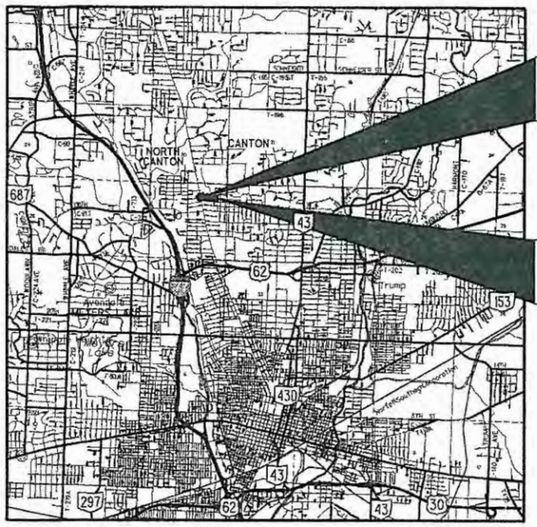


LOCATION MAP

LATITUDE: N40°50'37" LONGITUDE: W81°23'22"

SCALE IN MILES
0 1 2 3 4

N

PORTION TO BE IMPROVED
INTERSTATE & DIVIDED HIGHWAY
UNDIVIDED STATE & FEDERAL ROUTES
OTHER ROADS

STATE OF OHIO

STARK COUNTY

CANTON-41ST ST. NW

G.P. 1126

JULY 12, 2013

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF CONSTRUCTING 955 FEET OF FULL DEPTH PAVEMENT REPLACEMENT, INCLUDING THE ADDITION OF CURB AND GUTTER AND SIDEWALK. THE PROJECT ALSO INCLUDES STORM SEWER INSTALLATION AND PARTIAL SANITARY REPLACEMENT.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	1.60 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	1.60 ACRES

INDEX OF SHEETS:

RIGHT OF WAY

2010 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING OF THE ROAD TO TRAFFIC. PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED
DATE 3/27/13 ENGINEER, CITY OF CANTON

DESIGN DESIGNATIONS

	41ST STREET
DESIGN SPEED	25 MPH
LEGAL SPEED	25 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	LOCAL/RESIDENTIAL
NHS PROJECT	NO

DESIGN EXCEPTIONS

NONE REQUIRED

UNDERGROUND UTILITIES
CONTACT BOTH SERVICES
TWO WORKING DAYS
BEFORE YOU DIG
CALL
1-800-362-2764
(TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY
OIL & GAS PRODUCERS PROTECTIVE SERVICE CALL: 1-800-925-0988

PLAN PREPARED BY:

GPD GROUP
Client, Pride, Solutions, Vision & Distinction, Inc.
520 South Main Street, Suite 2531
Akron, Ohio 44311
330-572-2100 Fax 330-572-2101

ENGINEERS SEAL:

STATE OF OHIO · ROBERT A. BURGOYNE · E-7188 · REGISTERED PROFESSIONAL ENGINEER

SIGNED:
DATE: 3-6-13

STANDARD CONSTRUCTION DRAWINGS

			SUPPLEMENTAL SPECIFICATIONS
CITY OF CANTON	STD DWG NO. 1	CURB INLET CATCH BASIN	
CITY OF CANTON	STD DWG NO. 10	PRECAST STORM OR SANITARY MANHOLE	
CITY OF CANTON	STD DWG NO. 12	MANHOLE COVER	
CITY OF CANTON	STD DWG NO. 18	HOUSE CONNECTION STACK	
CITY OF CANTON	STD DWG NO. 19	UTILITY TRENCH REQUIREMENTS	
CITY OF CANTON	STD DWG NO. 23	DOWNSPOUT OUTLET (CURBED STREET)	
CITY OF CANTON	STD DWG NO. 24	GROUNDWATER DRAIN LINE CONNECTION	
CITY OF CANTON	STD DWG NO. 27	DRIVE APPROACH WITH LAWN STRIP BETWEEN SIDEWALK & CURB	
CITY OF CANTON	STD DWG NO. 29	COMBINED CURB & WALK	
CITY OF CANTON	STD DWG NO. 30	CONCRETE CURB AND COMBINED CURB & GUTTER	
CITY OF CANTON	STD DWG NO. 33	WHEELCHAIR RAMP	SPECIAL PROVISIONS
CITY OF CANTON		WATER WORKS DETAILS 1-4	

FEDERAL PROJECT NO.
PID NO.
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT NONE
CANTON-41ST. NW
1 / 46

\\KCRN83.GPDCO.COM\DATA\2011\2011878\STATAROADWAY\SHEETS\2011878TB01.DGN
8/6/2013
9:46:26 AM
JAMI

BALLOON LEGEND

- (D-#) CATCH BASINS, MANHOLES AND INLETS
- (DR-#) CATCH BASINS, MANHOLES AND INLETS REMOVED
- (DV-#) DRIVEWAYS
- (FR-#) FENCE REMOVED & RESET
- (HW-#) HEADWALL
- (P-#) DRAINAGE PIPES
- (PR-#) PIPES REMOVED
- (R-#) MISCELLANEOUS REMOVALS
- (SA-#) SANITARY MANHOLE
- (SJ-#) SANITARY STRUCTURE ADJUSTED/RECONSTRUCTED TO GRADE
- (SP-#) SANITARY PIPE
- (SWR-#) SIDEWALK REMOVALS
- (U-#) UNDERDRAINS
- (W-#) WATER WORK
- (WJ-#) WATER WORK ADJUSTED TO GRADE
- (WR-#) WATER WORK REMOVALS
- (SR-#) SEWER REMOVALS

EXISTING UTILITY SYMBOL LEGEND

= Guy Pole	= Water Valve
= Flag Pole	= Water Manhole
= Utility Pole	= Water Well
= Power Pole	= Water Meter
= Yard Light	= Water Spigot / Tap
= Parking Meters	= Cistern
= Parking Meter	= Sprinkler
= Air Condition Unit	= Sprinkler Control Box
= Guy Wire w/Anchor	= Monitoring Well
= Light Pole	= Cable TV Pole
= Light Pedestal	= Cable TV Marker Post
= Electric Marker Post	= Cable TV Pedestal
= Electric Meter	= Telephone Pole
= Electric Transformer	= Telephone Marker Post
= Electric Pedestal	= Telephone Pedestal
= Electric Tower	= Telephone Booth/or Drive-Up
= Electric Outlet	= Traffic Lighting Control Box
= Electric Pull Box	= Traffic Lighting Pull Box
= Electric Manhole	= Sign
= Gas Valve	= Curb Inlet
= Gas Service	= Catch Basin
= Gas Marker Post	= Cleanout
= Gas Meter/ Regulator	= Sanitary Manhole
= Tank (Gas, Propane)	= Storm Manhole
= Fire Hydrant	= Telephone Manhole

PROPOSED UTILITY SYMBOL LEGEND

- = Proposed Catch Basins
- = Proposed Manhole
- = Manhole Adjusted To Grade
- = Proposed Exfiltration Trench
- = Proposed Water Valve
- = Proposed Fire Hydrant
- = Sonitary Manhole Adjusted To Grade
- = Proposed Traffic Pullbox
- = Propased Conventional Luminaire
- = Proposed Lighting Pullbox
- = Proposed Decorative Luminaire
- = Proposed Signal Pole Pedestal
- = Proposed Signal Pole
- = Test Hole location

UTILITY LINE LEGEND

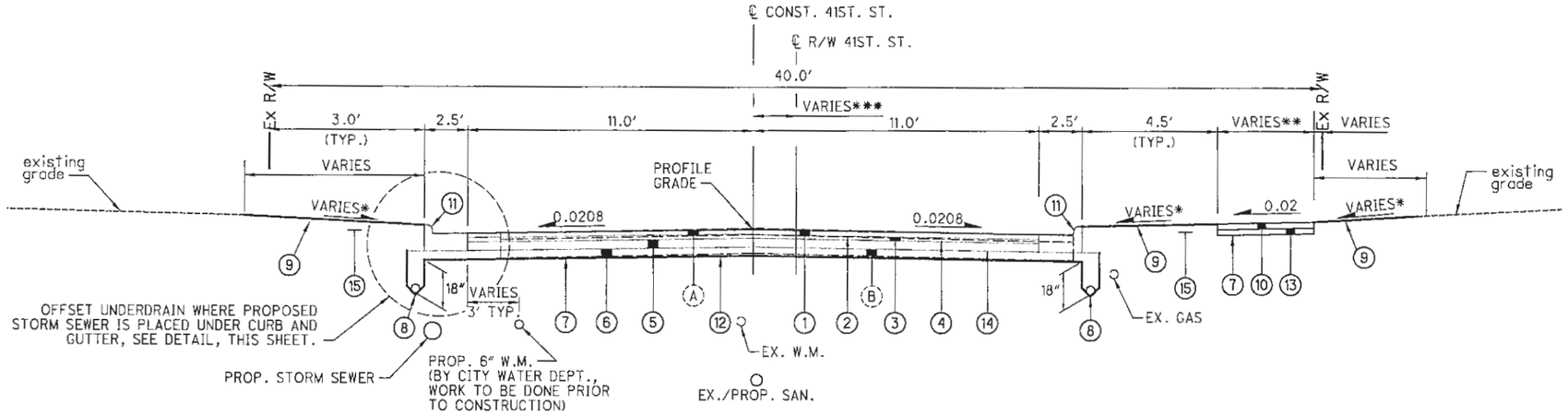
—W— = Water Line	—P— = Propane Line
—G— = Gas Line	—T— = Underground Telephone
—SAN— = Sanitary Line	—D— = Diesel
—E— = Underground Electric	—CATV— = Cable TV.
	—TR— = Signal Wiring

CALCULATED SCB
CHECKED RAB

PLAN LEGEND

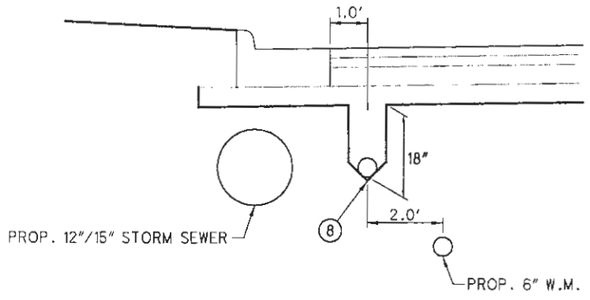
CANTON-41ST. NW

\\HRGNAS1\DATA\28111\28111078\STA\ROADWAY\SHEETS\28111078T002.DGN
8/21/2013
12:54:26 PM
CBURNS



41ST. STREET - FULL DEPTH SECTION

LIMITING STATIONS
STA. 0+61.81 TO 9+57.08



OFFSET UNDERDRAIN DETAIL

N.T.S.

EXISTING LEGEND

(A) ASPHALT CONCRETE (VARIES 1½"-4" THICK)
(B) SUBBASE (6" THICK)
(C) CONCRETE CURB

PROPOSED LEGEND

(1) ITEM 448 - 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22
(2) ITEM 407 - TACK COAT (0.075 GAL/SY)
(3) ITEM 448 - 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22
(4) ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE (0.04 GAL/SY)
(5) ITEM 301 - 4" ASPHALT CONCRETE BASE
(6) ITEM 304 - 6" AGGREGATE BASE
(7) ITEM 204 - SUBGRADE COMPACTION
(8) ITEM 605 - 4" BASE PIPE UNDERDRAINS W/ FABRIC WRAP, 707.41, AS PER PLAN
(9) ITEM 659 - 4" TOPSOIL, SEEDING AND MULCHING
(10) ITEM 608 - 4" CONCRETE WALK (CITY STD. 29 TYPE III)
(11) ITEM 609 - COMBINATION CURB AND GUTTER, TYPE 2
(12) ITEM 204 - PROOF ROLLING
(13) ITEM 301 - 4" AGGREGATE BASE
(14) ITEM 408 - PRIME COAT
(15) ITEM 203 - EXCAVATION AND EMBANKMENT

SEE INTERSECTION DETAIL SHEETS 41 - 42 FOR INTERSECTION PAVEMENT AND CURB TREATMENT

* AS DENOTED IN CROSS SECTION

** TRANSITION WIDTH OF WALK FROM 5' WIDE TO 3.5' WHERE INDICTED ON THE PLAN SHEETS. NORMAL WIDTH SHALL BE 5'.

*** VARIES 3.5' LT. OF ℄ R/W AND 1.15' RT. REFER TO PLANS.

CALCULATED SCB
CHECKED RAB

PROPOSED TYPICAL SECTION

CANTON-41ST. NW

I. PRECONSTRUCTION INCIDENTALS

(A) PROJECT SPECIFICATIONS/REQUIREMENTS:

ALL WORK REQUIRED TO COMPLETE THIS IMPROVEMENT SHALL BE PERFORMED IN ACCORDANCE WITH SPECIFICATIONS/REQUIREMENTS OF THE CITY OF CANTON AND THE LATEST EDITION OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, EXCEPT AS HEREIN AMENDED. IN THE CASE OF A CONFLICT BETWEEN THE CITY OF CANTON AND THE OHIO DEPARTMENT OF TRANSPORTATION SPECIFICATIONS/REQUIREMENTS, THE CITY OF CANTON REQUIREMENTS WILL TAKE PRECEDENCE, UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER.

THE CONTRACTOR SHALL COMPLY WITH THE CITY OF CANTON SUPPLEMENTAL SPECIFICATION 01-00 PROJECT DOCUMENTATION AND SUBMITTAL REQUIREMENTS.

(B) ADMINISTRATIVE REQUIREMENTS:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULLY COMPLYING WITH ALL THE ADMINISTRATIVE DUTIES HEREIN CONTAINED.

THE CONTRACTOR SHALL DESIGNATE TO THE CITY AN EMPLOYEE RESPONSIBLE FOR CORRESPONDENCE, NOTIFICATIONS, AND SUBMITTALS PERTINENT TO THE PROJECT.

(C) PRECONSTRUCTION MEETING:

A PRECONSTRUCTION MEETING WITH THE CONTRACTOR, REPRESENTATIVES OF ALL UTILITY COMPANIES, THE CITY OF CANTON ENGINEERING DEPARTMENT AND THE CITY OF CANTON WATER DEPARTMENT IS REQUIRED FOR THIS PROJECT PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY.

FOR CITY GENERAL PROJECTS, THE CITY ENGINEER WILL CONTACT THE CONTRACTOR TO ARRANGE A MEETING DATE. THE CITY ENGINEER WILL CONTACT THE ABOVE AGENCIES TO CONFIRM THE MEETING DATE.

IF THE PROPOSED PROJECT LAND-DISTURBANCE AREA IS ONE (1) OR MORE ACRES, A SEPARATE PRE-CONSTRUCTION MEETING IS ALSO REQUIRED. THIS MEETING SHALL OCCUR ON-SITE BETWEEN THE CONTRACTOR AND THE STARK SOIL & WATER CONSERVATION DISTRICT (SWCD). THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING THIS MEETING. NO LAND-DISTURBANCE ACTIVITIES SHALL START UNTIL SAID MEETING HAS OCCURRED AND APPROVAL HAS BEEN GRANTED BY STARK SWCD.

(D) PROJECT SAFETY:

THE CONTRACTOR SHALL MAINTAIN A SAFE WORKING ENVIRONMENT AT THE PROJECT SITE AT ALL TIMES. THE CONTRACTOR SHALL PROPERLY SUPPORT AND/OR MAINTAIN ALL EXCAVATIONS PER APPLICABLE SAFETY REQUIREMENTS AND COMPLY WITH ALL O.S.H.A. REGULATIONS. APPROPRIATE BARRICADES, WARNING LIGHTS, SIGNS, FENCING, ETC. SHALL BE ERECTED AROUND THE CONSTRUCTION AREA DURING ALL NON-WORKING HOURS TO ALERT PERSONS OF THE POTENTIAL DANGER ASSOCIATED WITH THE AREA UNDER CONSTRUCTION AS WELL AS TO PREVENT ACCESS BY UNAUTHORIZED PERSONNEL TO THE CONSTRUCTION SITE/AREA. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THE SAFETY OF THE GENERAL PUBLIC AS WELL AS ALL CONSTRUCTION PERSONNEL. PUBLIC STREETS SHALL BE KEPT CLEAN AND FREE OF DEBRIS (MUD, STONE, ETC.) AT ALL TIMES. THE CONTRACTOR SHALL ALERT ALL LOCAL EMERGENCY AGENCIES (FIRE, POLICE, AMBULANCE, ETC.) OF THE NATURE OF THE PROPOSED PROJECT PRIOR TO BEGINNING AND CONSTRUCTION ACTIVITY. ACCESS FOR EMERGENCY VEHICLES SHALL BE MAINTAINED AT ALL TIMES.

(E) UNDERGROUND UTILITIES:

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLANS WERE OBTAINED BY FIELD OBSERVATIONS, FROM EXISTING RECORDS, AND/OR FROM THE OWNERS OF THE RESPECTIVE UTILITIES. THE INFORMATION AS SHOWN IS BELIEVED TO BE CORRECT; HOWEVER, THE COMPLETENESS AND ACCURACY OF THIS INFORMATION CANNOT BE GUARANTEED. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT ALL THE VARIOUS UTILITY COMPANIES (PUBLIC AND PRIVATE) TO VERIFY THE EXISTENCE, LIMITS AND/OR LOCATION OF ANY UTILITIES WHICH MAY BE ALONG THE ROUTE OR WITHIN THE VICINITY OF THIS IMPROVEMENT.

(F) UTILITY NOTIFICATION:

AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING OPERATIONS ON THIS PROJECT, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER, THE REGISTERED UTILITY PROTECTION AGENCY/SERVICE, AND THE OWNERS OF ANY OTHER UTILITIES (PUBLIC AND/OR PRIVATE) THAT MAY HAVE UTILITY LINES OR FACILITIES WITHIN THE VICINITY OF THIS PROJECT BUT WHO ARE NOT MEMBERS OF THE REGISTERED UTILITY PROTECTION SERVICE. THE OWNERS OF ANY UNDERGROUND UTILITY FACILITY SHALL, WITHIN 48 HOURS AFTER NOTICE IS RECEIVED, EXCLUDING SATURDAYS, SUNDAYS AND OTHER LEGAL HOLIDAYS; STAKE, MARK OR OTHERWISE DESIGNATE THE EXISTENCE AND/OR LOCATION OF THE UNDERGROUND UTILITY FACILITIES IN THE CONSTRUCTION AREA IN SUCH A MANNER AS TO INDICATE THEIR COURSE TOGETHER WITH THE APPROXIMATE DEPTH AT WHICH THEY WERE INSTALLED. THE MARKING AND/OR LOCATING SHALL BE COORDINATED TO STAY APPROXIMATELY TWO WORKING DAYS AHEAD OF THE PLANNED CONSTRUCTION.

OHIO UTILITIES PROTECTION SERVICE: 1-800-362-2764
(CONTACT NON- MEMBERS DIRECTLY).

THE PRIMARY UTILITIES WITHIN THE CITY OF CANTON AREA:

NATURAL GAS DIST./TRANS.
DOMINION EAST OHIO GAS
320 SPRINGSIDE DR.
AKRON, OHIO 44333
330-664-2409
ATTN: MARY LONG
RELOCATION@DOM.COM
EMERGENCY NO.
1-800-521-4400

TELEPHONE
AT&T
50 WEST BOWERY STREET FL. 6
AKRON, OHIO 44308
330-384-3561
ATTN: CINDY ZUCHEGNO
CC1541@ATT.COM
EMERGENCY NO. - 24 HRS.
1-800-572-4545 OPTION#4

COMMUNICATIONS CABLE
TIME WARNER CABLE
5520 WHIPPLE AVE. NW
NORTH CANTON, OHIO 44720
330-494-9200
ATTN: JUSTIN FREUDEMAN
EXT. 330-555-3192

ELECTRIC
AMERICAN ELECTRIC POWER
301 CLEVELAND AVE. S.W.
P.O. BOX 24400
CANTON, OHIO 44701-4400
330-438-7739
ATTN: DWIGHT PARRISH
EMERGENCY No.
1-800-672-2017

SANITARY AND STORM SEWER
CITY ENGINEER'S OFFICE
2436-30TH ST. N.E.
CANTON, OHIO 44705
330-489-3381
ATTN: DAN MOEGLIN, P.E., S.I.

WATER
WATER DEPARTMENT
2664 HARRISBURG RD. N.E.
CANTON, OHIO 44708
330-489-3310
ATTN: LEWI MILLER

TRAFFIC INTERCONNECT
CITY ENGINEER'S OFFICE
2436-30TH ST. N.E.
CANTON, OHIO 44705
330-489-3381
ATTN: NICK LOUKAS, P.E.

THE CITY ENGINEER'S OFFICE IS TO BE CONTACTED DIRECTLY FOR SANITARY AND STORM SEWER AND TRAFFIC INTERCONNECT FACILITIES LOCATION: 330-489-3381.

(G) EXPLORATORY BORINGS:

EXPLORATORY SOIL BORING INFORMATION IS AVAILABLE FOR THIS PROJECT AND SHALL BE INCLUDED WITH THE BID SET BY REFERENCE. IT IS THE CONTRACTOR RESPONSIBILITY TO REVIEW ALL INFORMATION AVAILABLE. IF THE CONTRACTOR REQUESTS TO DRILL ADDITIONAL BORINGS AND OR EXCAVATE WITHIN THE CITY'S R/W, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AT LEAST 3 WORKING DAYS PRIOR TO THIS WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITY NOTIFICATION, AS SPECIFIED, ALL TRAFFIC CONTROL, PREMIUM BACKFILL, AND COMPACTION AND RESTORATION, AS NECESSARY.

(H) CONTINGENCY QUANTITIES:

WHEN SPECIFIED ON PLANS OR SPECIFICATIONS, CONTINGENCY QUANTITIES ARE TO BE PERFORMED ONLY UNDER DIRECTION OF THE CITY ENGINEER. THE CONTRACTOR SHALL NOT ORDER ANY CONTINGENCY MATERIAL OR PERFORM ANY WORK UNTIL DIRECTED BY THE ENGINEER. THE ACTUAL WORK LOCATION AND QUANTITIES FOR SUCH ITEMS SHALL BE DOCUMENTED BY THE CONTRACTOR AND THE ENGINEER.

II. CONSTRUCTION INCIDENTALS

(A) PLAN DISCREPANCIES:

ANY DISCREPANCIES FROM THE PLAN INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER SO THAT THE APPROPRIATE ADJUSTMENTS IN ALIGNMENT AND/OR GRADE MAY BE MADE PRIOR TO THE START OF CONSTRUCTION OR THE CONTINUATION OF THE SAME.

FAILURE BY THE CONTRACTOR TO VERIFY AND/OR DETERMINE EXISTING INFORMATION AS INDICATED WILL RESULT IN THE CONTRACTOR BEING RESPONSIBLE FOR ANY CHANGES NECESSARY TO COMPLETE THE WORK SPECIFIED WITHOUT ADDITIONAL COMPENSATION.

(B) VERIFICATION OF UNDERGROUND UTILITIES:

THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE EXISTENCE AS WELL AS THE ACTUAL LOCATION, ALIGNMENT, AND ELEVATIONS OF ALL EXISTING UTILITIES/FACILITIES WITHIN AND/OR ADJACENT TO THE GENERAL LIMITS OF THESE IMPROVEMENTS INCLUDING WATERLINES, SANITARY AND STORM SEWERS, GAS LINES, COMMUNICATION LINES/BANKS, ELECTRIC LINES, ETC. THIS MAY REQUIRE EXPLORATORY EXCAVATIONS TO BE PERFORMED BY THE CONTRACTOR FOR WHICH HE WILL NOT BE REIMBURSED. THE CONTRACTOR SHALL NOT ASSUME THAT EXISTING UTILITIES/CONDUITS WERE INSTALLED AT TYPICAL/STANDARD DEPTHS OR AT UNIFORM SLOPES/GRADES/DEPTHS BETWEEN ACCESS POINTS (CATCH BASINS, MANHOLES, JUNCTION CHAMBERS, ETC.)

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO INSTALL THE PROPOSED CONDUIT.

(C) PROTECTION OF UTILITIES:

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT AND SUPPORT EXISTING UTILITIES ENCOUNTERED DURING THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS AS APPROVED BY THE OWNERS OF THE UTILITY AND THE CITY ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE TO CLOSELY COORDINATE THEIR WORK WITH ALL UTILITY COMPANIES; ANY POTENTIAL DELAYS WILL NOT BE THE RESPONSIBILITY OF THE CITY.

THE CONTRACTOR SHOULD EXPECT AT A MINIMUM ONE SANITARY SEWER LATERAL, ONE ROOF DRAIN, ONE WATER SERVICE, AND ONE GAS SERVICE FOR EACH LOT. ANY OF THE ABOVE UTILITIES DAMAGED DUE TO THE CONTRACTOR'S WORK SHALL BE RESTORED TO THE UTILITY OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE, UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIFICATIONS.

(D) MAINTENANCE OF UTILITY SERVICES:

THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN UTILITY SERVICES AT ALL TIMES.

WATER SERVICE MAY BE INTERRUPTED FOR LIMITED PERIODS (4 HOURS MAXIMUM) DURING CONNECTION BETWEEN EXISTING WATER LINES AND RELOCATED/NEW WATER MAINS WHICH CANNOT BE COMPLETED OTHERWISE. NO SHUT DOWN SHALL OCCUR WITHOUT WRITTEN PERMISSION OF THE CITY OF CANTON WATER DEPARTMENT. PROPERTY OWNERS AFFECTED BY APPROVED INTERRUPTED SERVICE SHALL BE NOTIFIED 48 HOURS IN ADVANCE BY THE CONTRACTOR.

STORM SEWER AND SANITARY SEWER SERVICES SHALL BE MAINTAINED WITHOUT INTERRUPTION, UNLESS APPROVED BY THE CITY ENGINEER.

IN THE EVENT THAT CONSTRUCTION DISRUPTS THE FLOW OF A SANITARY SEWER, THE CONTRACTOR SHALL IMMEDIATELY RECTIFY THE DISRUPTED SEWER BY EITHER TEMPORARILY FLUMING WITH MATERIALS ACCEPTABLE TO THE ENGINEER OR BYPASSING WITH PUMPS. COST OF MAINTAINING AND REPAIR OF SANITARY SEWERS DISTURBED BY CONSTRUCTION SHALL BE AT THE CONTRACTOR'S EXPENSE, UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIFICATIONS.

(E) CONSTRUCTION NOISE:

CONSTRUCTION NOISE ASSOCIATED WITH ANY IMPROVEMENT PROJECT SHALL BE LIMITED TO LEVELS COMMENSURABLE WITH ADJOINING LAND AND THEIR ASSOCIATED USAGE AS DETERMINED BY THE CITY ENGINEER. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, ANY POWER-OPERATED CONSTRUCTION-TYPE DEVICES SHALL NOT BE OPERATED BETWEEN THE HOURS OF 7:00 P.M. AND 7:00 A.M. UNLESS AUTHORIZED BY THE CITY ENGINEER.

(F) OPEN TRENCH CONSTRUCTION:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION/TRENCHING PRACTICES FOR THE PROPOSED IMPROVEMENT, OR AS FURTHER SHOWN ON THE PLANS AND SPECIFICATIONS.

THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE LOCAL AND STATE SAFETY REGULATIONS, INCLUDING CODE OF FEDERAL REGULATIONS, PART 1926 (SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION), SUBPART P (EXCAVATIONS), FOR ALL APPLICABLE REQUIREMENTS AND RESPONSIBILITIES.

PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER OF THE PROJECT'S ASSIGNED "COMPETENT PERSON" IN OSHA EXCAVATION STANDARDS.

(G) TRENCH CLOSING AND TEMPORARY TOPPING:

THE CONTRACTOR SHALL BE RESPONSIBLE TO DETERMINE THE NECESSARY LEVELS OF PROTECTION AND SAFEGUARDING OF ALL OPEN TRENCHES, WHEN WORK IS EITHER COMPLETED AT THE END OF THE DAY OR SUSPENDED FOR ANY OTHER REASON.

FOR TRENCH SURFACE REQUIREMENTS, REFER TO NOTE 4 ON CITY OF CANTON STANDARD DRAWING NO. 19 UTILITY TRENCH REQUIREMENTS.

(H) DUST CONTROL:

THE CONTRACTOR SHALL FURNISH AND APPLY WATER AND CALCIUM CHLORIDE FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. SUFFICIENT QUANTITIES OF CALCIUM CHLORIDE SHALL BE STORED ON THE JOB SITE AT ALL TIMES TO BE USED FOR DUST CONTROL.

(I) TESTING OF UTILITIES:

ALL NEWLY CONSTRUCTED WATERLINES AND SANITARY SEWERS (INCLUDING LATERALS) MUST BE INSTALLED AND TESTED IN ACCORDANCE WITH APPLICABLE STANDARDS (AWWA, ETC.) PER THE OHIO ENVIRONMENTAL PROTECTION AGENCY, AND PER THE REQUIREMENTS OF THE CITY OF CANTON WATER AND ENGINEERING DEPARTMENTS.

SANITARY SEWERS SHALL BE TESTED BY THE CONTRACTOR IN ACCORDANCE WITH THE CITY OF CANTON'S SUPPLEMENTAL SPECIFICATIONS:

- 02-00 TESTING FOR EXCESSIVE DEFLECTION FOR NON-PRESSURE THERMOPLASTIC SEWER PIPE.
- 03-00 TESTING PRACTICES FOR LOW-PRESSURE AIR TESTING OF INSTALLED, NON-PRESURE, THERMOPLASTIC SEWER PIPE. (AS DIRECTED)
- 04-01 STANDARD TEST METHOD FOR CONCRETE SEWER MANHOLES BY THE NEGATIVE AIR PRESSURE TEST.

SANITARY AND STORM SEWERS CONSTRUCTED WITH THIS PROJECT SHALL BE TELEVISED BY THE CONTRACTOR ONLY WHEN A PAY ITEM IS PROVIDED IN ACCORDANCE WITH CITY OF CANTON'S SUPPLEMENTAL SPECIFICATION:

- 05-01 SEWER TELEVISION INSPECTION AND DOCUMENTATION PROCEDURE.

CALCULATED SCB
CHECKED RAB

GENERAL NOTES

CANTON-41ST. NW

II. CONSTRUCTION INCIDENTALS (continued)

(J) PRESERVATION AND RESTORATION OF DISTURBED FEATURES:

EXISTING DRIVES, BERMS, LAWNS, PAVEMENTS, CURBS, SIDEWALKS, SIGNS, MAILBOXES, FENCES, RETAINING WALLS, LANDSCAPING ITEMS, OR OTHER APPURTENANCES DISTURBED DURING CONSTRUCTION BUT NOT SPECIFICALLY DESIGNATED FOR REMOVAL/REPLACEMENT SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED PRIOR TO DISTURBANCE AND TO THE COMPLETE SATISFACTION OF THE CITY ENGINEER.

PRIOR TO THE DELIVERY OF ANY EQUIPMENT, MATERIALS OR SUPPLIES TO ANY WORK SITE, OR TO THE BEGINNING OF ANY CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL PROVIDE PRECONSTRUCTION VIDEOTAPING FOR THE PURPOSE OF ESTABLISHING THE EXISTING SURFACE CONDITIONS IN ALL OF THE AREAS OF THE CONSTRUCTION OR OF INTENDED USE BY THE CONTRACTOR.

GROUND VIDEOTAPING SHALL CONSIST OF TELEVISING IN COLOR THE SURFACE FEATURES ALONG THE ENTIRE LENGTH OF THE PROJECT. ALL WORK AND STORAGE AREAS AND ALL INTERSECTING ROADWAYS SHALL ALSO BE TELEVISED. PRIOR TO PREFORMING THE WORK, ALL AREAS TO BE INVENTORIED SHALL BE INVESTIGATED VISUALLY WITH NOTIONS MADE OF ITEMS NOT READILY VISIBLE BY VIDEO.

ALL COSTS ASSOCIATED WITH THE WORK, INCLUDING PROVIDING ALL MATERIALS, LABOR, EQUIPMENT, TESTING, AND ALL OTHER INCIDENTAL, MISCELLANEOUS AND RELATED ITEMS, SHALL BE INCLUDED IN THE LUMP SUM PRICE BID.

RESTORATION OF EXISTING ROADWAYS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY, TOWNSHIP, COUNTY, AND/OR OTHER AGENCIES HAVING AUTHORITY. COST FOR THE RESTORATION OF THESE ITEMS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, UNLESS OTHERWISE SPECIFIED IN THE PLANS OR SPECIFICATIONS. NO PUBLIC ROADWAY SHALL BE DISTURBED WITHOUT PRIOR WRITTEN APPROVAL FROM THE GOVERNING AGENCY AND ACQUISITION OF NECESSARY PERMITS.

(K) SALVAGED ITEMS:

CASTINGS:

WHEN DIRECTED BY THE CITY ENGINEER, ALL METAL CASTINGS SHALL BE CAREFULLY REMOVED AND STORED ON SITE OR DELIVERED TO A LOCATION DESIGNATED BY THE CITY ENGINEER.

MISCELLANEOUS:

ALL PRIVATE PROPERTY ITEMS DESIGNATED FOR REMOVAL & SALVAGE SHALL BE CAREFULLY REMOVED AND STORED ONSITE OR DELIVERED TO A LOCATION DEISNGATED BY THE CITY ENGINEER.

PAYMENT:

PAYMENT FOR SALVAGING ITEMS AS DESIGNATED ON THE PLANS SHALL BE INCLUDED IN THE UNIT BID PRICE PER UNIT OF THE SPECIFIED ITEM.

(L) PLUG EXISTING CONDUIT:

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING CONDUIT TO BE ABANDONED.

BULKHEADS SHALL CONSIST OF BRICK AND/OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

PAYMENT FOR PLUGGING OF EXISTING CONDUIT FOR ABANDONMENT SHALL BE INCLUDED IN THE UNIT BID OF THE VARIOUS ITEMS OF THE PROJECT.

(M) CONSTRUCTION LAYOUT:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT UTILIZING PERTINENT PLAN DATA. THE CITY ENGINEER WILL NOT BE RESPONSIBLE FOR STAKING HORIZONTAL OR VERTICAL CONTROL. CONSTRUCTION LAYOUT SHALL BE IN ACCORDANCE WITH ODOT 623 CONSTRUCTION LAYOUT STAKES.

AT THE CITY ENGINEER'S REQUEST, THE CONTRACTOR SHALL MAKE AVAILABLE ALL SURVEY FIELD NOTES FOR REVIEW.

(N) EXISTING MONUMENTATION:

THE CONTRACTOR SHALL PRESERVE ALL CORNERSTONES, IRON PINS, CONCRETE MONUMENTS AND/OR ANY TYPE OF LAND MONUMENT. THE CONTRACTOR SHALL HAVE ALL MONUMENTS IN THE PROXIMITY OF THE WORK REFERENCED. THE CONTRACTOR SHALL REPLACE/RESET ANY DISTURBED OR DAMAGED MONUMENTS AND SHALL FURNISH A CERTIFICATION BY A REGISTERED SURVEYOR THAT THE MONUMENTS HAVE BEEN RESTORED.

(O) ELEVATION DATUM:

ALL ELEVATIONS ARE BASED ON THE NAVD 1988 DATUM.

(P) DEWATERING OPERATIONS:

WHEN DEEMED NECESSARY, THE CONTRACTOR MAY INSTALL DEWATERING EQUIPMENT PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

THE PROPOSED LOCATION OF WELL POINTS, HEADER PIPE, ELECTRICAL DISTRIBUTION, GENERATORS AND DISCHARGE PIPES, ETC. SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS FOR THE INSTALLATION AND SUBSEQUENT REMOVAL OF DEWATERING EQUIPMENT AS WELL AS PROPER WATER DISCHARGE PROCEDURES AS MAY BE REQUIRED PER STATE AND LOCAL GOVERNING AGENCIES.

INSTALLATION OF ALL ELECTRICAL EQUIPMENT, INCLUDING GROUNDING AND PROTECTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

THE CONTRACTOR SHALL PROVIDE ALL COMBUSTIBLE ENGINE DRIVEN GENERATORS WITH "HOSPITAL GRADE" MUFFLERS. MUFFLERS SHALL BE RATED, AT A MAXIMUM OF 67 dB AT 23 FEET AWAY RUNNING FULL LOAD.

(Q) INSPECTION:

FOLLOWING THE PRE-CONSTRUCTION MEETING(S) AND ESTABLISHMENT OF AN APPROVED SCHEDULE, THE CONTRACTOR SHALL GIVE A MINIMUM 48 HOUR NOTICE BEFORE STARTING ANY WORK ON THIS PROJECT AND SHALL KEEP THE CITY INFORMED OF HIS/HER CONSTRUCTION SCHEDULE. ALL WORK REQUIRED FOR THIS IMPROVEMENT SHALL BE SUBJECT TO INSPECTION BY THE CITY OF CANTON OR THEIR DESIGNATED REPRESENTATIVE. NO WORK SHALL BE PERFORMED WITHOUT AN AUTHORIZED INSPECTOR PRESENT, UNLESS OTHERWISE APPROVED.

