING A PUMP WITH A FILTER BAG ATTACHMENT. THE FILTER BAGS MUST BE SIZED TO HANDLE THE DISCHARGE FROM THE PUMP. THE INTAKE FOR PUMPING OPERATIONS SHALL BE PLACED SO AS TO DRAW WATER FROM THE TOP OF THE WATER SURFACE UTILIZING A FLOAT OR OTHER ACCEPTABLE METHOD.

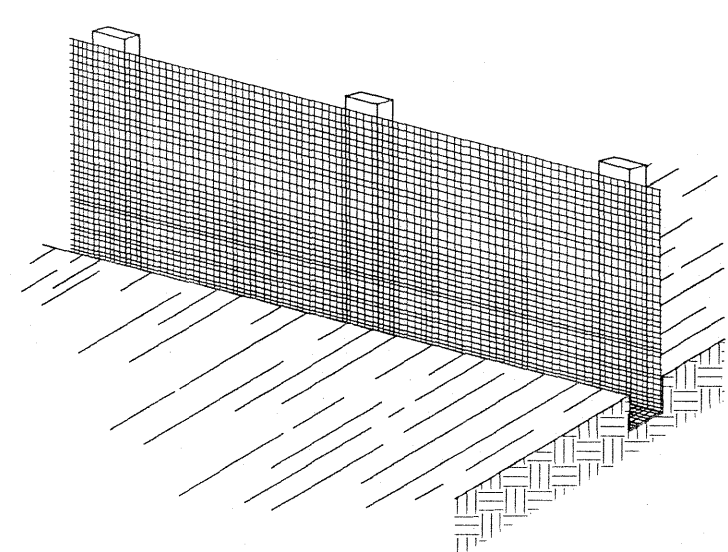
Legend:
 NpA = Nonpore silty clay loam
 SbC2 = Silty clay loam
 To = Toledo silty clay
 Tp = Toledo silty clay, ponded
 Ud = Unorthents
 Per USDA SCS Soil Survey of Sandusky County



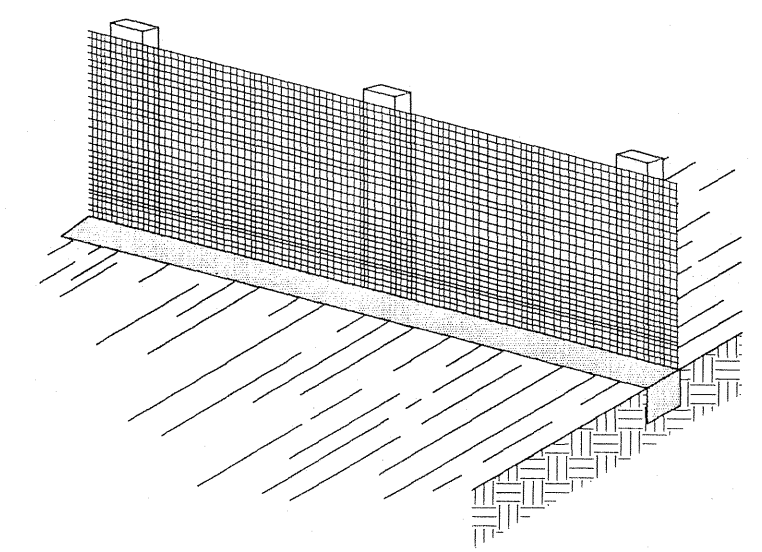
1) SET THE STAKES



2) EXCAVATE A 4" x 4" TRENCH UPSLOPE ALONG THE LINE OF STAKES.

