

#### **CONSTRUCTION NOTES:**

- 1. DRIVEWAYS AND ENTRANCES TO BUILDINGS, REAL PROPERTY, AND THE LIKE SHALL NOT BE BLOCKED EXCEPT FOR SHORT DURATIONS AND ONLY WHEN APPROVED BY THE ENGINEER. VEHICULAR AND PEDESTRIAN ACCESS SHALL BE MAINTAINED AT ALL TIMES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ALL NECESSARY DRIVEWAY CLOSURES WITH THE PROPERTY OWNER(S) AND RESIDENT(S) IN THE AREAS OF CONSTRUCTION.
- 2. THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES AND SERVICE LEADS ARE TO BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
- 3. LOCATION AND DEPTH OF UTILITIES AS DEPICTED ON THE PLANS IS APPROXIMATE AND SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXCAVATE AHEAD AND ADJUST DEPTH OF CONFLICT UTILITIES ACCORDINGLY. ANY DAMAGE TO UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY TO AVOID AND/OR REPAIR AS NECESSARY.
- 4. THE CONTRACTOR IS TO TAKE SPECIAL CARE TO PROTECT THE EXISTING SANITARY SEWER AND BE RESPONSIBLE FOR MAINTAINING CONSISTENT SANITARY SEWER SERVICE.
- 5. DURING NON-WORKING HOURS NO TRENCH SHALL REMAIN OPEN; ANY OPEN TRENCH SHALL BE PROPERLY SECURED WITH PROTECTIVE FENCING. THIS WORK SHALL BE INCLUDED IN THE ITEM OF WORK "PROTECTIVE FENCING".
- 6. THE CONTRACTOR SHALL BACKFILL TRENCHES IN ACCORDANCE WITH TRENCH DETAIL SPECIFIED ON PLANS. THIS WORK SHALL BE INCLUDED IN THE ITEM OF WORK "SDR 26 PVC PIPE, 8", TRENCH DETAIL TYPE I MODIFIED". ALL CONCRETE REMOVALS AND REPLACEMENTS REQUIRED FOR THIS WORK WILL BE PAID FOR SEPARATELY.
- 7. "NO PARKING" SIGNS SHALL BE INSTALLED BY THE CONTRACTOR AT LOCATIONS AS APPROVED OR DIRECTED BY THE ENGINEER. ALL SIGNS SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILED SPECIFICATIONS.
- 8. POSTAL DELIVERY AND REFUSE PICKUP SERVICE SHALL BE MAINTAINED AT ALL TIMES BY THE CONTRACTOR.
- 9. WHERE STREET CURBS ARE UNDERMINED DUE TO CONSTRUCTION ACTIVITIES, THEY SHALL BE REMOVED AND REPLACED AS DIRECTED BY THE ENGINEER.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTINUOUS MAINTENANCE OF THE TEMPORARY ROAD SURFACE AND SOIL EROSION CONTROL MEASURES WITHIN THE CONSTRUCTION AREA UNTIL THE FULL COMPLETION OF THE PROJECT. THIS WORK SHALL BE INCLUDED IN THE ITEM OF WORK "GENERAL CONDITIONS".
- 11. ALL CURB, SIDEWALK, DRIVEWAY APPROACH REMOVALS SHALL BE APPROVED BY ENGINEER BEFORE THE WORK IS DONE.
- 12. SAWED SEWER PIPE CONNECTIONS SHALL BE COUPLED WITH A FERNCO FLEXIBLE COUPLING AND A STAINLESS STEEL SHEAR RING.
- 13. THE LOCATION OF MATERIAL STOCK PILES AND ON-SITE STAGING AREAS TO BE APPROVED BY THE ENGINEER.
- 14. FOR MAINLINE PAVING, THE WIDTH OF THE MAT FOR EACH PASS OF THE PAVER SHALL BE NOT LESS THAN 10.5' OR GREATER THAN 15', AS DIRECTED BY THE ENGINEER. THE ENGINEER WILL DIRECT THE LAYOUT OF THE LONGITUDINAL JOINTS DURING CONSTRUCTION.
- 15. ALL STRUCTURES SHALL RECEIVE NEW CASTINGS AS DIRECTED BY THE ENGINEER, AS SPECIFIED ON THE STANDARD CASTING SCHEDULE. THE EXISTING CASTINGS ARE THE PROPERTY OF THE CITY OF ANN ARBOR. THE CONTRACTOR SHALL DELIVER TO CITY OF ANN ARBOR FIELD OPERATIONS AND MAINTENANCE FACILITY AT THE W.R. WHEELER SERVICE CENTER LOCATED AT 4251 STONE SCHOOL ROAD.
- 16. PAYMENT FOR DRAINAGE STRUCTURE SUMPS, WHERE SPECIFIED, SHALL BE INCLUDED IN THE PAYMENT FOR THE VARIOUS DRAINAGE STRUCTURE SIZES AND OR TYPES.
- 17. WHERE SEWER PIPES OF DIFFERENT SIZES OR MATERIALS ARE JOINED, FERNCO FLEXIBLE COUPLINGS WITH STAINLESS STEEL SHEAR RINGS SHALL BE USED. THE CONTRACTOR'S

- PURCHASE PRICE FOR THESE DEVICES, INCLUDING SHIPPING, SHALL BE PAID AS AN EXTRA. PRIOR TO PAYMENT FOR THIS ITEM, THE CONTRACTOR SHALL SUBMIT RECEIPTS FOR THE ENGINEER'S REVIEW AND APPROVAL. ALL OTHER COSTS ASSOCIATED WITH THE INSTALLATION OF THESE DEVICES SHALL BE INCLUDED IN THE PAYMENT FOR THE SEWER.
- 18. WHERE SEWER AND WATER MAIN ARE TO BE REMOVED & REPLACED OR ADDED, ALL PIPE SHALL BE INSTALLED USING TRENCH DETAIL DETAILED IN THE SPECIFICATIONS OR SHOWN ON PLANS. BACKFILL FOR SEWER AND WATER CONSTRUCTION SHALL BE MDOT GRANULAR MATERIAL, CLASS II, MODIFIED.
- 19. EXISTING STREET NAME, GUIDE, AND REGULATORY SIGNS, AND MAILBOXES WHICH CONFLICT WITH THE PROPOSED CONSTRUCTION SHALL BE REMOVED PRIOR TO CONSTRUCTION, STORED IN A MANNER WHICH WILL PREVENT DAMAGE, AND RE—SET IN LOCATIONS AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN "MACHINE GRADING, MODIFIED"
- 20. IN AREAS WHERE EDGE DRAIN CANNOT BE INSTALLED IN ACCORDANCE WITH CITY OF ANN ARBOR DETAIL SD-TD-11, THE EDGE DRAIN SHALL BE INSTALLED AT THE DEPTH AS INDICATED ON THE PLANS, OR AS DIRECTED BY ENGINEER. IN NO CASE SHALL THE EDGE DRAIN BE INSTALLED AT A GRADE LESS THAN 0.50% OR AT A DEPTH OF LESS THAN 2' BELOW TOP OF PROPOSED PAVEMENT.