III. EARTHWORK / SITE WORK

(A) EASEMENTS AND RIGHT-OF WAY:

THE CONTRACTOR SHALL STAY WITHIN THE DESIGNATED PROPERTIES, EASEMENTS, AND/OR RIGHT-OF-WAY PROVIDED FOR THE PROJECT AT ALL TIMES. NO MATERIAL SHALL BE STORED NOR ANY WORK PERFORMED ON PRIVATE PROPERTY UNLESS OTHERWISE APPROVED. DISTURBANCE OF EXISTING FEATURES AND/OR IMPROVEMENTS SHALL BE KEPT TO AN ABSOLUTE MINIMUM AND AS APPROVED BY THE CITY ENGINEER/PROPERTY OWNER.

(B) SUITABILITY OF SITE:

THE CITY OF CANTON SHALL NOT BE RESPONSIBLE FOR THE TYPE AND/OR SUITABILITY OF THE MATERIAL UNDERLYING THE PROJECT SITE. THE CONTRACTOR MUST APPRAISE THEMSELVES OF ANY EXISTING SITE CONDITIONS WHICH MAY AFFECT THEIR BID OR THE PERFORMANCE OF THE REQUIRED WORK. THE DEVELOPER/CONTRACTOR SHALL PERFORM ANY INVESTIGATIONS AND/OR TESTING NECESSARY TO ADEQUATELY DETERMINE/ESTIMATE TO THEIR SATISFACTION ALL SITE CONDITIONS WHICH COULD AFFECT THE PERFORMANCE OF THE PROPOSED IMPROVEMENTS. THIS COULD INCLUDE, BUT NOT BE LIMITED TO, UNSUITABLE AND/OR UNSTABLE SOIL/SUBSURFACE CONDITIONS, ROCK, WATER (PERCHED OR FREE), SPRINGS, ETC.

REFER TO CITY OF CANTON STANDARD DRAWING NO. 19 UTILITY TRENCH REQUIREMENTS FOR ADDITIONAL DETAILS.

(C) REMOVAL/REPLACEMENT OF UNSUITABLE MATERIAL:

THE CONTRACTOR SHALL UNDERCUT AND REPLACE UNSUITABLE MATERIAL ENCOUNTERED DURING INSTALLATION OF THE PROPOSED UTILITIES AND ROADWAY IN ACCORDANCE WITH CITY OF CANTON STANDARD DRAWING NO. 19 UTILITY TRENCH REQUIREMENTS.

IV. ROADWAY / DRIVE APPROACHES / WALK / CURB

(A) PAVEMENT STANDARDS:

PAVEMENTS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH APPLICABLE CITY OF CANTON STANDARD DRAWINGS AND SPECIFICATIONS (LISTED BELOW) AND ODOT SPECIFICATIONS, UNLESS SPECIFIED OTHERWISE ON THE PLANS.

CITY STANDARD DRAWING NO.:

DRIVEWAYS, CURBS, AND PAVEMENT
27 "DRIVE APPROACH WITH LAWNSTRIP BETWEEN SIDEWALK & CURB"
28 "DRIVE APPROACH WITH SIDEWALK AGAINST CURB"
29 "COMBINED CURB AND WALK"
30 "CONCRETE CURB AND COMBINED CURB & GUTTER"
33 "WHEELCHAIR RAMP"

CITY SPECIFICATIONS:

"CITY OF CANTON SPECIFICATIONS FOR THE CONSTRUCTION, REPAIR, AND REPLACEMENT OF SIDEWALKS, CURBS, AND DRIVEWAYS"

(B) RESTRICTED WORK SCHEDULE:

NO CONCRETE FINISH WORK OR PERMANENT ASPHALT SHALL BE PLACED FROM NOVEMBER 15TH TO APRIL 15TH UNLESS WRITTEN APPROVAL IS GRANTED BY THE CITY ENGINEER.

(C) ASPHALT/CONCRETE:

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER 48 HOURS IN ADVANCE OF BEGINNING WORK WHICH REQUIRES COMPACTION TESTING AND/OR PRE-POUR INSPECTION PRIOR TO PLACEMENT OF ASPHALT OR CONCRETE. WORK SHALL NOT PROCEED UNTIL TESTING AND/OR INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE CITY ENGINEER.

CONTRACTOR SHALL USE HIGH EARLY STRENGTH CONCRETE (MS) FOR THE CONSTRUCTION OF ALL DRIVE APPROACHES AND APRONS.

V. SANITARY SEWERS / STORM SEWERS

(A) SEWER STANDARDS:

ALL SANITARY/STORM SEWER CONDUITS AND APPURTENANCES SHALL BE CONSTRUCTED ACCORDING TO APPLICABLE CITY OF CANTON STANDARD DRAWINGS AND SPECIFICATIONS (LISTED BELOW) AND ODOT SPECIFICATIONS EFFECTIVE AT THE TIME OF CONSTRUCTION, UNLESS SPECIFIED OTHERWISE ON THE PLANS.

CITY STANDARD DRAWING NO.:

CATCH BASINS

1 "CURB INLET CATCH BASIN"

MANHOLES

10 "PRECAST STORM OR SANITARY MANHOLE"
12 "MANHOLE COVER"

CONDUITS AND TRENCHES

18 "HOUSE CONNECTION STACK"
19 "UTILITY TRENCH REQUIREMENTS"
23 "DOWNSPOUT OUTLET (CURBED STREET)"
24 "GROUNDWATER DRAIN LINE CONNECTION"

PIPE

ALL SANITARY GRAVITY SEWER SHALL BE POLYVINYL CHLORIDE (PVC) SDR 35 IN ACCORDANCEWITH ASTM D-3034. JOINTS SHALL CONFORM TO ASTM D-3212. BEDDING AND BACKFILL SHALL BE IN ACCORDANCE WITH CITY STD. 19 "UTILITY TRENCH REQUIREMENTS".

(B) SANITARY LATERAL CONNECTIONS:

(1) ALL CONNECTIONS TO THE NEW OR EXISTING MAIN SEWER SHALL BE INSTALLED WITH A MANUFACTURED WYE, UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER.

(2) THE MINIMUM SLOPE OF THE LATERALS SHALL BE 1/8" PER FT. (1%) AND THE MAXIMUM SHALL BE 1/4" PER FT. (2%) UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.

(3) ALL EXISTING SANITARY LATERALS SHALL BE REPLACED TO THE RIGHT OF WAY IN ACCORDANCE WITH THE PLANS AND DETAILS EXCEPT AS OTHERWISE SHOWN ON THE PLANS. THE COST OF ALL FITTINGS, BENDS, WYES, ETC SHALL BE INCLUDED IN THE UNIT COST FOR EACH LATERAL.

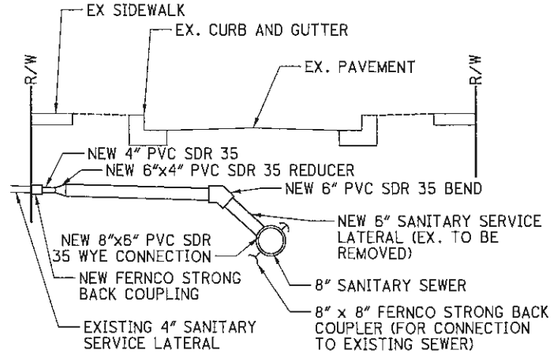
(4) EXISTING SANITARY LATERALS UNCOVERED DURING CONSTRUCTION AND BEING REPLACED WITH NEW LINES AT DIFFERENT ALIGNMENTS SHALL BE PLUGGED AND ABANDONED IN PLACE. THE COST OF WHICH SHALL BE INCLUDED IN THE LATERAL REPLACEMENT.

(C) MAINTAIN SEWAGE SERVICE:

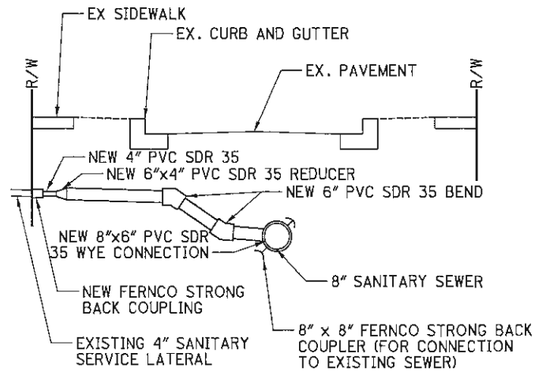
SANITARY SERVICE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION, UNLESS EXPRESS CONSENT BY THE CITY ENGINEER IS PROVIDED. WHEN RECONNECTING LATERAL SERVICES, THE CONTRACTOR SHALL, IN ADVANCE OF INTERUPTING SERVICE, NOTIFY THE CITY INSPECTOR, HOME OWNER AND CITY ENGINEER. PATCH PIPE, AS NEEDED FOR INSTALLATION OF THE NEW SANITARY SEWER WHERE IT WILL CROSS UNDERNEATH EXISTING LATERALS, SHALL BE INSTALLED IN SUCH A MANNER AS TO LIMIT THE TIME OF INTERRUPTION, ALL OF WHICH SHALL BE INCLUDED IN THE PRICE BID PER EACH LATERAL RECONNECTION.

(D) DOWNSPOUT OUTLET AND GROUNDWATER DRAIN LINES:

CONTINGENCY QUANTITIES FOR EITHER TWO (2) DOWNSPOUT OULETS (IN ACCORDANCE WITH CITY STANDARD DRAWING NO. 23) OR ONE (1) DOWNSPOUT OUTLET AND ONE (1) GROUNDWATER DRAIN LINE (SUMP PUMP CONNECTION IN ACCORDANCE WITH CITY STANDARD DRAWING NO. 24) SHALL BE PROVIDED FOR EACH LOT AS DIRECTED BY THE CITY ENGINEER. LOCATIONS OF PROPOSED DOWNSPOUT OUTLETS AND GROUNDWATER DRAIN LINE CONNECTIONS SHALL BE AS DIRECTED BY THE CITY ENGINEER.



DETAIL A - SANITARY LATERALS FROM ABOVE, TYP.



DETAIL B - SANITARY LATERALS FROM SIDE, TYP.

NOTES:
1. EXISTING SANITARY SERVICE LATERALS ARE ASSUMED TO BE 4" IN SIZE. CONTRACTOR SHALL FIELD VERIFY ACTUAL SIZE, LOCATION, AND ORIENTATION.

SEWER SERVICE CONNECTION DETAILS, TYP.

SCALE: NONE

CALCULATED SCB
CHECKED RAB

GENERAL NOTES

CANTON-41ST. NW

VI. STORM WATER POLLUTION PREVENTION:

(A) FOR PROJECTS ONE (1) ACRE OR MORE OF TOTAL LAND-DISTURBANCE:

THE CITY OF CANTON HAS APPLIED FOR AND OBTAIN AN OHIO EPA NPDES PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY. SAID PERMIT REQUIRES THE PREPARATION AND IMPLEMENTATION OF A STORM WATER POLLUTION PREVENTION PLAN (SWP3) (INCLUDED WITH THESE PLANS) TO ADDRESS CONSTRUCTION SITE STORM WATER RUNOFF AS WELL AS POST-CONSTRUCTION STORM WATER MANAGEMENT. THE SWP3 MUST BE REVIEWED AND APPROVED BY THE STARK COUNTY SOIL & WATER CONSERVATION DISTRICT (SWCD).

THE CONTRACTOR AND HIS REPRESENTATIVES SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE PERMIT AS WELL AS THE SWP3. ALL ACTIVITIES AND PRACTICES SHALL ALSO COMPLY WITH THE CURRENT EDITIONS OF THE CITY OF CANTON STORM WATER MANAGEMENT MANUAL AND THE OHIO DEPARTMENT OF NATURAL RESOURCES' RAINWATER AND LAND DEVELOPMENT MANUAL, AS APPLICABLE. SUCH PROJECTS ARE ALSO SUBJECT TO INSPECTION BY THE CITY OF CANTON AND/OR ITS AUTHORIZED REPRESENTATIVES (I.E. STARK SWCD) TO ENSURE COMPLIANCE WITH PERMIT AND SWP3 REQUIREMENTS AND LOCAL STORM WATER QUALITY REGULATIONS.

A PRE-CONSTRUCTION MEETING INITIATED BY THE CONTRACTOR IS REQUIRED ON-SITE WITH THE STARK SWCD PRIOR TO ANY LAND-DISTURBING ACTIVITIES. THE CONTRACTOR SHALL ABIDE BY ALL ORDERS ISSUED BY THE CITY AND/OR STARK SWCD PURSUANT TO INSPECTION OF THE PROJECT SITE.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO SUBMIT CO-PERMITTEE APPLICATION TO OHIO EPA PRIOR TO BEGINNING WORK ON THE PROJECT. AS APPLICABLE, THE CONTRACTOR SHALL OBTAIN A COPY OF THE SWP3 AND FAMILIARIZE HIMSELF WITH IT, IMPLEMENTING ALL ITEMS AND ABIDING BY ALL PERMIT REQUIREMENTS AND REGULATIONS.

VII. TRAFFIC:

(A) MAINTAINING TRAFFIC:

THE CONTRACTOR SHALL MAINTAIN TRAFFIC ADJACENT TO AND THROUGH THE PROJECT AS DESCRIBED BELOW AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE OHIO DEPARTMENT OF TRANSPORTATION MANUAL OF CONSTRUCTION AND MATERIALS SPECIFICATIONS ITEM 614 MAINTAINING TRAFFIC. THE CONTRACTOR SHALL FURNISH, MAINTAIN, AND REMOVE ALL SIGNS, FLAGS, FLAGMEN, WATCHMEN, BARRICADES, SIGN SUPPORTS, CONES, BARRELS, AND INCIDENTALS IN CONFORMANCE WITH THE MOST RECENT REVISIONS OF THE CURRENT EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS. INTERFERENCE WITH VEHICULAR TRAFFIC SHALL BE KEPT TO A MINIMUM AT ALL TIMES. ALL OPEN TRENCHES AND EXCAVATIONS SHALL BE PROTECTED WITH DRUMS, BARRICADES, OR BARRIERS. ACCESS SHALL BE MAINTAINED AT ALL TIMES FOR EMERGENCY AND FIRE DEPARTMENT VEHICLES.

ANY TEMPORARY ROADWAY CLOSING MUST BE APPROVED IN WRITING BY THE CITY TRAFFIC ENGINEER AND ANY OTHER PUBLIC AGENCY HAVING JURISOICICTION. THE CONTRACTOR SHALL NOTIFY THE TRAFFIC ENGINEER AT LEAST 72 HOURS IN ADVANCE OF ANY SUCH CLOSINGS FOR PUBLICATION AND EMERGENCY AGENCY NOTIFICATION.

(B) RESIDENTIAL AND BUSINESS AREAS:

THE CONTRACTOR SHALL MAINTAIN ACCESS TO LOCAL RESIDENCES AND BUSINESSES DURING CONSTRUCTION. IN THE EVENT A DRIVE ACCESS NEEDS TO BE CLOSED, THE CONTRACTOR SHALL GIVE NOTICE OF CLOSURE AND DURATION TO THE PROPERTY OWNER 24 HOURS IN ADVANCE. CONTRACTOR SHALL ARRANGE FOR ALTERNATE PARKING AND REASONABLE ACCESS FOR THOSE PROPERTY OWNERS AFFECTED BY DRIVE CLOSURES.

(C) EXISTING STREET NAME AND TRAFFIC CONTROL SIGNS:

WHERE WORK REQUIRES THE MOVEMENT OF EXISTING SIGNS (STOP SIGNS, SPEED LIMIT SIGNS, NO PARKING SIGNS, ETC.). THE CONTRACTOR IS REQUIRED TO MAINTAIN THE FUNCTION OF ALL TRAFFIC CONTROL SIGNS. ALL SIGNS REMOVED BY THE CONTRACTOR SHALL BE STORED ON SITE AND REINSTALLED BY THE CONTRACTOR.

(D) NEW STREET NAME & TRAFFIC CONTROL SIGNS:

ALL STREET NAME AND TRAFFIC CONTROL SIGNS SHALL COME COMPLETE AND BE MADE IN ACCORDANCE WITH THE CITY OF CANTON SIGN AND PAINT DEPARTMENT SPECIFICATIONS. GENERALLY, ALL SIGNS SHALL HAVE HI-INTENSITY SHEETING AND BE MADE WITH .080 50/52 ALUMINUM. STREET NAME SIGNS SHALL BE MADE WITH WHITE UPPER AND LOWER CASE LETTERING ON GREEN BACKGROUND USING 9" BLANKS, BE DOUBLED SIDED W/RADIUS CORNERS AND HAVE 6" NAME AND 3" SUFFIXES. ALL SIGN RELATED HARDWARE IS TO BE INCLUDED, SUCH AS 6" HEAVY DUTY U-CHANNEL CAPS AND STREET NAME CROSSES.

(E) EXISTING TRAFFIC SIGNALS:

WHERE WORK REQUIRES INTERFERENCE WITH EXISTING SIGNALIZATION IN THE INTERSECTIONS, ALL WORK SHALL BE COORDINATED THROUGH THE CITY ENGINEER. THE CONTRACTOR SHALL NOT ALTER ANY SIGNALIZATION WITHOUT THE CITY ENGINEER'S AUTHORIZATION.

(F) TRAFFIC CONTROL PLAN:

THE CONTRACTOR SHALL SUBMIT TO THE CITY ENGINEER A TRAFFIC CONTROL PLAN IN ACCORDANCE WITH CITY SUPPLEMENTAL SPECIFICATION 01-00. DETOURS, IF NECESSARY, SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO PLAN SUBMISSION.

VIII. WATER MAIN / SERVICES:

ALL WATER MAIN, SERVICES AND APPURTENANCE WORK WILL BE COMPLETED PRIOR TO THE START OF CONSTRUCTION.

ALL WATER SERVICES MUST BE INSTALLED BEFORE ANY PAVEMENT FOR THE PROPOSED ROADWAYS HAS BEEN PLACED. THE CONTRACTOR IS NOT TO MAKE ANY SERVICE TAPS ON THE WATER MAIN. THE CANTON WATER DEPARTMENT WILL MAKE ALL SERVICE TAPS.

THE CONTRACTOR SHALL TAKE ANY AND ALL NECESSARY PRECAUTIONS TO PROTECT AND MAINTAIN IN SERVICE, ANY EXISTING WATER MAINS EXPOSED DURING CONSTRUCTION.

ANY WATER SERVICE LINE THAT IS BROKEN, CUT OR OTHERWISE DAMAGED, SHALL BE REPLACED FROM THE CORPORATION STOP TO THE CURB STOP WITH A SINGLE PIECE OF PLASTIC SERVICE LINE (DRISCOPLEX). NO SPLICING OF THE SERVICE LINE WILL BE PERMITTED.

SERVICE BRANCHES WILL BE INSTALLED AS PER O.D.O.T ITEM 638.16 WITH THE FOLLOWING EXCEPTIONS:

1. WHEN A SERVICE BRANCH IS DISTURBED FOR LOWERING, RAISING, EXTENDING OR SHORTENING ON THE

   PROPERTY SIDE ON THE SERVICE STOP, IT SHALL BE REPLACED WITH NEW MATERIALS FROM THE CORPORATION STOP TO THE SERVICE STOP.

WHEN AN EXISTING WATER MAIN MUST BE SHUT DOWN TO PERFORM REQUIRED WORK, THE PROPERTIES TO BE EFFECTED SHALL BE GIVEN A MINIMUM 24 HOUR NOTICE OF SAID SHUT DOWN. THE WORK WILL BE SCHEDULED AND COORDINATED TO MINIMIZE THE TIME THE MAIN IS OUT OF SERVICE.

THE CONTRACTOR SHALL NOTIFY THE CITY 48 HOURS IN ADVANCE OF ANY SHUT DOWN OF AN EXISTING WATER MAIN. THE CONTRACTOR WILL NOT OPERATE ANY VALVES. VALVES WILL BE OPERATED BY CANTON WATER DEPARTMENT PERSONNEL ONLY. VALVES DAMAGED BY THE CONTRACTOR'S OPERATION WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

ALL VALVE BOXES WILL BE ADJUSTED TO FINAL GRADE OF THE PAVEMENT WHEN THE PROJECT IS COMPLETED.

IX. POST CONSTRUCTION INCIDENTALS

(A) AS-BUILT DRAWINGS AND NOTES:

AS-BUILT REPRODUCIBLE MYLARS SHALL BE PROVIDED TO THE CITY OF CANTON BY THE DESIGN ENGINEER AT THE COMPLETION OF THE PROJECT. AS-BUILT INFORMATION CONSISTS OF POST-CONSTRUCTION FIELD SURVEY DATA OF THE LOCATION, FLOWLINE ELEVATIONS, AND TOP-OF-GRATE/RIM ELEVATIONS FOR ALL STORM AND SANITARY STRUCTURES CONSTRUCTED AND/OR IMPACTED BY THE PROJECT.

THE CONTRACTOR SHALL DOCUMENT IN WRITING ANY AND ALL INFORMATION PERTAINING TO ANY CONSTRUCTION THAT DEVIATES FROM THESE PLANS AND SHALL MAKE SUCH DOCUMENTATION AVAILABLE TO THE DESIGN ENGINEER AND THE CITY ENGINEER.

(B) PROPOSED MONUMENTATION:

THE CONTRACTOR'S SURVEYOR SHALL NOTIFY THE CITY ENGINEER IN WRITING UPON THE COMPLETION OF MONUMENTS BEING SET AS PER PLAN OR RECORD PLAT.

(C) RELEASE OF RETAINER/BONDS:

PRIOR TO THE RELEASE OF RETAINER/CONSTRUCTION BOND BY THE CITY OF CANTON, THE CONTRACTOR SHALL HAVE COMPLETED THE ENGINEER'S PROJECT PUNCHLIST AND SUBMIT FINAL WAIVER OF LIEN, IN ACCORDANCE WITH CITY SS 01-00.

CALCULATED SCB
CHECKED RAB

GENERAL NOTES

CANTON-41ST. NW

SHEET NUMBER												PARTICIPATION		ITEM		GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
OFFICE CALCS	9	10		12	13	14				39	40								
																		ROADWAY	
														201		1	LUMP	CLEARING AND GRUBBING	
										2	1			201		3	EACH	TREES OR STUMPS REMOVED, 18" AND LARGER, AS DIRECTED	
	1																		
	5													202		1	EACH	REMOVAL AND RESOT EXISTING CURB STOPS	
	1													202		5	EACH	CATCH BASIN REMOVED	
	2													202		1	EACH	MANHOLE REMOVED (STORM)	
	1													202		2	EACH	MANHOLE REMOVED (SANITARY)	
	2													202		1	EACH	HYDRANT ASSEMBLY REMOVED	
	218													202		2	EACH	GATE VALVE REMOVED	
	575													202		218	L.F.	PIPE REMOVED, 24" AND UNDER, STORM SEWER	
										10	15			202		575	L.F.	PIPE REMOVED, 8" SANITARY SEWER	
	85													202		25	EACH	SANITARY LATERAL REMOVED, COMPLETE	
		3212												202		85	L.F.	REMOVAL AND FENCE RESET	
	123													202		3212	SQ.FT.	WALK REMOVED	
		383												202		123	L.F.	CURB REMOVED	
	115													202		383	SQ.YD.	CONCRETE PAVEMENT REMOVED	
	1													202		115	L.F.	REMOVAL MISC.: RAILROAD TIE WALL	
	24													202		1	EACH	REMOVAL MISC.: PRIVATE SIGN W/ CONC. FOUNDATION	
	3													202		24	L.F.	REMOVAL MISC.: TIMBER WALL	
	1													202		3	EACH	REMOVAL MISC.: WOOD PLANTER	
	12													202		1	EACH	REMOVAL MISC.: PIPE BOLLARD	
	14													202		12	L.F.	REMOVAL MISC.: TRENCH DRAIN	
														202		14	EACH	REMOVAL MISC.: BOLDERS	
										11	14			202		25	EACH	WATER SERVICE REMOVED, COMPLETE	
		1489												203		1489	CU.YD.	EXCAVATION	
		153												203		153	CU.YD.	EMBANKMENT	
				3739	1036									204		4775	SQ.YD.	SUBGRADE COMPACTION	
				290										254		290	SQ.YD.	PAVEMENT PLANING (1.25")	
				75										609		75	L.F.	CONCRETE CURB, TYPE 6	
				1902										609		1902	L.F.	CONCRETE CURB AND GUTTER, TYPE 2	
				4										609		4	EACH	CURB RAMP	
														616		6.6	MGAL.	WATER FOR DUST CONTROL	
																		EROSION CONTROL	
						9								207		9	EACH	INLET PROTECTION (SILT SACKS)	
						140								207		140	L.F.	SILT FENCING	
																		PAVEMENT	
				273										301		273	CU.YD.	4" ASPHALT CONCRETE BASE	
				60										304		60	CU.YD.	4" AGGREGATE BASE, SIDEWALK	
				516										304		516	CU.YD.	6" AGGREGATE BASE, PAVEMENT	
				206										407		206	GAL.	TACK COAT (0.075 GAL/SY)	
				197										407		197	GAL.	TACK COAT FOR INTERMEDIATE COURSE (0.04 GAL/SY)	
														408		1097	GAL.	PRIME COAT (0.4 GAL/SY)	
				115										448		115	CU.YD.	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (1-1/2" THICK)	
				120										448		120	CU.YD.	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22 (1-3/4" THICK)	
				4821										608		4821	SQ.FT.	4" CONCRETE WALK	
																		DRIVEWAYS	
					9									301		9	CU.YD.	4" ASPHALT CONCRETE BASE	
					37									301		37	CU.YD.	5" ASPHALT CONCRETE BASE	
					2									304		2	CU.YD.	2" NO. 57, 67, OR 78 CRUSHED LIMESTONE AGGREGATE (GRAVEL DRIVES)	
					103									304		103	CU.YD.	4" AGGREGATE BASE	
					11									407		11	GAL.	TACK COAT FOR INTERMEDIATE COURSE (0.04 GAL/SY)	
					133									408		133	GAL.	PRIME COAT (0.40 GAL./S.Y.)	

CALCULATED SCB
CHECKED RAB

GENERAL SUMMARY

CANTON-41ST. NW

SHEET NUMBER												PARTICIPATION		ITEM		GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
OFFICE CALCS	4	5	11		13		29			39	40	44							
																		DRIVEWAYS (CONTINUED)	
					12									448		12	CU.YD.	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (1-1/4" THICK)	
					595									452		595	SQ.YD.	6" NON-REINFORCED CONCRETE PAVEMENT	
					72									452		72	SQ.YD.	7" NON-REINFORCED CONCRETE PAVEMENT	
																		DRAINAGE	
			706											603		706	L.F.	CONDUIT, 12", TYPE B (706.02 OR 707.33)	
			287											603		287	L.F.	CONDUIT, 15", TYPE B (706.02 OR 707.33)	
			9											604		9	EACH	CURB INLET	
			1											604		1	EACH	STORM MANHOLE	
			1											604		1	EACH	STORM MANHOLE RECONSTRUCTED	
			1771											605		1771	L.F.	4" BASE PIPE UNDERDRAIN W/ FABRIC WRAP	
			120											605		120	L.F.	4" CONDUIT, TYPE F UNDERDRAIN OUTLET	
			1											SPEC		1	LUMP	PCSWM DETENTION BASIN CONTROL STRUCTURE	
														SPEC		27	EACH	GROUNDWATER DRAIN LINE CONNECTION, COMPLETE, AS PER PLAN, AS DIRECTED	
														SPEC		54	EACH	DOWNSPOUT OUTLET, COMPLETE, AS PER PLAN, AS DIRECTED	
																		SANITARY SEWER	
			575											603		575	L.F.	8" SANITARY SEWER, PVC, TYPE B (707.45)	
										10	15			603		25	EACH	PVC SANITARY SERVICE LATERAL RECONNECTIONS COMPLETE, AS PER PLAN	
			2											604		2	EACH	SANITARY MANHOLE ADJUSTED TO GRADE	
			1											604		1	EACH	SANITARY MANHOLE RECONSTRUCTED	
			2											604		2	EACH	SANITARY MANHOLE, APP	
	1													SPEC		1	EACH	SAN. SEWER TESTING PER CITY STD 03-00, AS DIRECTED	
		1												SPEC		1	LUMP	TEMPORARY SEWAGE PUMPING, MAINTAIN SERVICE, AS DIRECTED	
	1													SPEC		1	LUMP	TELEVISE SANITARY SEWER, APP	
																		WATERWORK (BY OTHERS)	
			1											638		1	EACH	10"x6" TEE	
			922											638		922	L.F.	6" WATERMAIN, C 909 PVC	
			1											638		1	EACH	6" GATE VALVE AND VALVE BOX	
			1											638		1	EACH	PLUG EX. 6" LINE, REMOVE VALVE BOX AND ABANDON THE VALVE	
			3											638		3	EACH	6" PLUG	
			2											638		2	EACH	6" FIRE HYDRANT ASSEMBLY, TYPE A, COMPLETE	
			1											638		1	EACH	VALVE BOX ADJUSTED TO GRADE	
										6	7			638		13	EACH	WATER SERVICE RECONNECTION COMPLETE (LONG SIDE)	
										7	7			638		14	EACH	WATER SERVICE RECONNECTION COMPLETE (SHORT SIDE)	
																		ROADSIDE	
			1374											659		2	EACH	SOIL ANALYSIS TEST	
														659		1374	SQ.YD.	SEEDING AND MULCHING	
														659		154	CU YD	4" TOPSOIL	
														659		69	SQ YD	REPAIR SEEDING AND MULCHING	
														659		69	SQ YD	INTER-SEED	
														659		0.29	ACRES	LIME	
														659		0.19	TON	COMMERCIAL FERTILIZER	
														659		8	M GAL	WATER	
														SPEC		1	LUMP	SITE RESTORATION	
																		TRAFFIC MAINTENANCE	
														614		1	LUMP	MAINTAINING TRAFFIC	
														630		2	EACH	STOP SIGN	
														630		2	EACH	STREET ADDRESS SIGN	
																		MISCELLANEOUS	
														623		1	LUMP	CONSTRUCTION LAYOUT STAKES	
														624		1	LUMP	MOBILIZATION	
																		CONTINGENCY BID ITEMS	
					64									452		64	SQ.YD.	NON-REINFORCED CONCRETE PAVEMENT	
												156		603		156	CU.YD.	EXTRA FOUNDATION MATERIAL OPTION A,B, OR C, AS DIRECTED	
												156		603		156	CU.YD.	ROCK REMOVAL, AS DIRECTED	
												25		603		25	CU.YD.	CONCRETE STRUCTURE REMOVAL, AS DIRECTED	
												469		603		469	CU.YD.	EXTRA FOUNDATION MATERIAL OPTION D, AS DIRECTED	

CALCULATED SCB
CHECKED RAB

GENERAL SUMMARY

CANTON-41ST. NW

REF. NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	202 CATCH BASIN REMOVED	202 MANHOLE REMOVED STORM	202 MANHOLE REMOVED SANITARY	202 PIPE REMOVED, 24" AND UNDER STORM SEWER	202 PIPE REMOVED, 8" SANITARY	202 REMOVAL MISC.: TRENCH DRAIN	202 REMOVAL MISC.: PIPE BOLLARD (SALVAGE)	202 REMOVAL MISC.: PRIVATE SIGN W/ CONC. FOUNDATION (SALVAGE)	202 REMOVAL MISC.: LIGHT POLE, FIXTURE, AND FOUNDATION (SALVAGE)	202 REMOVAL MISC.: WOOD PLANTER (SALVAGE)	202 REMOVAL MISC.: RAILROAD TIE WALL (SALVAGE)	202 REMOVAL MISC.: TIMBER WALL (SALVAGE)	202 REMOVAL MISC.: BOLDERS (SALVAGE)	202 REMOVAL AND FENCE RESET	202 HYDRANT ASSEMBLY REMOVED	202 GATE VALVE REMOVED	202 CURB REMOVED	202 REMOVE AND RESET EX. CURB STOPS
					EACH	EACH	EACH	L.F.	L.F.	L.F.	EACH	EACH	EACH	EACH	L.F.	L.F.	EACH	L.F.	EACH	EACH	L.F.	EACH
DR-1	40	09+80.97		LT	1																	
DR-2	40	09+68.85		LT		1																
DR-3	40	08+24.66		RT	1																	
DR-4	39	01+00.98	01+13.16	RT						12.27												
DR-5	40	09+60.80		LT	1																	
DR-6	40	09+61.59		RT	1																	
DR-7	40	09+86.50		RT	1																	
FR-1	40	08+13.85	08+38.12	RT														24.28				
FR-2	40	09+09.66	09+18.11	LT														43.96				
FR-3	39	04+00.13	04+00.32	RT														17.13				
PR-1	40	DR-1	DJ-123	LT				18.12														
PR-2	40	DR-2	09+99.59	LT				31.90														
PR-3	40	09+61.79	DR-2	LT				7.79														
PR-4	40	DR-3	09+60.60	RT				135.24														
PR-5	40	DR-6	DR-5	LT/RT				25.00														
R-1	39	01+91.82		RT							1											
R-2	39	00+80.09	01+30.69	LT											74.54							
R-3	39	02+39.87	02+56.50	LT											16.62							
R-4	39	03+10.85		LT													1					
R-5	39	02+14.95	02+15.35	LT											12.61							
R-6	39	04+75.11	05+14.16	LT													13					
R-7	40	05+13.75	05+14.17	LT											11.68							
R-8	40	06+17.75	06+42.19	LT												24.45						
R-9	40	06+65.85		LT										1								
R-10	40	06+98.18		RT										1								
R-11	39	01+31.38		LT																		1
R-12	40	08+02.20		LT									1									
R-13	40	08+09.26		RT										1								
R-14	39	00+35.55		LT								1										
R-15	39	00+15.87	00+40.19	LT																	34.29	
R-16	39	00+37.50	00+41.32	RT																	20.69	
R-17	40	09+66.22	09+80.68	LT																	31.42	
R-18	40	09+67.68	09+88.30	RT																	37.07	
SR-1	39	04+46.66		RT			1															
SR-2	39	SR-1	SR-3	RT					279.70													
SR-3	40	07+26.35		RT			1															
SR-4	40	SR-3	SJ-3	RT					294.99													
WR-2	39	03+34.23		LT															1			
WR-3	40	05+20.87		RT																1		
TOTALS CARRIED TO GENERAL SUMMARY					5	1	2	218	575	12	1	1	1	3	115	24	14	85	1	1	123	1

CALCULATED SCB
CHECKED RAB

ESTIMATED QUANTITIES

CANTON-41ST. NW

ESTIMATED QUANTITIES

CALCULATED SCB
CHECKED RAB

REF. NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	EX. GRAVEL AREA	EX. ASPHALT AREA	EX. CONCRETE AREA		202 CONCRETE PAVEMENT REMOVED	202 WALK REMOVED		203 EXCAVATION (FOR GRAVEL DRIVE REMOVAL)	203 EXCAVATION (FOR ASPHALT DRIVE REMOVAL)	203 EXCAVATION	203 EMBANKMENT		659 SEEDING & MULCHING		
					SQ FT	SQ FT	SQ FT		SQ YD	SQ FT		CU YD	CU YD	CU YD	CU YD		SQ.YD.		
DV-1	18	0+61.58		LT		1551.63							19.16						
DV-2	18	1+00.43		RT	88.02		53.98		6.00			1.09	0.67						
DV-4	18	1+87.55		LT		712.35							8.79						
DV-5	18	2+10.84		RT		111.41	432.21		48.02				5.34						
DV-6	18	2+22.14		LT			221.76		24.64				2.74						
DV-7	18	2+69.89		LT			249.00		27.67				3.07						
DV-8	18	3+20.78		LT			136.26		15.14				1.68						
DV-9	18	3+54.27		RT	135.43		112.49		12.50			1.67	1.39						
DV-10	18	3+69.85		LT			195.19		21.69				2.41						
DV-11	18	4+06.46		RT		42.03							0.52						
DV-12	18	4+20.28		LT		262.88							3.25						
DV-13	18	4+55.92		RT		33.75	112.46		12.50				1.39						
DV-14	19	5+08.29		RT		43.10	190.08		21.12				2.35						
DV-15	19	5+29.16		LT		7.88	111.51		12.39				1.38						
DV-16	19	5+55.42		RT		111.51	319.57		35.51				3.95						
DV-17	19	5+60.68		LT			116.28		12.92				1.44						
DV-18	19	6+57.07		LT	111.85	7.41	83.41		9.27			1.38	1.03						
DV-19	19	6+60.16		RT	166.98							2.06							
DV-20	19	7+08.47		RT		34.78	169.18		18.80				2.09						
DV-21	19	7+10.02		LT		28.71	85.77		9.53				1.06						
DV-22	19	7+57.53		LT		83.93	130.44		14.49				1.61						
DV-23	19	7+70.02		RT		380.53							4.70						
DV-24	19	7+99.64		RT			195.97		21.77				2.42						
DV-25	19	8+13.08		LT		115.12							1.42						
DV-26	19	8+52.91		LT		18.56	85.93		9.55				1.06						
DV-27	19	8+59.74		RT		66.79	445.00		49.44				5.49						
DV-28	19	1+36.02		LT		378.20							4.67						
DV-29	18	7+87.04		RT	265.09							3.27							
SWR-1	39	0+20.32	0+32.15	LT						113.10									
SWR-2	39	0+37.72	3+59.71	RT						1549.73									
SWR-3	39	3+71.16	5+63.03	RT						797.52									
SWR-4	40	8+65.74	9+79.60	LT						564.56									
SWR-5	40	9+09.68	9+17.35	LT						101.22									
SWR-6	40	9+41.38	9+46.18	RT						37.75									
SWR-7	40	9+77.97	9+86.60	RT						47.84									
	20	0+04.64 TO 0+50.00												167	0		58		
	21	1+00.00 TO 1+50.00												164	3		97		
	22	1+90.36 TO 2+50.00												154	18		89		
	23	3+00.00 TO 4+00.00												75	96		347		
	24	4+50.00 TO 5+50.00												220	15		367		
	25	6+00.00 TO 7+00.00												178	15		237		
	26	7+50.00 TO 8+50.00												265	4		153		
	27	9+00.00 TO 9+89.19												171	2		26		
	28	10+00.00 TO 10+36.26												0	0		0		
TOTALS CARRIED TO GENERAL SUMMARY									383	3212		1489			153		1374		