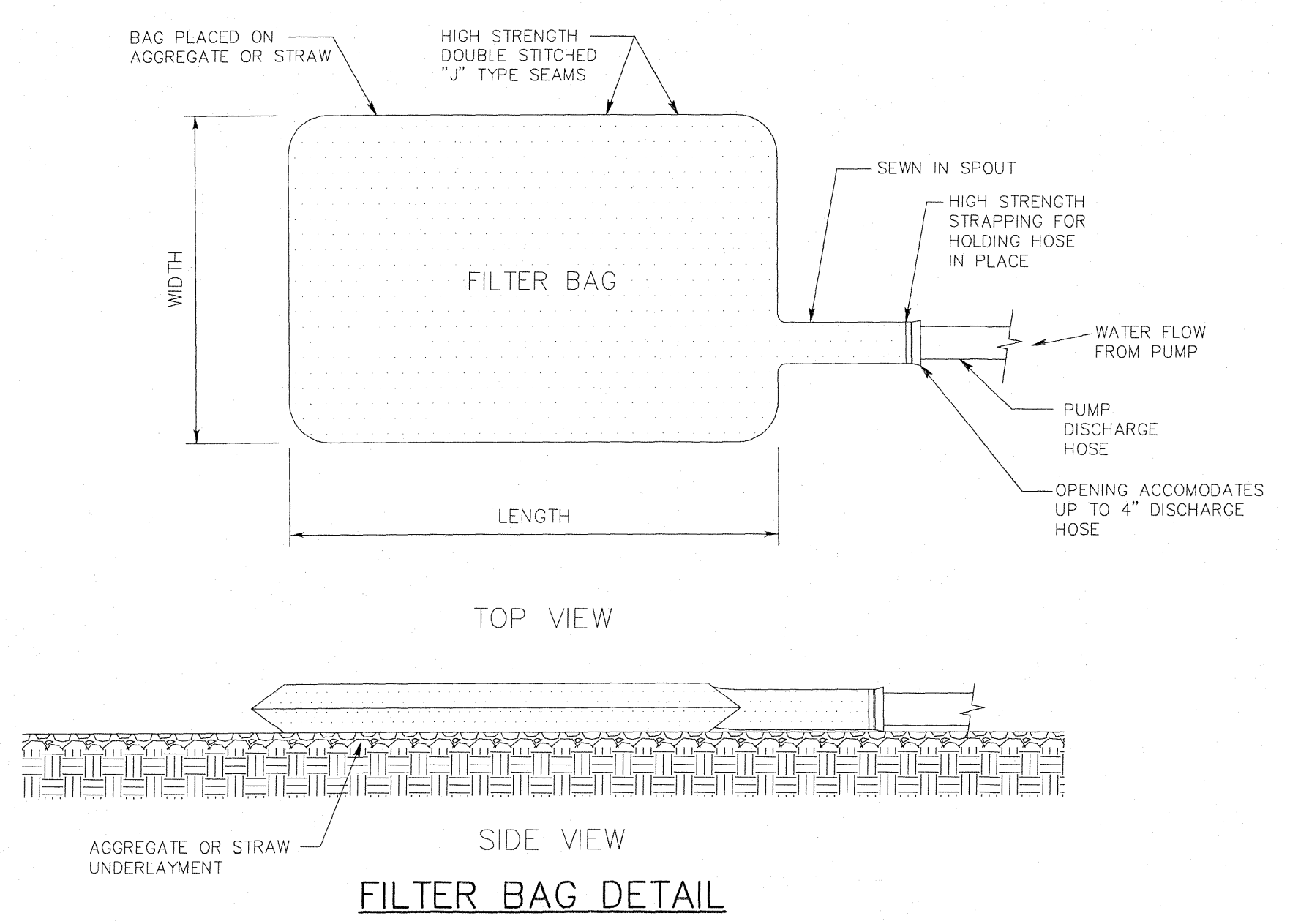


3) STAPLE FILTER MATERIAL TO STAKES AND EXTEND IT INTO THE TRENCH



4) BACKFILL AND COMPACT THE EXCAVATED SOIL

CONSTRUCTION OF A FILTER BARRIER
 SCALE: NONE



TOP VIEW

SIDE VIEW
 FILTER BAG DETAIL

VILLAGE OF OAK HARBOR
 OTTAWA COUNTY, OHIO



POGEMEYER DESIGN GROUP, INC.
 PLANNERS
 ENGINEERS
 ARCHITECTS
 1188 NORTH MAIN STREET
 BOWLING GREEN, OHIO 43402
 (419) 352-7537

SANITARY SEWER IMPROVEMENTS
VILLAGE OF OAK HARBOR
OTTAWA COUNTY, OHIO

SWPPP PLAN
FOR INTERCEPTOR
SEWER

REVISION	DRAWN BY	CHECKED BY
	JMF	JMF

SWP3-1A
 OF
2
 JOB NUMBER
 1590-120

CONTRACT "B"

FOR CSO IMPROVEMENTS INTERCEPTOR SEWER PORTAGE STREET OAK HARBOR, OTTAWA COUNTY, OHIO JUNE 2007

CONSTRUCTION SITE STORM WATER MANAGEMENT REQUIREMENTS

INTRODUCTION ALL STORM WATER POLLUTION PREVENTION PROVISIONS PROVIDED WITH THESE CONSTRUCTION DRAWINGS REFLECT THE OHIO EPA REQUIREMENTS FOR CONSTRUCTION STORM WATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL. TO ENSURE COMPLIANCE, THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE OHIO EPA'S NPDES GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY (NO. OH000002). THIS PLAN PROVIDES FOR CONSTRUCTION STORM WATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL FOR THE EXTENT OF CONSTRUCTION AS DEFINED IN PROJECT DESCRIPTION BELOW.

THE CONTRACTOR SHALL OR SHALL CAUSE THE INSTALLATION AND MAINTENANCE TO OCCUR IN CONFORMANCE WITH THE REQUIREMENTS OF THIS PLAN AND ALL REGULATIONS ENFORCED BY THE OHIO EPA AND ITS AGENCIES. THE CONTRACTOR HEREBY ACKNOWLEDGES THAT HE HAS REVIEWED THE PLAN AND UNDERSTANDS THE REQUIREMENTS OF THE NPDES PERMIT FOR THIS PROJECT. FURTHER, THE CONTRACTOR UNDERSTANDS HIS RESPONSIBILITY TO INSTALL AND MAINTAIN THE APPROPRIATE MEASURES TO MINIMIZE POLLUTION AND THAT FAILURE TO DO SO COULD RESULT IN STOP WORK ORDERS, FINES, AND IMPRISONMENT. PRIOR TO STARTING ANY WORK AT THE SITE, THE CONTRACTOR SHALL SUBMIT HIS CONSTRUCTION SCHEDULE AND THE RELATED EROSION METHODS FOR REVIEW BY THE ENGINEER.

PROJECT DESCRIPTION THE PROJECT CONSISTS OF THE INSTALLATION OF APPROXIMATELY 550 LF. OF SANITARY SEWER WHICH WILL DRAIN INTO A CSO BASIN PRIOR TO SANITARY SEWAGE TREATMENT. THIS PROJECT WILL DISTURB APPROXIMATELY 0.25 ACRES OF LAND WITHIN OAK HARBOR'S RIGHT-OF-WAY DURING THE INSTALLATION OF THE PIPE.

SOIL DISTURBING ACTIVITIES WILL INCLUDE: CLEARING AND GRUBBING, PERIMETER AND OTHER EROSION/SEDIMENT CONTROLS; SITE GRADING; EXCAVATION FOR THE UNDERGROUND UTILITIES; AND PREPARATION FOR FINAL PLANTING AND SEEDING.