## SOIL EROSION & SEDIMENTATION CONTROL GENERAL NOTES:

NOTIFY THE CITY OF ANN ARBOR SOIL EROSION CONTROL OFFICE 48 HOURS PRIOR TO BEGINNING WORK ON THE PROJECT. PHONE: 734-794-6265.

- 1. THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN SOIL EROSION CONTROL MEASURES AS DIRECTED BY THE ENGINEER AT ALL TIMES DURING CONSTRUCTION. ANY MODIFICATIONS OR ADDITIONS TO THE SOIL EROSION CONTROL MEASURES DUE TO CONSTRUCTION OR CHANGED CONDITIONS SHALL BE AS DIRECTED AND APPROVED BY THE ENGINEER.
- 2. ALL SOIL EROSION AND SEDIMENTATION CONTROL WORK SHALL CONFORM TO THE PERMIT REQUIREMENTS OF THE CITY OF ANN ARBOR, CITY ORDINANCE CHAPTER 63, CITY OF ANN ARBOR STANDARDS DIVISION VII, THE LAWS OF THE STATE OF MICHIGAN, AND THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- 3. DAILY, OR AFTER ANY STORM EVENT, INSPECTIONS OF EROSION CONTROL MEASURES SHALL BE MADE BY THE CONTRACTOR. PERIODIC INSPECTIONS MAY BE MADE BY THE ENGINEER TO DETERMINE THE EFFECTIVENESS OF EROSION AND SEDIMENTATION CONTROL MEASURES. ANY NECESSARY CORRECTIONS SHALL BE MADE WITHOUT DELAY, AND WITHOUT ADDITIONAL COST TO THE CITY OF ANN ARBOR.
- 4. EROSION AND SEDIMENTATION FROM WORK ON THE SITE SHALL BE CONTAINED ON THE SITE AND NOT BE ALLOWED TO COLLECT ON ANY OFF—SITE AREAS, ROADWAYS OR WATERWAYS.
- 5. ALL MUD/DIRT TRACKED ONTO ROADWAYS FROM THE SITE DUE TO CONSTRUCTION, SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR. IF SO ORDERED, THE CONTRACTOR SHALL PROVIDE AND OPERATE A VACUUM—TYPE STREET SWEEPER, AT NO ADDITIONAL COST TO THE CITY OF ANN ARBOR, WITHIN FOUR (4) HOURS OF BEING SO ORDERED.
- 6. RESTORATION OF ALL DISTURBED AREAS, INCLUDING PLACEMENT OF TOPSOIL, SEED, FERTILIZER AND MULCH AND/OR SOD SHALL BE PERFORMED WITHIN FIVE (5) DAYS OF THE COMPLETION OF FINAL GRADE.
- 7. CONSTRUCTION OPERATIONS SHALL BE SCHEDULED AND PERFORMED SO THAT PREVENTATIVE SOIL EROSION CONTROL MEASURES ARE IN PLACE PRIOR TO EXCAVATION IN CRITICAL AREAS AND TEMPORARY STABILIZATION MEASURES ARE IN PLACE IMMEDIATELY FOLLOWING BACKFILLING OPERATIONS.
- 8. SPECIAL PRECAUTIONS WILL BE TAKEN IN THE USE OF CONSTRUCTION EQUIPMENT TO PREVENT SITUATIONS THAT PROMOTE EROSION.
- 9. PROPER DUST CONTROL SHALL BE MAINTAINED DURING CONSTRUCTION BY USE OF WATER TRUCKS AND/OR DUST PALLATIVE AS REQUIRED.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TEMPORARY SOIL EROSION

- CONTROL MEASURES AND REMOVAL OF SOME MEASURES UPON AUTHORIZED COMPLETION OF THE PROJECT. FINAL COMPLETION OF PROJECT WILL NOT BE AUTHORIZED UNTIL ALL SITE WORK AND UTILITY CONSTRUCTION IS COMPLETE AND ALL SOILS ARE STABILIZED.
- 11. THE CONTRACTOR SHALL NOT GRADE INTO ADJACENT PROPERTIES. SILT AND PROTECTIVE FENCE SHALL BE INSTALLED AND MAINTAINED TO PREVENT GRADING, EROSION AND SEDIMENTATION INTO THE ADJACENT PROPERTIES.
- 12. TREE PROTECTION FENCING MUST REMAIN INTACT UNTIL RESTORATION OF THE SITE IS COMPLETE.

#### SEQUENCE OF EROSION CONTROL MEASURES:

1. THE CONTRACTOR IS TO SUBMIT TO THE ENGINEER, A SEQUENCE OF CONSTRUCTION WITH RESPECT TO THE SOIL EROSION CONTROL MEASURES FOR REVIEW, COMMENT AND APPROVAL. THIS SCHEDULE IS TO INCLUDE INSPECTION AND REPAIR OF ALL TEMPORARY EROSION CONTROL MEASURES DAILY AND WITHIN 24 HOURS OF A STORM EVENT.