CANTON-41ST. NW

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REF. NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	603 12" CONDUIT, TYPE B (STORM) (706.02 OR 707.33) LF	603 15" CONDUIT, TYPE B (STORM) (706.02 OR 707.33) LF	603 8" CONDUIT, TYPE B (SANITARY) (707.45) LF	SPEC OUTLET CONTROL STRUCTURE (STORM) LUMP	604 CATCH BASIN (CANTON CURB INLET) EACH	604 STORM MANHOLE (CANTON MANHOLE) EACH	604 STORM MANHOLE RECONSTRUCTED EACH	604 SANITARY MANHOLE (CANTON MANHOLE) EACH	604 SANITARY MANHOLE ADJUSTED TO GRADE EACH	604 SANITARY MANHOLE RECONSTRUCTED EACH		605 4" BASE PIPE UNDERDRAIN W/ FABRIC WRAP, 707.41 LF	605 4" CONDUIT, TYPE F UNDERDRAIN OUTLET LF		638 10"x6" TEE (BY OTHERS) EACH	638 6" WATER MAIN, C 909 PVC (BY OTHERS) LF	638 6" GATE VALVE AND VALVE BOX (BY OTHERS) EACH	638 PLUG THE EX. 6" LINE, REMOVE VALVE BOX AND ABANDON THE VALVE (BY OTHERS) EACH	638 6" PLUG (BY OTHERS) EACH	638 6" FIRE HYDRANT, COMPLETE (BY OTHERS) EACH	638 ADJUSTED VALVE BOX TO GRADE EACH
D-1	19	09+77.41		LT					1																
D-2	19	09+72.60		LT						1															
D-3	19	08+80.00		LT					1																
D-4	19	08+80.00		RT					1																
D-5	19	07+20.00		LT					1																
D-6	19	07+20.00		RT					1																
D-7	18	04+30.00		LT					1																
D-8	18	04+30.00		RT					1																
D-9	18	01+17.97		LT					1																
D-10	18	01+25.03		RT					1																
D-11	15							1																	
DJ-123	19	09+99.77		LT							1														
P-1	19	DJ-123	D-1	LT		21																			
P-2	19	D-1	D-2	LT		13																			
P-3	19	D-2	D-3	LT		93																			
P-4	19	D-3	D-4	LT/RT	26																				
P-5	19	D-3	D-5	LT		160																			
P-6	19	D-5	D-6	LT/RT	26																				
P-7	18-19	D-5	D-7	LT	290																				
P-8	18	D-7	D-8	LT/RT	26																				
P-9	18	D-7	D-9	LT	312																				
P-10	18	D-9	D-10	LT/RT	26																				
SA-1	18	04+46.66		RT								1													
SA-2	19	07+26.35		RT								1													
SJ-1	18	00+39.04		RT									1												
SJ-2	18	03+80.59		RT									1												
SJ-3	19	10+21.37		RT										1											
SP-1	18	SA-1	SA-2	RT			280																		
SP-2	19	SA-2	SJ-3	RT			295																		
W-1	18	00+27.97		LT																1					
W-2	18-19	00+27.97	09+46.43	LT																	922				
W-3	18	00+33.56		LT																		1			
W-4	18	03+35.00		LT																				1	
W-6	19	08+35.00		LT																				1	
W-7	19	09+45.00		LT																			1		
WR-1	18	00+38.87		RT																			1	2	
WJ-1	19	09+47.46		LT																					1
WJ-2	18	00+33.56		LT																					1
U-1	18	00+38.54	D-10	RT												95.9	10								
U-2	18	01+35	D-8	RT												285	10								
U-3	18	00+24.50	D-9	LT												84.27	10								
U-4	18-19	04+40.00	D-6	RT												270	10								
U-5	19	07+30.00	D-4	RT												139.78	10								
U-6	19	D-4	09+87.28	RT												109.19	10								
U-7	19	D-1	09+79.53	LT												3.44	10								
U-8	18	01+28	D-7	LT												292	10								
U-9	18-19	04+40.00	D-5	LT												270	10								
U-10	19	07+30.00	D-3	LT												140.15	10								
U-11	19	D-3	09+57.08	LT												67.46	10								
U-12	19	09+57.08	D-1	LT												13.39	10								
TOTALS CARRIED TO GENERAL SUMMARY					706	287	575	1	9	1	1	2	2	1		1771	120		1	922	1	1	3	2	2

CALCULATED SCB
CHECKED RAB

ESTIMATED QUANTITIES

CANTON-41ST. NW

STATION		SIDE	LENGTH (L)	AVERAGE WIDTH (W)	SURFACE AREA (A=LxW)	AREA FOR 12" BASE EXTENSION	AREA FOR 18" SUBGRADE EXTENSION	AREA FOR 36" BASE EXTENSION	AREA FOR 42" SUBGRADE EXTENSION	204 SUBGRADE COMPACTION		254 PAVEMENT PLANING, ASPHALT CONCRETE	301 4" ASPHALT CONCRETE BASE, PG64-22	304 6" AGGREGATE BASE	304 4" AGGREGATE BASE	407 TACK COAT (0.075 GAL./SQ YD)	407 TACK COAT FOR INTERMEDIATE COURSE (0.04 GAL./SQ YD)	448 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1	448 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1	608 4" CONCRETE WALK (CITY STD. 29, TYPE III)	608 CURB RAMP	609 COMBINATION CURB AND GUTTER, TYPE 2	609 CURB, TYPE 6
FROM	TO		FEET	FEET	SQ FT	SQ FT	SQ FT	SQ FT	SQ FT	SQ YD		SQ YD	CU YD	CU YD	CU YD	GALLON	GALLON	CU YD	CU YD	SQ FT	EACH	FT	FT
FULL DEPTH PAVEMENT																							
0+35.79	0+40.10	LT.	4.31	13.00	56.03	4.31	6.47			6.94			0.69	1.12		0.47	0.50	0.26	0.30				4.31
0+40.10	9+57.08	LT.	916.98	11.00	10086.78			2750.94	3209.43	1477.36			124.53	237.74		84.06	89.66	46.70	54.48			916.98	
0+59.04	0+61.81	RT.	2.77	13.00	36.01	2.77	4.16			4.46			0.44	0.72		0.30	0.32	0.17	0.19				2.77
0+61.81	9+70.78	RT	908.97	11.00	9998.67			2726.91	3181.40	1464.45			123.44	235.66		83.32	88.88	46.29	54.01			908.97	
INTERSECTION AREA (41st St./Cleve. Ave.)		LT.		CADD	270.93	27.57	40.87			34.64			3.34	5.53		2.26	2.41	1.25	1.46				25.56
INTERSECTION AREA (41st St./Cleve. Ave.)		RT.		CADD	717.07	41.00	60.80			86.43			8.85	14.04		5.98	6.37	3.32	3.87				41.93
INTERSECTION AREA (41st St./Steese. Ave.)		LT.		CADD	590.85			118.58	136.86	80.86			7.29	13.14		4.92	5.25	2.74	3.19			42.04	
INTERSECTION AREA (41st St./Steese. Ave.)		RT.		CADD	320.09			93.65	107.99	47.56			3.95	7.66		2.67	2.85	1.48	1.73			33.39	
RESURFACING (BETWEEN SAWCUTS)																							
INTERSECTION AREA (41st St./Steese. Ave.)		LT.		CADD	1354.44							150.49				11.29		6.27					
INTERSECTION AREA (41st St./Steese. Ave.)		RT.		CADD	1246.92							138.55				10.39		5.77					
SIDEWALK & CURB RAMPS																							
INTERSECTION AREA (41st St./Cleve. Ave.)		LT.		CADD	88.51					9.83					1.09					88.51	1.00		
INTERSECTION AREA (41st St./Cleve. Ave.)		RT.		CADD	250.23					27.80					3.09					250.23	1.00		
0+51.70	0+85.67	RT.	33.97	5.00	169.85					18.87					2.10					169.85			
1+15.67	1+89.73	RT.	74.06	5.00	370.30					41.14					4.57					370.30			
1+44.80	1+65.56	LT.		CADD	97.14					10.79					1.20					97.14			
1+60.07	1+65.57	LT.		CADD	39.40					4.38					0.49					39.40			
2+32.97	2+73.75	RT.	40.78	3.50	142.73					15.86					1.76					142.73			
2+73.75	2+98.71	RT.	24.96	4.25	106.08					11.79					1.31					106.08			
2+98.71	3+47.76	RT.	49.05	5.00	245.25					27.25					3.03					245.25			
3+61.41	3+97.48	RT.	36.07	5.00	180.35					20.04					2.23					180.35			
4+15.53	4+48.14	RT.	32.61	5.00	163.05					18.12					2.01					163.05			
4+64.13	5+00.65	RT.	36.52	5.00	182.60					20.29					2.25					182.60			
5+14.96	5+47.43	RT.	32.47	5.00	162.35					18.04					2.00					162.35			
5+66.17	6+52.87	RT.	86.70	5.00	433.50					48.17					5.35					433.50			
6+66.87	7+00.98	RT.	34.11	5.00	170.55					18.95					2.11					170.55			
7+15.98	7+58.05	RT.	42.07	5.00	210.35					23.37					2.60					210.35			
7+82.71	7+91.38	RT.	8.67	5.00	43.35					4.82					0.54					43.35			
8+07.27	8+47.01	RT.	39.74	5.00	198.70					22.08					2.45					198.70			
8+73.64	9+70.78	RT.		CADD	796.40					88.49					9.83					796.40			
8+65.52	9+57.08	LT.		CADD	550.77					61.20					6.80					550.77			
INTERSECTION AREA (41st St./Steese. Ave.)		LT.		CADD	172.05					19.12					2.12					172.05	1.00		
INTERSECTION AREA (41st St./Steese. Ave.)		RT.		CADD	46.53					5.17					0.57					46.53	1.00		
TOTALS CARRIED TO THE PAVEMENT SUBSUMMARY										3739		290	273	516	60	206	197	115	120	4821	4	1902	75

CALCULATED SCB
CHECKED RAB

ESTIMATED QUANTITIES

CANTON-41ST. NW

12/46

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CBURNS

REF. NO.	SHEET NO.	STATION	SIDE	USAGE	TYPE	EXISTING MATERIAL	APRON SURFACE AREA 1 (A1=L x W)	DRIVEWAY SURFACE AREA 3 (A2=L x W)		204 SUBGRADE COMPACTION		301 4" ASPAHLT CONCRETE BASE, PG64-22	301 5" ASPHALT CONCRETE BASE, PG64-22	304 2" NO. 57, 67, OR 78 CRUSHED LIMESTONE AGGREGATE	304 4" AGGREGATE BASE	407 TACK COAT FOR INTERMEDIATE COURSE (0.04 GAL./S.Y.)	408 PRIME COAT (0.40 GAL/S.Y.)	448 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAYS)	452 6" NON-REINFORCED CONCRETE PAVEMENT	452 7" NON-REINFORCED CONCRETE PAVEMENT
							SQ FT	SQ FT		SQ YD			CU YD	CU YD	CU YD	GALLON	GALLON	CU YD	SQ YD	SQ YD
DV-1	29	0+61.58	LT	COM	2	ASPHALT	77.48	1392.34		163.31			21.49		18.15	6.19	61.88	5.37		8.61
DV-2	29	1+00.43	RT	COM	1	CONCRETE	293.61	12.00		33.96					3.77					33.96
DV-4	29	1+87.55	LT	COM	2	ASPHALT	150.95	530.58		75.73			8.19		1.86	2.36	23.58	2.05		16.77
DV-5	29	2+10.84	RT	RES	1	CONCRETE	392.22	419.89		90.23					10.03				90.23	
DV-6	29	2+22.14	LT	RES	2	CONCRETE	42.25	188.23		25.61					2.85				25.61	
DV-7	29	2+69.89	LT	RES	2	CONCRETE	41.98	181.21		24.80					2.76				24.80	
DV-8	29	3+20.78	LT	RES	2	CONCRETE	34.58	67.18		11.31					1.26				11.31	
DV-9	29	3+54.27	RT	RES	1	CONCRETE	138.79	107.01		27.31					3.03				27.31	
DV-10	29	3+69.85	LT	RES	2	CONCRETE	65.09	136.28		22.37					2.49				22.37	
DV-11	29	4+06.46	RT	RES	1	ASPHALT	180.57	120.50		33.45		1.49			2.23		5.36	0.46	20.06	
DV-12	29	4+20.28	LT	RES	2	ASPHALT	35.13	258.49		32.62		3.19			0.43		11.49	1.00	3.90	
DV-13	29	4+55.92	RT	RES	1	CONCRETE	161.00	99.89		28.99					1.99				17.89	
DV-14	29	5+08.29	RT	RES	1	CONCRETE	145.04	166.18		34.58					3.84				34.58	
DV-15	29	5+29.16	LT	RES	2	CONCRETE	35.79	84.50		13.37					1.49				13.37	
DV-16	29	5+55.42	RT	RES	1	CONCRETE	187.19	282.51		52.19					5.80				52.19	
DV-17	29	5+60.68	LT	RES	2	CONCRETE	35.19	70.01		11.69					1.30				11.69	
DV-18	29	6+57.07	LT	RES	2	CONCRETE	33.80	125.36		17.68					1.96				17.68	
DV-19	29	6+60.16	RT	RES	1	GRAVEL	142.13	80.01		24.68				0.49	2.74				15.79	
DV-20	29	7+08.47	RT	RES	1	CONCRETE	151.61	90.00		26.85					2.98				26.85	
DV-21	29	7+10.02	LT	RES	2	CONCRETE	38.36	76.00		12.71					1.41				12.71	
DV-22	29	7+57.53	LT	RES	2	CONCRETE	66.61	141.92		23.17					2.57				23.17	
DV-23	29	7+70.02	RT	RES	1	ASPHALT	211.97	187.45		44.38		2.89			4.93		8.33	0.72	23.55	
DV-24	29	7+99.64	RT	RES	1	CONCRETE	127.84	98.92		25.20					2.80				25.20	
DV-25	29	8+13.08	LT	RES	2	ASPHALT	35.56	69.48		11.67		1.07			1.30		3.09	0.27	3.95	
DV-26	29	8+52.91	LT	RES	2	CONCRETE	35.34	68.55		11.54					1.28				11.54	
DV-27	29	8+59.74	RT	RES	1	CONCRETE	255.92	319.64		63.95					7.11				63.95	
DV-28	29	1+36.02	LT	COM	2	ASPHALT	117.80	431.27		61.01			6.61		6.78	1.92	19.17	1.66		13.09
DV-29	29	7+87.04	RT	RES	1	GRAVEL	137.68	143.13		31.2				0.88	3.47				15.30	
TOTALS CARRIED TO GENERAL SUMMARY										1036		9	37	2	103	11	133	12	595	72

CALCULATED SCB
CHECKED RAB

DRIVE CALCULATIONS

CANTON-41ST. NW

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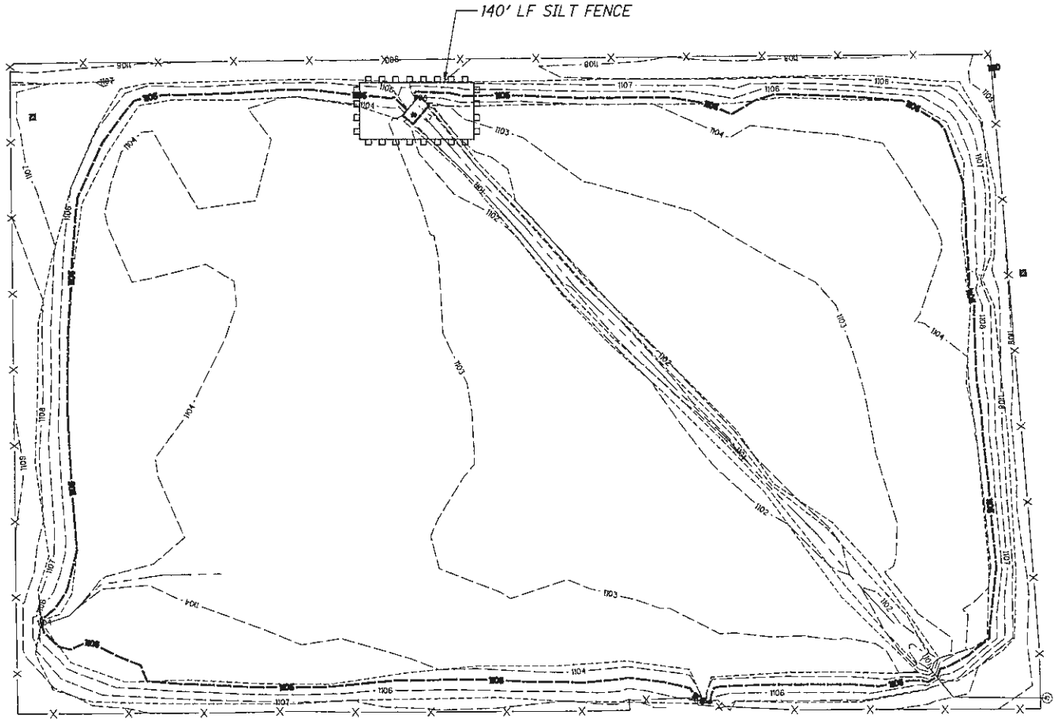
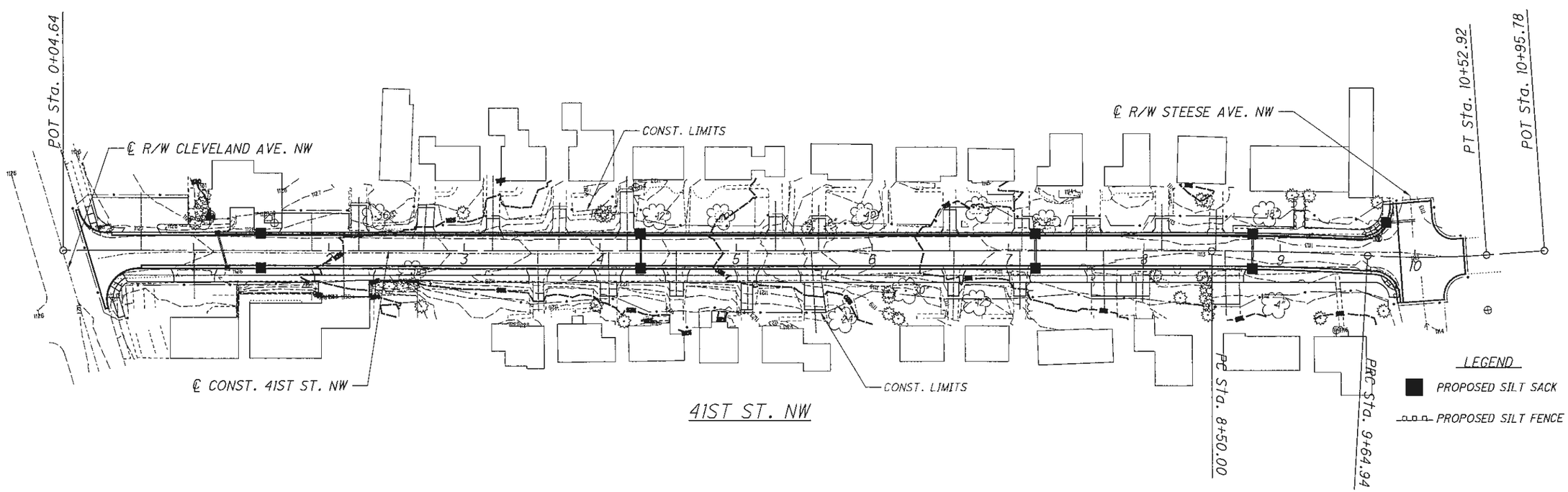
PROJECT DATA	
IMMEDIATE RECEIVING WATERS	MIDDLE BRANCH NIMISHILLEN CREEK
SUBSEQUENT RECEIVING WATERS	TUSCAWARAS RIVER
USGS QUADRANT NO. 4008lg4/7.5 CANTON WEST, OHIO	
LATITUDE: N40°50'37" LONGITUDE: W81°23'22" APPROX. CENTER OF PROJECT	
RUNOFF COEFFICIENTS FOR PRE- CONSTRUCTION SITE	0.50 - 0.90
RUNOFF COEFFICIENTS FOR POST CONSTRUCTION SITE	0.50 - 0.90
BMP NOTES: EXTENDED DETENTION BASIN	
PROJECT EARTH DISTURBED AREA	1.60 AC.
ESTIMATED ADDITIONAL CONTRACTOR EARTH DISTURBED AREA	0 AC.
NOTICE OF INTENT EARTH DISTURBED AREA	1.60 AC.
IMPERVIOUS (PAVED) AREA FOR PRE- CONSTRUCTION SITE (% OF CEDA)	16.7%
IMPERVIOUS (PAVED) AREA FOR POST CONSTRUCTION SITE (% OF CEDA)	17.5%



RETROFIT DETENTION BASIN



41ST ST. NW

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HORIZONTAL SCALE IN FEET
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STORM WATER POLLUTION PREVENTION PLAN

CANTON-41ST. NW

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EX. 83"x53" HE

EX. 967
EXIST. HEADWALL
EX. INV. 66" RCP = 1100.66

EX. 824
EXIST. CATCH BASIN
T/C = 1106.20
EX. INV. 24" CPP (N) = 1102.36

EX. 1018
EXIST. OUTLET CONTROL STRUCTURE *(RETROFIT)*
(REFER TO DETAILS, SHEET 17)
T/C = 1106.95
EX. INV. 42" INLET = 1100.21 *(MODIFY)*
EX. 53"x83" OUTLET = 1100.21 *(REMAIN)*
EX. ORIFICE (W) 4'x12" = 1103.87 *(MODIFY)*
EX. ORIFICE (E) 4'x12" = 1104.37 *(MODIFY)*
PROP. ORIFICE (S) 4'x1.87' = 1103.00

EX. 1082
EXIST. STORM MH
RIM ELEV. 1109.65
EX. INV. 54" CONC (W)=1101.75
EX. INV. 54" CONC (S)=1101.75
EX. INV. 48" CONC (E)=1101.75

EX. 751
EXIST. CATCH BASIN
T/C = 1108.87
EX. INV. 12" CPP (W) = 1106.19

EX. 24"

EX-824

EX-1018

EX-751

EX-967

EX-1082

EX. 100 YR OVERLAND FLOOD PATH

CONST. LIMITS

ex. 6" u.d.

ex. chain link fence (TO REMAIN)

EX. CONC. CUT-OFF MAT *(TO REMAIN)*

EX. ROCK CHANNEL PROTECTION

EX. 12" INV. = 1105.63

EX 24" INV. = 1104.05

EX 24" CPP

EX. 12" INV. = 1103.73

EX 12" RCP

EX. 66" RCP

℄ ex. ditch

1101.12± 1101.00± 1100.92± 1100.92± 1100.94± 1101.14± 1101.02± 1101.13± 1101.86± 1101.74± 1101.31± 1101.39± 1101.44± 1101.78± 1101.48± 1101.49±

LEGEND

XXXX ex. contour

XXXX PROP. CONTOUR

EX. ROCK CHANNEL PROTECTION

XXXX.XX± EX. "RECORD" UNDERDRAIN ELEVATION. (FIELD VERIFY)

FOR ASSOCIATED PCSWM NOTES AND DETAILS, SEE SHEET 17.

HORIZONTAL SCALE IN FEET
0 20 40

CALCULATED
CHECKED

DETENTION BASIN RETROFIT PLAN

CANTON-41ST-NW

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STORM WATER POLLUTION PREVENTION NOTES

1. BEST MANAGEMENT PRACTICES SHALL CONFORM TO SPECIFICATIONS CONTAINED IN THE ODNR REFERENCE, RAINWATER AND LAND DEVELOPMENT, OHIO'S STANDARDS FOR STORM WATER MANAGEMENT, LAND DEVELOPMENT AND URBAN STREAM PROTECTION, LATEST EDITION.

2. THE GRADING AND STORMWATER POLLUTION PREVENTION PLANS, NOTES AND DETAILS SHALL BE AVAILABLE ON SITE AT ALL TIMES AND PRESENTED UPON REQUEST. IF UNFORESEEN EROSION IS ENCOUNTERED, ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES MAY BE REQUESTED BY THE OWNER, PROJECT ENGINEER OR COUNTY SWCD REPRESENTATIVE AT ANY TIME. SUCH REQUESTS SHALL BE IMPLEMENTED IMMEDIATELY.

3. EROSION CONTROL MEASURES SHALL BE INSTALLED AROUND THE PERIMETER OF THE DISTURBED AREA INCLUDING ALL DIRT OR TOPSOIL STOCKPILES AND OTHER TEMPORARILY DISTURBED AREAS AS SHOWN ON THESE PLANS AND AS DIRECTED BY THE ENGINEER. SEDIMENT BASINS/TRAPS AND PERIMETER SEDIMENT CONTROLS SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING AND WITHIN SEVEN (7) DAYS FROM THE START OF GRUBBING. UPON COMPLETION OF CONSTRUCTION, SEEDING AND MULCHING SHALL IMMEDIATELY FOLLOW TO AID IN THE STABILIZATION AND MINIMIZE EROSION AND SEDIMENT TRANSPORT OF THE SOIL BEFORE WATER LEAVES THE SITE. ALL EROSION AND SEDIMENT CONTROLS SHALL CONTINUE TO FUNCTION UNTIL UPLAND AREAS ARE PERMANENTLY STABILIZED, OR AS DIRECTED BY THE ENGINEER. NO EROSION AND SEDIMENT CONTROL BMPS SHALL BE REMOVED FROM THE SITE PRIOR TO ADEQUATE PERMANENT STABILIZATION OF THE ASSOCIATED UPLAND DRAINAGE AREAS AND WITHOUT FIRST OBTAINING AUTHORIZATION FROM THE ENGINEER, UNLESS THEIR REMOVAL IS SPECIFICALLY PROVIDED FOR WITHIN THE SITE'S APPROVED PLAN.

4. REGULAR INSPECTION AND MAINTENANCE WILL BE PROVIDED FOR ALL EROSION AND SEDIMENT CONTROL PRACTICES. PERMANENT RECORDS OF MAINTENANCE AND INSPECTIONS MUST BE KEPT THROUGHOUT THE CONSTRUCTION PERIOD. INSPECTIONS MUST BE MADE A MINIMUM OF ONCE EVERY SEVEN CALENDAR DAYS AND IMMEDIATELY AFTER STORM EVENTS GREATER THAN 0.5 INCHES IN A 24 HOUR PERIOD. PROVIDE NAME OF INSPECTOR, MAJOR OBSERVATIONS, DATE OF INSPECTION AND CORRECTIVE MEASURES TAKEN. THE GENERAL CONTRACTOR SHALL PROVIDE TO THE CONSTRUCTION MANAGER (ON A WEEKLY BASIS) A COPY OF CURRENT INSPECTION REPORTS.

5. UTILITY COMPANIES MUST COMPLY WITH ALL STORM WATER POLLUTION PREVENTION MEASURES AS DEFINED ON THE STORM WATER POLLUTION PREVENTION PLANS, DETAILS AND NOTES.

6. THE TOTAL DISTURBANCE FOR ENTIRE PROJECT WILL BE 1.60 ACRES.

7. INSTALL TEMPORARY SEEDING AND MULCHING IN ALL AREAS THAT SHALL BE INACTIVE FOR 21 DAYS OR MORE. ALL DISTURBED AND ERODED EARTH SHALL BE REGRADED AND SEEDED WITHIN 7 DAYS WITH SEEDING, AS DEFINED ABOVE AND AS SHOWN ON THE TABLE BELOW, TO ESTABLISH STABILITY AND PROVIDE SEDIMENT CONTROL. WHERE SLOPES EXCEED 5%, INSTALL TEMPORARY SEEDING WITH EROSION CONTROL BLANKET AS SPECIFIED BELOW. PERMANENT SEEDING AND MULCHING SHALL BE AS SPECIFIED ON THE GENERAL NOTES SHEET(S). DISTURBED AREAS THAT WILL REMAIN DORMANT FOR MORE THAN TWENTY-ONE (21) DAYS WITHIN FIFTY(50) FEET OF A STREAM SHALL HAVE TEMPORARY EROSION CONTROL MEASURES, INCLUDING BUT NOT LIMITED TO SEEDING AND MULCHING, APPLIED WITHIN TWO (2) DAYS. DISTURBED AREAS THAT HAVE REACHED FINAL GRADE SHALL BE STABILIZED WITHIN SEVEN (7) DAYS OF REACHING FINAL GRADE.

STORM WATER POLLUTION PREVENTION NOTES CONTINUED

8. NO SOLID OR LIQUID WASTE SHALL BE DISCHARGED INTO STORM WATER RUNOFF. ANY AND ALL WASTE MATERIALS (SOLID, HAZARDOUS, CONSTRUCTION AND DEMOLITION, SANITARY, TOXIC, ETC.) GENERATED AT THE SITE SHALL BE PROPERLY DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL RULES/REGULATIONS. IT IS PROHIBITED TO BURN, BURY OR POUR OUT ONTO THE GROUND OR INTO THE STORM SEWERS ANY SOLVENTS, PAINTS, GASOLINE, DIESEL FUEL, USED MOTOR OIL, HYDRAULIC FLUID, ANTIFREEZE, CEMENT CURING COMPOUNDS AND ANY OTHER SUCH TOXIC OR HAZARDOUS MATERIALS OR WASTES.

9. OFF-SITE VEHICLE TRACKING SEDIMENT SHALL BE MINIMIZED. CONSTRUCTION VEHICLES ARE LIMITED TO THE CONSTRUCTION ACCESS ROAD NOTED ON THE PLAN.

10. OTHER PRACTICES MAY BE REQUIRED DUE TO ENVIRONMENTAL CONDITIONS.

11. WINTERIZATION- ANY DISTURBED AREAS THAT IS NOT GOING TO BE WORKED FOR 21 DAYS OR MORE MUST BE SEEDED AND MULCHED BY NOVEMBER 1 OR MUST HAVE DORMANT SEEDING OR MULCH COVER APPLIED BETWEEN NOVEMBER 1 AND MARCH 1.

12. ALL CONCRETE WASH OUT WATER MUST BE HAULED BACK TO THE PLANT FOR DISPOSAL OR TO A SIMILAR APPROVED DISPOSAL FACILITY.

13. THE OWNER WILL FILE NOI. NOI CO-PERMITEE IS RESPONSIBLE FOR EROSION CONTROL PER THESE PLANS. ALL SUBCONTRACTORS MUST SIGN THESE PLANS ACKNOWLEDGING THEY HAVE REVIEWED THE SWP3 AND HAVE FILED AS CO-PERMITEES UNDER ORIGINAL NOI PERMIT.

14. DUST SHALL BE CONTAINED USING WATER. OIL IS NOT TO BE USED AS A DUST SUPPRESSANT.

15. ANY DISCHARGE OF PETROLEUM OR PETROLEUM PRODUCTS OF LESS THAN 25 GALLONS ONTO A PERVIOUS SURFACE SHALL BE LEGALLY REMOVED AND PROPERLY TREATED OR PROPERLY DISPOSED OF, OR OTHERWISE REMEDIATED, SO THAT NO CONTAMINATION FROM THE DISCHARGE REMAINS ON-SITE.

16. IN THE EVENT OF A LARGE RELEASE (25 OR MORE GALLONS) OF PETROLEUM WASTE CONTRACTOR MUST CONTACT THE OHIO EPA (AT 1-800-282-9378), THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE (LEPC) WITHIN 30 MINUTES OF A SPILL OF 25 OR MORE GALLONS. NO ON SITE FUEL STORAGE IS PERMITTED.

17. A SITE IS NOT CONSIDERED TO BE STABLE UNTIL THE FOLLOWING ITEMS ARE COMPLETE:
* A PERENNIAL, VEGETATIVE COVER (OR OTHER PERMANENT STABILIZATION PRACTICE) HAS GROWN TO A 75% DENSITY THROUGHOUT THE ENTIRE DISTURBED AREA.

* ALL TEMPORARY EROSION AND SEDIMENT CONTROLS HAVE BEEN REMOVED AND DISPOSED OF PROPERLY.

* ALL TRAPPED SEDIMENT HAS BEEN PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION OR RE-SUSPENSION.

* ALL CONSTRUCTION ACTIVITIES HAVE CEASED.

18. ALL HAZARDOUS AND TOXIC WASTE SHALL BE CONTAINED AND LEGALLY DISPOSED OF OFF-SITE.

SILTSACK Regular Flow

Property	Test Method	Test Result
Grab Tensile	ASTM D-4632	300 lbs.
Grab Elongation	ASTM D-4632	20%
Puncture	ASTM D-4833	120 lbs.
Mullan Burst	ASTM D-3786	800 P.S.I.
Trapezoid Tear	ASTM D-4533	120 lbs.
UV Resistance	ASTM D-4355	80%
Apparent Opening	ASTM D-4751	40 US Sieve
Flow Rate	ASTM D-4491	40 Gal/Min/Ft^2
Permittivity	ASTM D-4491	0.55 sec^{-1}

OR

SILTSACK Hi-Flow

Property	Test Method	Test Result
Grab Tensile	ASTM D-4632	265 lbs.
Grab Elongation	ASTM D-4632	20%
Puncture	ASTM D-4833	135 lbs.
Mullan Burst	ASTM D-3786	420 P.S.I.
Trapezoid Tear	ASTM D-4533	45 lbs.
UV Resistance	ASTM D-4355	90%
Apparent Opening	ASTM D-4751	20 US Sieve
Flow Rate	ASTMD-4491	200 Gal/Min/Ft^2
Permittivity	ASTM D-4491	1.5 sec^{-1}

*All properties are minimum average roll values

3.0 Construction Sequence

3.1.1 To install the SILTSACK in a catch basin, remove the grate and place the sack in the opening. Hold out approximately six inches of the sack outside the frame. This is the area of the lifting straps. Replace the grate to hold the sack in place.

3.1.2 The SILTSACK is considered full and should be emptied when the restraint cord is no longer visible.

3.1.3 To remove the SILTSACK, take two pieces of 1" diameter rebar and place through the lifting loops on each side of the sack to facilitate the lifting of the SILTSACK.

3.1.4 To empty the SILTSACK, place it where the contents will be collected. Place the rebar through the lifting straps (connected to the bottom of the sack) and lift. This will turn the SILTSACK inside outand empty the contents. Clean out with a shovel and rinse. Return the SILTSACK to its original shape and place back in the basin.

3.1.5 The SILTSACK is reusable. Once the construction cycle is complete, remove the SILTSACK from the basin and clean. The SILTSACK should be stored out of the sunlight until needed on another project.