PROJECT DRAINAGE

POST-CONSTRUCTION DRAINAGE PATTERNS ALONG THE PROJECT CORRIDOR WILL NOT BE ALTERED FROM PRE-CONSTRUCTION DRAINAGE PATTERNS. SITE CONDITIONS WILL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS. BECAUSE NO IMPERVIOUS SURFACE AREA WILL BE ADDED TO THE SITE, NO POST CONSTRUCTION STORMWATER MANAGEMENT IS REQUIRED. THE COEFFICIENT OF RUNOFF FOR THE SITE PRIOR TO AND AFTER THE STORM SEWER INSTALLATION IS ESTIMATED TO BE 0.10.

PROJECT SOILS AND DISCHARGE A GEOTECHNICAL SUBSURFACE INVESTIGATION WAS PERFORMED BY BOWSER MORNER IN MARCH OF 2006 AND SHALL BE CONSIDERED PART OF THIS PLAN. ANTICIPATED QUALITY OF DISCHARGE FROM THE SITE DURING CONSTRUCTION SHOULD NOT BE SIGNIFICANTLY DIFFERENT FROM THAT EXPERIENCED FROM PREVIOUS AGRICULTURAL ACTIVITIES WHICH OCCURRED ON THE SITE, SUCH AS PLOWING, DISCING, AND OTHER FIELD PREPARATION ACTIVITIES.

CONSTRUCTION SEQUENCE OF MAJOR TASKS AND EROSION CONTROL MEASURES THE ORDER OF ACTIVITIES FOR EACH PLAT CONSTRUCTION WILL BE AS FOLLOWS:

1. INSTALL SILT FENCE WHERE INDICATED AND WHERE REQUIRED.
2. CLEAR AND GRUB SITE.
3. CONSTRUCT NEW SANITARY SEWER.
4. INSTALL UNDERGROUND UTILITIES.
5. COMPLETE FINAL GRADING AND INSTALL PERMANENT SEEDING AND PLANTINGS.
6. MAINTAIN NECESSARY EROSION AND SEDIMENT CONTROLS AND VEGETATIVE MATERIAL UNTIL 70% OF AREA IS COVERED WITH AN EVENLY DISTRIBUTED GOOD GROWTH OF PERENNIAL VEGETATION.
7. REMOVE ALL TEMPORARY EROSION CONTROL DEVICES AND REMOVE ACCUMULATED SEDIMENT FROM STORM WATER MANAGEMENT AREAS.
8. RESEED AREAS DISTURBED BY REMOVAL ACTIVITIES.
9. CLEAN DITCHES/SWALES, CULVERTS, AND STORM SEWER SYSTEMS OF ALL ACCUMULATED SEDIMENT.

ENVIRONMENTAL MITIGATION

EROSION AND SEDIMENTATION CONTROL

1. EROSION AND SEDIMENTATION CONTROL PRACTICES SHALL BE INSTALLED TO NATURAL RESOURCES CONSERVATION SERVICE OR EQUIVALENT STANDARDS AND SPECIFICATIONS. THE PRACTICES ARE TO BE MAINTAINED IN EFFECTIVE WORKING CONDITION DURING CONSTRUCTION AND UNTIL ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
2. CLEARING AND GRUBBING SHALL NOT COMMENCE UNTIL THE CONTRACTOR IS PREPARED TO START CONSTRUCTION.
3. SEDIMENT BASINS AND DIVERSION DIKES SHALL BE CONSTRUCTED BEFORE DISTURBING THE LAND THAT DRAINS INTO THEM.
4. DIVERSION CHANNELS SHALL BE CONSTRUCTED AROUND THE CONSTRUCTION SITE TO COLLECT RUNOFF AND PREVENT SILT AND OTHER ERODED MATERIALS FROM ENTERING LOCAL DRAINAGE COURSES. DIVERSION CHANNELS SHALL BE STABILIZED BY SEEDING OR RIP-RAP OR LINED WITH PLASTIC, AND FLOW TO TEMPORARY SILT BASINS.
5. EXISTING TOPSOIL THAT IS TO BE REUSED SHALL BE STOCKPILED AND REPLACED UPON FINAL GRADING. STOCKPILED TOPSOIL SHALL BE PROTECTED WITH SILT BARRIERS AND TEMPORARY SEEDING OR A COVERING SUCH AS ANCHORED STRAW MULCH.
6. EXCESS SOIL THAT IS STOCKPILED SHALL BE EITHER REMOVED OR PERMANENTLY STABILIZED WITHIN 15 DAYS OF THE COMPLETION OF CONSTRUCTION.
7. EXCAVATED MATERIALS SHALL BE STOCKPILED ON THE UPHILL SIDE OF TRENCHES.
8. ONLY THOSE TREES, SHRUBS, AND GRASSES THAT MUST BE REMOVED FOR CONSTRUCTION MAY BE REMOVED; PROTECT THE REST TO PRESERVE THEIR AESTHETIC, HABITAT, AND EROSION CONTROL VALUES.
9. DISTURBED LAND EXPOSED LONGER THAN 7 DAYS SHALL BE TEMPORARILY STABILIZED BY SEEDING AND MULCHING OR MULCHING ALONE.
10. AS CONSTRUCTION IS COMPLETED, PERMANENTLY STABILIZE EACH DISTURBED AREA WITH PERENNIAL VEGETATION. IF FINAL GRADING AND SEEDING WILL NOT OCCUR WITHIN 30 DAYS, ALL DISTURBED AREAS SHALL BE TEMPORARILY SEEDED AND/OR MULCHED IMMEDIATELY.
11. FINAL GRADING SHALL BE CONSISTENT WITH PRE-CONSTRUCTION TOPOGRAPHY TO MAINTAIN DRAINAGE AND AESTHETICS.
12. NO MORE THAN 200 FEET OF TRENCH SHALL BE OPEN AT ANY TIME. MINIMIZE THE AREA DISTURBED FOR TRENCH OPENING, LAYING OF PIPE, AND BACKFILLING.
13. TRENCHES SHALL BE BACKFILLED IMMEDIATELY; COMPACT AND SEED AND/OR MULCH TRENCHES IN UNPAVED AREAS WITHIN 15 DAYS AFTER THEY HAVE BEEN OPENED.