### SAMPLE SOIL EROSION AND SEDIMENTATION CONTROL INSTALLATION MINIMUM REQUIREMENTS

- 1.1. INSTALL SILT FENCE, TREE PROTECTION FENCING, AND INLET FILTERS ON EXISTING DRAINAGE FEATURES PRIOR TO ANY CLEARING OR EARTH MOVING OPERATION.
- 1.2. STRIP AND STOCKPILE TOPSOIL. STABILIZE STOCKPILE AS REQUIRED.
- 1.3. INSTALL WATER MAINS, STORM AND SANITARY SEWERS, AND OTHER ENCLOSED DRAINAGE FEATURES. NEW INLET FILTERS SHALL BE INSTALLED IMMEDIATELY FOLLOWING INSTALLATION OF NEW DRAINAGE INLETS.
- 1.4. PERFORM MACHINE GRADING OPERATIONS AND CONSTRUCT PAVEMENTS (MAINLINE, SIDEWALKS, DRIVES, ETC.).
- 1.5. CONTINUALLY MAINTAIN EROSION AND SEDIMENTATION CONTROL MEASURES, AS REQUIRED TO ALLOW DRAINAGE AND SEDIMENT REMOVAL. REMOVE ANY ACCUMULATED SEDIMENT IMMEDIATELY.
- 1.6. COMPLETE ALL GRADING AND FINE GRADING.
- 1.7. TEMPORARY SEED AND INSTALL EROSION CONTROL BLANKET IN ALL DISTURBED AREAS.
- 1.8. CLEAN OUT STORM SEWER SYSTEMS.
- 1.9. REMOVE ALL TEMPORARY SOIL EROSION CONTROL MEASURES UPON FINAL INSPECTION AND APPROVAL BY THE ENGINEER.
- 1.10. REMEDY ANY NOTED DEFECTS TO THE SATISFACTION OF THE CITY OF ANN ARBOR'S SOIL EROSION AND SEDIMENTATION CONTROL OFFICIAL.

NOTE: THIS SEQUENCE IS FOR INFORMATION ONLY. IT IS INTENDED TO SHOW THE SEQUENCE OF CONSTRUCTION WITH RESPECT TO THE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING THEIR OWN DETAILED CONSTRUCTION SEQUENCE AND SCHEDULE TO THE ENGINEER FOR REVIEW, COMMENT, AND APPROVAL.

#### TEMPORARY SEEDING:

- 2. SEED IN ACCORDANCE WITH PROJECT DRAWINGS AND SPECIFICATIONS.
- 3. ANY DISTURBED AREA NOT PAVED, SEEDED, MULCHED, SODDED OR BUILT UPON BY NOVEMBER 15TH OR JUNE 30TH IS TO BE TEMPORARILY STABILIZED PER SPECIFICATIONS.

### **MISCELLANEOUS QUANTITIES**

THE FOLLOWING ITEMS OF WORK SHALL BE DONE AS THEY APPLY THROUHGOUT THE PROJECT. THESE ITEMS ARE NOT DETAILED OR INCLUDED ON THE PLAN OR PLAN/PROFILE SHEETS.

Item	Itam Decembra	l l m iš	Estimated
<u>No.</u> 130	Item Description Protective Fencing	<u>Unit</u> LF	Quantity 550.000
140	Exploratory Excavation (0-10' deep), Trench Detail - Type I Modified	Each	3.000
144	Exploratory Excavation (0-10 deep), Trench Detail - Type I Modified Exploratory Excavation Add'l Depth	VF	10.500
200	General Conditions, Modified, Maximum \$15,000	LS	1.000
201	Project Supervision, Modified, Maximum \$10,000	LS	1.000
202	Audiovisual Tape Coverage, Modified	LS	1.000
203	Minor Traffic Control, Modified, Maximum \$2,500	LS	1.000
214	Sign, Portable, Changeable Message, Furn	Each	3.000
215	Sign, Portable, Changeable Message, Oper	Each	3.000
214	"No Parking" Sign	Each	3.000
217	Inlet Filter, Special	Each	9.000
221	Subgrade Undercutting - Type II, Modified	CY	75.000
222	Machine Grading, Modified	Station	4.500
223	Subbase, CIP	CY	280.000
224	Aggregate Base, 8 inch, Modified	SY	1010.000
225	Maintenance Gravel	Ton	34.000
230	Underdrain, Subbase, 6 inch	LF	220.000
231	HMA, 4E3 - Pavement Base Course	Ton	30.000
232	HMA, 4E3 - Pavement Leveling Course	Ton	30.000
233	HMA, 4E3 - Pavement Top Course	Ton	23.000
234	HMA, LVSP - Pavement Leveling Course	Ton	67.000
235	HMA, LVSP - Pavement Top Course	Ton	67.000
240	Adjust Structure Cover, Modified	Each	6.000
241	Clean-Up & Restoration, Special	LS	1.000
242	SDR 26 PVC 45° Bend, 6"	Each	7.000
243	Granular Material, CI II	CY	75.000
335	SDR 26 PVC Tee or Wye, 8" x 6"	Each	2.000
350	SDR 26 PVC Riser, 6"	VF	35.000
594	Hot-Applied, Thermoplastic Pavement Marking, 4" White	LF	258.000
595	Hot-Applied, Thermoplastic Pavement Marking, 4" Yellow	LF	698.000
596	Hot-Applied, Thermoplastic Pavement Marking, 6" White	LF	220.000
703	Silt Fence	LF	500.000

## PERMITS REQUIRED TO BE OBTAINED BY THE CONTRACTOR PRIOR TO THE BEGINNING OF CONSTRUCTION.

PERMIT	ISSUING AUTHORITY
_ANE CLOSURE PERMIT*	CITY OF ANN ARBOR PROJECT MANAGEMENT UNIT
'NO PARKING" SIGNS PERMIT*	CITY OF ANN ARBOR PROJECT MANAGEMENT UNIT
GRADING/SOIL EROSION & SEDIMENTATION CONTROL PERMIT*	CITY OF ANN ARBOR CUSTOMER SERVICE
RIGHT-OF-WAY PERMIT*	CITY OF ANN ARBOR CUSTOMER SERVICE

# PERMITS REQUIRED TO BE OBTAINED BY THE CITY OF ANN ARBOR PRIOR TO THE BEGINNING OF CONSTRUCTION.

PERMIT	ISSUING AUTHORITY
 M.D.E.Q. SANITARY SEWER CONSTRUCTION PERMIT	MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