SILTSACK® SPECIFICATION
Control of Sediment Entering Catch Basins
(Stormwater Management)

1.0 Description

1.1 This work shall consist of furnishing, installing, maintaining, and removing SILTSACK Sediment Control Device as directed by the engineer or as shown on the contract drawings. The SILTSACK Sediment Control Device is manufactured by:

ACF Environmental, Inc.
1801 A-Willis Road
Richmond, Virginia 23237
Phone: 800-644-9223
Fax: 804-743-7779

2.0 Materials

2.1.1 The SILTSACK shall be manufactured from a woven polypropylene and sewn by a double needle machine, using a high strength nylon thread.

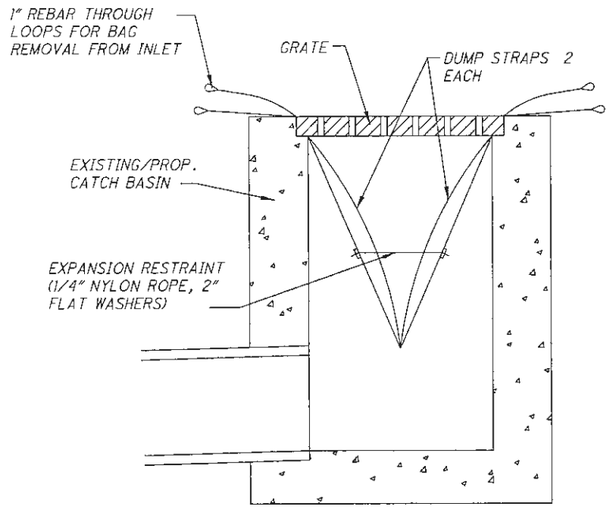
2.1.2 The SILTSACK seams shall have a certified average wide width strength per ASTM D-4884 standards as follows:

SILTSACK Style	Test Method	Test Method
Regular Flow	ASTM D-4884	165.0 lbs./in
Hi-Flow	ASTM D-4884	114.6 lbs./in

2.1.3 The SILTSACK will be manufactured to fit the opening of the catch basin or drop inlet. The SILTSACK will have the following features: two dump straps attached at the bottom to facilitate the emptying of the SILTSACK; the SILTSACK shall have lifting loops as an integral part of the system to be used to lift the SILTSACK from the basin; the SILTSACK shall have a restraint cord approximately halfway up the sack to

Keep the sides away from the catch basin walls, this yellow cord is also a visual means of indicating when the sack should be emptied. Once the strap is covered with sediment, the SILTSACK should be emptied, cleaned, and placed back into the basin.

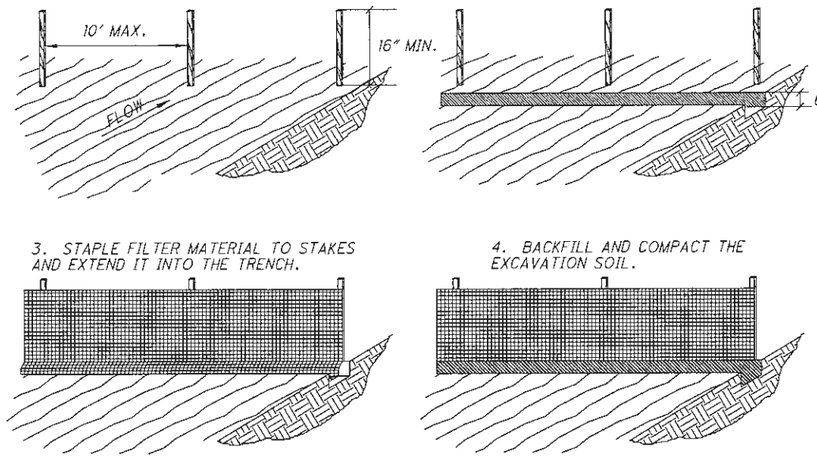
2.1.4 The geotextile fabric shall be a woven polypropylene fabric with the following properties:



SILT SACK
N.T.S.

TEMPORARY SEEDING SPECIFICATIONS:

SEEDING DATES	SEED TYPE	APPLICATION RATE PER 1,000 S.F.
MARCH 1-AUGUST 15	OATS PERENNIAL RYE GRASS OR TALL FESCUE	3# 1#
AUGUST 16-NOVEMBER 1	RYE, WHEAT OR PERENNIAL RYE GRASS TALL FESCUE	3# 1#
AFTER NOVEMBER 1	STRAW OR HAY MULCH	2-3 BALES
SEED BED PREPARATION	LIME 10-10-10 OR 12-12-12 FERTILIZER	100# 12-15#



SILT FENCE
N.T.S.

1.INSTALL SILT FENCE IN ACCORDANCE WITH THE CURRENT OHIO RAINWATER AND LAND DEVELOPMENT MANUAL.

THE CONTRACTORS/SUBCONTRACTORS MUST FILE AS CO-PERMITTEE UNDER THE PERMITTED OEPA CONSTRUCTION STORM WATER PERMIT _____. BY SIGNING BELOW, THE NOI PERMITTEE AND CO-PERMITTEE ACKNOWLEDGE THAT THEY HAVE FAMILIARIZED THEMSELVES WITH SWP3 DRAWINGS PRIOR TO CONSTRUCTION AND WILL ADHERE TO THE REQUIREMENTS IN THE OEPA PERMIT AND THESE PLANS.

NOI PERMITTEE: _____
SIGNATURE _____ DATE
CONTACT NAME: _____
CONTACT NUMBER: _____
CONTACT ADDRESS: _____

NOI CO-PERMITTEE: _____
SIGNATURE _____ DATE
CONTACT NAME: _____
CONTACT NUMBER: _____
CONTACT ADDRESS: _____

NOI CO-PERMITTEE: _____
SIGNATURE _____ DATE
CONTACT NAME: _____
CONTACT NUMBER: _____
CONTACT ADDRESS: _____

NOI CO-PERMITTEE: _____
SIGNATURE _____ DATE
CONTACT NAME: _____
CONTACT NUMBER: _____
CONTACT ADDRESS: _____

CALCULATED | CHECKED

STORM WATER POLLUTION PREVENTION PLAN, DETAILS & NOTES

CANTON-41ST. NW

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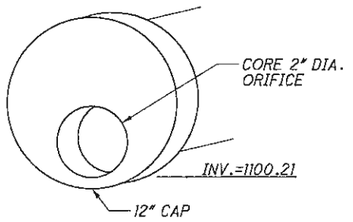
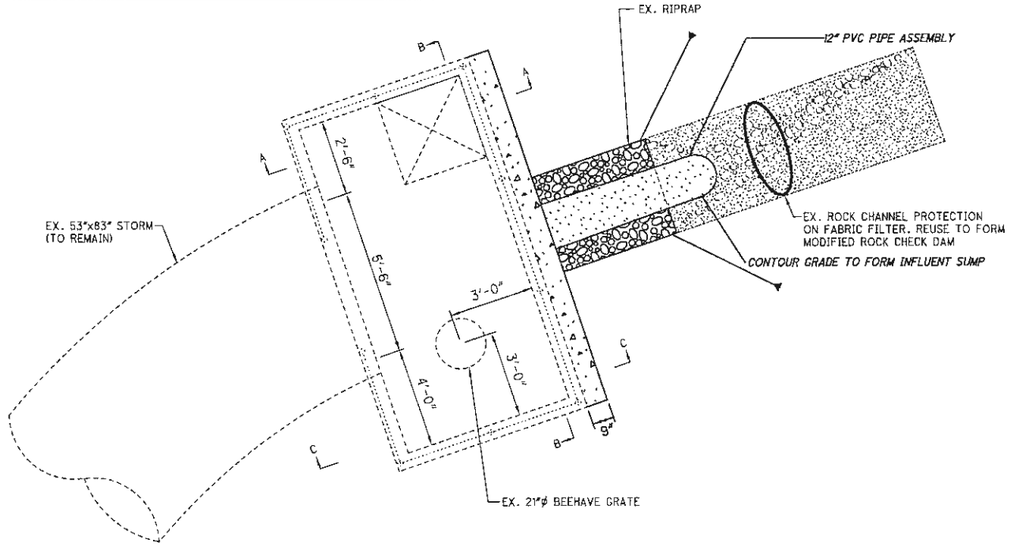
LAWN SEEDING

1. SEED ALL LAWN AREAS WITHIN THE CONSTRUCTION LIMITS WITH LAWN SEEDING UNLESS INDICATED OTHERWISE.
2. GRASS SEED SHALL BE FRESH, CLEAN, DRY, NEW-CROP SEED COMPLYING WITH THE ASSOCIATION OF OFFICIAL SEED ANALYSTS' "RULES FOR TESTING SEEDS" FOR PURITY AND GERMINATION TOLERANCES.
3. ALL AREAS TO BE SEEDED SHALL RECEIVE NO LESS THAN FIVE POUNDS OF SEED PER ONE THOUSAND SQUARE FEET. APPLY SEED AND PROTECT WITH STRAW MULCH AS REQUIRED FOR NEW LAWNS. GRASS SEED MIX SHALL CONSIST OF THE FOLLOWING:

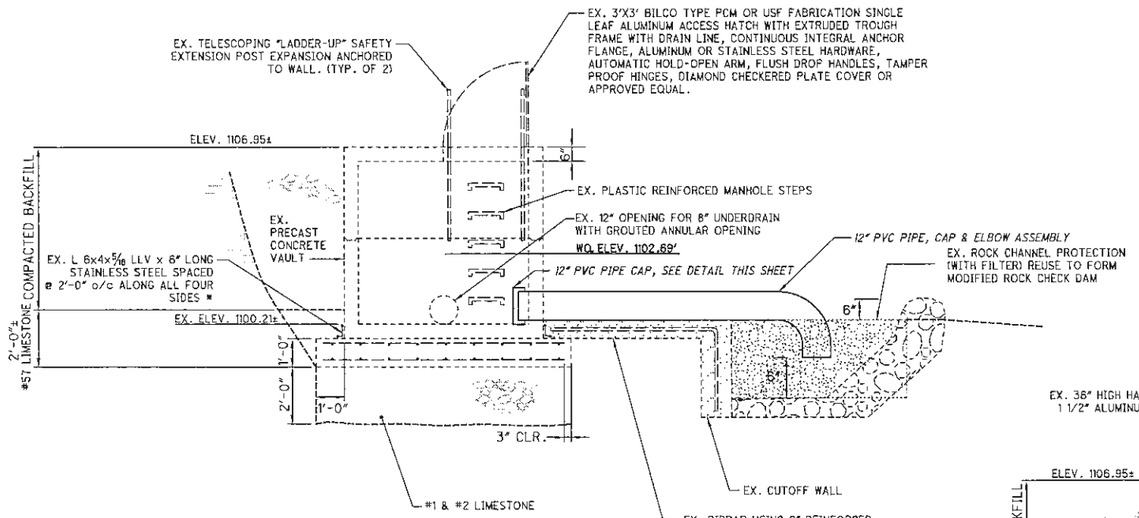
PROPORTION	NAME	MIN.% GERM.	MIN.% PURE SEED	MAX.% WEED SEED
30%	KENTUCKY BLUEGRASS (POA PRATENSIS)	80	85	0.50
30%	CREEPING RED FESCUE (FESTUCA RUBRA)	85	98	0.50
20%	PERENNIAL RYE GRASS (LOLIUM PERENNE)	90	98	0.50
20%	ANNUAL RYEGRASS (LOLIUM MULTIFLORUM)	85	92	1.00



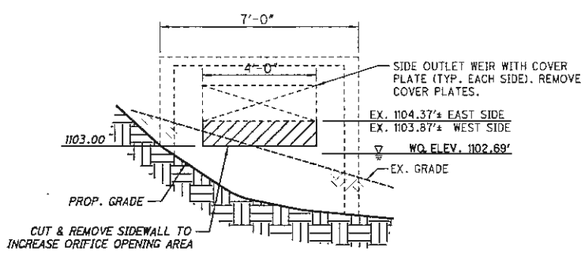
12" PVC PIPE CAP
N.T.S



PLAN
SCALE: 3/8"=1'-0"



SECTION A
SCALE: 3/8"=1'-0"



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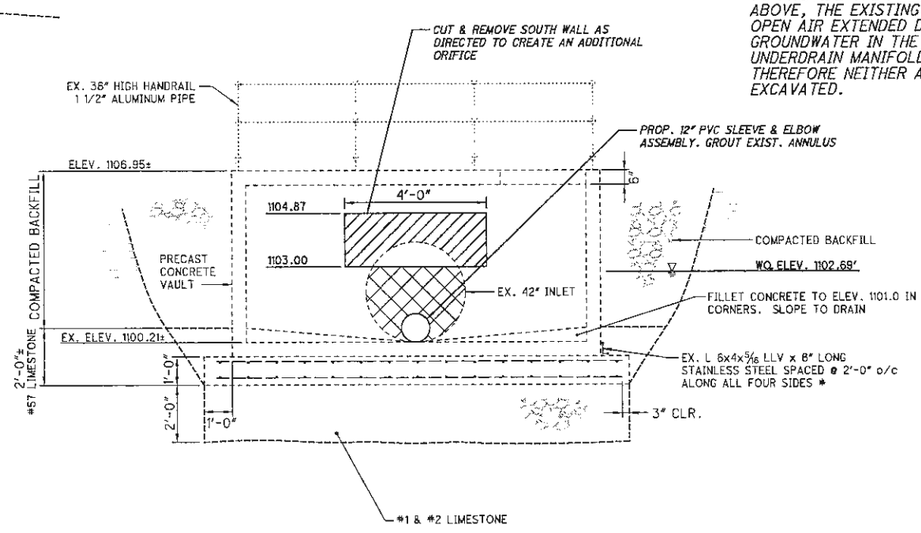
SCALE: 3/8"=1'-0"



SECTION B
SCALE: 3/8"=1'-0"

POST CONSTRUCTION STORMWATER MANAGEMENT NOTES

THE EXISTING DETENTION BASIN SERVES THE 210.76 ACRE RESIDENTIAL NEIGHBORHOOD EAST AND SOUTH OF THE BASIN. THE NEIGHBORHOOD CONSISTS OF HOMES, ROADWAYS, AND FORESTED AREAS. THE EXISTING CONTROL STRUCTURE WILL BE TO INCORPORATE STORMWATER QUALITY CONTROL MEASURES, REDUCE SEDIMENT TRANSPORT, AND PROVIDE WATER QUALITY TREATMENT (48 HOURS DRAWDOWN) INTO THE DOWNSTREAM RECEIVING WATERS.

IN ADDITION TO THE BASIN CONTROL STRUCTURE RETROFITTED, THE PROJECT INCLUDES THE FULL DEPTH RECONSTRUCTION OF 41ST STREET N.W. BETWEEN CLEVELAND AVE. N.W. AND STEESE AVE. N.W. THE SURFACE FEATURES, BOTH PERVIOUS AND IMPERVIOUS CONDITIONS, ALONG 41ST ST. WITHIN THE IMPROVEMENT AREA REMAIN RELATIVELY UNCHANGED BETWEEN PRE-DEVELOPED AND POST-DEVELOPED CONDITIONS.

THE WEIGHTED PRE- AND POST-DEVELOPED RUNOFF COEFFICIENT FOR THE AREA IS 0.57. SIMILARLY THE CN VALUES IS 81.

THE TOTAL AREA OF DISTURBANCE FOR THIS PROJECT IS 1.60 ACRES.

THE HYDROLOGIC SOILS FOR THE PROJECT AREAS AND OVERALL WATERSHED CONSIST OF A COMBINATION OF UNDULATING AND ROLLING CANFIELD-URBAN LAND COMPLEX WITH POCKETS OF FITCHVILLE, WOOSTER, AND CANFIELD SILT LOAM. THE REPRESENTATIVE SOILS CLASSIFICATION FALLS WITHIN THE HYDRAULIC SOILS GROUP (HSG) "C".

ALL STORMWATER RUNOFF IS RECEIVED BY AN 53"X83" HORIZONTAL ELLIPTICAL SEWER WHICH CONVEYS INFLOW TO THE MIDDLE BRANCH NIMISHILLEN CREEK WHICH EVENTUALLY JOINS WITH THE TUSCARAWAS RIVER.

THE FOLLOWING WATER QUALITY STORM WATER POLLUTION PREVENTION AND SEDIMENT CONTROL MEASURES WILL BE USED ON THIS SITE:

A. SILT FENCE
B. SILT BARRIERS
C. EXTENDED DETENTION
D. SILT SACKS

DESPITE BEING CLASSIFIED AS A REDEVELOPMENT TYPE OF PROJECT BASED ON PART III.G.2.e OF THE OHIO EPA GENERAL STORMWATER CONSTRUCTION PERMIT, THE POST CONSTRUCTION WATER QUALITY VOLUME (WQv) PROVIDED IS FOR THE OVERALL NEIGHBORHOOD WATERSHED TRIBUTARY TO THE EXISTING DETENTION BASIN.

THE ESTIMATED WATER QUALITY WAS DERIVED BY GENERATING A HYDROGRAPH OVER THE ENTIRE WATERSHED USING A PRECIPITATION DEPTH OF 0.75" OR THE "FIRST FLUSH" FOR AN SCS TYPE II 24-HOUR DURATION STORM.

THE TOTAL WATER QUALITY VOLUME REQUIRED IS 22,999 CUBIC FEET OR 0.528 ACRE-FEET.

TO PROVIDE THE REQUIRED WATER QUALITY VOLUMES AS DESCRIBED ABOVE, THE EXISTING DETENTION BASIN WILL BE CONVERTED TO AN OPEN AIR EXTENDED DETENTION BASIN. HOWEVER, DUE TO HIGH GROUNDWATER IN THE AREA, THE EXISTING BASIN UTILIZES AN UNDERDRAIN MANIFOLD SYSTEM TO REGULATE SAID GROUNDWATER. THEREFORE NEITHER A FOREBAY NOR MICROPOOL CAN BE EXCAVATED.

CALCULATED SCB
CHECKED RAB

STORM WATER POLLUTION PREVENTION PLAN, DETAILS & NOTES

CANTON-41ST. NW

BEGIN FULL DEPTH RECONSTRUCTION
STA. 0+23.20

BEGIN WORK
STA. 0+23.20

[1] [2] FOR DRIVES "DV-1" & "DV-4", AND DRIVES "DV-2" AND "DV-3", RESPECTIVELY, CONTRACTOR SHALL PHASE THE CONSTRUCTION OF THE PROPOSED DRIVE APPROACHES AND CORRESPONDING PARKING AREAS SUCH THAT ONE DRIVE APPROACH AND PARKING AREA ARE KEPT OPERATIONAL WHILE THE OTHER DRIVE APPROACH AND PARKING AREA ARE IMPROVED. ALL WORK ON PUBLIC PROPERTY (DRIVE APPROACHES) AND PRIVATE PROPERTY (PARKING AREAS) FOR EACH PHASE SHALL BE CONSTRUCTED WITHIN A TOTAL OF THREE (3) WEEKS, WITH MAXIMUMS OF ONE (1) WEEK ALLOTTED FOR THE CONSTRUCTION AND COMPLETION OF THE DRIVE APPROACH AND TWO (2) WEEKS ALLOTTED FOR THE CONSTRUCTION AND COMPLETION OF THE PARKING AREA. ONCE THE FIRST DRIVE APPROACH AND PARKING AREA ARE COMPLETE AND OPEN FOR USE, CONTRACTOR SHALL CONSTRUCT THE SECOND DRIVE APPROACH AND PARKING AREA TO THEIR FULL COMPLETION. ACCESS TO THESE PARCELS SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION EXCEPT WHEN DRIVE APPROACHES AND CORRESPONDING PARKING AREAS ARE CONSTRUCTED. NO ADDITIONAL COMPENSATION SHALL BE PROVIDED DUE TO THE REQUIRED EXPEDITING AND PHASING OF THE WORK FOR THESE DRIVES AND PARKING AREAS. REFER TO THE TRAFFIC GENERAL NOTES ON SHEET 6 FOR ADDITIONAL NOTES.

PROP. CONC. WALK/APRON/ DRIVE
PROP. ASPH. DRIVE
PROP. GRAVEL DRIVE

DAVID R & SANDRA K PEFFER
4112 CLEVELAND AVE NW
PARCEL - 303011

END CURB, TYPE 6
BEGIN CURB & GUTTER
STA. 0+40.10, 13.00' LT.

CHARLES B CAVENDER
4100 CLEVELAND AVE NW
PARCEL - 302273

ROBERT N & NORMA J MCMASTER
1817
PARCEL - 301940

ROBERT BENDEKGEY
1811
PARCEL - 302899

GENE H & WILMA M KRUMLAUF
1807
PARCEL - 301787

DAVID W & NANCY A RAFELD
1803
PARCEL - 302541

LINDA YOUNG
1727
PARCEL - 300347

JOHN F ALLEN
1721
PARCEL - 302595

PROP 6" WATER

CONST. LIMITS

℄ CONST. 41ST. STREET

℄ R/W 41ST. STREET

℄ R/W CLEVELAND AVE.

END CURB, TYPE 6
BEGIN CURB & GUTTER
STA. 0+61.81, 13.00' RT.

STEPHEN H & MYING A RAMPELT
4026 CLEVELAND AVE NW
PARCEL - 302543

DIPIETRO ENTERPRISES NO 3 LTD
4016 CLEVELAND AVE NW
PARCEL - 301929

STELIO FLAMOS
1806
PARCEL - 303110

BENJAMIN A & KATHLEEN A MARTINEZ
1802
PARCEL - 300464

CHARLOTTE L BUCKEY
1726
PARCEL - 300741

RANDALL S HARTSON & NICKI L BARTHOLOMEW
1722
PARCEL - 301580

STELIO FLAMOS
PARCEL - 303111

BEGIN WALK TRANSITION STA 1+99.20, 23.00' RT, 5' WIDE
END WALK TRANSITION STA 2+24.20, 21.50' RT, 3.5' WIDE
BEGIN WALK TRANSITION STA 2+74.20, 21.50' RT, 3.5' WIDE
END WALK TRANSITION STA 2+99.20, 23.00' RT, 5.0' WIDE

25.00' 50.00' 25.00'

(W-4) PLUG EX. 6" LINE, REMOVE EXISTING VALVE BOX AND ABANDON VALVE
STA. 0+38.87, 2.46' RT.

(W-4) PROP. 6" HYDRANT ASSEMBLY, TYPE A
STA 3+35.00, 16.0'
(BY OTHERS)

PROP. SAN. LATERAL RECONNECTION & REALIGNMENT

MATCHLINE STA. 5+00

S 84° 30' 06" E

S 11° 20' 52" E

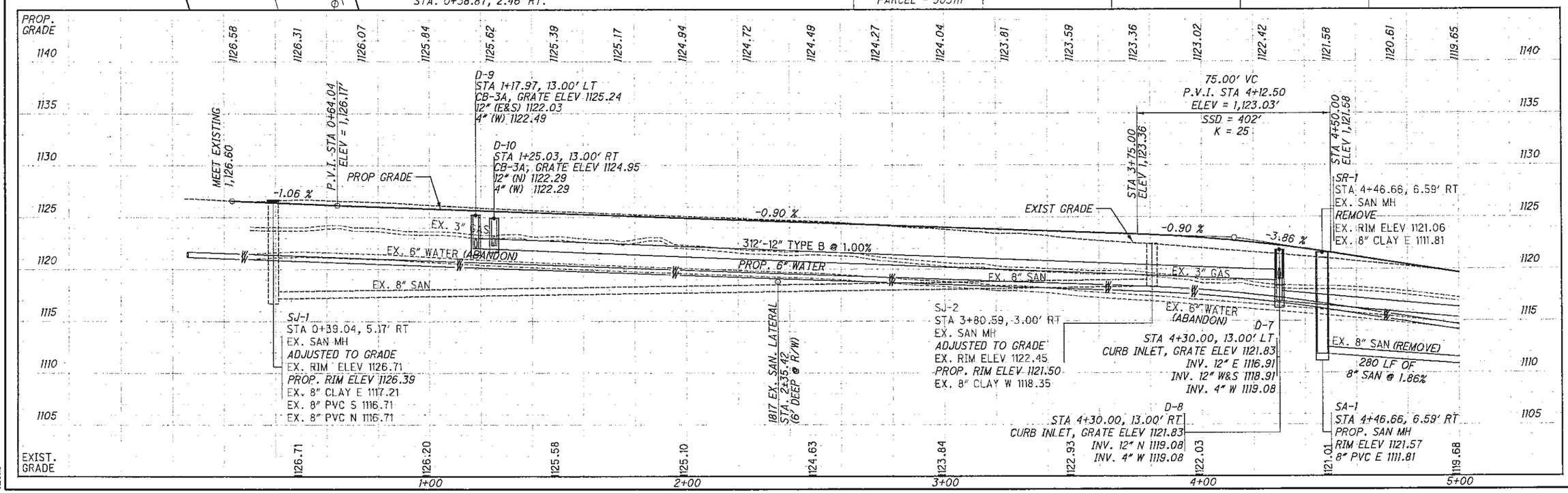
Ex R/W

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED SCB
CHECKED RAB

PLAN AND PROFILE
BEGIN TO STA. 5+00.00
CANTON-41ST. NW

18
46



PLAN AND PROFILE
STA. 5+00.00 TO END

CANTON-41ST. NW

PROP. CONC. WALK/APRON/DRIVE
PROP. ASPH. DRIVE
PROP. GRAVEL DRIVE

HORIZONTAL SCALE IN FEET

CALCULATED SCB
CHECKED RAB

W-6 PROP. 6" HYDRANT ASSEMBLY, TYPE A STA 8+35.00, 16.00' LT (BY OTHERS)

WJ-1 EXISTING GATE VALVE ADJUSTED TO GRADE STA. 9+47.46, 1.92' LT.

END WORK STA. 10+36.26

END WORK STA. 10+38.96

PT Sta. 10+52.92

END WORK STA. 49+69.57

MATCHLINE STA. 5+00

JOHN F ALLEN 1721 PARCEL - 302595

JAMES A BOETTLER 1715 PARCEL - 301223

RALPH D & GINI L THOMSON 1707 PARCEL - 302929

THELMA R RAPLIN 1703 PARCEL - 300173

DOUGLAS L & DIANE M MATAKO 1625 PARCEL - 300174

TINA JO COOPER 1621 PARCEL - 302170

GREGG L YEARY 1615 PARCEL - 302683

STEESE AVE LLC 1605 PARCEL - 303250

RANDALL S HARTSON & NIKKI L BARTHOLOMEW 1722 PARCEL - 301580

ELDEN L SURBEY TRUSTEE/ ELDEN L SURBEY REVOCABLE TRUST 1716 PARCEL - 303089

DAVID G SMITH 1706 PARCEL - 302953

DONALD F & JUNE M DAVIS 1702 PARCEL - 303420

PAULA M LEO 1626 PARCEL - 303405

ANNA M BAUMGARDNER 1616 PARCEL - 300430

JAMI I HUNTER 1612 PARCEL 300396

EVELYN G LEGHART 1604 PARCEL - 301832

S 84° 30' 06" E

℄ CONST./41ST STREET

℄ R/W 41ST STREET

DO NOT DISTURB

CONST. LIMITS

PROP 6" WATER

45° HORIZ. BEND STA. 9+40.27, 8.03' LT. STA. 9+46.43, 1.87' LT. (BY OTHERS)

PLUG (TYP.)

PC Sta. 8+50.00

PRC Sta. 9+64.94

BEGIN WALK TRANSITION STA. 8+50.00, 5.00'

END WALK TRANSITION STA. 8+75.64

BEGIN STATE WALK TAPER, 7.00'

END STATE WALK TAPER, 5.00' STA. 9+70.78

END FULL DEPTH RECONSTRUCTION BEGIN MILL AND RESURFACING STA. 9+89.18

LIMITS OF MILLING & RESURFACING (2601 SF)

℄ R/W STEESE AVE.

A PROPOSED CURVE
P.I. Sta. 9+07.49
Δ = 3° 26' 54" (RT)
Dc = 3° 00' 00"
R = 1,909.86'
T = 57.49'
L = 114.94'
E = 0.87'
C = 114.93'
C.B. = S 82° 46' 39" E
P.C. Sta. 8+50.00
P.R.C. Sta. 9+64.94

B PROPOSED CURVE
P.I. Sta. 10+09.00
Δ = 7° 28' 42" (LT)
Dc = 8° 30' 00"
R = 674.07'
T = 44.05'
L = 87.98'
E = 1.44'
C = 87.92'
C.B. = S 84° 47' 33" E
P.R.C. Sta. 9+64.94
P.T. Sta. 10+52.92

PROP. GRADE
EXIST. GRADE

D-5 STA 7+20.00, 13.00' LT CURB INLET, GRATE ELEV 1113.27 INV. 15" E 1110.34 INV. 12" W&S 1110.34 INV. 4" W 1110.52

SR-3 STA 7+26.35, 3.76' RT EX. SAN MH REMOVE EX. RIM ELEV 1113.59 EX. 8" CLAY W 1106.64 EX. 8" CLAY E 1106.59

D-3 STA 8+80, 13.00' LT CURB INLET, GRATE ELEV 1111.80 INV. 15" W&E 1108.87 INV. 12" S 1108.87 INV. 4" W&E 1109.05

P.V.I. STA 8+80.00 ELEV = 1,112.24'

EXIST GRADE

D-2 STA 9+72.60, 13.03' LT MH, RIM ELEV 1113.02 INV. 15" W&NE 1108.23

MEET EXISTING 1,113.39

GRAPHIC GRADE

SJ-3 STA 10+21.37, 2.06' RT EX. SAN MH RECONSTRUCTED EX. RIM ELEV 1113.74 EX. 12" CLAY N 1105.04 EX. 8" CLAY E 1105.59 EX. 8" CLAY S 1105.69 EX. 8" CLAY W 1105.24 (REMOVE) INV. 8" PVC W 1105.24

STA 5+00.00 ELEV 1,119.65

-3.86 %

-0.71 %

+1.06 %

EX. 3" GAS

EX. 6" WATER (ABANDON) 290'-12" TYPE B @ 2.27%

EX. 8" SAN (REMOVE) 280 LF OF 8" SAN @ 1.86%

PROP. 6" WATER

EX. 6" WATER (ABANDON) 160'-15" TYPE B @ 0.92%

295 LF OF 8" SAN @ 0.46%

EX. 8" SAN (REMOVE)

EX. 12" CMP (REMOVE) 93'-15" TYPE B @ 0.69%

REMOVE

EX. 12" CPP (REMOVE)

EX. 6" WATER

13'-15" TYPE B @ 1.10%

21'-15" TYPE B @ 0.66%

D-6 STA 7+20.00, 13.00' RT CURB INLET, GRATE ELEV 1113.27 INV. 12" N 1110.52 INV. 4" W 1110.52

SA-2 STA 7+26.35, 3.76' RT PROP. SAN MH RIM ELEV 1113.53 8" PVC E&W 1106.60

300.00' VC P.V.I. STA 6+50.00 ELEV = 1,113.86' K = 95

STA 8+00.00 ELEV 1,112.80

D-4 STA 8+80, 13.00' RT CURB INLET, GRATE ELEV 1111.80 INV. 12" N 1109.05 INV. 4" W&E 1109.05

D-1 STA 9+77.41, 24.95' LT CURB INLET, GRATE ELEV 1112.33 INV. 15" SW&E 1108.09 INV. 4" SW&NE 1109.58

DJ-123 STA 9+99.77, 26.94' LT EX. STM MH RECONSTRUCTED RIM ELEV 1113.25 EX. 54" CONC N&S 1106.45 EX. 12" CPP W 1109.75 (REMOVE) INV. 15" W 1107.95

PROP. 1130 1125 1120 1115 1110 1105 1100 1095

EXIST. 1119.68 1117.99 1115.83 1113.89 1113.42 1113.13 1113.07 1113.24 1113.17 1113.03

1119.65 1118.72 1117.85 1117.05 1116.32 1115.65 1115.04 1114.51 1114.03 1113.63 1113.29 1113.01 1112.80 1112.63 1112.45 1112.27 1112.43 1112.68 1112.92 1113.17 1113.41 1113.66

5+00 6+00 7+00 8+00 9+00 10+00

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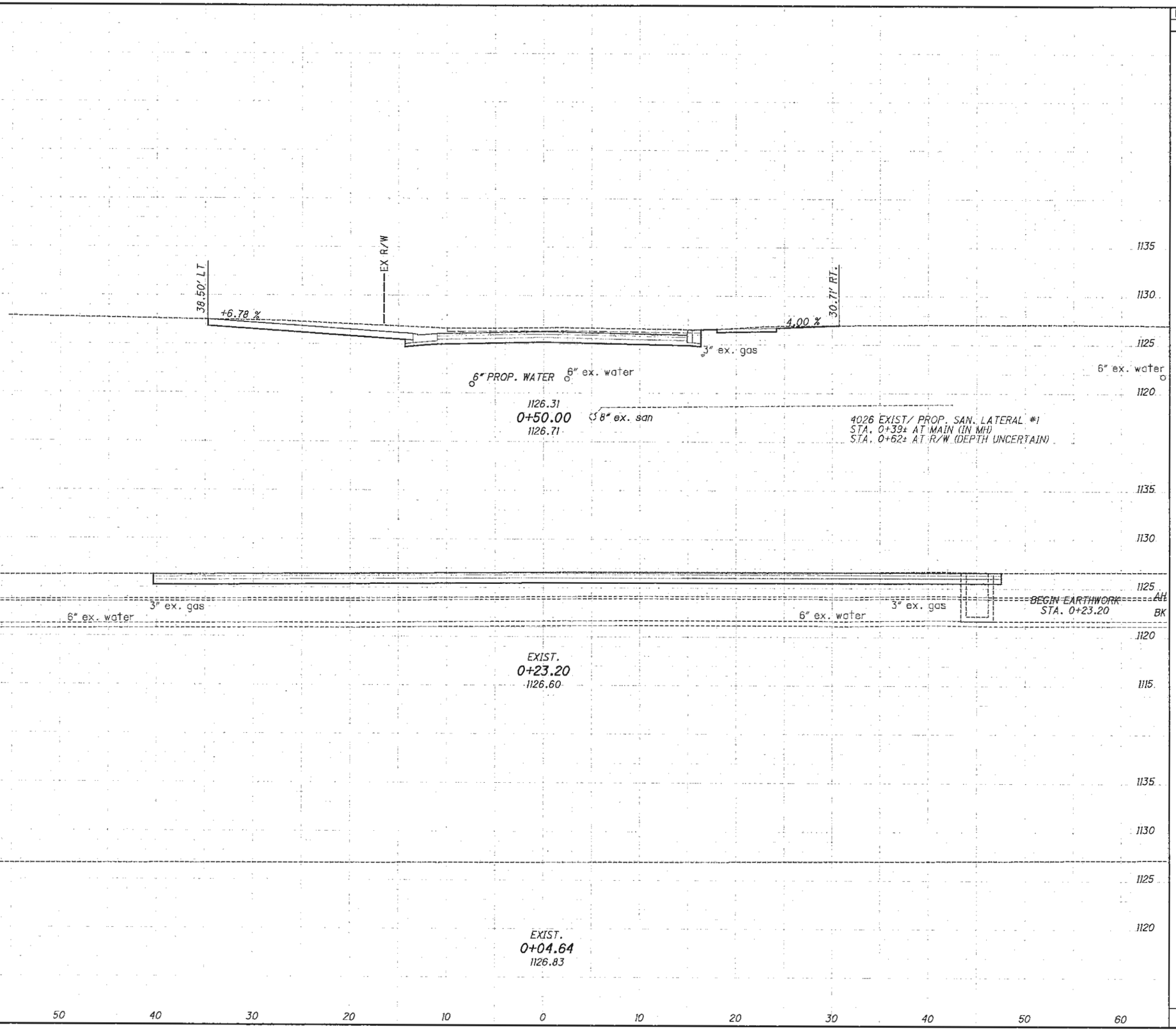
SEEDING END WIDTH	SEEDING SQ. YDS.
	44
9	
	14
0	
0	
·	58



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		92	0
53	0		
		75	0
AH 96	0		
BK 0	0		
·	·	167	0