14. LARGE-SCALE CONSTRUCTION SHALL BE RESEDED IN STAGES TO PREVENT EROSION WHEN SEASONAL CONDITIONS PERMIT. WITHIN 15 DAYS AFTER A SPAN HAS BEEN COMPLETED, THE CONTRACTOR SHALL PLACE ALL TOPSOIL, FINE GRADE, SEED, FERTILIZE, AND MULCH ALL AREAS DISTURBED BY ACTIVITIES ASSOCIATED WITH THE CONSTRUCTION OF THAT SECTION OF PIPE.
15. SLOPES EXCEEDING 15 PERCENT OR TENDING TO BE UNSTABLE SHALL BE STABILIZED WITH WATER DIVERSION BERMS, SODDING, OR THE USE OF JUTE OR EXCELSIOR BLANKETS.
16. WHEN BORROW MATERIAL IS OBTAINED FROM OTHER THAN COMMERCIAL SOURCES, CONTROL EROSION OF THE BORROW SITE DURING AND AFTER THE WORK TO PREVENT SEDIMENT FROM ENTERING STREAMS OR OTHER WATER BODIES. WASTE OR DISPOSAL AREAS AND CONSTRUCTION ROADS SHALL BE LOCATED AND CONSTRUCTED IN A MANNER THAT SHALL KEEP SEDIMENT FROM ENTERING STREAMS.
17. UNPAVED AREAS SHALL BE WET DOWN AS NECESSARY USING WATER OR OTHER ENVIRONMENTALLY BENIGN SUBSTANCE DURING CONSTRUCTION TO MINIMIZE DUST.
18. IF WORK IS SUSPENDED FOR ANY REASON, THE CONTRACTOR SHALL MAINTAIN THE SOIL EROSION AND SEDIMENTATION CONTROLS IN GOOD OPERATING CONDITION DURING THE SUSPENSION OF THE WORK. ALSO, WHEN SEASONAL CONDITIONS PERMIT AND THE SUSPENSION OF WORK IS EXPECTED TO EXCEED A PERIOD OF ONE MONTH, THE CONTRACTOR SHALL PLACE TOPSOIL, FINE GRADE, SEED, FERTILIZE, AND MULCH ALL DISTURBED AREAS LEFT EXPOSED WHEN WORK IS STOPPED.
19. WHEN WORKING ADJACENT TO A WATERWAY, THE CONTRACTOR SHALL INSTALL SILT BARRIERS TO PREVENT SEDIMENT-LADEN RUNOFF FROM ENTERING THE WATERWAY.
20. MATERIAL EXCAVATED FROM BORING PITS (FOR JACK AND BORE LOCATIONS) SHALL BE SURROUNDED WITH SILT BARRIERS AT SUFFICIENT DISTANCE TO ENSURE THEIR INTEGRITY AND EFFECTIVENESS.
21. CONTRACTOR SHALL REMOVE DAILY ALL MUD, SOIL, AND DEBRIS THAT MAY BE TRACKED ONTO EXISTING STREETS, DRIVES, OR WALKS BY HIS EQUIPMENT OR THAT OF SUBCONTRACTORS OR SUPPLIERS.
22. ALL MATERIALS TO BE DISPOSED OF OFF-SITE MUST BE DISPOSED OF IN AN ENVIRONMENTALLY SOUND MANNER IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS. NO EXCESS MATERIALS ARE TO BE DISPOSED OF IN ANY WETLAND, FLOOD PLAIN, OR OTHER ENVIRONMENTALLY SENSITIVE AREAS. EROSION CONTROL MEASURES AT THE DISPOSAL SITE MUST BE INSTALLED AND MAINTAINED UNTIL DISPOSAL IS COMPLETE AND THE DISPOSAL SITE IS PERMANENTLY STABILIZED.

TRAFFIC CONTROL

1. ONE LANE OF TRAFFIC SHALL BE MAINTAINED ALONG THE TRAVEL ROUTE TO THE CONSTRUCTION SITE IF POSSIBLE. IF NOT POSSIBLE TO MAINTAIN TRAFFIC DURING CONSTRUCTION, DETOURS SHALL BE ARRANGED WITH STATE AND LOCAL AUTHORITIES, AS REQUIRED.
2. LOCAL ACCESS SHALL BE MAINTAINED AT ALL TIMES.
3. NO TRENCH SHALL BE LEFT OPEN AT THE END OF THE WORK DAY.
4. THE CONTRACTOR SHALL PROVIDE, ERECT, AND MAINTAIN ALL NECESSARY BARRICADES, WARNING SIGNS, DANGER SIGNALS, FLAGGERS, WATCHERS, AND ALL OTHER APPROPRIATE PRECAUTIONS NECESSARY TO THE PROTECTION OF THE WORK AND FOR SAFETY OF THE PUBLIC.

AIR POLLUTION/NOISE CONTROL

1. CONSTRUCTION SHALL BE LIMITED TO DAYTIME HOURS, MONDAY THROUGH FRIDAY.
2. CONSTRUCTION EQUIPMENT SHALL BE PROVIDED WITH INTAKE SILENCERS AND MUFFLERS.
3. ALL CONSTRUCTION VEHICLES SHALL BE EQUIPPED WITH PROPER EMISSIONS CONTROL EQUIPMENT.
4. ALL EQUIPMENT AND MACHINERY SHALL BE MAINTAINED TO MINIMIZE EXHAUST EMISSIONS AND NOISE.