CONTACT INFORMATION							
PUBLIC UTILITIES	OWNER	CONTACT					
WATER		DAN WOODEN (734) 794-6350					
SANITARY	OLTY OF ANN APPOR	MARK COZART (734) 794-6350					
STORM	CITY OF ANN ARBOR FIELD OPERATIONS SERVICE UNIT W.R. WHEELER SERVICE CENTER	KEVIN ERNST (734) 794-6350					
FORESTRY	4251 STONE SCHOOL ROAD ANN ARBOR, MI 48108	STEVEN GOEBEL (734) 794-6350					
SIGNS SIGNALS STREET LIGHTS		CHUCK FOJTIK (734) 794-6361					
PRIVATE UTILITIES	OWNER	CONTACT					
GAS	DTE ENERGY 3150 E. MICHIGAN AVE, YPSILANTI TOWNSHIP, MI 48198	ROBERT CZAPIEWSKI (734) 544-7818					
ELECTRIC	DTE ENERGY WESTERN WAYNE SERVICE CENTER 8001 HAGGERTY ROAD BELLEVILLE, MI 48111	CLAY COMBEE (734) 397-4112					
CABLE	COMCAST 27800 FRANKLIN ROAD SOUTHFIELD, MI 48034	RON SUTHERLAND (313) 999-8300					
PHONE	AT&T 550 S. MAPLE ROAD ANN ARBOR, MI 48103	ANDREW JOHNSON (734) 996-5350					
FIBER OPTIC	MCI 2800 N. GLENFILLE ROAD RICHARDSON, TX 75082	DEAN BOYERS (972) 729-6016					

Know what's below.

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WICES - CITY OF ANN AI TY ST., HARVARD PLACEND ARLINGTON BLVD.
ARY SEWER EXTENSION

AGEMENT - PUBLIC SERVIC

LIBERTY 8

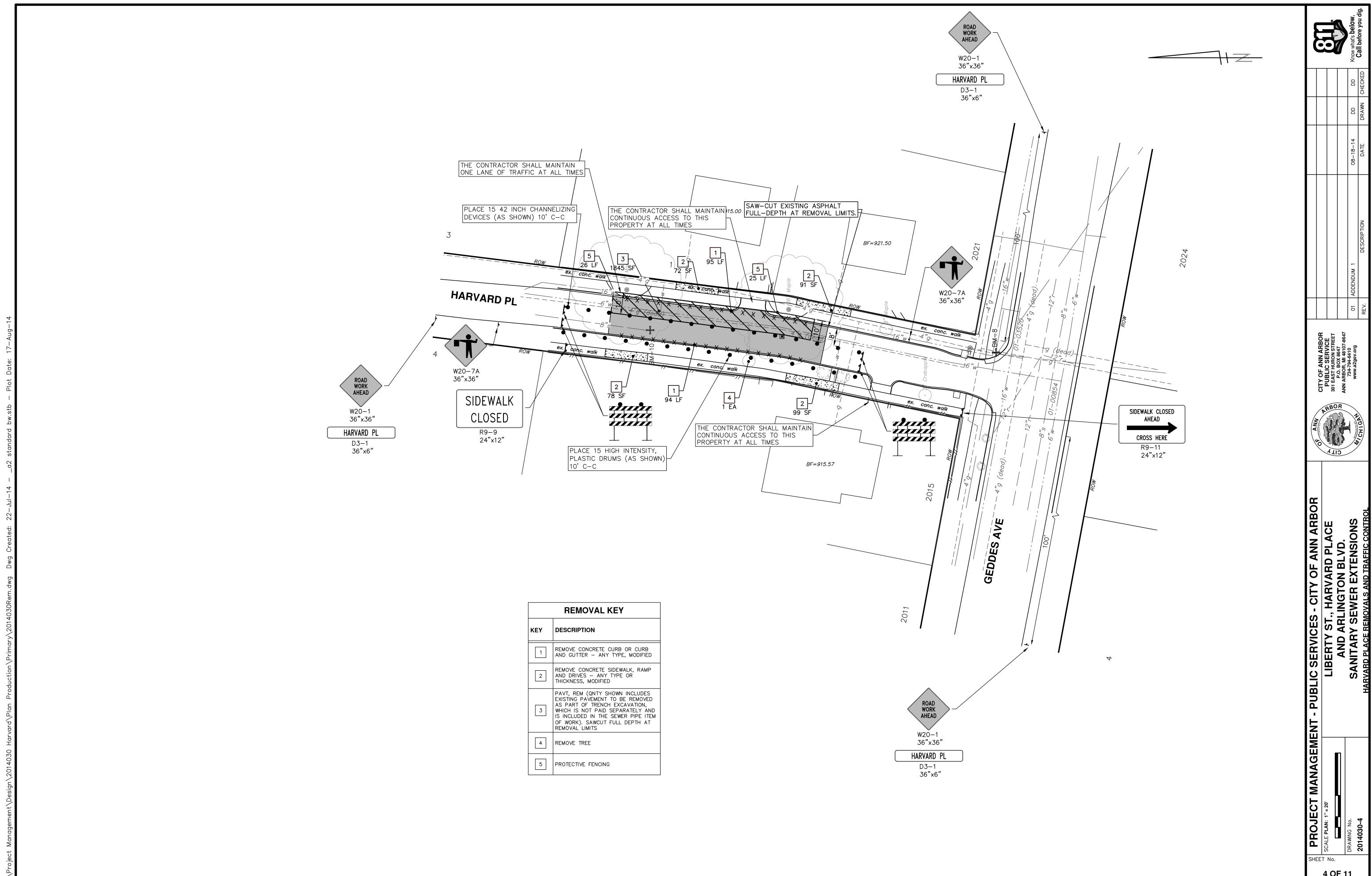
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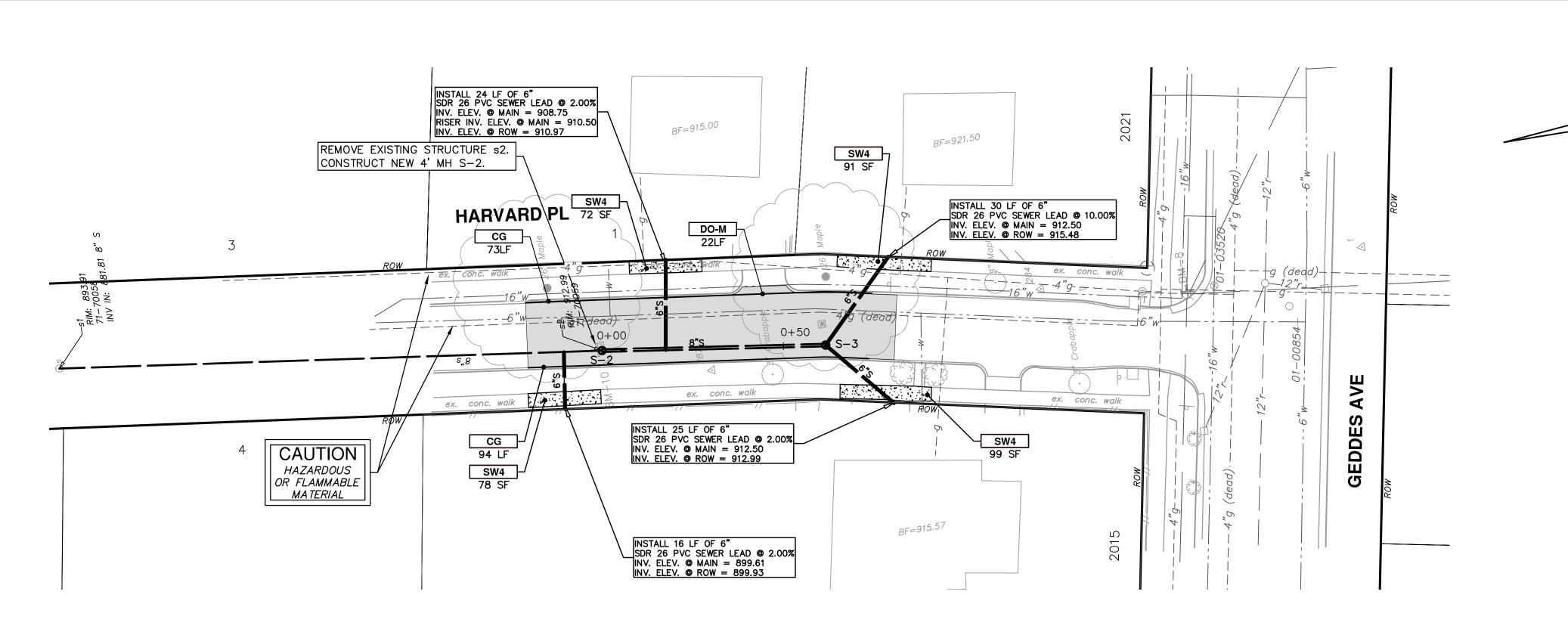
SANITARY