CALCULATED SCB
CHECKED RAB

CROSS SECTIONS 41ST STREET
STA. 0+04.64 TO STA. 0+50.00

CANTON-41ST. NW

20
46

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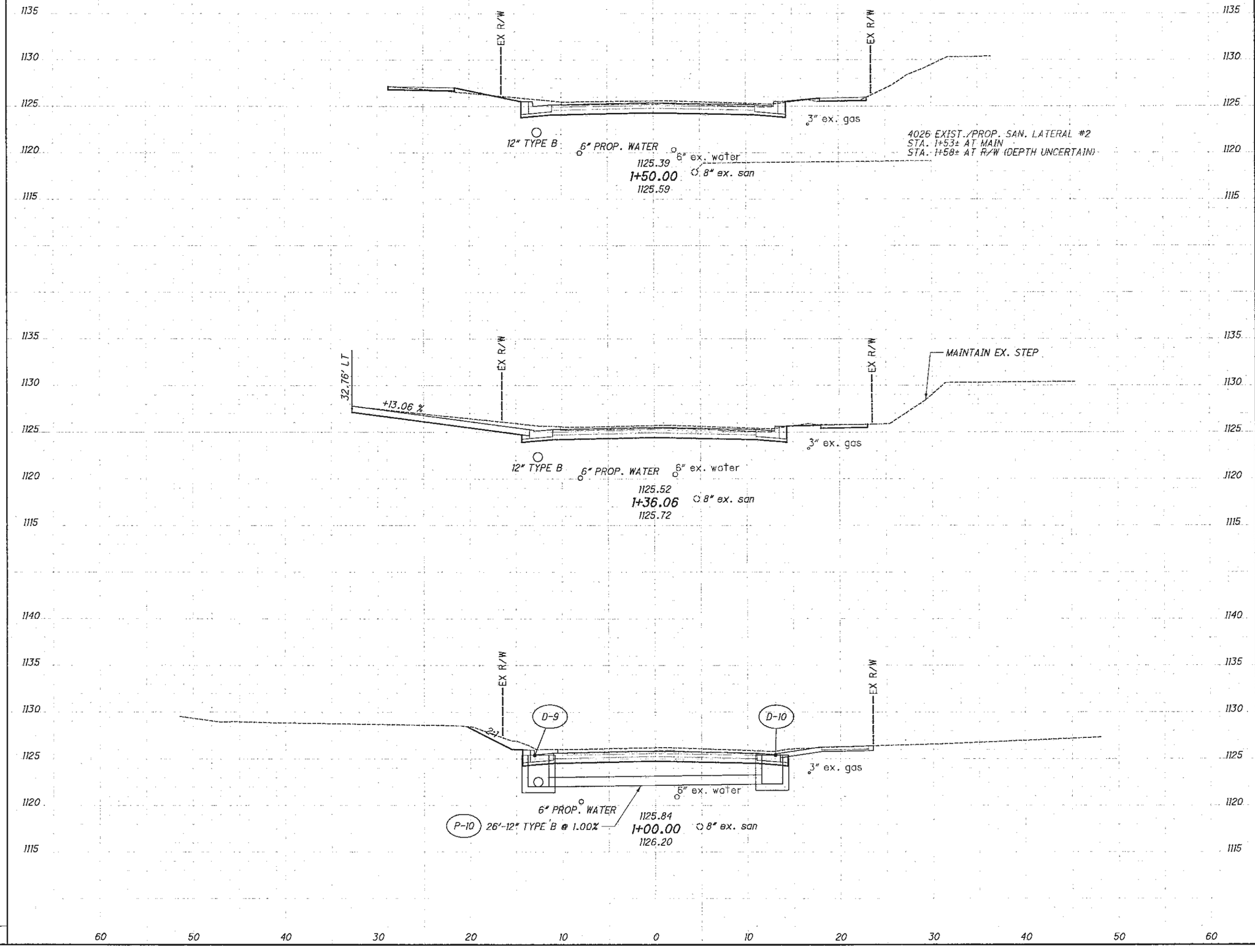
SEEDING END WIDTH	SEEDING SQ. YDS.
	56
20	
	19
4	
	22
7	
·	97



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		72	1
43	1		
		25	1
55	1		
		67	1
46	0		
·	·	164	3

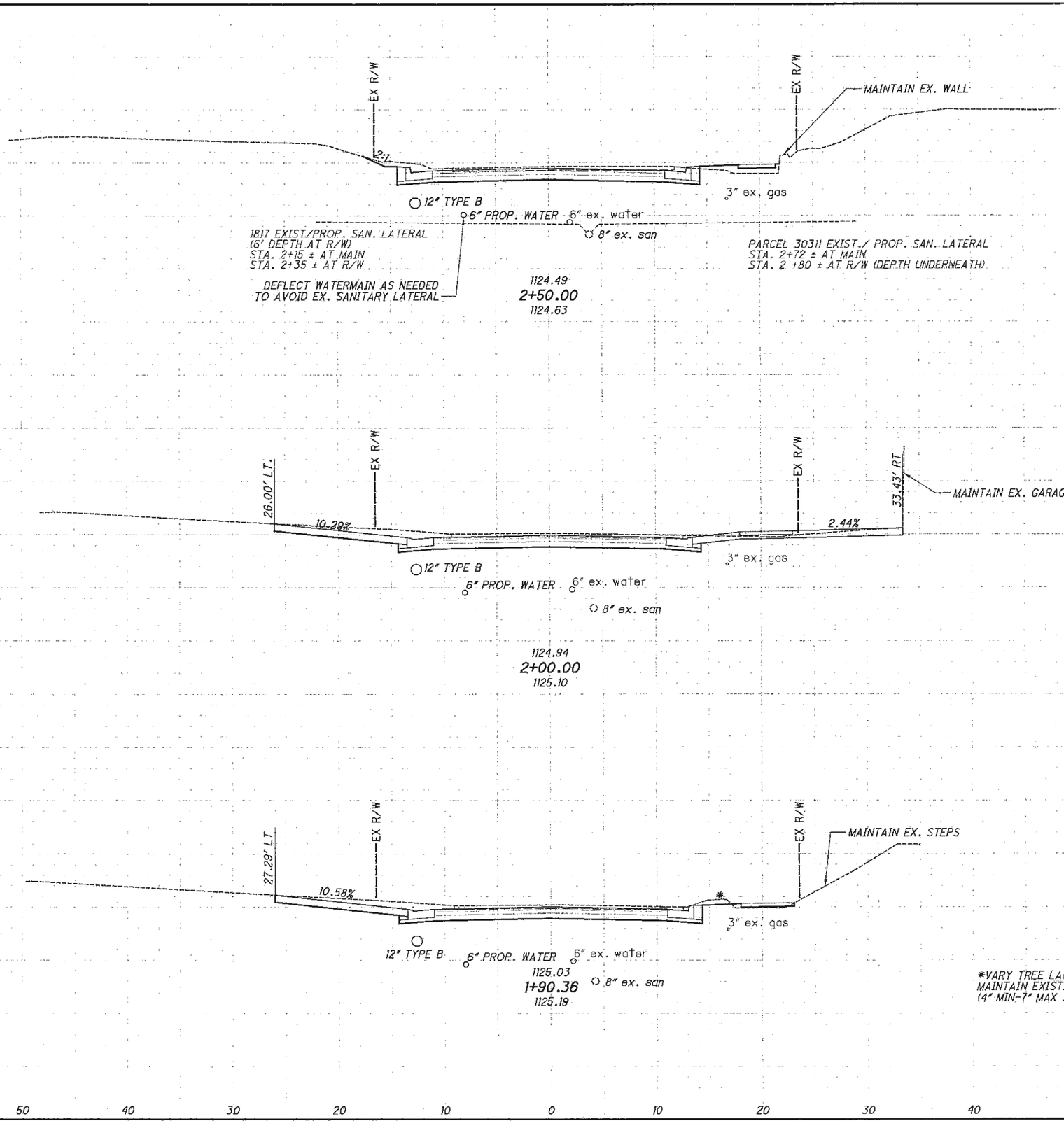
CALCULATED SCB
CHECKED RAB

CROSS SECTIONS 41ST STREET
STA. 1+00.00 TO STA. 1+50.00

CANTON-41ST. NW

21
46

SEEDING END WIDTH	SEEDING SQ. YDS.
	61
9	
	25
0	
	3
5	
·	89



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		63	14
40	4		
		74	4
40	0		
		17	0
53	1		
·	·	154	18

CALCULATED SCB
CHECKED RAB

CROSS SECTIONS 41ST STREET
STA. 1+90.36 TO STA. 2+50.00

CANTON-41ST. NW

22
46

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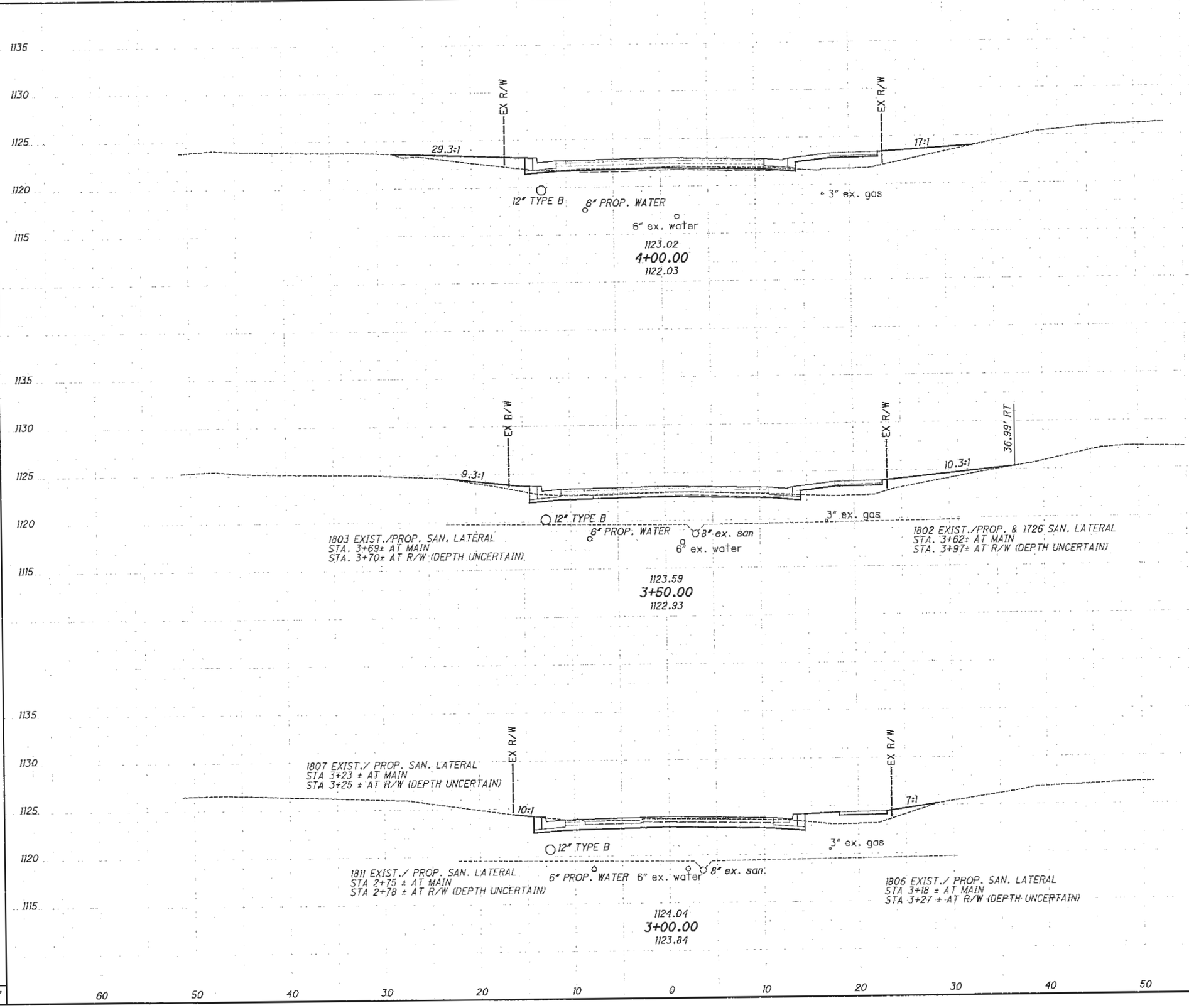
SEEDING	
END WIDTH	SQ. YDS.
	108
25	
	136
24	
	103
13	
·	347



END AREA		VOLUME	
CUT	FILL	CUT	FILL
		19	31
4	25		
		17	39
14	17		
		39	26
28	11		
·	·	75	96

CALCULATED SCB
CHECKED RAB

CROSS SECTIONS 41ST STREET
STA. 3+00.00 TO STA. 4+00.00

CANTON-41ST. NW

23
46

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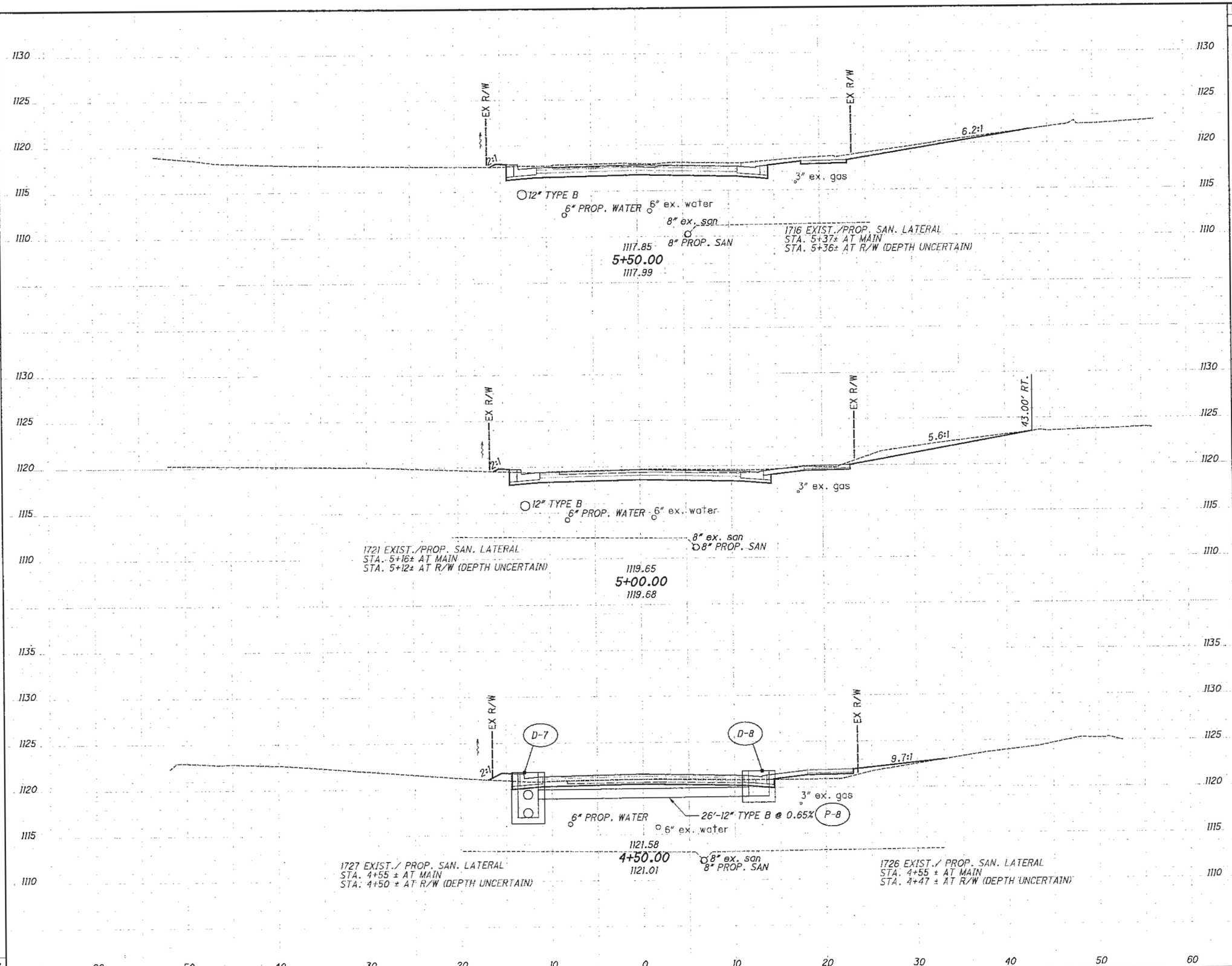
SEEDING	
END WIDTH	SQ. YDS.
	122
28	
	142
23	
	103
14	
	367



END AREA		VOLUME	
CUT	FILL	CUT	FILL
		74	5
51	1		
		89	2
45	1		
		57	8
17	8		
·	·	220	15

CALCULATED SCB
CHECKED RAB

CROSS SECTIONS 41ST STREET
STA. 4+50.00 TO STA. 5+50.00

CANTON-41ST. NW

24
46

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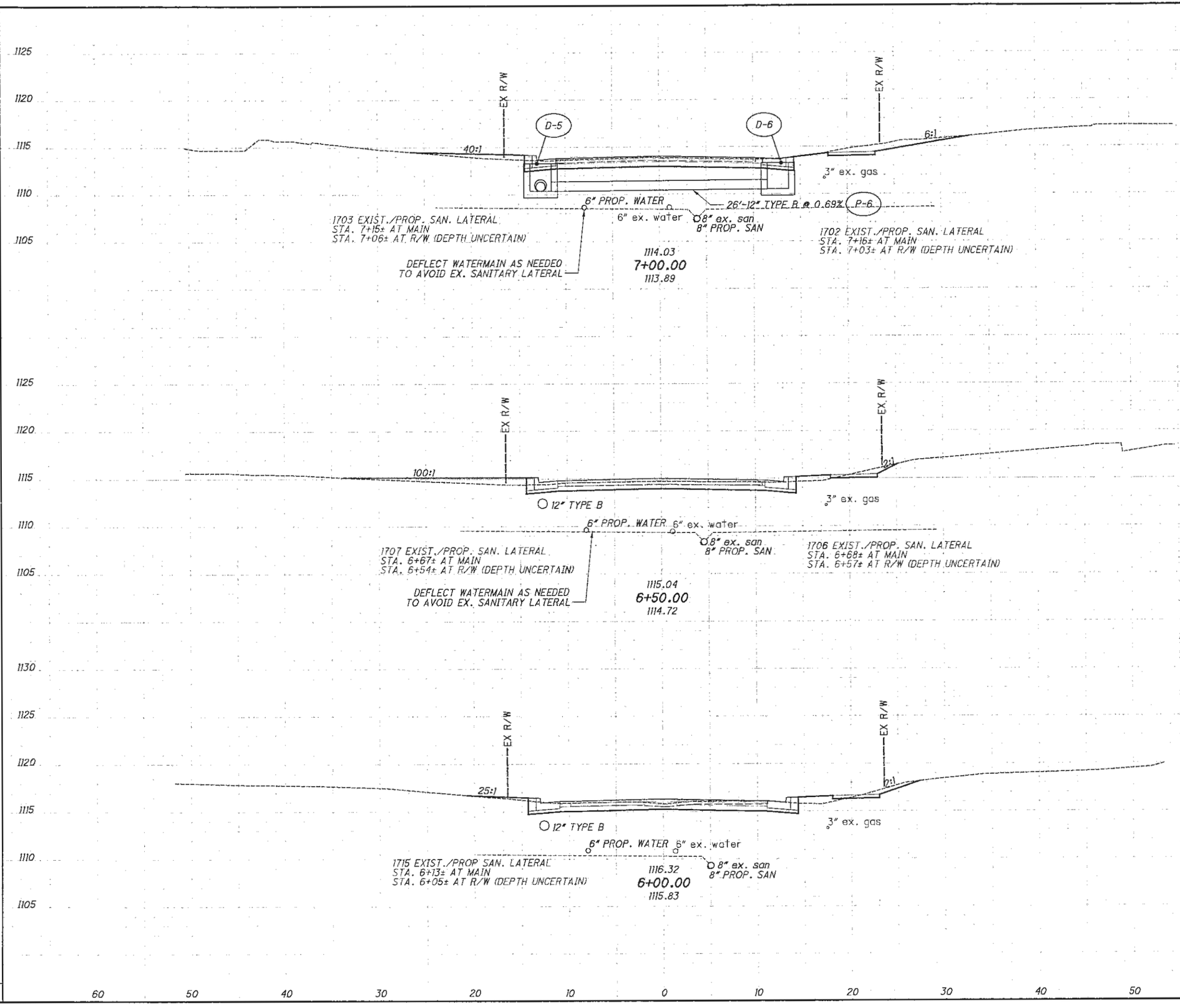
SEEDING END WIDTH	SEEDING SQ. YDS.
	81
18	
	81
11	
	75
16	
·	237



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		67	3
37	1		
		59	5
27	4		
		52	7
29	4		
·	·	178	15

CALCULATED SCB
CHECKED RAB

CROSS SECTIONS 41ST STREET
STA. 6+00.00 TO STA. 7+00.00

CANTON-41ST. NW

25
46

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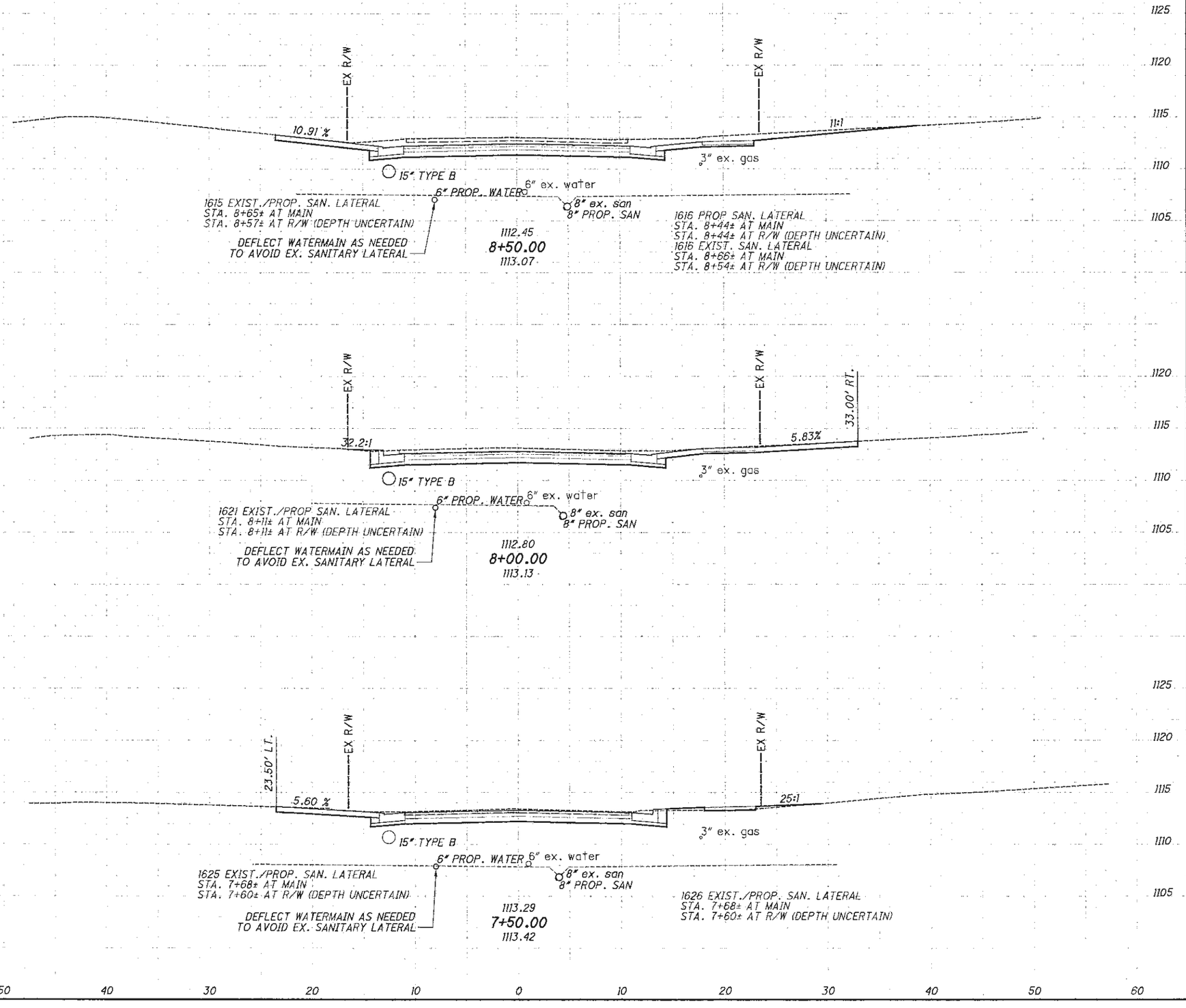
JLJANI

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	61			106	0
16		55	0		
	53			89	1
3		41	1		
	39			70	3
11		35	2		
·	153	·	·	265	4



CALCULATED SCB
CHECKED RAB

CROSS SECTIONS 41ST STREET
STA. 7+50.00 TO STA. 8+50.00

CANTON-41ST. NW

26
46

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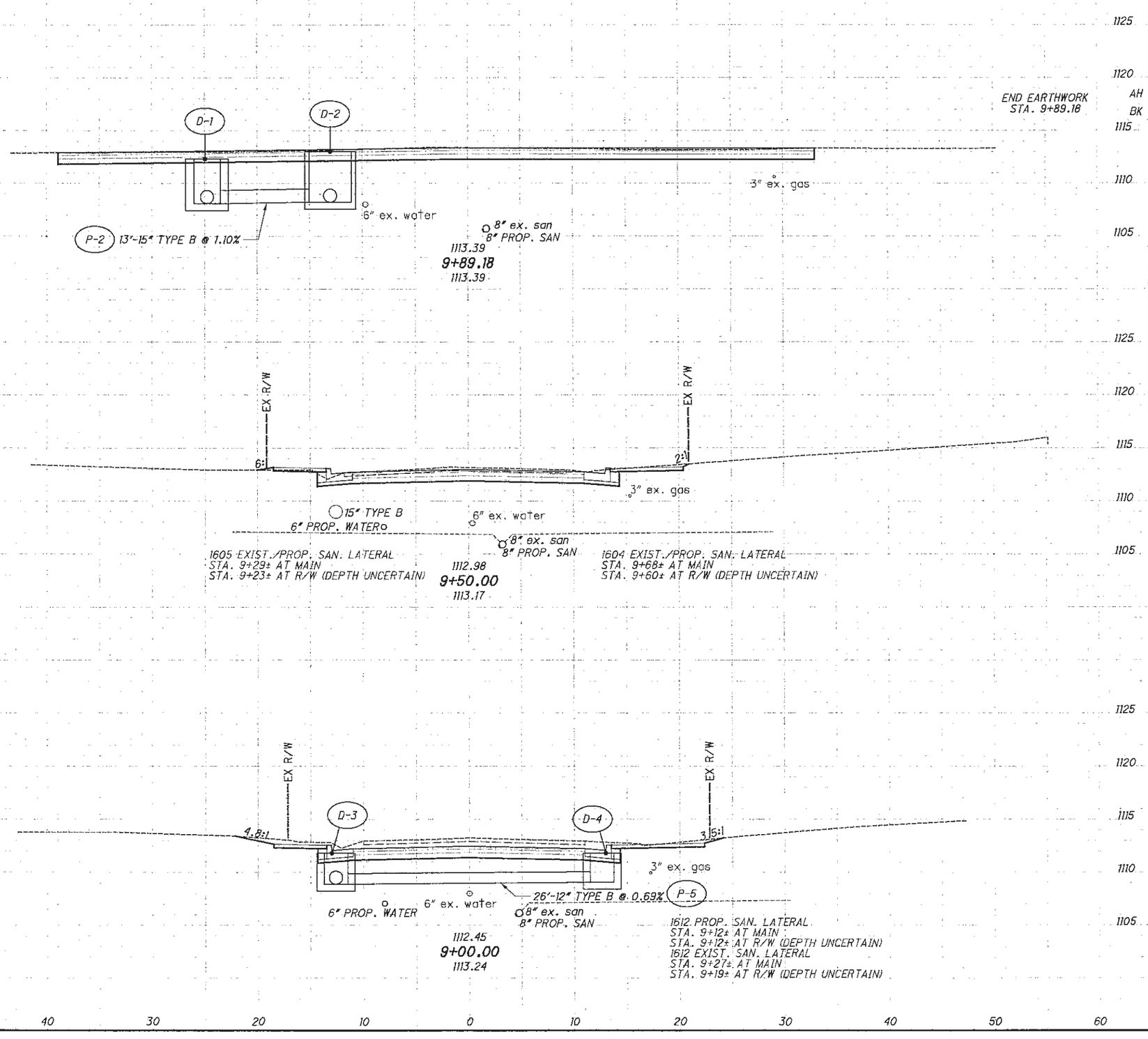
SEEDING	
END WIDTH	SQ. YDS.
0	
0	
	4
2	
	22
6	
	26

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
73	0		
		81	1
38	1		
		90	1
59	0		
·	·	171	2

CALCULATED SCB
CHECKED RAB



CROSS SECTIONS 41ST STREET
STA. 9+00.00 TO STA. 9+89.19

CANTON-41ST. NW

SEEDING	
END WIDTH	SQ. YDS.

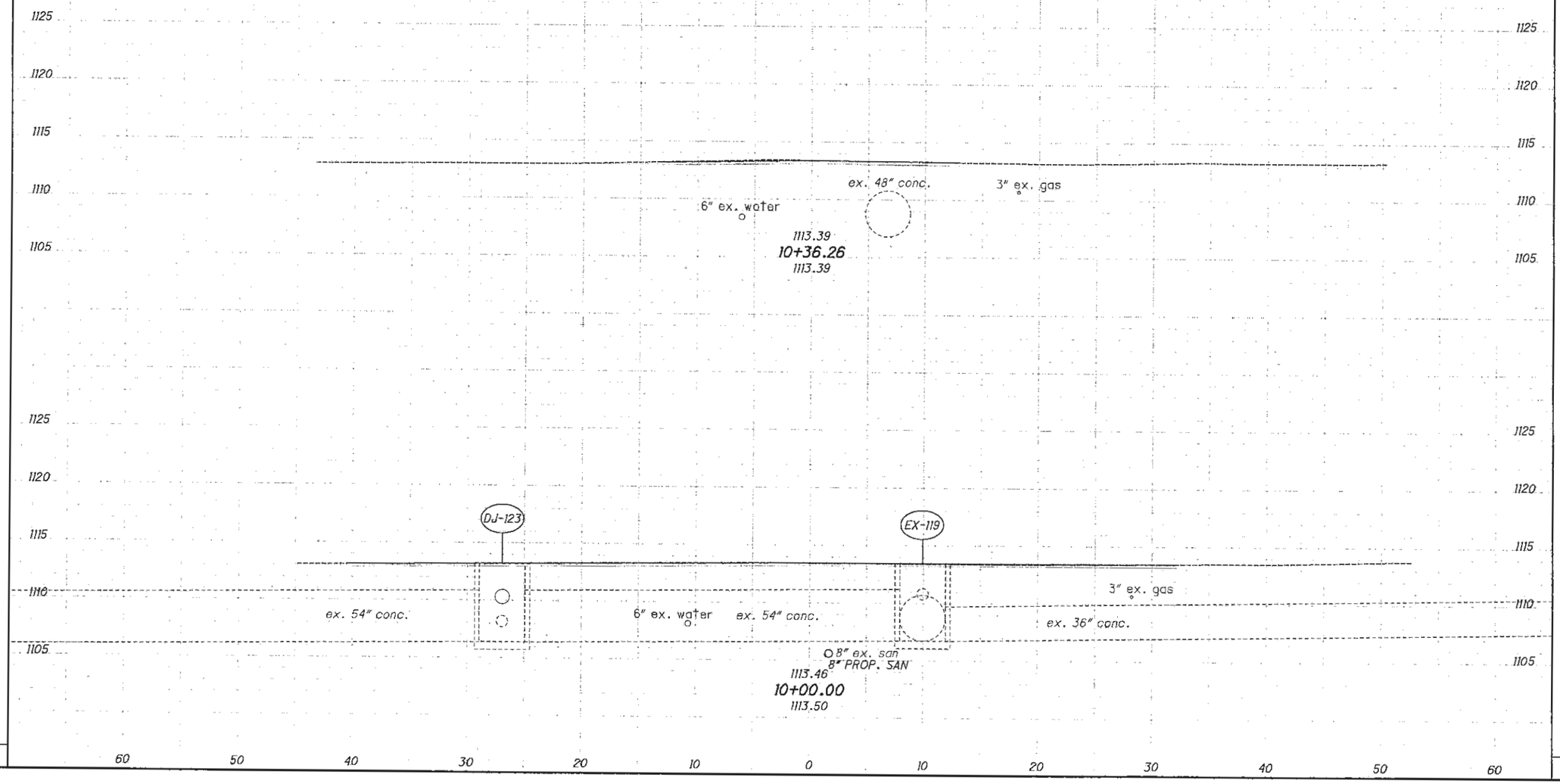
END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED SCB

CHECKED RAB

CROSS SECTIONS 41ST STREET
STA. 10+00.00 TO STA. 10+36.26

CANTON-41ST. NW



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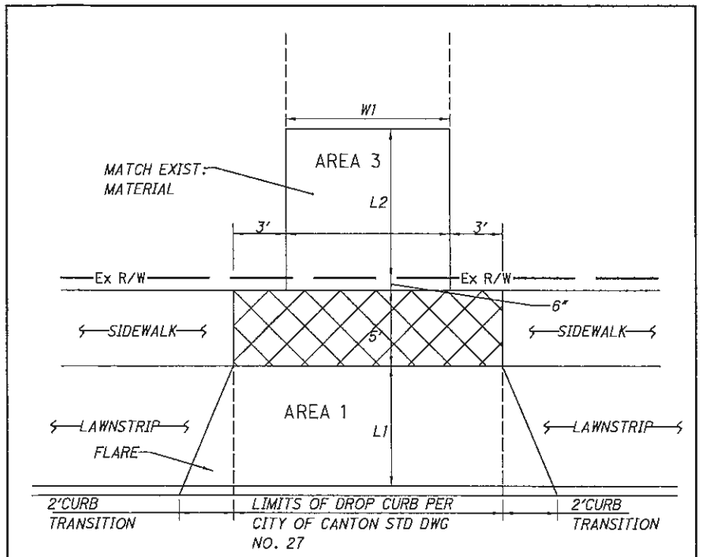
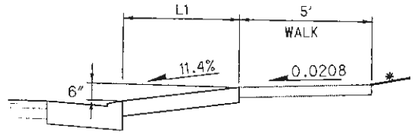


DRIVE DETAIL, TYPE 1 WITH SIDEWALK
N.T.S.

EXISTING MATERIALS	USAGE	INSIDE LIMITS OF APRON (AREA 1)	OUTSIDE LIMITS OF APRON (AREA 3)
GRAVEL	RESIDENTIAL	6" ITEM 452 NON-REINFORCED CONCRETE PAVEMENT 4" ITEM 304 AGGREGATE BASE	2" NO. 57, 67, OR 78 CRUSHED LIMESTONE AGGREGATE 4" ITEM 304 AGGREGATE BASE
ASPHALT			1.25" ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1 4" ITEM 301 ASPHALT CONCRETE BASE 4" ITEM 304 AGGREGATE BASE
CONCRETE#			6" ITEM 452 NON-REINFORCED CONCRETE PAVEMENT 4" ITEM 304 AGGREGATE BASE
GRAVEL	COMMERCIAL	7" ITEM 452 NON-REINFORCED CONCRETE PAVEMENT 4" ITEM 304 AGGREGATE BASE	N/A
ASPHALT			1.25" ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1 5" ITEM 301 ASPHALT CONCRETE BASE 4" ITEM 304 AGGREGATE BASE
CONCRETE#			7" ITEM 452 NON-REINFORCED CONCRETE PAVEMENT 4" ITEM 304 AGGREGATE BASE

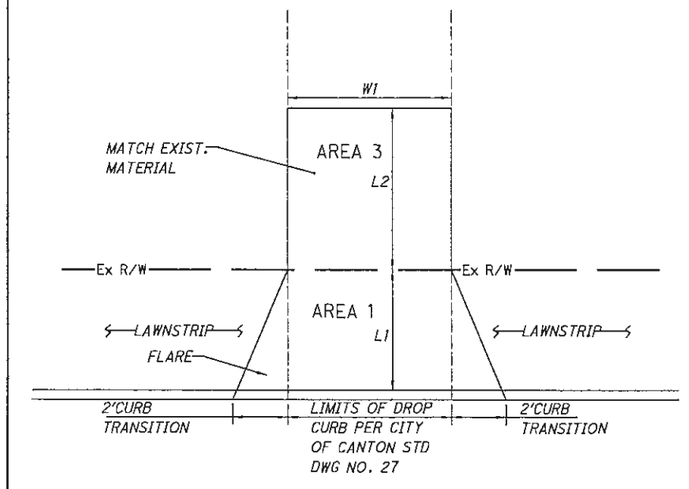
WALK THICKNESS SHALL BE 6" AT RESIDENTIAL/ 7" AT COMMERCIAL APRONS.

CONCRETE DRIVE RECONSTRUCTION SHALL EXTEND TO THE NEAREST JOINT FOUND BEYOND THE PROPOSED TIE DOWN POINT IF FOUND TO BE DIFFERENT THAN SHOWN ON THE PLANS. A CONTINGENCY QUANTITY HAS BEEN INCLUDED FOR BIDDING PURPOSES.



TYPE 1 TYPICAL DRIVE PROFILE
N.T.S.