TREES/VEGETATION PROTECTION

1. TREE REMOVAL SHALL BE LIMITED TO THAT NECESSARY FOR CONSTRUCTION.
2. NO TREE SHALL BE REMOVED WITHOUT PERMISSION OF THE OWNER OR ENGINEER.
3. TREES WHICH ARE NOT TO BE REMOVED SHALL BE PROTECTED FROM INJURY BY TREES BEING FELLED.
4. SOIL AND OTHER MATERIAL SHALL NOT BE STORED NEXT TO OR WITHIN THE DRIP-LINE OF TREES.
5. LANDSCAPING SHALL BE PRESERVED IF POSSIBLE. DAMAGED VEGETATION SHALL BE REPLACED "IN-KIND".
6. THE CONTRACTOR SHALL REPAIR ALL INJURIES TO BARK, TRUNKS, LIMBS, AND ROOTS OF REMAINING VEGETATION BY PROPERLY DRESSING, CUTTING, AND BRACING, USING ONLY APPROVED TREE SURGERY METHODS, TOOLS, AND MATERIALS. WHEN ROOTS ARE DAMAGED DURING EXCAVATION, THE ABOVE-GROUND PORTION OF THE TREE SHALL BE PRUNED TO COMPENSATE.
7. SELECTIVE PRUNING OF TREE LIMBS PRIOR TO CONSTRUCTION SHALL ONLY BE DONE WITHIN ESTABLISHED EASEMENTS WHERE REMOVAL IS NECESSARY FOR OPERATION OF EQUIPMENT.
8. ALL PRUNING SHALL BE DONE BY A QUALIFIED ARBORIST.

DEWATERING

1. ALL DEWATERING FLOWS SHALL BE DIRECTED THROUGH FILTERING DEVICES BEFORE DISCHARGE TO STABILIZED SITES, SUCH AS STREAMS OR STORM SEWERS, NOT ONTO EXPOSED SOILS, STREAM BANKS, OR ANY OTHER SITE WHERE THE FLOW COULD CAUSE EROSION.
2. SILT FROM CONSTRUCTION SITES SHALL NOT BE PERMITTED TO ENTER STORM SEWERS. WHEN CONSTRUCTION OCCURS NEAR STORM SEWER INLETS, INLET FILTERS SHALL BE USED TO PREVENT SILT FROM ENTERING THE STORM SEWERS.
3. ALL WATER SHALL BE CONVEYED FROM THE CONSTRUCTION SITE IN A CLOSED CONDUIT. DO NOT USE TRENCH EXCAVATIONS AS TEMPORARY DRAINAGE DITCHES.

PROHIBITED CONSTRUCTION ACTIVITIES

1. DISPOSING OF EXCESS OR UNSUITABLE EXCAVATED MATERIAL OR TREES, BRUSH, AND OTHER DEBRIS IN ANY STREAM CORRIDOR, ANY WETLANDS, ANY SURFACE WATERS, OR AT UNSPECIFIED LOCATIONS.
2. STOCKPILING MATERIALS OR STORING CONSTRUCTION EQUIPMENT AND VEHICLES ON PROPERTY NOT SPECIFIED ON THE PLANS BY THE ENGINEER FOR SUCH PURPOSES.
3. INDISCRIMINATE, ARBITRARY, OR CAPRICIOUS OPERATION OF EQUIPMENT IN ANY STREAM CORRIDORS, ANY WETLANDS, ANY SURFACE WATERS, OR OUTSIDE THE EASEMENT LIMITS.
4. PUMPING OF SEDIMENT-LADEN WATER FROM TRENCHES OR OTHER EXCAVATIONS DIRECTLY INTO ANY SURFACE WATERS, ANY STREAM CORRIDORS, ANY WETLANDS, OR STORM SEWERS; ALL SUCH WATER SHALL BE PROPERLY FILTERED OR SETTLED TO REMOVE SILT PRIOR TO RELEASE.
5. DISCHARGING POLLUTANTS SUCH AS CHEMICALS, FUELS, LUBRICANTS, BITUMINOUS MATERIALS, RAW SEWAGE, OR OTHER HARMFUL WASTE INTO OR ALONGSIDE OF RIVERS, STREAMS, IMPOUNDMENTS, OR INTO ANY NATURAL OR MAN-MADE CHANNELS.

6. PERMANENT OR UNSPECIFIED ALTERATION OF THE FLOW LINE OF ANY STREAM.
7. DAMAGING VEGETATION OUTSIDE OF THE CONSTRUCTION AREA.
8. OPEN BURNING OF PROJECT DEBRIS WITHOUT A PERMIT.
9. DISCHARGING INJURIOUS SILICA DUST CONCENTRATIONS INTO THE ATMOSPHERE RESULTING FROM BREAKING, CUTTING, CHIPPING, DRILLING, BUFFING, GRINDING, POLISHING, SHAPING OR SURFACING CLOSER THAN 200 FEET TO PLACES OF RESIDENCES OR COMMERCIAL, PROFESSIONAL, QUASI-PUBLIC, OR PUBLIC PLACES OF HUMAN OCCUPATION.
10. RUNNING WELL POINT OR PUMP DISCHARGE LINES THROUGH PRIVATE PROPERTY OR PUBLIC PROPERTY AND RIGHTS-OF-WAY WITHOUT THE WRITTEN PERMISSION OF THE PROPERTY OWNER AND THE CONSENT OF THE ENGINEER.
11. OPERATIONS ENTAILING THE USE OF VIBRATORY HAMMERS OR COMPACTORS OUTSIDE THE HOURS OF 8:00 A.M. TO 5:00 P.M. WEEKDAYS OR OUTSIDE THE HOURS ALLOWED FOR CONSTRUCTION BY LOCAL ORDINANCES OR REGULATIONS.
12. CLOSING OFF CLEAR ACCESS TO ANY PUBLIC ALLEY, STREET, ROAD, AVENUE, OR BOULEVARD WITHOUT THE PRIOR CONSENT OF THE OWNER, ENGINEER, AND OTHER GOVERNING AUTHORITIES.
13. RESTRICTING ACCESS TO ANY PRIVATE DRIVE OR BUSINESS WHERE ALTERNATE ACCESS IS NOT AVAILABLE.