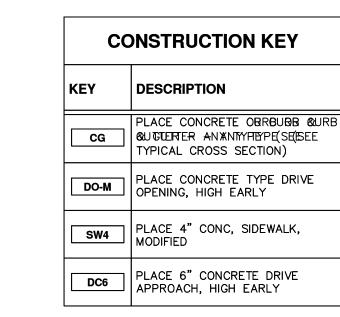
PROJECT MANAGEMEN
SCALE PLAN: NTS

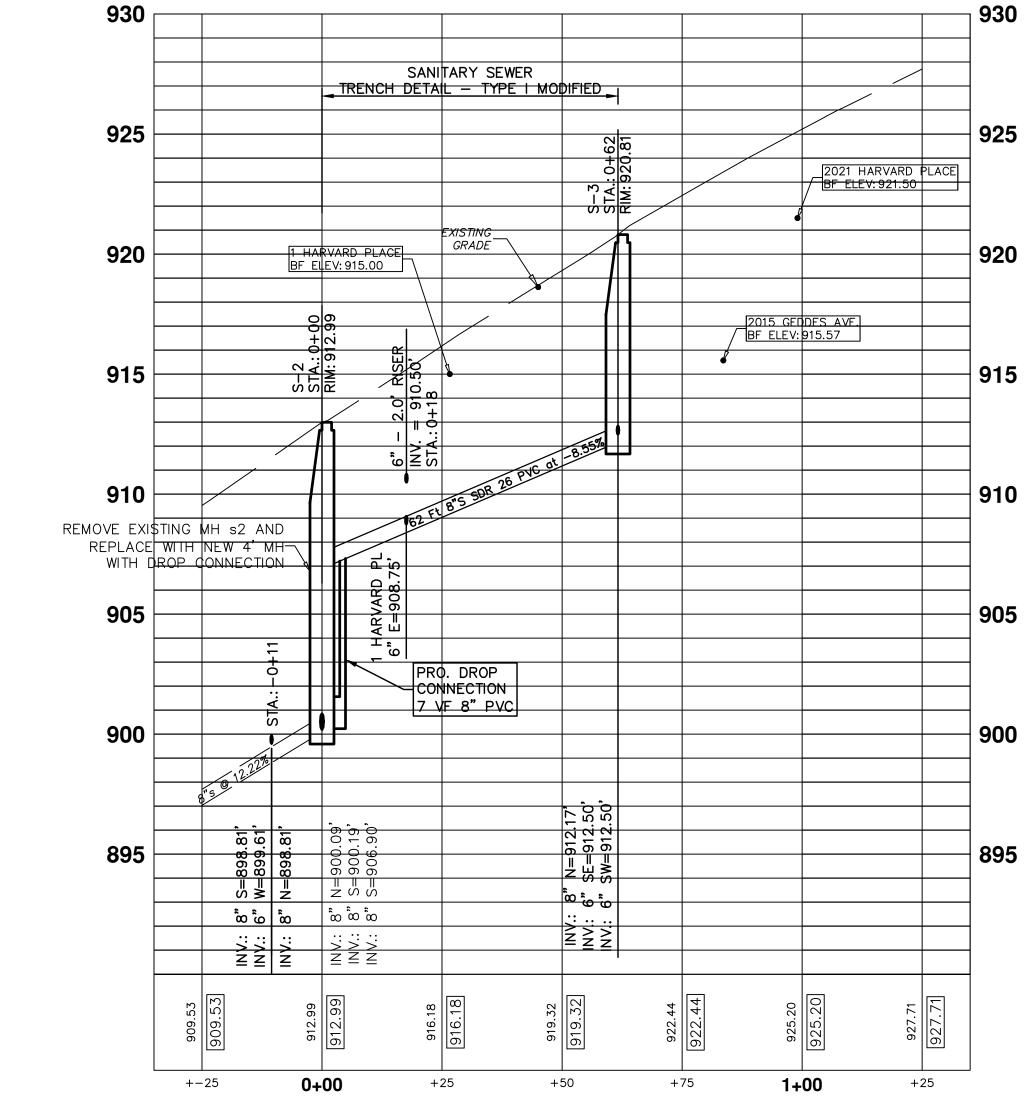
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SHEET No.