*AS SHOWN ON DRIVE PROFILE



DRIVE DETAIL, TYPE 2 WITHOUT SIDEWALK
N.T.S.

SHEET NO.	REFERENCE NO.	STATION	SIDE	USAGE	EXISTING MATERIAL	APRON LENGTH "L1"	DRIVEWAY LENGTH "L2"	DRIVEWAY WIDTH "W1"	APRON AREA	DRIVEWAY AREA
						FT.	FT.	FT.	SQ.FT.	SQ.FT.
18	DV-1	0+61.58	LT	COM	ASPHALT	3.00	22.00	*A.P.P.	77.48	1392.34
18	DV-2	1+00.43	RT	COM	CONCRETE	4.50	0.00	24.00	293.61	12.00
18	DV-4	1+87.55	LT	COM	ASPHALT	3.00	9.50	49.27	150.95	530.58
18	DV-5	2+10.84	RT	RES	CONCRETE	4.50	7.30	37.52	392.22	419.89
18	DV-6	2+22.14	LT	RES	CONCRETE	3.00	16.38	11.43	42.25	188.23
18	DV-7	2+69.89	LT	RES	CONCRETE	3.00	15.00	12.10	41.98	181.21
18	DV-8	3+20.78	LT	RES	CONCRETE	3.00	7.00	9.59	34.58	67.18
18	DV-9	3+54.27	RT	RES	CONCRETE	4.50	13.49	7.65	138.79	107.01
18	DV-10	3+69.85	LT	RES	CONCRETE	3.00	13.95	9.77	65.09	136.28
18	DV-11	4+06.46	RT	RES	ASPHALT	4.50	9.50	12.05	180.57	120.50
18	DV-12	4+20.28	LT	RES	ASPHALT	3.00	26.64	9.44	35.13	258.49
18	DV-13	4+55.92	RT	RES	CONCRETE	4.50	9.50	9.99	161.00	99.89
19	DV-14	5+08.29	RT	RES	CONCRETE	4.50	19.50	8.31	145.04	166.18
19	DV-15	5+29.16	LT	RES	CONCRETE	3.00	8.45	10.00	35.79	84.50
19	DV-16	5+55.42	RT	RES	CONCRETE	4.50	19.50	15.52	187.19	282.51
19	DV-17	5+60.68	LT	RES	CONCRETE	3.00	7.00	10.00	35.19	70.01
19	DV-18	6+57.07	LT	RES	CONCRETE	3.00	13.43	9.33	33.80	125.36
19	DV-19	6+60.16	RT	RES	GRAVEL	4.50	9.50	8.00	142.13	80.01
19	DV-20	7+08.47	RT	RES	CONCRETE	4.50	9.50	9.00	151.61	90.00
19	DV-21	7+10.02	LT	RES	CONCRETE	3.00	7.00	10.86	38.36	76.00
19	DV-22	7+57.53	LT	RES	CONCRETE	3.00	7.00	20.28	66.61	141.92
19	DV-23	7+70.02	RT	RES	ASPHALT	4.50	9.50	18.75	211.97	187.45
19	DV-24	7+99.64	RT	RES	CONCRETE	4.50	9.50	9.89	127.84	98.92
19	DV-25	8+13.08	LT	RES	ASPHALT	3.00	7.00	9.93	35.56	69.48
19	DV-26	8+52.91	LT	RES	CONCRETE	3.00	7.00	9.79	35.34	68.55
19	DV-27	8+59.74	RT	RES	CONCRETE	4.50	15.27	20.24	255.92	319.64
18	DV-28	1+36.02	LT	COM	ASPHALT	3.00	14.77	17.70	117.8	431.27
19	DV-29	7+87.04	RT	RES	GRAVEL	4.50	9.50	14.13	137.68	143.13

CALCULATED SCB
CHECKED RAB

DRIVE DETAILS

CANTON - 41ST. NW

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SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED SCB
CHECKED RAB

DRIVE PROFILES

STA. 0+61.58 TO STA. 1+36.02

CANTON-41ST. NW

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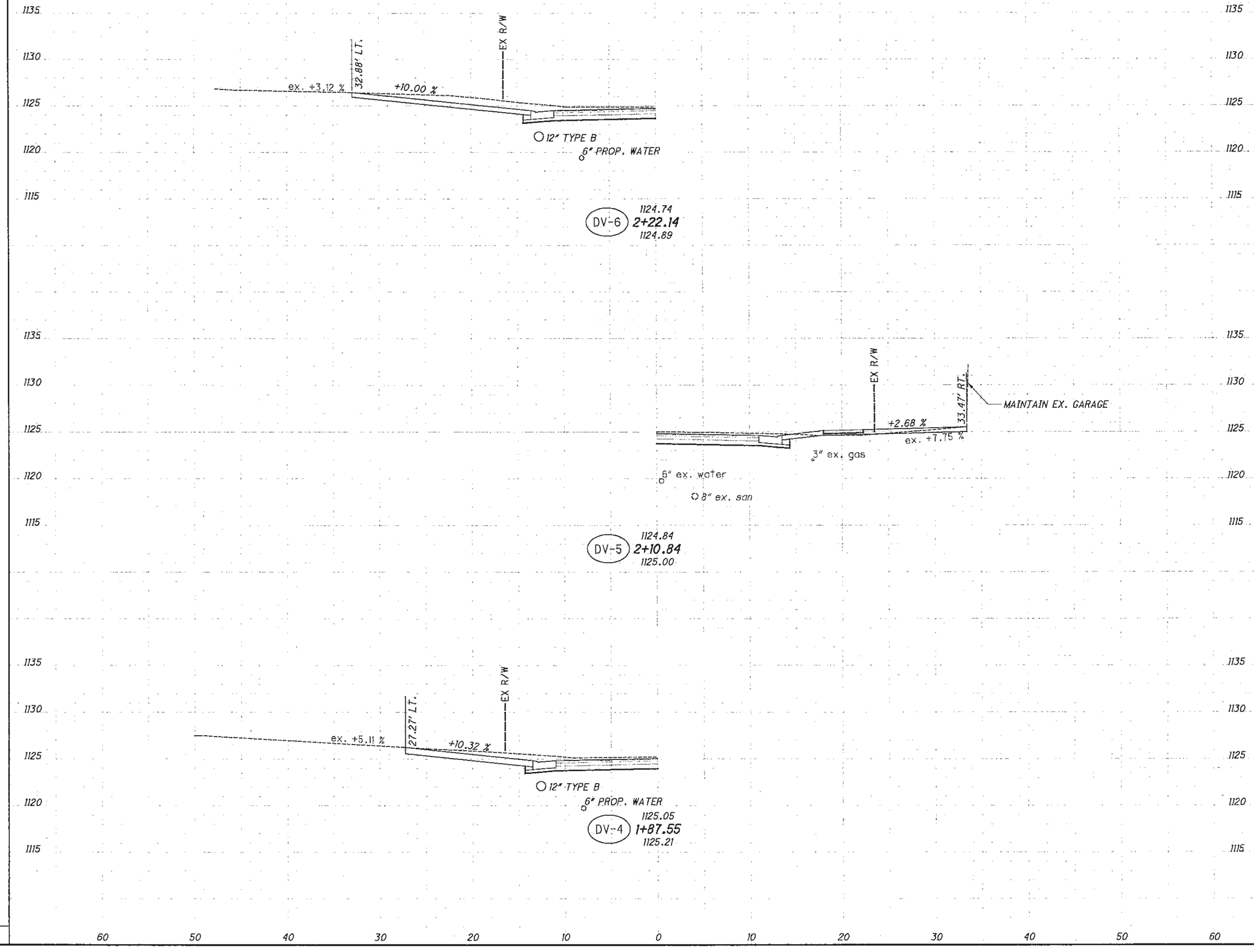
END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED SCB
CHECKED RAB



DRIVE PROFILES
STA. 1+87.55 TO STA. 2+22.14

CANTON-41ST. NW

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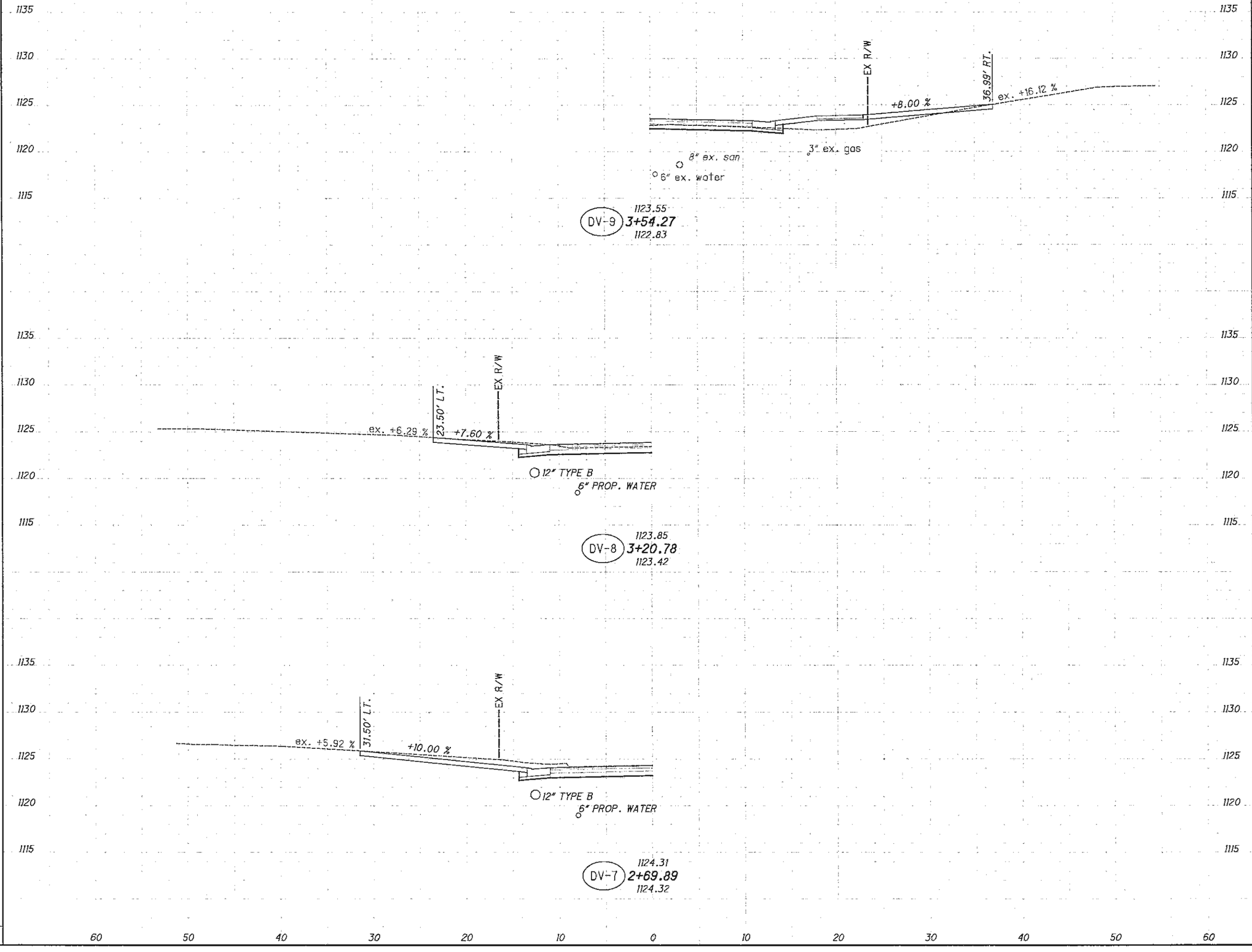
SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED SCB

CHECKED RAB



DRIVE PROFILES

STA. 2+69.89 TO STA. 3+54.27

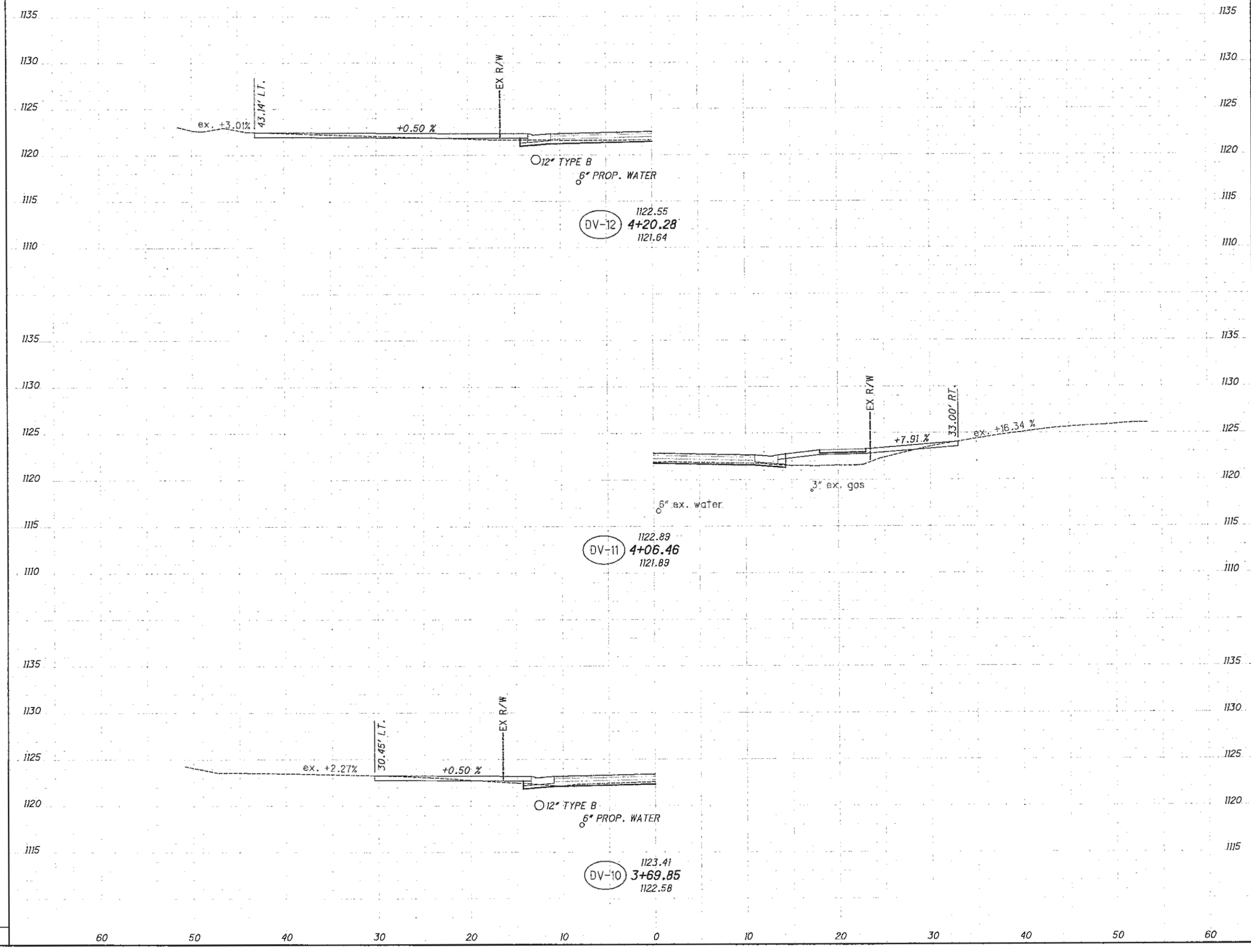
CANTON-41ST. NW

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED SCB

CHECKED RAB



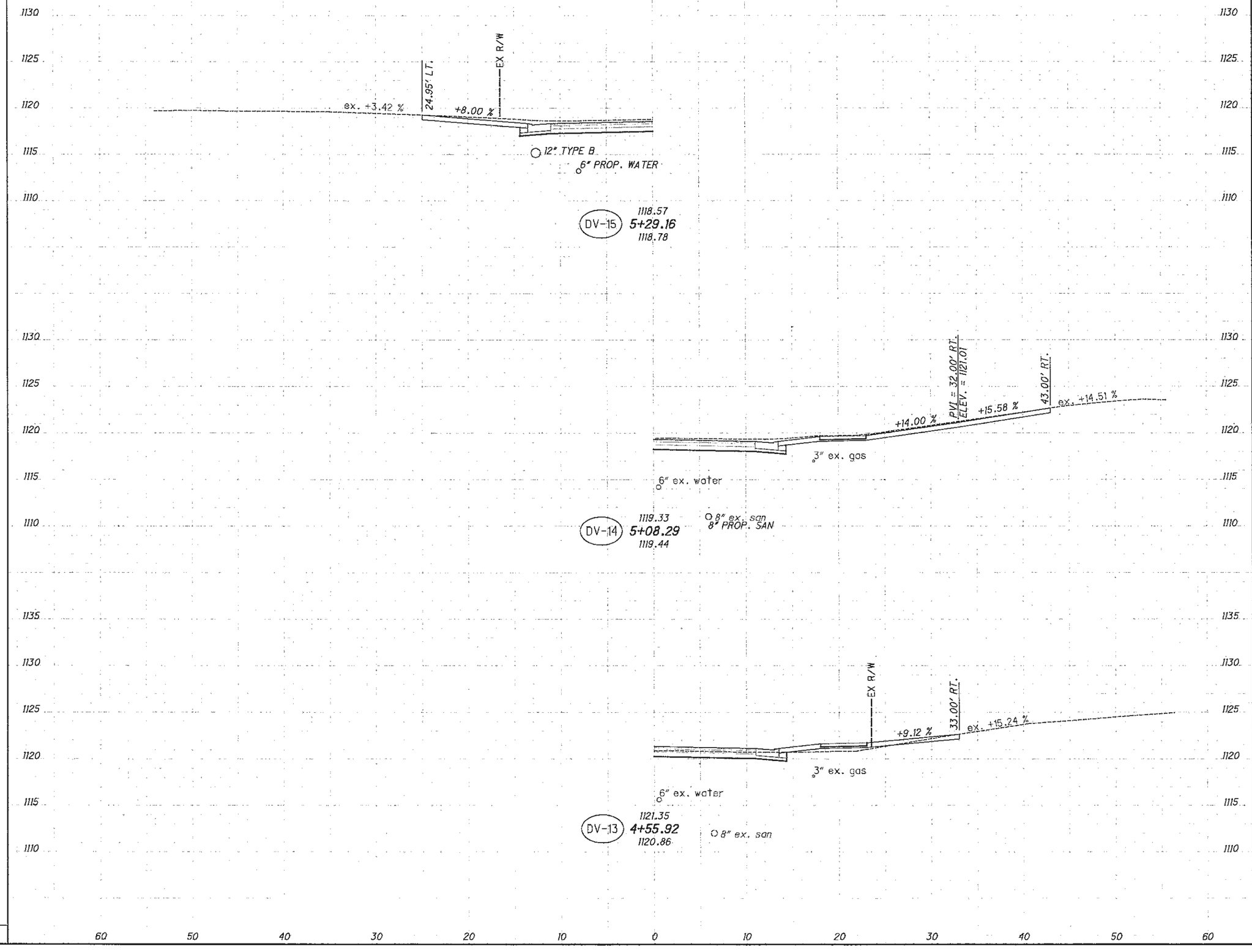
DRIVE PROFILES
STA. 3+69.85 TO STA. 4+20.28

CANTON-41ST. NW

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED SCB
CHECKED RAB



DRIVE PROFILES
STA. 4+55.92 TO STA. 5+29.16

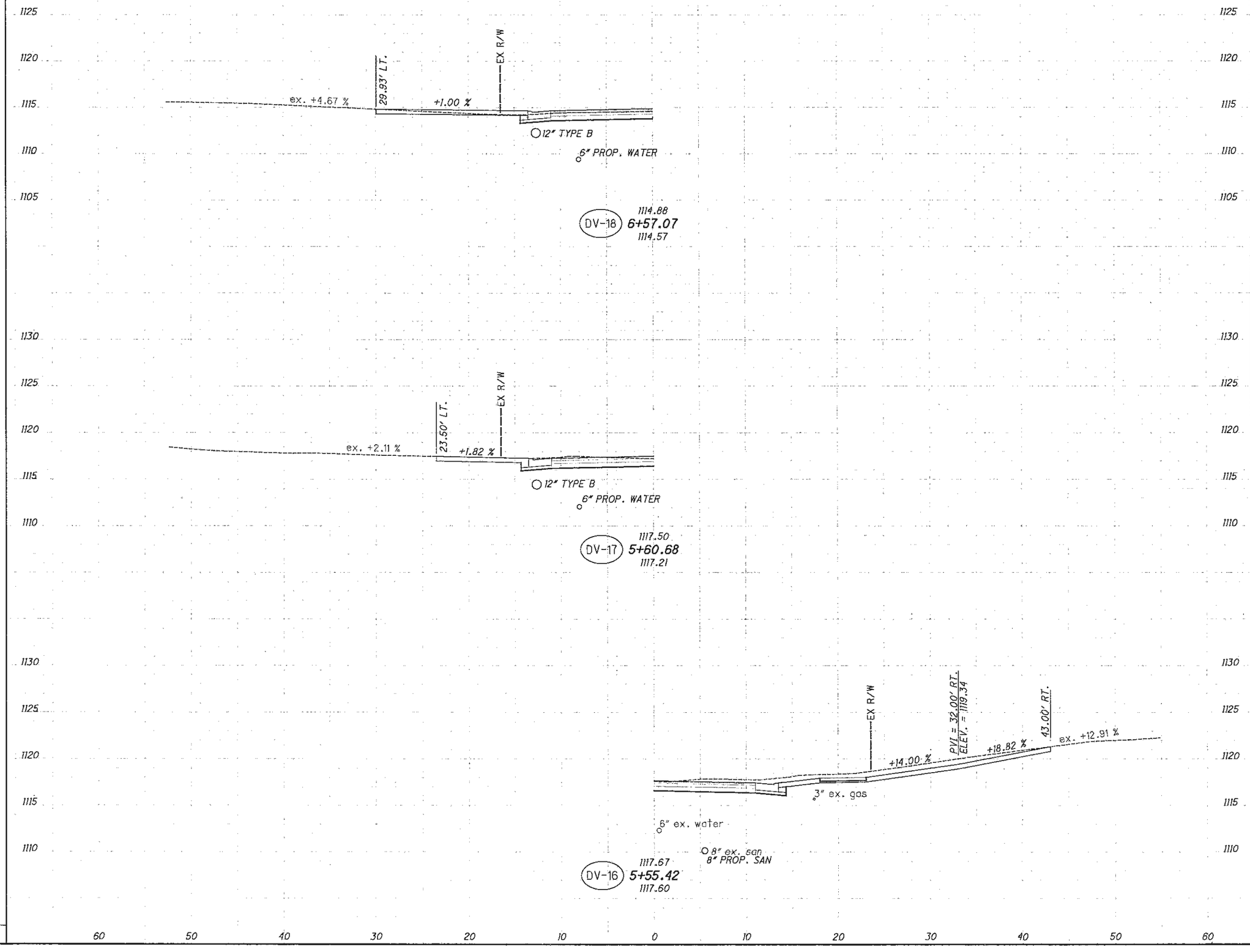
CANTON-41ST. NW

SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED SCB
CHECKED RAB



DRIVE PROFILES
STA. 5+55.42 TO STA. 6+57.07

CANTON-41ST. NW

SEEDING	
END WIDTH	SQ. YDS.

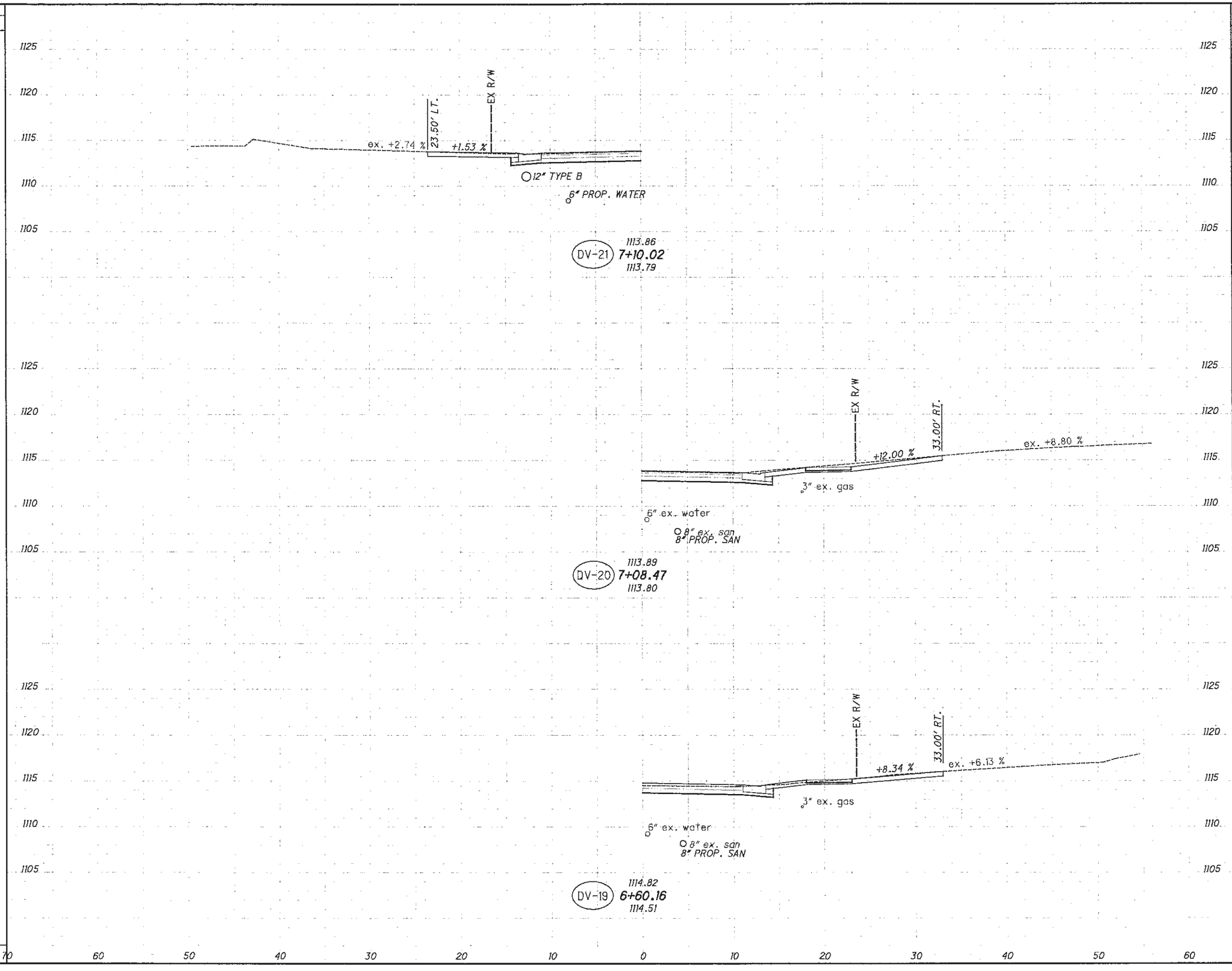
END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED SCB
CHECKED RAB

DRIVE PROFILES
STA. 6+60.16 TO STA. 7+10.02

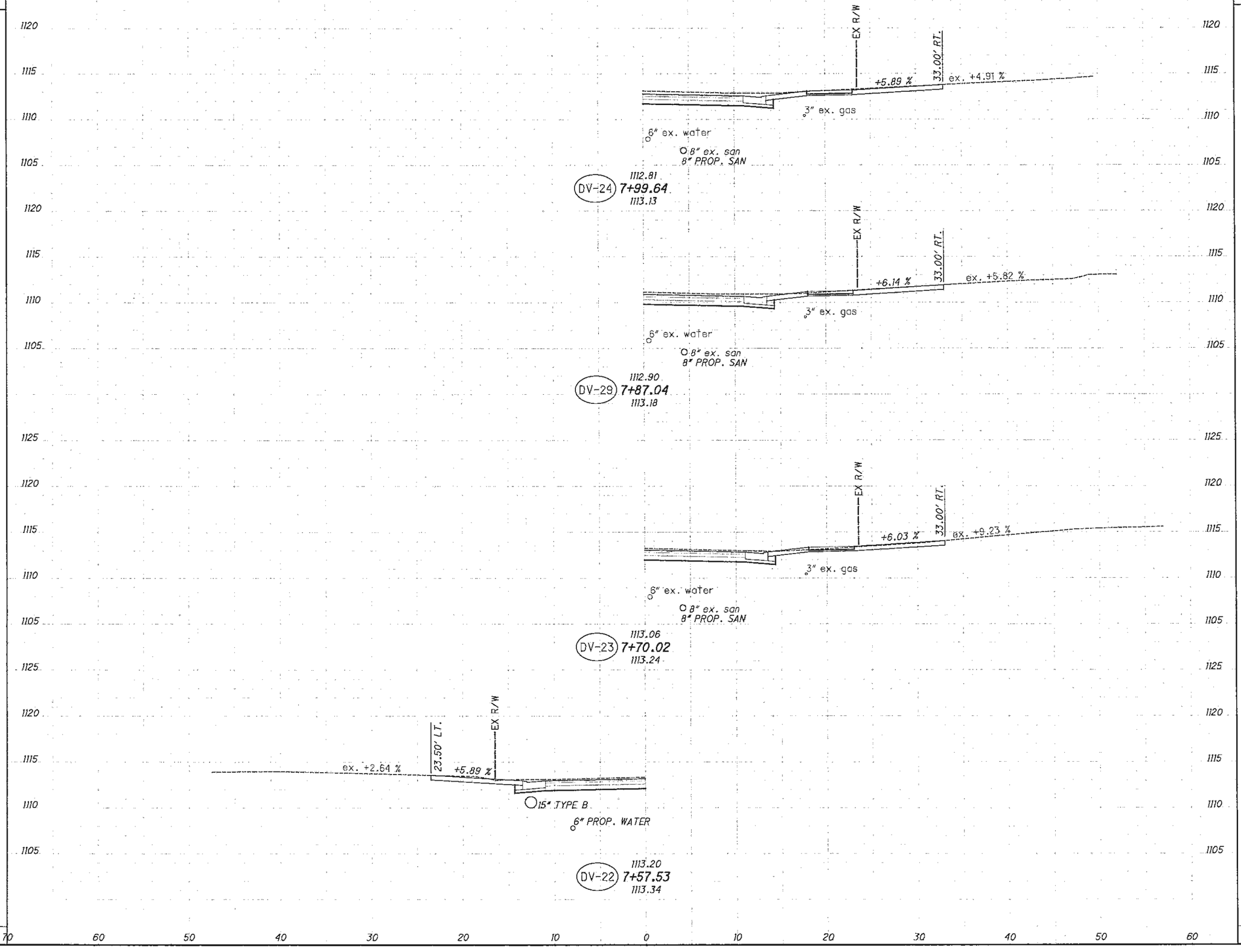
CANTON-41ST. NW



SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED SCB
CHECKED RAB



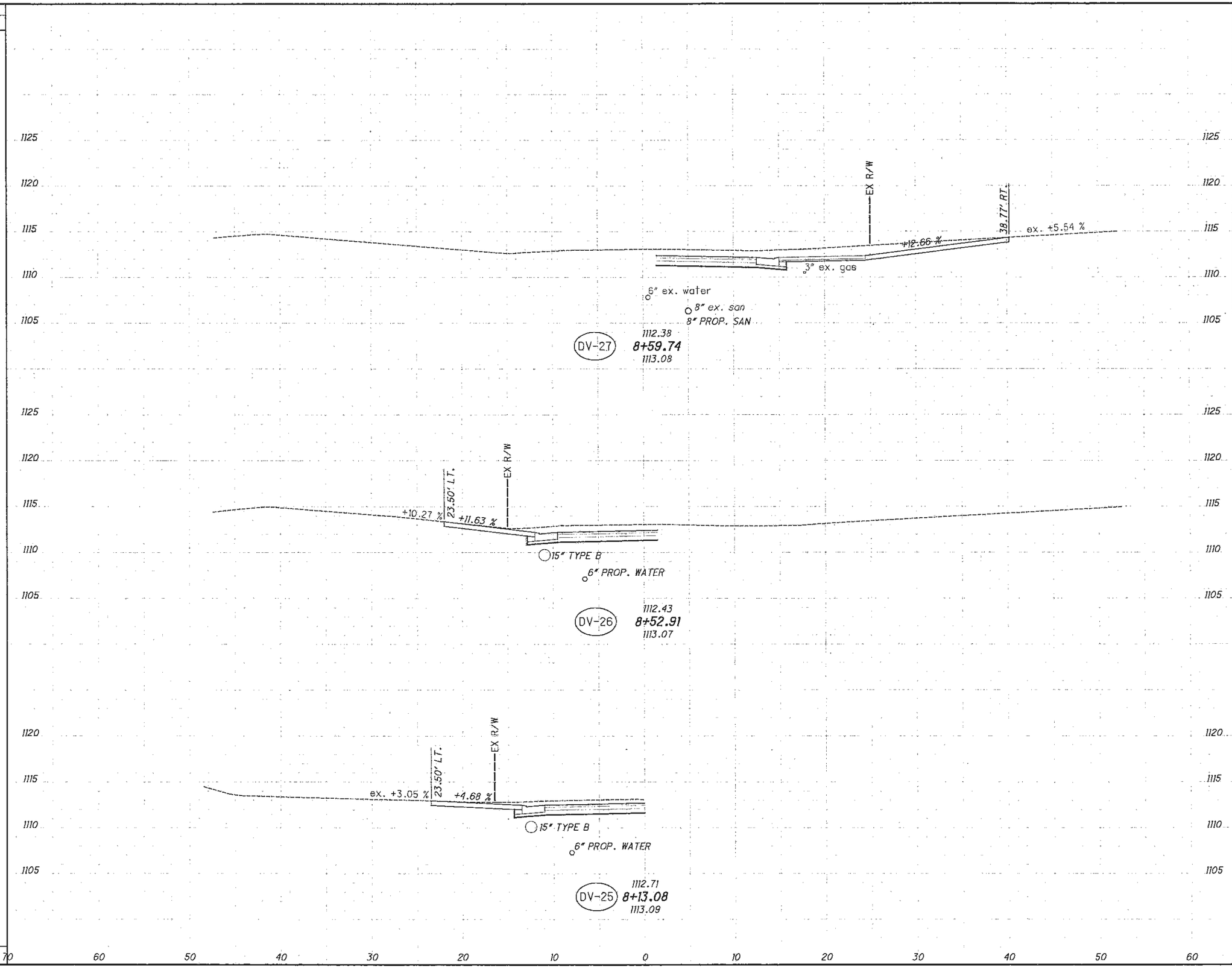
DRIVE PROFILES
STA. 7+57.53 TO STA. 7+99.64

CANTON-41ST. NW

SEEDING	
END WIDTH	SQ. YDS.

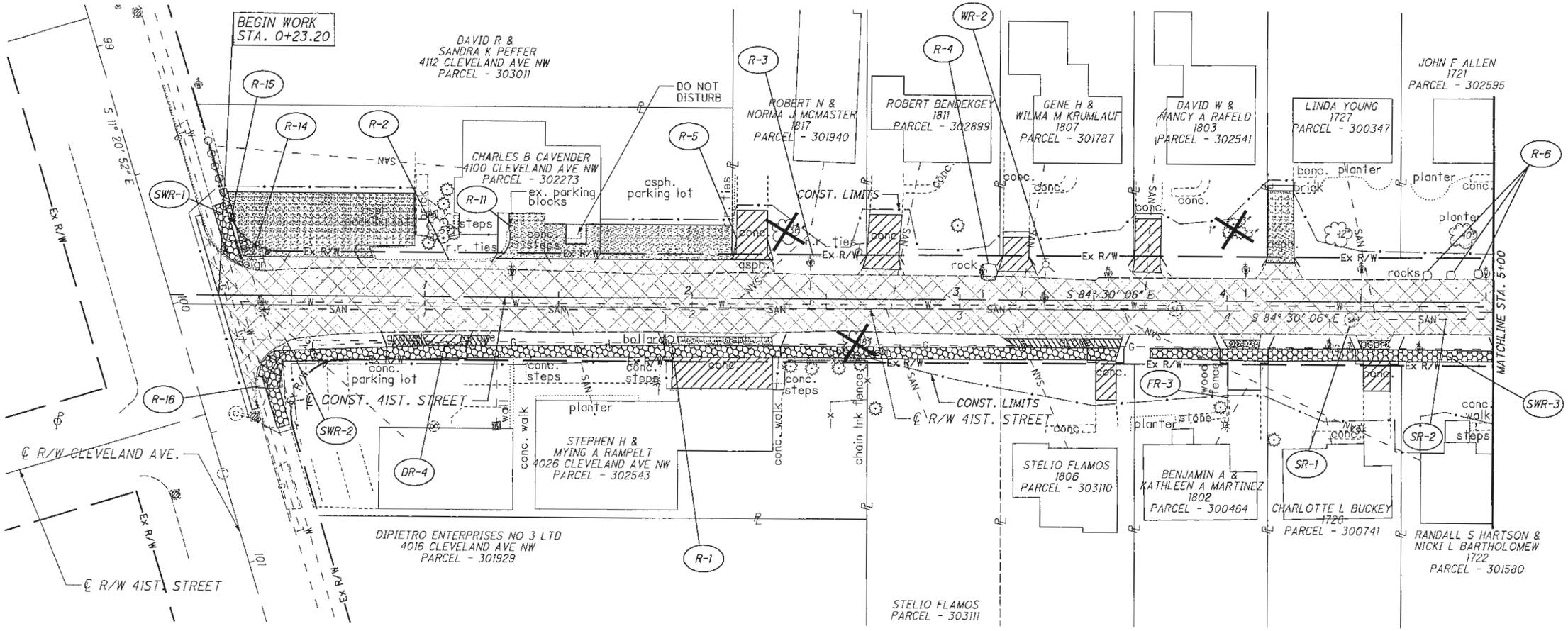
END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED SCB
CHECKED RAB



DRIVE PROFILES
STA. 8+13.08 TO STA. 8+59.74

CANTON-41ST. NW



NOTE:
ALL DISTURBED AREAS SHALL BE RESTORED AND/OR REPLACED IN KIND (TYPE) UNLESS OTHERWISE SHOWN ON THE PLANS.