EROSION AND SEDIMENT CONTROLS

STABILIZATION PRACTICES THE CONTRACTOR SHALL INITIATE APPROPRIATE VEGETATIVE PRACTICES ON ALL DISTURBED AREAS (INCLUDING TOPSOIL STOCKPILES) NOT WITHIN 50 FEET OF A STREAM OR DITCH WITHIN SEVEN (7) DAYS IF THEY ARE TO REMAIN DORMANT (UNDISTURBED) FOR MORE THAN 21 DAYS. FOR AREAS WITHIN 50 FEET OF ANY STREAM OR DITCH, SOIL STABILIZATION PRACTICES SHALL BE INITIATED WITHIN TWO (2) DAYS ON ALL DISTURBED AREAS IF THEY ARE TO REMAIN DORMANT (UNDISTURBED) FOR MORE THAN 21 DAYS. PERMANENT SOIL STABILIZATION SHALL BE APPLIED TO DISTURBED AREAS NOT WITHIN 50 FEET OF A STREAM OR DITCH WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED AND WITHIN 2 DAYS FOR AREAS LESS THAN 50 FEET FROM A STREAM OR DITCH, ON ANY PORTION OF THE SITE. WHEN SEASONAL CONDITIONS PROHIBIT THE APPLICATION OF TEMPORARY OR PERMANENT SEEDING, NON-VEGETATIVE SOIL STABILIZATION PRACTICES SUCH AS MULCHING AND MATTING WILL BE USED.

SEEDING-

THE TEMPORARY SEED MIX SHALL BE 100% ANNUAL RYEGRASS (LOLIUM MULTIFLORUM) APPLIED AT THE RATE OF TWO (2) POUNDS PER 1,000 SQUARE FEET. PRIOR TO SEEDING, TEN (10) POUNDS OF 12-12-12 FERTILIZER SHALL BE APPLIED TO EACH 1,000 SQUARE FEET TO BE STABILIZED. AFTER SEEDING, EACH AREA SHALL BE MULCHED WITH STRAW AT A RATE OF TWO (2) TONS PER ACRE OR THREE (3) TONS PER ACRE IF SEEDING OCCURS BETWEEN OCTOBER 31 AND MARCH 14.

THE PERMANENT SEED MIX SHALL CONSIST OF 40% KENTUCKY BLUEGRASS (POA PRATENSIS), 40% CREEPING RED FESCUE (FESTUCA RUBRA), AND 20% ANNUAL RYEGRASS (LOLIUM MULTIFLORUM). THIS MIX SHALL BE APPLIED AT THE RATE OF THREE (3) POUNDS PER 1,000 SQUARE FEET. PRIOR TO SEEDING, TWENTY (20) POUNDS OF 12-12-12 FERTILIZER SHALL BE APPLIED TO EACH 1,000 SQUARE FEET TO BE STABILIZED. AFTER SEEDING, EACH AREA SHALL BE MULCHED WITH STRAW AT A RATE OF TWO (2) TONS PER ACRE THREE (3) TONS PER ACRE IF SEEDING OCCURS BETWEEN OCTOBER 31 AND MARCH 14.

SODDING- THE SOO SHALL BE WELL-ROOTED KENTUCKY BLUEGRASS (POA PRATENSIS) OR CANADIAN BLUEGRASS (POA COMPRESSA) CONTAINING A GROWTH OF NOT MORE THAN THIRTY (30) PERCENT OF OTHER GRASSES AND CLOVERS, AND FREE FROM ALL NOXIOUS WEEDS SUCH AS WILD MUSTARD, THISTLES, QUACK GRASS, AND JOHNSON GRASS; AND REASONABLY FREE FROM DANDELIONS AND CRAB GRASS.

MULCHING- MULCH USED WITH SEEDING SHALL BE APPLIED AT THE RATES SPECIFIED ABOVE. MULCH APPLIED WITHOUT SEEDING (SUCH AS WHEN SEASONAL CONDITIONS PROHIBIT THE APPLICATION OF TEMPORARY OR PERMANENT SEEDING) SHALL BE APPLIED AT A RATE OF TWO (2) TONS PER ACRE.

STRUCTURAL PRACTICES SILT FENCING SHALL BE INSTALLED WITHIN 7 DAYS FROM THE START OF GRUBBING AND PRIOR TO GRADING.

SILT FENCE- SILT FENCE WILL BE CONSTRUCTED WHERE SURFACE RUNOFF DRAINS OFF-SITE TO PREVENT THE TRANSPORTATION OF SEDIMENT. SILT FENCE WILL BE DESIGNED AND CONSTRUCTED TO MEET THE DESIGN CAPACITY CRITERIA IN THE CCP PART III.G.2.d.ii.

INSPECTIONS/MAINTENANCE PROCEDURES THE CONTRACTOR SHALL PROVIDE "QUALIFIED" PERSONNEL TO PERFORM INSPECTIONS OF THE EROSION DEVICES AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCHES OF RAIN PER 24 HOUR PERIOD. AN INSPECTION REPORT WILL BE COMPLETED, SIGNED AND DATED AFTER EACH INSPECTION. A COPY OF THE REPORT WILL BE KEPT WITH THE CONSTRUCTION SITE SUPERINTENDENT. ALL CONTROLS WILL BE MAINTAINED AND INSPECTED AS LONG AS A PORTION OF THE SITE REMAINS DISTURBED.

ALL TEMPORARY AND PERMANENT CONTROL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT.