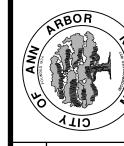


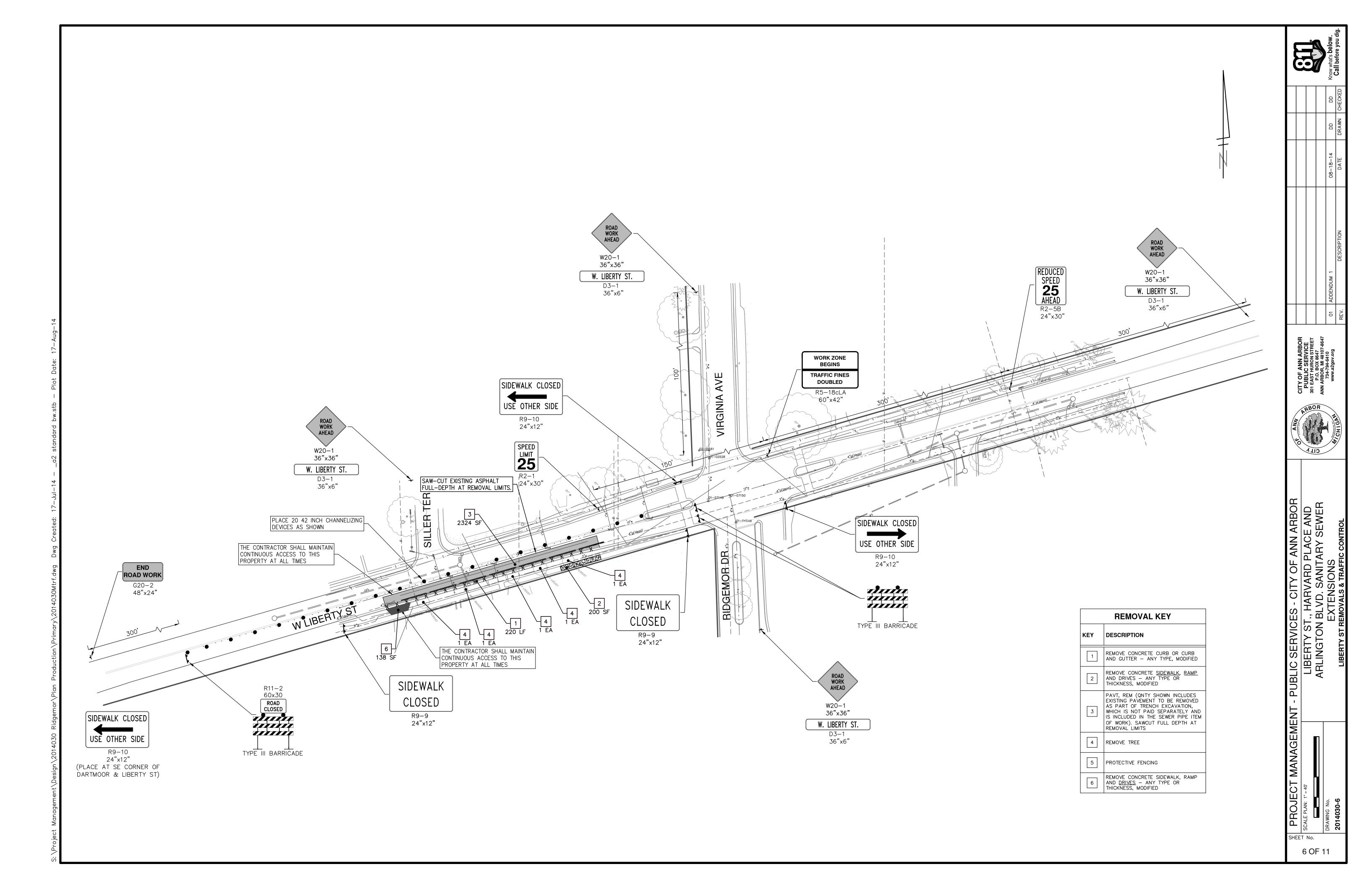
	SANITARY SEWER STRUCTURE TABLE									
STRUCTURE	STATION	RIM	DEPTH	DIA.	TYPE	INVERTS	NOTES			
S-2	0+00	912.99	12.90	48"	4' MH	8" N 900.09 8" S 900.19 8" S 906.90	REMOVE EXISTING MH s2 AND REPLACE WITH NEW 4' MH WITH DROP CONNECTION			
S-3	0+61.63	920.81	8.64	48"	4' MH	8" N 912.17 6" SE 912.50 6" SW 912.50	4' MANHOLE			