SIDEWALK REMOVED

GRAVEL DRIVE REMOVED (UNDER EXCAVATION ITEM 203)

CONCRETE APRON/DRIVE REMOVED

PAVEMENT REMOVED (UNDER EXCAVATION ITEM 203)

ASPHALT DRIVE REMOVED (UNDER EXCAVATION ITEM 203)

FOR ESTIMATED REMOVAL QUANTITIES, SEE SHEET 7 .

SANITARY LATERALS REMOVED & REPLACED*			202 / 603	WATER SERVICES REMOVED & REPLACED (BY OTHERS)*			202 / 638	202 / 638
HOUSE #	STATION***	SIDE	PVC SANITARY SERVICE LATERAL RECONNECTIONS COMPLETE, AS PER PLAN (SANITARY)	HOUSE #	STATION**	SIDE	WATER SERVICE RECONNECTION, COMPLETE (LONG SIDE)	WATER SERVICE RECONNECTION, COMPLETE (SHORT SIDE)
			EACH				EACH	EACH
4026 (Cleve. Ave.)	1+58.36	RT	1	4100 (Cleve. Ave.)	1+32.64	LT	1	
1817	2+35.42	LT	1	1817	2+44.16	LT	1	
1811	2+78.15	LT	1	1811	3+08.61	LT	1	
1807	3+25.62	LT	1	1806	3+23.58	RT		1
1806	3+26.99	RT	1	1807	3+55.52	LT	1	
1802	3+96.66	RT	1	1802	FIELD LOCATE	RT		1
1803	3+70.36	LT	1	1803	4+07.03	LT	1	
1726	4+37.04****	RT	1	1726	4+38.33	RT		1
1727	4+51.04	LT	1	1727	4+50.32	LT	1	
1722	4+68.96****	RT	1	1722	4+72.11	RT		1
				1721	4+97.20	LT	1	
TOTALS CARRIED TO GENERAL SUMMARY			10	TOTALS CARRIED TO GENERAL SUMMARY			7	4

* LOCATIONS IDENTIFIED ARE APPROXIMATE AND WERE GATHERED FROM CITY RECORDS. THE CONTRACTOR SHALL VERIFY PRIOR TO INSTALLATION.
** STATIONS PROVIDED AT EXISTING CURB STOP LOCATION
*** STATIONS PROVIDED AT RIGHT-OF-WAY WHERE LATERAL CROSSES
**** REPLACE LATERAL ON NEW ALIGNMENT, AS PER PLAN.

CALCULATED SCB
CHECKED RAB

HORIZONTAL SCALE IN FEET
0 10 20 40

REMOVAL PLAN
BEGIN TO STA. 5+00.00

CANTON-41ST. NW

39
46

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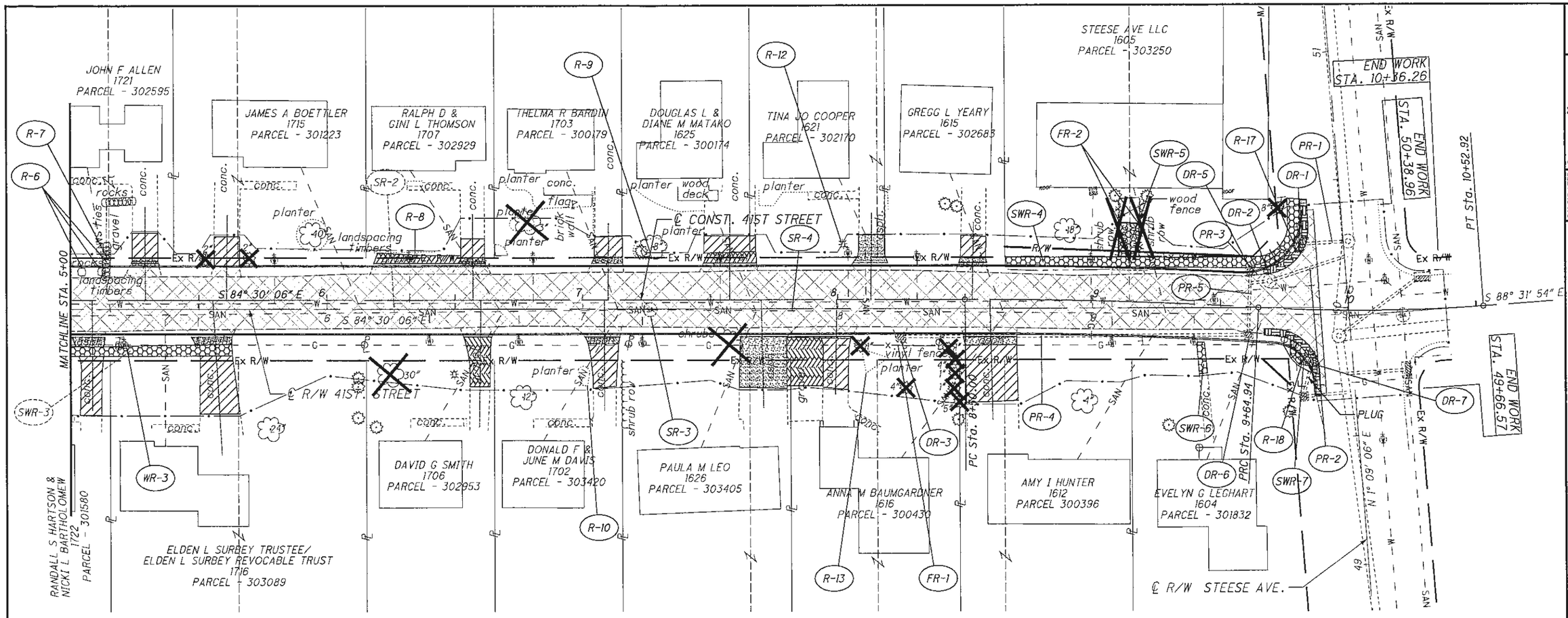


NOTE:

ALL DISTURBED AREAS SHALL BE RESTORED AND/OR REPLACED IN KIND (TYPE) UNLESS OTHERWISE SHOWN ON THE PLANS.

SIDEWALK REMOVED

GRAVEL DRIVE REMOVED (UNDER EXCAVATION ITEM 203)

CONCRETE APRON/DRIVE REMOVED

PAVEMENT REMOVED (UNDER EXCAVATION ITEM 203)

ASPHALT DRIVE REMOVED (UNDER EXCAVATION ITEM 203)

CURB/CURB & GUTTER REMOVED

FOR ESTIMATED REMOVAL QUANTITIES SEE SHEET 7 .

SANITARY LATERALS REMOVED & REPLACED*			202 / 603	WATER SERVICES REMOVED & REPLACED (BY OTHERS)*			202 / 638	202 / 638
HOUSE #	STATION***	SIDE	PVC SANITARY SERVICE LATERAL RECONNECTIONS COMPLETE, AS PER PLAN (SANITARY)	HOUSE #	STATION**	SIDE	WATER SERVICE RECONNECTION, COMPLETE (LONG SIDE)	WATER SERVICE RECONNECTION, COMPLETE (SHORT SIDE)
			EACH				EACH	EACH
1721	05+12.20	LT	1	1716	05+49.62	RT		1
1716	05+36.86	RT	1	1715	05+79.58	LT	1	
1715	06+04.81	LT	1	1706	06+39.91	RT		1
1707	06+54.53	LT	1	1707	FIELD LOCATE	LT	1	
1706	06+57.17	RT	1	1702	06+74.95	RT		1
1702	07+03.15	RT	1	1703	06+80.72	LT	1	
1703	07+06.34	LT	1	1626	07+23.35	RT		1
1625	07+59.06	LT	1	1625	07+53.88	LT	1	
1625	07+60.14	RT	1	1621	08+04.13	LT	1	
1621	08+10.93	LT	1	1616	FIELD LOCATE	RT		1
1616	8+44.00****	RT	1	1615	08+31.25	LT	1	
1615	08+56.76	LT	1	1612	09+08.22	RT		1
1612	9+12.64****	RT	1	1605	09+14.02	LT	1	
1605	09+22.48	LT	1	1604	09+40.33	RT		1
1604	09+61.34	RT	1					
TOTALS CARRIED TO GENERAL SUMMARY			15	TOTALS CARRIED TO GENERAL SUMMARY			7	7

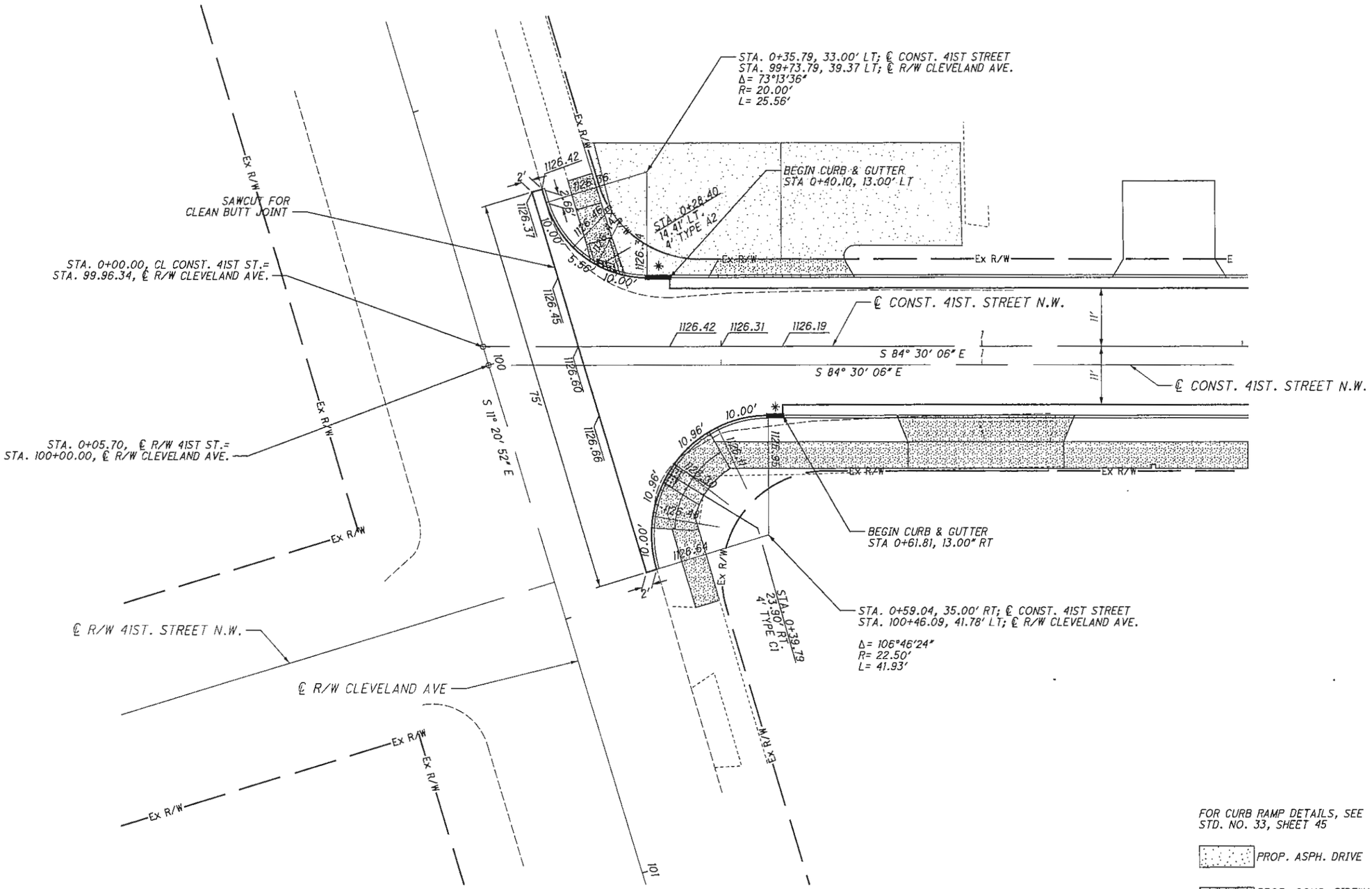
* LOCATIONS IDENTIFIED ARE APPROXIMATE AND WERE GATHERED FROM CITY RECORDS. THE CONTRACTOR SHALL VERIFY PRIOR TO INSTALLATION.
** STATIONS PROVIDED AT EXISTING CURB STOP LOCATION
*** STATIONS PROVIDED AT RIGHT-OF-WAY WHERE LATERAL CROSSES
**** REPLACE LATERAL ON NEW ALIGNMENT, AS PER PLAN.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED SCB
CHECKED RAB

REMOVAL PLAN
STA. 5+00.00 TO END

CANTON-41ST. NW



NOTES:

1. ALL ELEVATIONS SHOWN ON PAVEMENT SURFACE, FACE OF GUTTER, OR EDGE OF PAVEMENT (IF GUTTER NOT PRESENT).

HORIZONTAL SCALE IN FEET
0 10 20

CALCULATED SCB
CHECKED RAB

INTERSECTION DETAIL
41ST ST & CLEVELAND AVE

CANTON-41ST-NW

41
46

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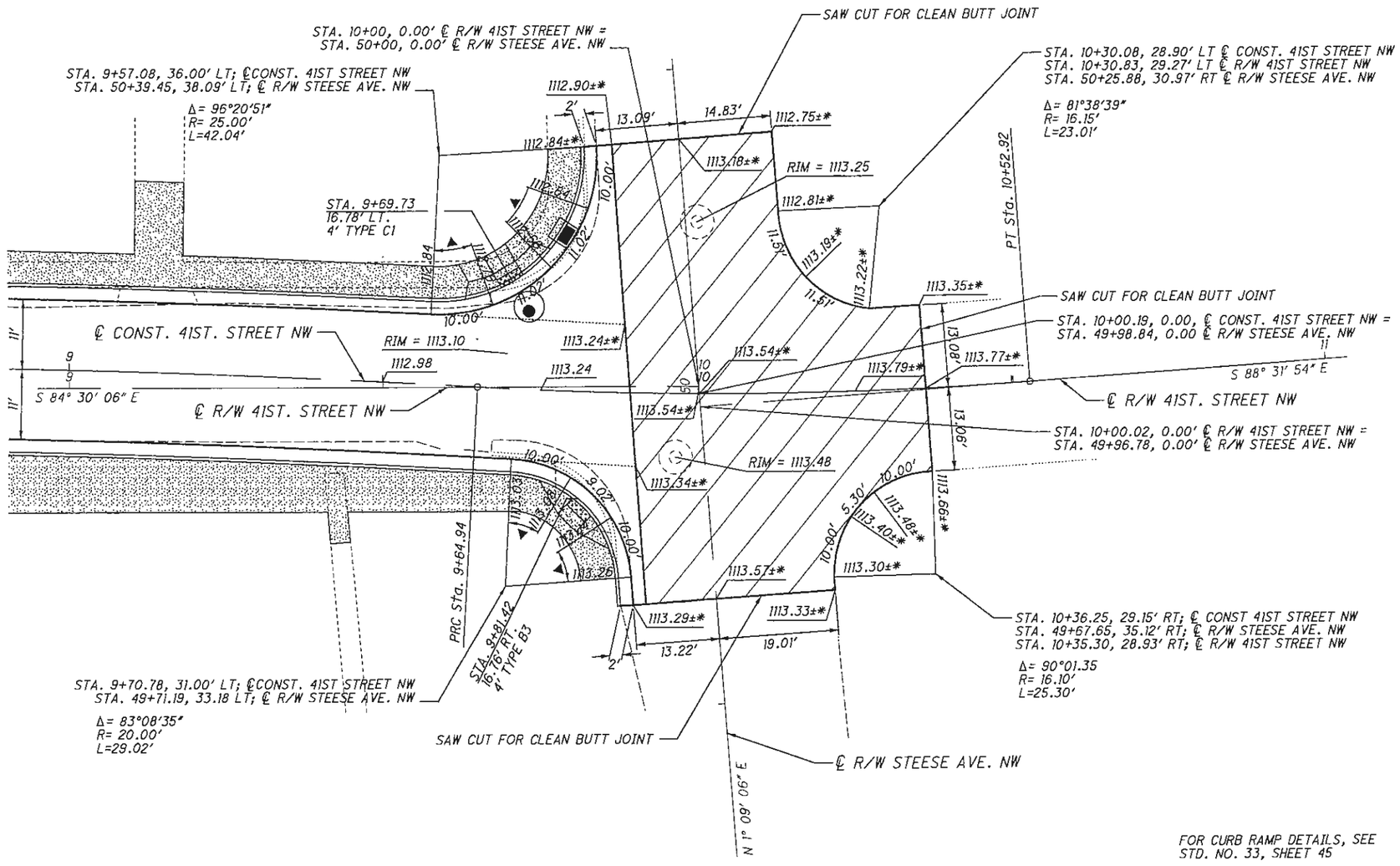

FOR CURB RAMP DETAILS, SEE
STD. NO. 33, SHEET 45

PROP. SIDEWALK & DRIVE APPRONS

PROP. ADA CURB RAMP DOMES

LIMITS OF ITEM 254 PAVEMENT PLANING & RESURFACING

XXX.XX±* OR "M.E." = MATCH EXISTING GRADE

NOTE:

1. ALL ELEVATIONS SHOWN ON PAVEMENT SURFACE, FACE OF GUTTER, OR EDGE OF PAVEMENT (IF GUTTER NOT PRESENT)

▲ TRANSITION GUTTER SLOPE FROM 0.083 TO 0.050

HORIZONTAL SCALE IN FEET
0 5 10 20

CALCULATED SCB
CHECKED RAB

INTERSECTION DETAIL
41ST ST & STEESE AVE.

CANTON-41ST-NW

42
46

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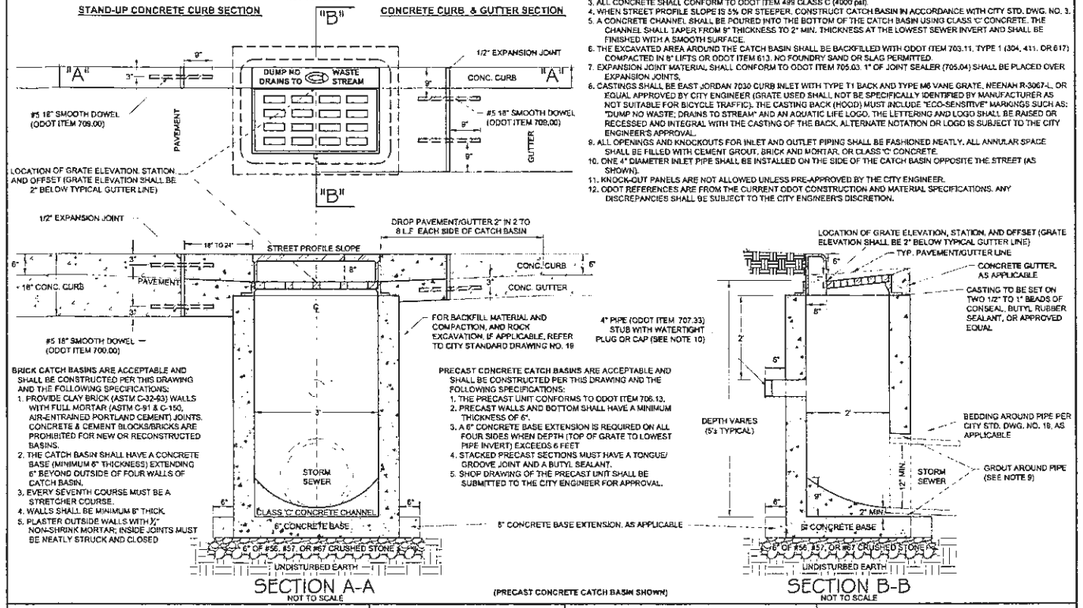
PLAN VIEW
NOT TO SCALE

STAND-UP CONCRETE CURB SECTION — CONCRETE CURB & GUTTER SECTION



SECTION A-A
NOT TO SCALE

(PRECAST CONCRETE CATCH BASIN SHOWN)

SECTION B-B
NOT TO SCALE

NOTES:
1. ALL WORK SHALL CONFORM TO ODOT ITEM 604 EXCEPT AS OTHERWISE NOTED HEREIN.
2. PRECAST CONCRETE OR BRICK CATCH BASINS ARE ALLOWED AS NOTED HEREIN.
3. ALL CONCRETE SHALL CONFORM TO ODOT ITEM 499 CLASS C (4000 psi).
4. WHEN STREET PROFILE SLOPE IS 5% OR STEEPER, CONSTRUCT CATCH BASIN IN ACCORDANCE WITH CITY STD. DWG. NO. 3.
5. A CONCRETE CHANNEL SHALL BE POURED INTO THE BOTTOM OF THE CATCH BASIN USING CLASS 'C' CONCRETE. THE CHANNEL SHALL TAPER FROM 9" THICKNESS TO 2" MIN. THICKNESS AT THE LOWEST SEWER INVERT AND SHALL BE FINISHED WITH A SMOOTH SURFACE.
6. THE EXCAVATED AREA AROUND THE CATCH BASIN SHALL BE BACKFILLED WITH ODOT ITEM 703.11, TYPE 1 (304, 411, OR 617) COMPACTED IN 8" LIFTS OR ODOT ITEM 613. NO FOUNDRY SAND OR SLAG PERMITTED.
7. EXPANSION JOINT MATERIAL SHALL CONFORM TO ODOT ITEM 705.03. 1" OF JOINT SEALER (705.04) SHALL BE PLACED OVER EXPANSION JOINTS.
8. CASTINGS SHALL BE EAST JORDAN 7030 CURB INLET WITH TYPE T1 BACK AND TYPE M5 VANE GRATE, NEENAH R-3067-L, OR EQUAL APPROVED BY CITY ENGINEER (GRATE USED SHALL NOT BE SPECIFICALLY IDENTIFIED BY MANUFACTURER AS NOT SUITABLE FOR BICYCLE TRAFFIC). CASTING BACK (HOOD) MUST INCLUDE "ECO-SENSITIVE" MARKINGS SUCH AS: "DUMP NO WASTE; DRAINS TO STREAM" AND AN AQUATIC LIFE LOGO. THE LETTERING AND LOGO SHALL BE RAISED OR RECESSED AND INTEGRAL WITH THE CASTING OF THE BACK. ALTERNATE NOTATION OR LOGO IS SUBJECT TO THE CITY ENGINEER'S APPROVAL.
9. ALL OPENINGS AND KNOCKOUTS FOR INLET AND OUTLET PIPING SHALL BE FASHIONED NEATLY. ALL ANNULAR SPACE SHALL BE FILLED WITH CEMENT GROUT, BRICK AND MORTAR, OR CLASS 'C' CONCRETE.
10. ONE 4" DIAMETER INLET PIPE SHALL BE INSTALLED ON THE SIDE OF THE CATCH BASIN OPPOSITE THE STREET (AS SHOWN).
11. KNOCK-OUT PANELS ARE NOT ALLOWED UNLESS PRE-APPROVED BY THE CITY ENGINEER.
12. ODOT REFERENCES ARE FROM THE CURRENT ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS. ANY DISCREPANCIES SHALL BE SUBJECT TO THE CITY ENGINEER'S DISCRETION.

OFFICE OF THE CITY ENGINEER
CANTON, OHIO
DANIEL J. MOEGLIN, P.E., CITY ENGINEER
2436 30th St. NE 44705 330-489-3381 www.cantonohio.gov/engineering

APPROVED DATE: MAR. 2012
APPROVED BY: CDB, RMB, SLH
DRAWING FILE NAME: ce_01.dwg

REVISIONS		
DESCRIPTION	DATE	BY

STANDARD DRAWING NO. 1
CURB INLET CATCH BASIN
SHEET 1 OF 1

CANTON CONSTRUCTION STANDARDS NOTES FOR MODIFIED ODOT MANHOLE 3 (SCD MH-1.2)

NOTE 1 LIFT HOLES INSIDE THE MANHOLES MUST BE SEALED WITH GROUT

NOTE 2. TOP AND TRANSITION SECTIONS MUST BE ECCENTRIC CONE ONLY. USE FLAT SLAB FOR SHALLOW MANHOLE APPLICATIONS OR SPECIAL CIRCUMSTANCES AS DIRECTED BY THE CITY.

NOTE 3. 6" EXTENDED BASE IS STANDARD FOR ALL SANITARY AND STORM MANHOLES. SET MANHOLE BASE ON 6" OF AASHTO M 43 NO. 56, 57, OR 67 CRUSHED STONE SET ON UNDISTURBED EARTH.

NOTE 4. PIPE CONNECTIONS INTO THE MANHOLES MUST NOT EXTEND INTO THE MANHOLE MORE THAN 2" AT THE SIDES OF THE PIPE AT THE SPRING-LINE OF SAID PIPE.

SANITARY CONNECTIONS
SANITARY SEWER PIPE INLETS, WITH FLOWLINES MORE THAN 2' HIGHER THAN THE CHANNEL BENCH MUST BE OUTSIDE DROP CONNECTIONS. DROP CONNECTIONS MUST BE FABRICATED AND CAST INTEGRALLY WITH THE MANHOLE SECTIONS OR INSTALLED PER CITY STANDARD DWG. 11, OUTSIDE DROP CONNECTION FOR SANITARY MANHOLES. NO INSIDE DROPS PERMITTED FOR PRIVATE SEWER CONNECTIONS. INSIDE DROP FOR CITY-OWNED SEWERS ARE SUBJECT TO THE CITY ENGINEER'S APPROVAL.

SANITARY PIPE INLETS MUST BE FLUMED OVER THE BENCH, DIRECTING FLOW INTO THE CHANNEL, USING CONCRETE AND/OR CLAY SEWER BRICK AND MORTAR.

CAST OPENINGS MUST BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 2 INCHES WITH A BUTYL RUBBER A-LOK, X-CEL GASKET, OR APPROVED EQUAL.

CORED OPENINGS MUST BE MACHINE CORED. THE OPENING SHALL BE PER PIPE-TO-MANHOLE CONNECTOR SPECS. USE "KOR-N-SEAL" FLEXIBLE PIPE-TO-MANHOLE CONNECTOR WITH STAINLESS WEDGE ASSEMBLY OR APPROVED EQUAL CONFORMING TO ASTM C-923 OR ASTM C-923.

STORM CONNECTION
OPENINGS FOR STORM PIPE INLETS MAY BE CAST OR MACHINE CORED. OPENINGS SHALL NOT EXCEED THE O.D. OF PIPE + 2" MAKE WATER-TIGHT JOINTS WITH NON-SHRINK CEMENT OR CLASS 'C' CONCRETE APPLIED FROM INSIDE AND OUTSIDE OF MANHOLE.

NOTE 5. STEPS SHALL BE 1/2" STEEL REINFORCED POLYPROPYLENE STEPS 12" W X 9-3/4" BY AMERICAN STEP CO., INC. OR APPROVED EQUAL, MEETING ASTM 478.

FRAMES AND COVER SHALL CONFORM WITH CITY OF CANTON STD. DWG. NO. 12.

NOTE 6. GRADE RINGS FOR NEW MANHOLES MAY BE PRECAST CONCRETE, RUBBER COMPOSITE, OR CLAY BRICK AND MORTAR. CONCRETE BRICK IS NOT PERMITTED.

HEIGHT OF GRADE RINGS COLLECTIVELY SHALL NOT EXCEED 12".

PRECAST CONCRETE GRADE RINGS MUST BE REINFORCED CLASS 'C' CONCRETE AND CONNECTED USING TWO CONCENTRIC RINGS OF 1/2" TO 1" BEADS OF BUTYL RUBBER SEALANT CON-SEAL OR APPROVED EQUAL. SEAL OUTSIDE JOINTS WITH 1/2" NON SHRINK CEMENT PLASTER.

RUBBER COMPOSITE GRADE RINGS MUST BE "INFRA-RISER" BY EJIW OR APPROVED EQUAL, AND CONNECTED USING TWO PARALLEL BEADS OF POLY-SEALANT ADHESIVE PER MANUFACTURER RECOMMENDATION. RUBBER COMPOSITE GRADE RINGS HEIGHT MUST NOT EXCEED 3" AND MUST BE PLACED DIRECTLY UNDER MANHOLE FRAME.

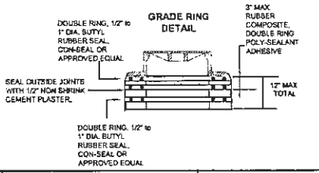
BRICK AND MORTAR RINGS MUST BE BELDEN BRICK, FINE GRIND, ASTM C32-90, OR APPROVED EQUAL WITH HIGH STRENGTH, AIR ENTRAINED, MORTAR. SEAL OUTSIDE JOINTS WITH 1/2" NON SHRINK CEMENT PLASTER.

USE TWO PARALLEL 3/4" BEADS OF BUTYL RUBBER SEALANT CON-SEAL OR APPROVED EQUAL, BETWEEN GRADE RINGS OF DIFFERENT MATERIAL AND BETWEEN GRADE RINGS AND MANHOLE FRAME.

NOTE 7. FOR BACKFILL MATERIAL AND COMPACTION, AND ROCK EXCAVATION, IF APPLICABLE, REFER TO CITY STD.DWG. NO. 18.

NOTE 8. SANITARY MANHOLES TO BE TESTED ACCORDING TO CITY ENGINEER'S SPECIFICATION 04-01 (NEGATIVE AIR PRESSURE TEST).

GRADE RING DETAIL



OPTIONAL MANHOLE BID ITEMS

ITEM	QTY.	UNIT	DESCRIPTION OPTION "A"
604		V.F.	MH. WATERPROOFING, COAL TAR, A.P.P.

IF REQUESTED BY THE CITY ENGINEER, OR SPECIFIED IN THE PLAN, THE CONTRACTOR SHALL PROVIDE UNIT PRICE FOR WATERPROOFING THE EXTERIOR OF DESIGNATED MANHOLES. THIS ITEM IS "CITY OPTIONAL" AND THE PRICE IS PAID PER VERTICAL FOOT OF EACH MANHOLE WATERPROOFED AS DIRECTED BY THE ENGINEER. THIS OPTION IS A CONTINGENCY BID ITEM UNLESS SPECIFIED OTHERWISE.

APPLY IN THE FIELD A COAL TAR EPOXY TO THE OUTSIDE OF THE MANHOLE PER MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS FROM THE TOP OF THE EXTENDED BASE TO THE BOTTOM OF THE MANHOLE COVER CASTING.

ITEM	QTY.	UNIT	DESCRIPTION OPTION "B"
604		EACH	NEW MH, POLYMER LINING, A.P.P.
604		V.F.	EXISTING MH, POLYMER LINING, A.P.P.

IF REQUESTED BY THE CITY ENGINEER, OR SPECIFIED IN THE PLAN, THE CONTRACTOR SHALL PROVIDE UNIT PRICE FOR CORROSION RESISTANT POLYMER LININGS AS DESIGNATED. THIS ITEM IS "CITY OPTIONAL" AND THE PRICE IS PAID PER VERTICAL FOOT OR PER EACH MANHOLE LINED AS DIRECTED BY THE ENGINEER. THE UNIT COST FOR THIS ITEM INCLUDES ALL COSTS FOR LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS REQUIRED FOR SUPPLYING AND INSTALLING THE LININGS INCLUDING THE COST FOR BYPASSING EXISTING SEWER FLOWS FOR THE DURATION OF THE INSTALLATION AND CURING TIME AS SPECIFIED. THIS OPTION IS INCLUDED AS A CONTINGENCY BID ITEM, UNLESS SPECIFIED OTHERWISE.

APPLY IN THE FIELD A CORROSION RESISTANT POLYMER LINING (PLASITE 3371 BY CARBOLINE OR APPROVED EQUAL) TO THE INSIDE OF THE NEW OR EXISTING MANHOLE PER MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS. APPLY FROM THE TOP OF THE BENCH TO THE BOTTOM OF THE MANHOLE COVER CASTING.

FOR EXISTING MANHOLES, PRIOR TO POLYMER LINING APPLICATION, RESTORE INSIDE WALLS AS PER LINING MANUFACTURER'S RECOMMENDATIONS OR AS DIRECTED BY THE CITY ENGINEER.

THE CITY'S STANDARD MANHOLE FOR SANITARY AND STORM SEWERS IS THE ODOT MH-3 WITH THE MODIFICATIONS NOTED.

OFFICE OF THE CITY ENGINEER
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APPROVED DATE: JAN 2012
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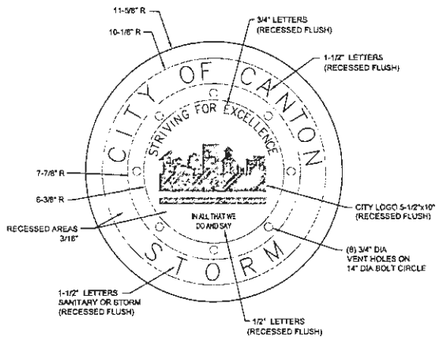
DRAWING FILE NAME: ce_10.dwg

REVISIONS		
DESCRIPTION	DATE	BY

STANDARD DRAWING NO. 10
PRECAST STORM OR SANITARY MANHOLE
SHEET 3 OF 3

TOP OF MANHOLE COVER



NOTES:
1. COVER AND FRAME TO BE CAST OF GRAY IRON IN COMPLIANCE WITH ASTM SPEC. ASTM A-48 CLASS 35. CASTINGS SHALL BE OF THE HEAVY DUTY RATING.
2. EAST JORDAN 1850 B COVER (PRODUCT NO. 185026) AND 1850 FRAME, OR NEENAH R-1854 FRAME AND LID OR EQUAL APPROVED BY CITY ENGINEER.
3. MACHINE BEARING SURFACES BETWEEN LID AND FRAME.
4. CONTACT CITY ENGINEER FOR CAD DRAWING OF CITY LOGO.

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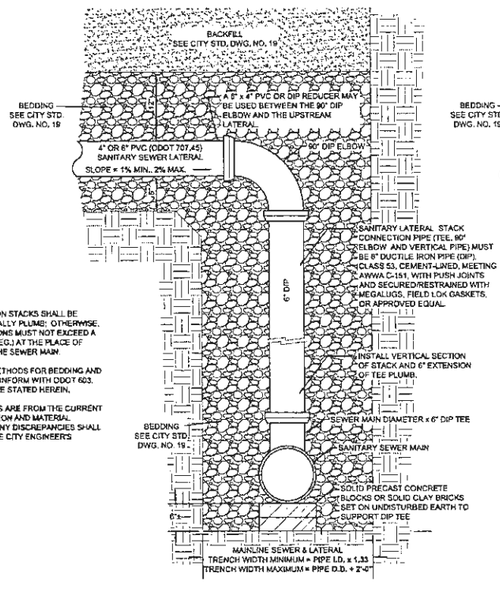
DESCRIPTION	DATE	BY

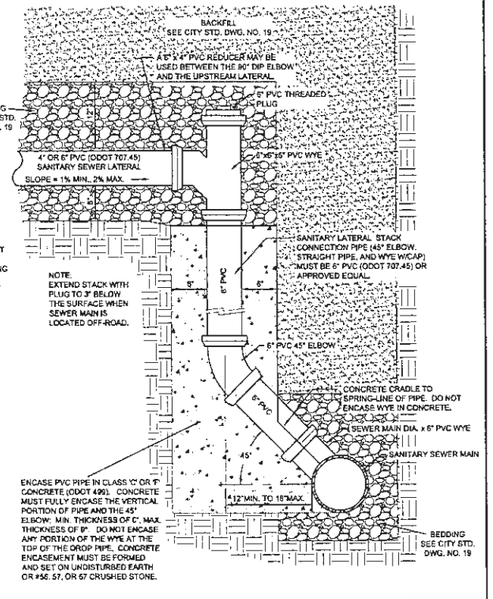
STANDARD DRAWING NO. 12
MANHOLE COVER
SHEET 1 OF 1

HOUSE CONNECTION STACK, OPTION 1



NOTES:
1. HOUSE CONNECTION STACKS SHALL BE INSTALLED VERTICALLY PLUMB; OTHERWISE, SEWER CONNECTIONS MUST NOT EXCEED A SLOPE OF 1:1 (45 DEG.) AT THE PLACE OF CONNECTION TO THE SEWER MAIN.
2. CONSTRUCTION METHODS FOR BEDDING AND BACKFILL SHALL CONFORM WITH ODOT 603, UNLESS OTHERWISE STATED HEREIN.
3. ODOT REFERENCES ARE FROM THE CURRENT ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS. ANY DISCREPANCIES SHALL BE SUBJECT TO THE CITY ENGINEER'S DISCRETION.