THE FOLLOWING INSPECTION AND MAINTENANCE PRACTICES WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS:

- BUILT-UP SEDIMENT WILL BE REMOVED FROM THE SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.
- THE SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO INSURE THAT THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO INSURE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.
- TEMPORARY AND PERMANENT SEEDING AND PLANTING AND SODDING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.
- DITCHES AND SWALES WILL BE INSPECTED FOR EROSION, OBSTRUCTIONS, AND HEALTHY VEGETATION GROWTH.

ALL MATERIALS, WASTE MATERIALS, WASTE CONTROLS, AND SANITARY CONTROLS WILL BE INSPECTED AS WELL TO ENSURE NO SPILLS, LEAKS OR DISCHARGES NEED ADDRESSED.

OTHER CONTROLS

WASTE MATERIALS ALL WASTE GENERATED FROM THESE CONSTRUCTION ACTIVITIES WILL BE HANDLED AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

HAZARDOUS WASTE GENERATED FROM THE CONSTRUCTION ACTIVITY WILL BE PROPERLY IDENTIFIED AND PACKAGED FOR DISPOSAL IN ACCORDANCE WITH APPLICABLE EPA AND DOT REGULATIONS. ABSOLUTELY NO HAZARDOUS MATERIALS OR WASTES WILL BE DISPOSED OF IN THE SOLID WASTE DUMPSTERS. HAZARDOUS WASTES WILL BE PROPERLY MANIFESTED AND DISPOSED THROUGH AN APPROVED PERMITTED WASTE HANDLING FACILITY. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE STRICTLY FOLLOWED.

SANITARY WASTE ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF THREE (3) TIMES PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

NON-STORM WATER DISCHARGES IT IS EXPECTED THAT THE FOLLOWING NON-STORM WATER DISCHARGES WILL OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD:

- WATER FROM WATER LINE, FIRE HYDRANT AND SPRINKLER SYSTEM FLUSHING
- PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF OILS, FUELS OF HAZARDOUS MATERIALS HAS OCCURRED)
- UNCONTAMINATED GROUNDWATER (FROM DEWATERING EXCAVATION)

THESE NON-STORM WATER DISCHARGES WILL BE DIRECTED TO THE NEAREST STORMWATER CATCH BASIN TO PREVENT SITE SEDIMENT RUNOFF WHENEVER POSSIBLE. DISCHARGES WITH SEDIMENT LOADS WILL BE DISCHARGED THROUGH FILTER BAGS. ALL OTHER NON-STORMWATER DISCHARGES WILL BE DIRECTED INTO THE SANITARY SEWER SYSTEM. INVENTORY FOR POLLUTION PREVENTION PLAN THE MATERIALS OR SUBSTANCES LISTED BELOW ARE EXPECTED TO BE PRESENT ONSITE DURING CONSTRUCTION:

- CONCRETE - FERTILIZERS
- DETERGENTS - PETROLEUM BASED PRODUCTS
- CLEANING SOLVENTS - WOOD
- MASONRY BLOCK - TAR
- WIRE

MATERIAL MANAGEMENT PRACTICES THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF.

GOOD HOUSEKEEPING THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ONSITE DURING THE CONSTRUCTION PROJECT.

- AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO COMPLETE THE TASK.

- ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.

- PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURERS' LABEL.

- SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.

- WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.

- MANUFACTURERS' RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.

- THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ONSITE.

HAZARDOUS PRODUCTS THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS.

- PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.

- ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED; THEY CONTAIN IMPORTANT PRODUCT INFORMATION.

- IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURERS' OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

PRODUCT SPECIFIC PRACTICES THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ON-SITE DURING THE CONSTRUCTION PROJECT:

PETROLEUM PRODUCTS ALL ON-SITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANGE OF OIL, GASOLINE OR ANTI-FREEZE LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ON-SITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

VEHICLE OIL CHANGING ON-SITE WILL BE PROHIBITED UNLESS THE OIL IS CAPTURED AND PROPERLY DISPOSED. ABSOLUTELY NO OIL, ANTI-FREEZE, FUEL OR USED FILTERS WILL BE DISCARDED ON-SITE.

CONCRETE TRUCKS CONCRETE TRUCKS WILL BE PERMITTED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE ON THE SITE IN DESIGNATED AREAS ONLY.

FERTILIZERS FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED SHED. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PAINTS ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM, BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURERS' INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

SPILL CONTROL PRACTICES IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

- MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
- MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SANDWUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.

- ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
- THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
- SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE.
- THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM RECURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.
- THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATIONS WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR.

GENERAL CONTRACTOR REQUIREMENTS THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS INVOLVED WITH A CONSTRUCTION ACTIVITY THAT DISTURBS SITE SOIL OR WHO IMPLEMENT A POLLUTANT CONTROL MEASURE IDENTIFIED IN THE STORM WATER POLLUTION PREVENTION PLAN MUST COMPLY WITH THE FOLLOWING REQUIREMENTS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT ("GENERAL PERMIT") AND ANY LOCAL GOVERNING AGENCY HAVING JURISDICTION CONCERNING EROSION AND SEDIMENTATION CONTROL:

CO-PERMITTE NOTICE OF INTENT THE CONTRACTOR SHALL SUBMIT A COOPERATIVE NOTICE OF INTENT FOR COVERAGE UNDER OHIO EPA STORM WATER CONSTRUCTION GENERAL PERMIT (SEE APPENDIX B FOR FORM).