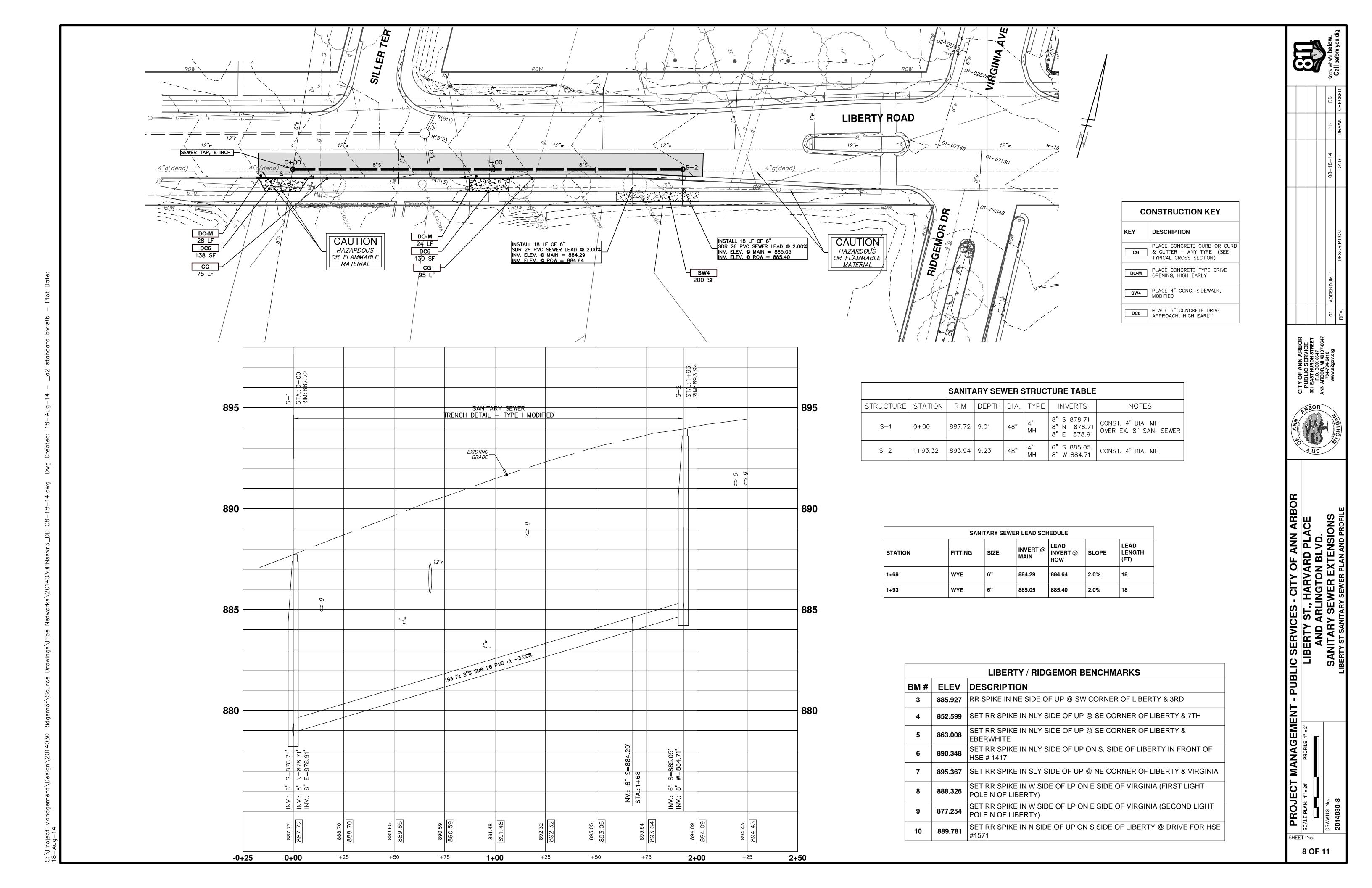
	SANITARY SEWER LEAD SCHEDULE										
STATION	ADDRESS	FITTING	RISER LENGTH (FT)	SIZE	INVERT @ MAIN	RISER INVERT	LEAD INVERT @ ROW	SLOPE	LEAD LENGTH (FT)		
-0+11	VACANT	WYE		6"	899.61		899.93	2.0%	16		
0+18	1 HARVARD PLACE	TEE	1.75	6"	908.75	910.50	911.00	2.0%	24		
0+62	2015 GEDDES AVE	мн		6"	912.50		912.99	2.0%	25		
0+62	2021 GEDDES AVE	МН		6"	912.50		915.48	10.0%	30		

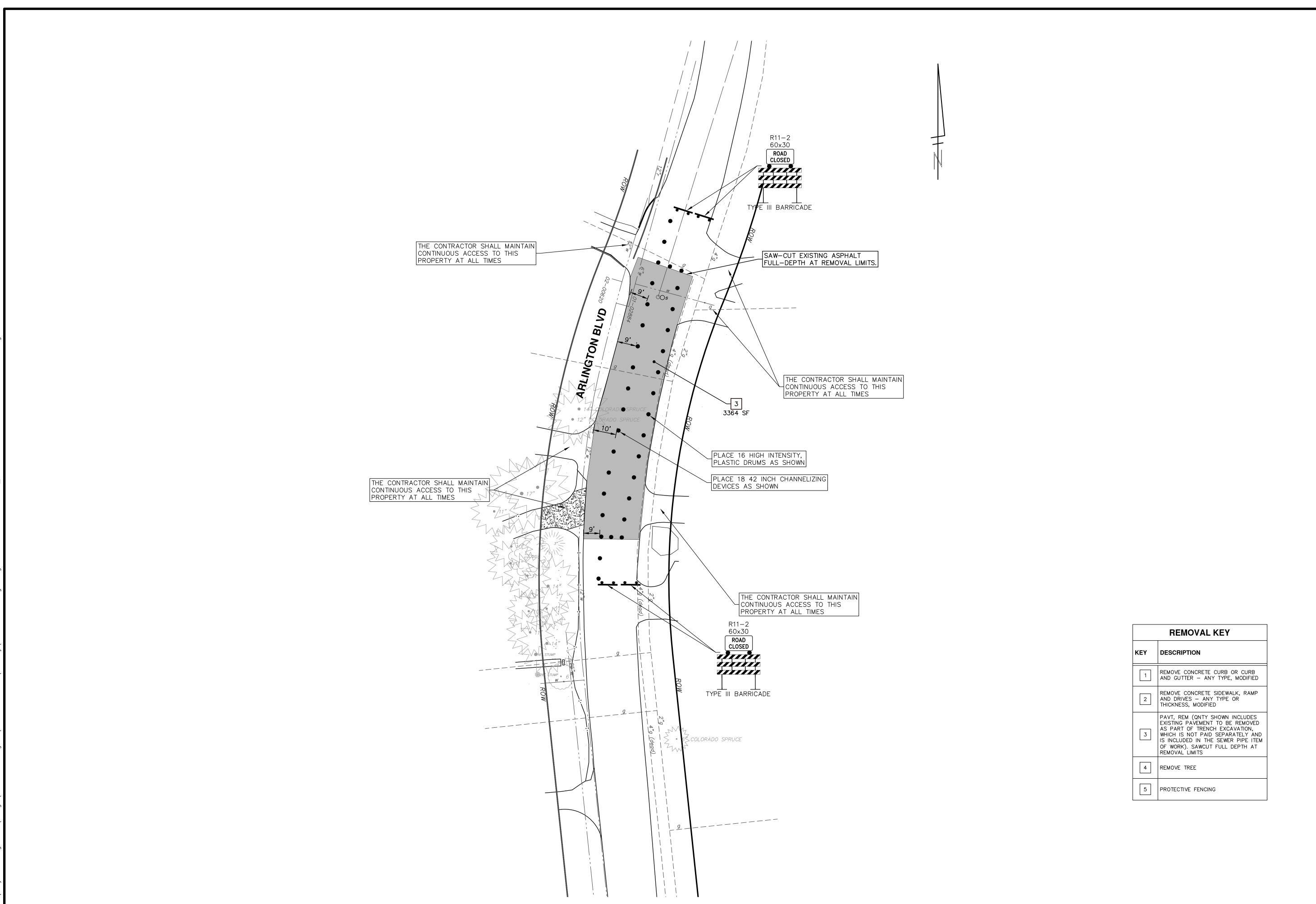
	HARVARD PLACE BENCHMARKS							
BM#	<b>ELEV</b>	DESCRIPTION						
8	931.829	SET RR SPIKE IN E. SIDE OF PP @ NE CORNER OF GEDDES & HARVARD						
9	920.623	TOP OF PIPE IN MON. BOX ALONG CL OF HARVARD. BOX IS 125' ± N. OF CL OF GEDDES.						
10	912.884	NORTH RIM ON SAN. MH ON HARVARD. (1ST MH N. OF MON BOX)						

DESCRIPTION









PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR

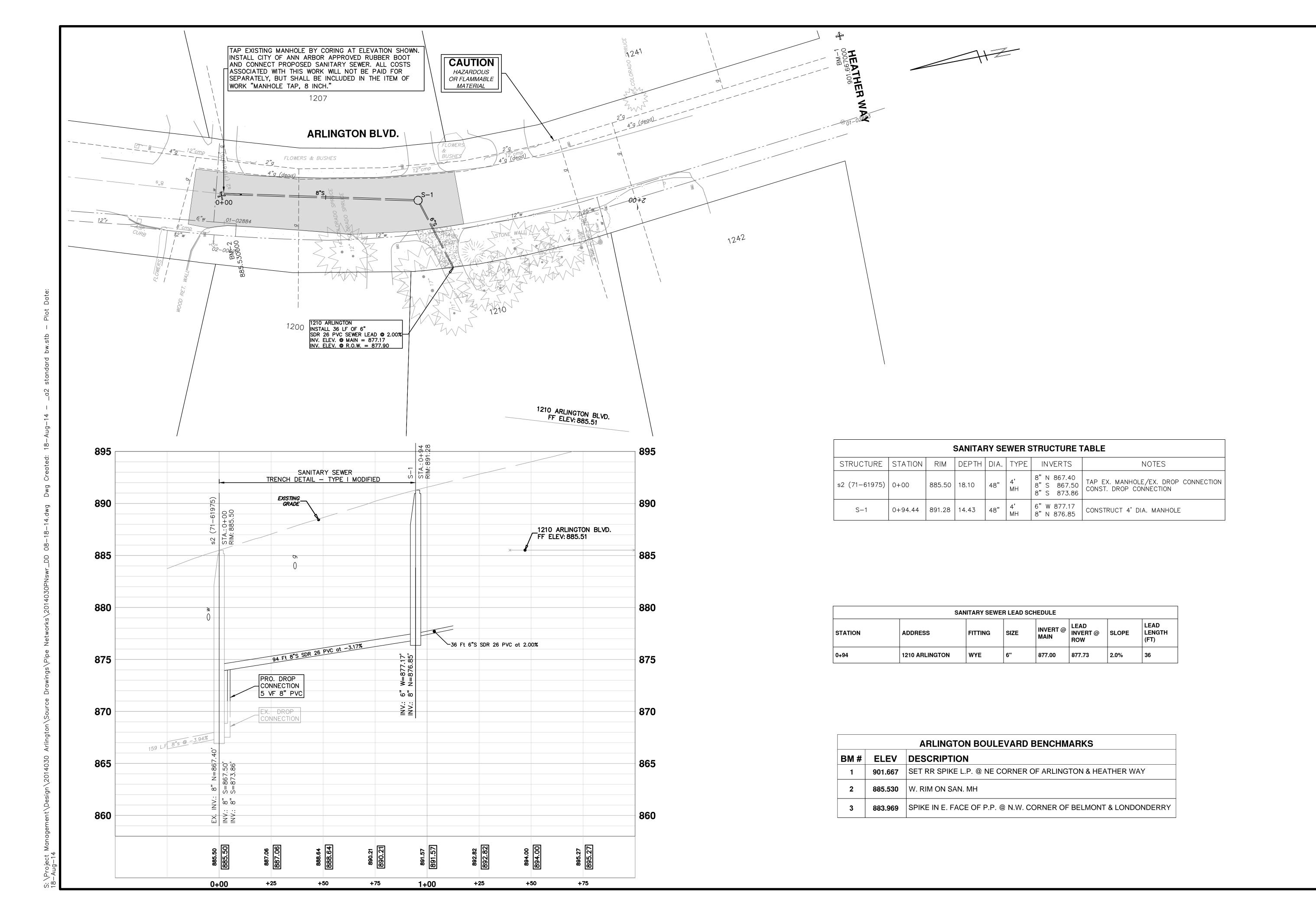
SCALE PLAN: 1"= 20'

BRAWING NO.

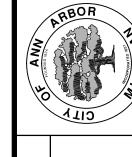
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SANITARY SEWER EXTENSIONS
ARLINGTON BLVD. REMOVALS & TRAFFIC CONTROL

SHEET No.



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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBC

SCALE PLAN: 1"=20 PROFILE: 1"=4

PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBC

LIBERTY ST., HARVARD PLACE

AND ARLINGTON BLVD.

SANITARY SEWER EXTENSIONS
ARLINGTON BLVD. SANITARY SEWER PLAN AND PROFIL

SHEET No. 11 OF 11