OHIO ENVIRONMENTAL PROTECTION AGENCY STORM WATER SECTION DIVISION OF SURFACE WATER BOB PHELPS, MANAGER LAZARUS GOVERNMENT CENTER P.O. BOX 1049 COLUMBUS, OHIO 43216-1049 614-644-2034

PLAN AVAILABILITY/RECORDS RETENTION A COPY OF THE NOTICE OF INTENT (NOI) AND LETTER AUTHORIZING DISCHARGES UNDER THE GENERAL PERMIT FOR CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS PROJECT SHALL BE POSTED AT THE SITE IN A PROMINENT PLACE FOR PUBLIC VIEWING. A COPY OF THESE PLANS, ALONG WITH ALL RECORDS, REPORTS AND SUPPORTING DOCUMENTATION, WILL BE KEPT ON-SITE AT ALL TIMES THROUGHOUT THE CONSTRUCTION PROJECT AND WILL BE TURNED OVER TO THE OWNER AT THE COMPLETION OF THE PROJECT. THE OWNER WILL MAINTAIN THE RECORDS FOR AT LEAST THREE YEARS AFTER THE CONSTRUCTION PROJECT HAS BEEN COMPLETED.

THESE PLANS, RECORDS, REPORTS, AND SUPPORTING DOCUMENTATION WILL BE AVAILABLE UPON REQUEST TO THE DIRECTOR OF THE OHIO EPA, OR ANY AUTHORIZED REPRESENTATIVE, AND PORTIONS NOT CLASSIFIED AS CONFIDENTIAL TO ANY OTHER INTERESTED PARTY AS REQUIRED UNDER SECTION 308 (B) OF THE FEDERAL WATER POLLUTION CONTROL ACT.

RECORDS WILL INCLUDE:

- THE DATES WHEN SUBSTANTIAL GRADING ACTIVITIES OCCUR IN A PARTICULAR AREA;
- THE DATES WHEN CONSTRUCTION ACTIVITIES CEASE IN AN AREA, TEMPORARILY OR PERMANENTLY;
- THE DATES WHEN AN AREA IS STABILIZED

PLAN CHANGES THE GENERAL CONTRACTOR SHALL NOTIFY THE OWNER OF CHANGES IN DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE OR ANY DEFICIENCIES DETECTED IN THE PLAN THAT WILL HAVE A SIGNIFICANT EFFECT ON THE POTENTIAL FOR DISCHARGING POLLUTANTS IN STORM WATER AT THE SITE. THE OWNER SHALL MODIFY THIS STORM WATER POLLUTION PREVENTION PLAN TO CORRECT THE DEFICIENCIES OR REFLECT THE CHANGES AND NEW CONDITIONS.

THE OWNER SHALL ALSO MODIFY THE PLAN WITHIN SEVEN (7) DAYS AFTER A RELEASE OF A REPORTABLE QUANTITY OF A HAZARDOUS SUBSTANCE OR OIL.

THE OWNER SHALL ALSO MODIFY THE PLANS AS REQUIRED BY THE OHIO EPA STORM WATER DIVISION IMMEDIATELY AFTER NOTIFICATION OF THE REQUIRED CHANGES. THE OWNER SHALL CERTIFY TO THE DIRECTOR OF THE OHIO EPA THAT THE REQUIRED CHANGES HAVE BEEN MADE.

ALL MODIFICATIONS OF THE PLAN SHALL BE CERTIFIED BY THE OWNER AND THE GENERAL CONTRACTOR.

NOTICE OF TERMINATION A WRITTEN OFFICIAL NOTICE OF TERMINATION WILL BE SUBMITTED BY THE OWNER TO THE OHIO EPA WITHIN FORTY-FIVE (45) DAYS AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED IN ACCORDANCE WITH THE GENERAL CONSTRUCTION STORM WATER PERMIT TO COMMUNICATE THAT THIS CONSTRUCTION ACTIVITY HAS CEASED AND THE AREA HAS BEEN STABILIZED.

OFF-SITE SEDIMENT TRACKING THE TRACKING OF SEDIMENT OFF-SITE SHALL BE MINIMIZED BY INSTALLING GRAVEL CONSTRUCTION ENTRANCES AND CONDUCTING SCHEDULED SWEEPING/GOOD HOUSEKEEPING ACTIVITIES.

TRENCH AND GROUND WATER CONTROL THERE SHALL BE NO TURBID DISCHARGES TO SURFACE WATERS OF THE STATE RESULTING FROM DEWATERING ACTIVITIES. IF TRENCH OR GROUND WATER CONTAINS SEDIMENT, IT MUST PASS THROUGH A SEDIMENT SETTLING POND OR OTHER EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE PRIOR TO BEING DISCHARGED FROM THE CONSTRUCTION SITE. ALTERNATIVELY, SEDIMENT MAY BE REMOVED BY SETTLING IN PLACE OR BY DEWATERING INTO A SLUMP PIT, FILTER BAG, OR COMPARABLE PRACTICE. GROUND WATER DEWATERING 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. DISCHARGE WATER ONLY TO STABILIZED SITES, SUCH AS GRASS SWALES, STREAMS OR STORM SEWERS. DO NOT DISCHARGE ONTO EXPOSED SOILS, STREAM BANKS, OR ANY SITE WHERE THE FLOW COULD CAUSE EROSION.

POST-CONSTRUCTION STORMWATER MANAGEMENT REQUIREMENTS (SMALL CONSTRUCTION ACTIVITIES, UNDER 5 ACRES DISTURBED)

SO THAT THE RECEIVING STREAM'S PHYSICAL, CHEMICAL, AND BIOLOGICAL CHARACTERISTICS ARE PROTECTED AND STREAM FUNCTIONS ARE MAINTAINED, POST-CONSTRUCTION STORM WATER PRACTICES SHALL PROVIDE PERPETUAL MANAGEMENT OF RUNOFF QUALITY AND QUANTITY.

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

SIGNED THIS 1-1-1-1-1-1 DAY OF _____, 2007

BY: 1-1-1-1-1-1

TITLE: _____

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