HOUSE CONNECTION STACK, OPTION 2



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DRAWING FILE NAME: ce_18.dwg

REVISIONS		
DESCRIPTION	DATE	BY

STANDARD DRAWING NO. 18
HOUSE CONNECTION STACK
SHEET 1 OF 1

DETAILS

CANTON-41ST. NW

CALCULATED SCB
CHECKED RAB

DETAILS

NOTES

1 BEDDING

WATER AS SHALL BE AASHTO M 43 NO. 56, 57 OR 67 CRUSHED STONE. NO ALTERNATES UNLESS APPROVED BY THE CITY ENGINEER. PRIVATE UTILITIES MAY TYP CALLY PROVIDE ALTERNATIVE BEDDING MATERIAL AS APPROVED BY THE CITY ENGINEER

BEDDING WIDTH TABLE

PIPE TYPE	MIN. WIDTH, TYP.	MAX. WIDTH, TYP.
NON-RIGID PIPE (PVC, HDPE, CMP, ALUMINUM)	PIPE I.D. + 1.25 = 1'-6"	PIPE O.D. + 2'-0"
RIGID PIPE (CONC., VIT. CLAY, DUCTILE IRON)	PIPE I.D. + 1.33	PIPE O.D. + 2'-0"

CENTER PIPE HORIZONTALLY WITH N BEDDING AREA. ANY DEVIATION TO TYPICAL BEDDING REQUIREMENTS ARE SUBJECT TO THE DISCRETION OF THE CITY ENGINEER

THE BEDDING LIMITS SHOWN APPLY IN ALL CASES, *EXCEPT*, FOR WHEN PIPE MANUFACTURER SPECIFIES A BEDDING WIDTH DIFFERENT FROM THAT SHOWN AND THE CITY ENGINEER PERMITS SAME.

2. BACKFILL

BACKFILL WITHIN THE PUBLIC STREET R/W

MATERIALS SHALL BE CODOT 703.11, TYPE "I" GRANULAR MATERIAL (304.41" or 617 AGGREGATE GRADATION) OR TYPE "3" GRANULAR MATERIAL OR CODOT 613, LOW STRENGTH MORTAR. DEVIATIONS FROM THIS ARE AS FOLLOWS

A) NO FOUNDRY SAND OR SLAG IS PERMITTED

B) ALTERNATE GRANULAR MATERIAL SHALL BE PERMITTED ONLY WITH THE SUPPLEMENTAL APPROVAL OF THE CITY ENGINEER. TO PETITION FOR SUCH SUPPLEMENTAL APPROVAL, THE DEVELOPER/CONTRACTOR SHALL SUBMIT IN WRITING THE FOLLOWING:
- SOURCE OF THE ALTERNATE BACKFILL MATERIAL
- GRADATION REPORT IN ACCORDANCE WITH AASHTO T 11 AND T 27
- PROCTOR CURVE ANALYSIS IN ACCORDANCE WITH ASTM D 698
- PROPOSED COMPACTION METHOD

THE CITY ENGINEER RESERVES THE RIGHT TO REFUSE ANY ALTERNATE BACKFILL MATERIAL, REGARDLESS OF APPROVAL OF SIMILAR MATERIAL ON A PREVIOUS PROJECT.

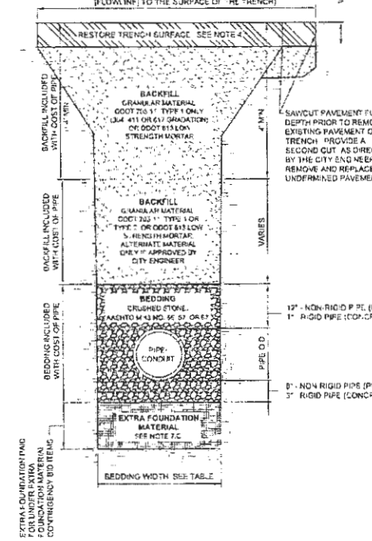
THE CITY ENGINEER FURTHER RESERVES THE RIGHT TO REFUSE ANY ALTERNATE BACKFILL MATERIAL THE CITY P-405 NOT CONSISTENT WITH THE APPROVED SOURCE, GRADATION REPORT, PROCTOR REPORT, OR COMPACTION METHOD.

C) CODOT 703.11, TYPE 2, OR ALTERNATE MATERIALS ARE NOT PERMITTED WITHIN 4 FEET OF THE TRENCH SURFACE, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.

BACKFILL OUTSIDE OF THE PUBLIC STREET R/W

FOLLOW MATERIAL AND METHODS FOR BACKFILL IN ACCORDANCE WITH CODOT 603

PAVEMENT OR SURFACE REPLACEMENT MAXIMUM PAY LIMITS
PIPE DEPTH OF 4'-0" OR LESS = O.D. OF PIPE + 4'-0"
PIPE DEPTH BETWEEN 4'-0" TO 8' = O.D. OF PIPE + 5'-0"
PIPE DEPTH GREATER THAN 8' = O.D. OF PIPE + 6'-0"
(PIPE DEPTH BEING MEASURED FROM THE PIPE INVERT (FLOW LINE) TO THE SURFACE OF THE TRENCH)



NOTES. (CONTINUED)

3. COMPACTION

ALL BACKFILL SHALL BE PLACED IN LAYERS NOT TO EXCEED 12-INCHES LOOSE DEPTH AND COMPACTED BY APPROVED MECHANICAL MEANS. JETTING IS NOT APPROVED WITHOUT THE CITY ENGINEER'S APPROVAL. BUCKET COMPACTION MUST BE SUPPLEMENTED WITH VIBRATION OR TAMPING EQUIPMENT AS DIRECTED. ANY MODIFICATIONS TO THESE REQUIREMENTS MUST BE APPROVED BY THE CITY ENGINEER

4. SURFACE.

TRENCHES SHALL BE TOPPED WITH 4" OF CODOT 304 LIMESTONE OR ASPHALT GRINDINGS WITHIN EXISTING STREET PAVEMENTS WHEN THE STREET WILL BE OPENED TO VEHICULAR TRAFFIC PRIOR TO PAVEMENT REPLACEMENT. THE TRENCH TOPPING MATERIAL SHALL BE ROLLED OR OTHERWISE COMPLETED FLUSH WITH THE ADJOINING PAVEMENT

STREET RESTORATION

CONCRETE OR ASPHALT STREET PAVEMENT SHALL BE REPLACED IN ACCORDANCE WITH CITY STD. DWG. NO. 33. BRICK OR ASPHALT-BRICK COMPOSITE STREET PAVEMENT SHALL BE REPLACED IN ACCORDANCE WITH CITY STD. DWG. NO. 31

SIDEWALK, CURB, AND DRIVEWAY RESTORATION

DRIVEWAY SURFACES SHALL BE REPLACED IN ACCORDANCE WITH THE CURRENT EDITION OF THE CITY OF CANTON SPECIFICATIONS FOR THE CONSTRUCTION, REPAIR, AND REPLACEMENT OF SIDEWALKS, CURBS, AND DRIVEWAYS, AND CITY STD. DWG. NOS. 26 THRU 35

LAWN RESTORATION

LAWN SURFACES SHALL BE REPLACED WITH A MINIMUM OF 4" TOPSOIL, SEEDED, AND MULCHED. SEED MIX SHALL CONFORM TO ADJOINING LAWN GRASS

5 CONSTRUCTION METHODS FOR BEDDING AND BACKFILL SHALL CONFORM WITH CODOT 601 UNLESS STATED OTHERWISE HEREIN

6 ODOT REFERENCES ARE FROM THE CURRENT ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS. ANY DISCREPANCIES SHALL BE SUBJECT TO THE CITY ENGINEER'S DISCRETION

NOTES (CONTINUED)

7 PAY LIMITS FOR CITY PROJECTS

A) BEDDING AND BACKFILL IS INCLUDED WITH THE COST OF PIPE UNLESS DIRECTED TO BID OTHERWISE.

B) PAVEMENT RESTORATION IS INCLUDED WITH THE COST OF PIPE UNLESS A SEPARATE PAY ITEM IS PROVIDED WHEREBY THE WIDTH MEASUREMENT OVER THE TRENCH FOR PAVEMENT RESTORATION SHALL NOT EXCEED THE OUTSIDE DIAMETER (O.D.) OF PIPE PLUS A SET MEASUREMENT DEPENDENT ON DEPTH OF PIPE. AREA MEASUREMENTS AT MANHOLE AND CATCH BASIN STRUCTURES SHALL NOT EXCEED THE AREA OF THE BASE OF THE STRUCTURE + 2'-0" OFFSET AREA AROUND THE STRUCTURE'S BASE

C) EXTRA FOUNDATION MATERIAL. THE CONTRACTOR SHALL BE PAID FOR OVER-EXCAVATION AND BEDDING FOUNDATION MATERIAL UNDER THE CONTINGENCY BID ITEMS FOR EXTRA FOUNDATION MATERIAL

WHEN IN THE OPINION OF THE CITY ENGINEER, SOFT/UNSTABLE MATERIALS ARE ENCOUNTERED WHICH ARE UNSUITABLE FOR BEDDING FOUNDATION, SAID MATERIAL SHALL BE REMOVED BY THE CONTRACTOR TO THE DEPTH DIRECTED BY THE ENGINEER AND REPLACED WITH SUITABLE MATERIAL.

FOR CITY PROJECTS, THE PAYABLE WIDTH OF THE EXTRA FOUNDATION MATERIAL SHALL NOT EXCEED THE LESSER OF THE APPLICABLE MINIMUM OR MAXIMUM TYPICAL BEDDING WIDTH AS NOTED ON SHEET 1 OF STD. DWG. NO. 19

FOR PRIVATE WORK, ALL COSTS ARE AT THE OWNER'S EXPENSE.

EXTRA FOUNDATION MATERIAL, OPTION A, B, C, & D, MAY BE USED IN ANY COMBINATION AS DIRECTED BY THE CITY ENGINEER.

OPTION A: CRUSHED STONE, AASHTO M 43 NO. 1 AND/OR 2

OPTION B: CRUSHED STONE, AASHTO M 43 NO. 56, 57, OR 67

OPTION C: CODOT 703.11, TYPE 1 (304.41) OR 617 GRADATION)

OPTION D: TENSAR GEOGRID TT160, OR APPROVED EQUAL

EXTRA FOUNDATION MATERIAL, CONTINGENCY BID ITEMS

ITEM	QTY	UNIT	DESCRIPTION
603	156	C.Y.	EXTRA FOUNDATION, OPTION A (#1 OR 2 STONE)
603	156	C.Y.	EXTRA FOUNDATION, OPTION B (#56,57,67 STONE)
603	156	C.Y.	EXTRA FOUNDATION, OPTION C (304.41 OR 617)
603	469	S.F.	EXTRA FOUNDATION, OPTION D (GEOGRID)

NOTES. (CONTINUED)

4 EXCAVATION OF ROCK OR BURIED/ABANDONED CONCRETE STRUCTURE REMOVAL

EXCAVATION FOR NEW MANHOLES AND CATCH BASINS, UNLESS OTHERWISE SPECIFIED OR SHOWN ON CONSTRUCTION PLANS, SHALL BE MEASURED BETWEEN VERTICAL PLANES ONE (1) FOOT BEYOND THE OUTSIDE FACE OF THE FOUNDATION OF THE STRUCTURES ON ALL SIDES AND PARALLEL THERETO, AND FROM THE SURFACE OF THE ROCK TO THE BOTTOM OF THE ROCK, OR THE NEAT LINES OF THE BOTTOM OF THE STRUCTURES PLUS THE DEPTH OF THE BASE MATERIAL. USE THE MEASUREMENT WHICH IS LESSER.

EXCAVATION FOR NEW PIPES, UNLESS OTHERWISE SPECIFIED OR SHOWN ON CONSTRUCTION PLANS, SHALL BE MEASURED BETWEEN TRENCH WALLS (NOT TO EXCEED PIPE O.D. + 16", AND FROM THE SURFACE OF THE ROCK TO THE BOTTOM OF THE ROCK OR THE BOTTOM OF THE PIPE BEDDING. USE THE MEASUREMENT WHICH IS LESSER.

EXCAVATION OF BURIED AND ABANDONED CONCRETE STRUCTURES SHALL BE MEASURED IN THE SAME MANNER AS ROCK REMOVAL.

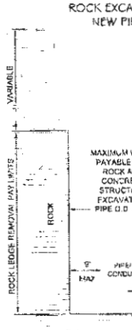
FOR CITY PROJECTS, THE CONTRACTOR SHALL BE PAID FOR ROCK REMOVAL AND CONCRETE STRUCTURE REMOVAL UNDER THE CONTINGENCY BID ITEMS FOR ROCK OR CONCRETE STRUCTURE REMOVAL. IF A CONTINGENCY BID ITEM IS NOT INCLUDED IN THE BID PROPOSAL, THE CONTRACTOR MAY SUBMIT A PROPOSAL (PRIOR TO WORK BEING STARTED) TO THE CITY ENGINEER FOR REVIEW AND APPROVAL.

FOR PRIVATE WORK, ALL COSTS ARE AT THE OWNER'S EXPENSE.

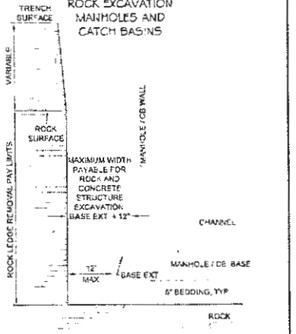
ROCK AND BURIED & ABANDONED CONCRETE STRUCTURE REMOVAL, CONTINGENCY BID ITEMS

ITEM	QTY	UNIT	DESCRIPTION
603	156	C.Y.	ROCK REMOVAL
603	25	C.Y.	CONCRETE STRUCTURAL REMOVAL

ROCK EXCAVATION
NEW PIPES



ROCK EXCAVATION
MANHOLES AND CATCH BASINS



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APPROVED DATE: JAN 2012
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REVISIONS

DESCRIPTION	DATE	BY
REVISIONS TO NOTES 7 & 8	6/4/2012	CDB
REVISIONS TO NOTES 7	6/10/2013	CDB

STANDARD DRAWING NO. 19
UTILITY TRENCH REQUIREMENTS
SHEET 1 OF 2

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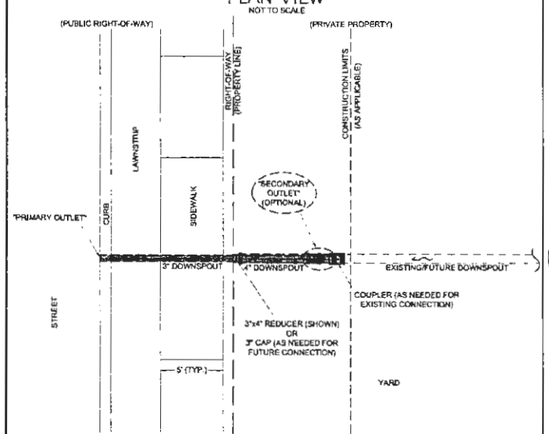
REVISIONS

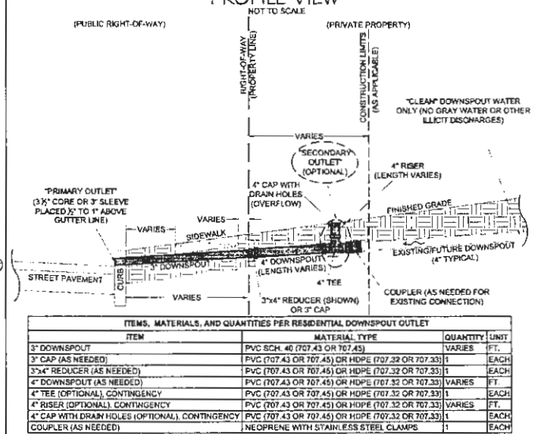
DESCRIPTION	DATE	BY
REVISIONS TO NOTES 7 & 8	6/4/2012	CDB
REVISIONS TO NOTES 7	6/10/2013	CDB

STANDARD DRAWING NO. 19
UTILITY TRENCH REQUIREMENTS
SHEET 2 OF 2

PLAN VIEW
NOT TO SCALE



PROFILE VIEW
NOT TO SCALE



ITEMS, MATERIALS, AND QUANTITIES PER RESIDENTIAL DOWNSPOUT OUTLET

ITEM	MATERIAL TYPE	QUANTITY	UNIT
3" DOWNSPOUT	PVC SCH. 40 (707.43 OR 707.45)	VARIES	FT.
3" CAP (AS NEEDED)	PVC (707.43 OR 707.45) OR HDPE (707.32 OR 707.33)	1	EACH
3"x4" REDUCER (AS NEEDED)	PVC (707.43 OR 707.45) OR HDPE (707.32 OR 707.33)	1	EACH
4" DOWNSPOUT (AS NEEDED)	PVC (707.43 OR 707.45) OR HDPE (707.32 OR 707.33)	VARIES	FT.
4" TEE (OPTIONAL), CONTINGENCY	PVC (707.43 OR 707.45) OR HDPE (707.32 OR 707.33)	1	EACH
4" RISER (OPTIONAL), CONTINGENCY	PVC (707.43 OR 707.45) OR HDPE (707.32 OR 707.33)	VARIES	FT.
4" CAP WITH DRAIN HOLES (OPTIONAL), CONTINGENCY	PVC (707.43 OR 707.45) OR HDPE (707.32 OR 707.33)	1	EACH
COUPLER (AS NEEDED)	NEOPRENE WITH STAINLESS STEEL CLAMPS	1	EACH

NOTES:
1. FOR CITY PROJECTS: WHERE THERE ARE EXISTING DOWNSPOUTS WITHIN CONSTRUCTION LIMITS, CONTRACTOR SHALL INSTALL 3" DOWNSPOUT WITHIN PUBLIC RIGHT-OF-WAY AS DIRECTED OR AS INDICATED ON PLANS, AS NEEDED. CONTRACTOR SHALL INSTALL A 3"x4" REDUCER, 4" DOWNSPOUT, AND COUPLER TO CONNECT TO EXISTING DOWNSPOUTS. THE SECONDARY OUTLET (TEE, RISER, 4" CAP WITH HOLES) IS OPTIONAL AND SHALL BE CONSTRUCTED ONLY AS DIRECTED. IF DOWNSPOUT CONTAINS GROUNDWATER FLOWS SEE NOTE 11. APPROPRIATE QUANTITIES, PAY ITEMS, AND NOTES SHALL BE PROVIDED ON THE CONSTRUCTION PLANS.
2. FOR NEW SUBDIVISIONS AND PRIVATE WORK: HOMEOWNER/BUILDER IS RESPONSIBLE FOR CONSTRUCTING DOWNSPOUT OUTLET. THE 3" DOWNSPOUT WITHIN PUBLIC RIGHT-OF-WAY IS REQUIRED WHERE APPLICABLE. THIS CONFIGURATION, ITEMS, AND MATERIALS SHOWN OUTSIDE OF THE RIGHT-OF-WAY ARE RECOMMENDED UNLESS OTHERWISE REQUIRED BY THE CITY ENGINEER AS A CONDITION FOR ISSUING APPLICABLE PERMITS. IF DOWNSPOUT CONTAINS GROUNDWATER FLOWS, SEE NOTE 11
3. ALL ITEMS EXCEPT THE 3" DOWNSPOUT SHALL BE LOCATED OUTSIDE OF THE PUBLIC RIGHT-OF-WAY.
4. WHEN SIDEWALK IS PRESENT/PROPOSED AND WHEN THE 3" PVC DOWNSPOUT WILL BE WITHIN THE CONCRETE OF THE SIDEWALK, THE CONTRACTOR SHALL INSTALL A CONTROL JOINT IN THE SIDEWALK OVER THE DOWNSPOUT. THE THICKNESS OF THE CONCRETE SIDEWALK OVER THE DOWNSPOUT SHALL NOT BE LESS THAN 2", OR A STEEL TROUGH OR TRENCH DRAIN MAY BE USED AS APPROVED BY THE CITY ENGINEER.
5. ALL PIPE AND COMPONENTS OF DOWNSPOUT SYSTEM ARE PRIVATELY OWNED AND MAINTAINED.
6. THE FOLLOWING DISCHARGE CONDITIONS APPLY:
   A. DOWNSPOUT SHALL NOT DIRECTLY DISCHARGE OVER ANY PUBLIC SIDEWALK OF THE CITY (REF. CODIFIED ORDINANCE 1335.01) OR ONTO A SIDEWALK, STREET, OR PUBLIC GROUND WITHIN THE CITY, WHEN IN THE OPINION OF THE CITY ENGINEER A PUBLIC NUISANCE IS CAUSED BY DOING SO (REF. CODIFIED ORDINANCE 903.02).
   B. DOWNSPOUT DISCHARGES SHALL NOT CONTAIN ANY GRAY WATER OR OTHER ILLICIT DISCHARGES.
   C. DOWNSPOUTS SHALL NOT BE CONNECTED TO A SANITARY SEWER.
7. A "STREET OPENING PERMIT" IS REQUIRED FROM THE ENGINEERING DEPARTMENT FOR ANY EXCAVATION WITHIN CITY RIGHT-OF-WAY OR OTHER CITY-OWNED PROPERTY (REF. CODIFIED ORDINANCE CHAPTER 909).
8. A "SEWER CONNECTION PERMIT" IS REQUIRED FROM THE ENGINEERING DEPARTMENT FOR ANY DIRECT OR INDIRECT CONNECTION OF A PIPE TO A CITY-OWNED STORM SEWER, CATCH BASIN, OR MANHOLE.
9. MODIFICATIONS TO THE CONFIGURATION, ITEMS, AND MATERIALS SHOWN MAY BE ALLOWED OR REQUIRED BY THE CITY ENGINEER.
10. FOR DOWNSPOUTS THAT ARE DIRECTED TO DISCHARGE TOWARD A CITY STREET WITHOUT CURB, SEE CITY STD. DWG. NO. 22.
11. FOR DOWNSPOUTS THAT CONTAIN GROUNDWATER DISCHARGES (FROM SUMP PUMPS OR GRAVITY FLOW):
   A. PRIMARY OUTLET SHOULD BE DIRECTLY CONNECTED TO CATCH BASIN OR MANHOLE, IF POSSIBLE. IN LIEU OF CURB OUTLET SHOWN, DIRECT CONNECTION TO CATCH BASIN OR MANHOLE SHALL BE BY AN APPROVED CORE-AND-SEAL BOOT. APPROPRIATE PERMITS MUST BE OBTAINED FROM THE CITY ENGINEERING DEPARTMENT AND THE WORK MUST BE INSPECTED.
   B. IF CATCH BASIN OR MANHOLE IS UNAVAILABLE BUT STORM SEWER IS AVAILABLE FOR DOWNSPOUT PRIMARY OUTLET DIRECT CONNECTION, CONSTRUCT DOWNSPOUT OUTLET PER CITY STANDARD DRAWING NO. 24
   C. IF NO STORM SEWER, CATCH BASIN, OR MANHOLE IS AVAILABLE FOR DIRECT CONNECTION, DOWNSPOUT OUTLET MAY BE CONSTRUCTED PER THIS DRAWING CONTINGENT UPON SATISFYING ALL STATED DISCHARGE CONDITIONS.

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CANTON, OHIO
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2436 30th St. NE 44705 330-489-3381 www.cantonohio.gov/engineering

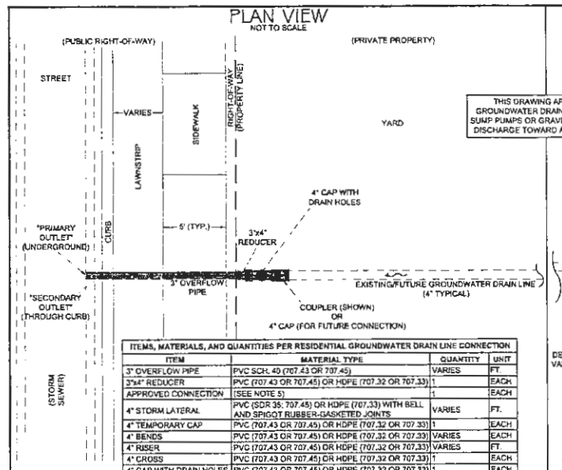
APPROVED DATE: MAR. 2012
APPROVED BY: CDB, RMB, SLH
DRAWING FILE NAME: ce_23.dwg

REVISIONS

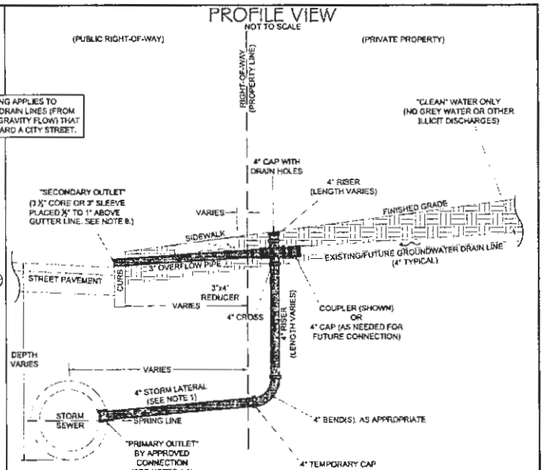
DESCRIPTION	DATE	BY

STANDARD DRAWING NO. 23
DOWNSPOUT OUTLET
(CURBED STREET)
SHEET 1 OF 1

PLAN VIEW
NOT TO SCALE



PROFILE VIEW
NOT TO SCALE



ITEMS, MATERIALS, AND QUANTITIES PER RESIDENTIAL GROUNDWATER DRAIN LINE CONNECTION

ITEM	MATERIAL TYPE	QUANTITY	UNIT
3" OVERFLOW PIPE	PVC SCH. 40 (707.43 OR 707.45)	VARIES	FT.
3"x4" REDUCER	PVC (707.43 OR 707.45) OR HDPE (707.32 OR 707.33)	1	EACH
APPROVED CONNECTION	(SEE NOTE 5)	1	EACH
4" STORM LATERAL	PVC (SCH 35, 707.45) OR HDPE (707.33) WITH BELL AND SPIGOT RUBBER-GASKETED JOINTS	VARIES	FT.
4" TEMPORARY CAP	PVC (707.43 OR 707.45) OR HDPE (707.32 OR 707.33)	1	EACH
4" BENDS	PVC (707.43 OR 707.45) OR HDPE (707.32 OR 707.33)	VARIES	EACH
4" RISER	PVC (707.43 OR 707.45) OR HDPE (707.32 OR 707.33)	VARIES	FT.
4" CROSS	PVC (707.43 OR 707.45) OR HDPE (707.32 OR 707.33)	1	EACH
4" CAP WITH DRAIN HOLES	PVC (707.43 OR 707.45) OR HDPE (707.32 OR 707.33)	1	EACH
4" CAP (AS NEEDED)	PVC (707.43 OR 707.45) OR HDPE (707.32 OR 707.33)	1 (AS NEEDED)	EACH
COUPLER (AS NEEDED)	NEOPRENE WITH STAINLESS STEEL CLAMPS	1	EACH

NOTES:
1. FOR CITY PROJECTS AND NEW SUBDIVISIONS: ONE GROUNDWATER DRAIN LINE CONNECTION SHALL BE PROVIDED FOR EACH LOT. THE CONTRACTOR/DEVELOPER SHALL PROVIDE APPROVED CONNECTION FOR PRIMARY OUTLET, 4" STORM LATERAL, AND 4" TEMPORARY CAP. THE LOCATION OF THE 4" TEMP. CAP SHALL BE INDICATED BY A STAKE IN THE GROUND LOCATED VERTICALLY ABOVE THE CAP AND CLEARLY MARKED SHOWING STORM LATERAL DEPTH. APPROPRIATE QUANTITIES, PAY ITEMS, AND NOTES SHALL BE PROVIDED ON THE CONSTRUCTION PLANS. REMAINING PORTIONS OF CONFIGURATION ARE THE RESPONSIBILITY OF THE HOME OWNER/BUILDER.
2. FOR PRIVATE WORK: THE CONFIGURATION SHOWN IS RECOMMENDED UNLESS OTHERWISE REQUIRED BY THE CITY ENGINEER AS A CONDITION FOR ISSUING APPLICABLE PERMITS OR ADDRESSING RESIDENTIAL GROUNDWATER DISCHARGES DEEMED TO BE A PUBLIC NUISANCE BY THE CITY ENGINEER.
3. FOR NEW OR VACANT LOTS, THE LOCATION OF THE GROUNDWATER DRAIN LINE CONNECTION SHOULD BE NEAR THE LOWEST CORNER OF THE LOT ALONG THE FRONTAGE. EXCEPTIONS MAY BE APPROVED BY THE CITY ENGINEER.
4. ALL PIPE AND COMPONENTS OF GROUNDWATER DRAIN LINE SYSTEM ARE PRIVATELY OWNED AND MAINTAINED.
5. THE PRIMARY OUTLET PREFERRED CONNECTION IS TO THE BACK OF A CATCH BASIN OR STORM MANHOLE (WHEN AVAILABLE ALONG FRONTAGE) AND SHALL BE MADE BY AN APPROVED CORE-AND-SEAL BOOT. FOR PRIMARY OUTLET DIRECT CONNECTION TO STORM SEWER, CONNECT 4" STORM LATERAL ABOVE SPRING LINE OF STORM SEWER USING MANUFACTURED WYE OR TEE. A SADDLE, OR CORE-AND-SEAL BOOT CONNECTION AS APPROVED BY THE CITY ENGINEER. GROUNDWATER DRAIN LINE MAY BE MODIFIED TO DISCHARGE DIRECTLY TO A DITCH OR CREEK IF AVAILABLE IN LIEU OF A STORM SEWER, CATCH BASIN, OR MANHOLE.
6. ONLY THE 3" OVERFLOW PIPE AND THE 4" STORM LATERAL SHALL BE WITHIN PUBLIC RIGHT-OF-WAY. ALL REMAINING ITEMS TO BE LOCATED OUTSIDE OF THE PUBLIC RIGHT-OF-WAY.
7. WHEN SIDEWALK IS PRESENT/PROPOSED AND WHEN THE 3" OVERFLOW PIPE WILL BE WITHIN THE CONCRETE OF THE SIDEWALK, THE CONTRACTOR SHALL INSTALL A CONTROL JOINT IN THE SIDEWALK OVER SAID PIPE. THE THICKNESS OF THE CONCRETE SIDEWALK OVER THE DOWNSPOUT SHALL NOT BE LESS THAN 2".
8. IF CURB IS NOT AVAILABLE FOR SECONDARY OUTLET, CONSTRUCT SECONDARY OUTLET TO DISCHARGE OVERLAND PER CITY STANDARD DRAWING NO. 22.
9. A "STREET OPENING PERMIT" IS REQUIRED FROM THE ENGINEERING DEPARTMENT FOR ANY EXCAVATION WITHIN CITY RIGHT-OF-WAY OR OTHER CITY-OWNED PROPERTY (REF. CODIFIED ORDINANCE CHAPTER 909).
10. A "SEWER CONNECTION PERMIT" IS REQUIRED FROM THE ENGINEERING DEPARTMENT FOR ANY DIRECT OR INDIRECT CONNECTION OF PIPE TO A CITY-OWNED STORM SEWER, CATCH BASIN, OR MANHOLE.
11. MODIFICATIONS TO THE CONFIGURATION, ITEMS, AND MATERIALS SHOWN MAY BE ALLOWED OR REQUIRED BY THE CITY ENGINEER.
12. FOR OUTLET CONFIGURATIONS OF DOWNSPOUTS THAT DO NOT DISCHARGE GROUNDWATER, SEE CITY STD. DWGS. NO. 22 AND 23.

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APPROVED DATE: MAR. 2012
APPROVED BY: CDB, RMB
DRAWING FILE NAME: ce_24.dwg

REVISIONS

DESCRIPTION	DATE	BY

STANDARD DRAWING NO. 24
GROUNDWATER DRAIN LINE CONNECTION
SHEET 1 OF 1

CANTON-41ST. NW

N:\2011\2011878\STA\ROADWAY\SHEETS\2011878RDWG2.DGN
7/19/2013
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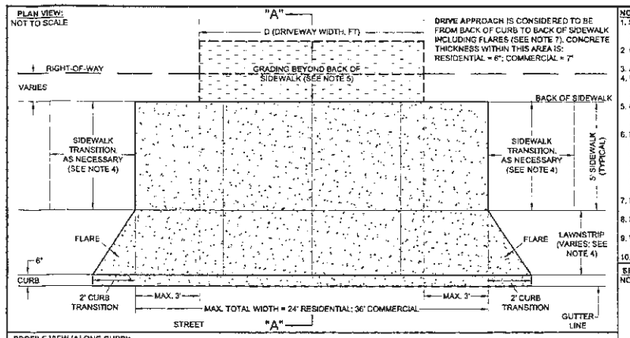
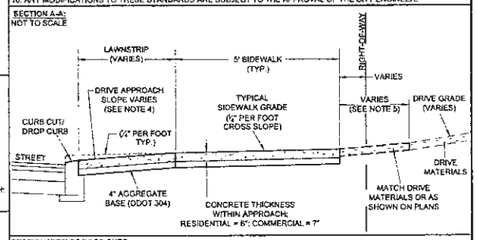
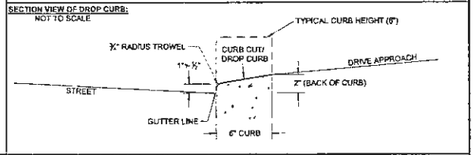


NOTES:

1. SIDEWALKS, CURBS, AND DRIVEWAYS SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE CITY OF CANTON SPECIFICATIONS FOR THE CONSTRUCTION, REPAIR, AND REPLACEMENT OF SIDEWALKS, CURBS, AND DRIVEWAYS.
2. ODOT REFERENCES ARE FROM THE CURRENT ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS. ANY DISCREPANCIES SHALL BE SUBJECT TO THE CITY'S ENGINEER'S DISCRETION.
3. ALTERNATIVE DESIGNS MAY BE APPROVED OR REQUIRED BY THE CITY ENGINEER FOR COMMERCIAL DRIVES.
4. WHEN LAWNSTRIP WIDTH IS LESS THAN 3 FEET, LOWER THE DRIVE APPROACH/SIDEWALK PROFILE SO THAT DRIVE APPROACH CROSS SLOPE IS CONSTANT ¼" PER FOOT FROM BACK OF CURB TO BACK OF SIDEWALK. CONSTRUCT SIDEWALK TRANSITIONS WITH A MAXIMUM 12:1 LONGITUDINAL SLOPE (PARALLEL TO STREET).
5. GRADE AS APPROPRIATE OR IN ACCORDANCE WITH PLANS TO PROVIDE ADEQUATE TRANSITION TO DRIVEWAY AND YARD. FOR CITY PROJECTS, DRIVE MATERIALS AND BUILDUP SHALL MATCH EXISTING. GRADING AND MATERIALS SHALL BE PAID UNDER APPROPRIATE DRIVE RESTORATION ITEMS, ETC.
6. FOR CITY PROJECTS AND REIMBURSEMENT PROGRAM, DRIVE APPROACH PAY LIMITS SHALL CORRESPOND WITH DRIVE APPROACH LIMITS AS INDICATED HEREIN. IF SIDEWALK TRANSITIONS ARE CONSTRUCTED (SEE NOTE 5), PAY LIMITS SHALL BE EXTENDED TO INCLUDE THE COST OF THE SIDEWALK TRANSITIONS. DRIVE APPROACHES AND PAY LIMITS DO NOT INCLUDE ANY CONCRETE PORTIONS OF DRIVE BEYOND BACK OF SIDEWALK OR ANY OTHER WORK NOT DIRECTLY RELATED TO THE CONSTRUCTION OF THE DRIVE APPROACH. THE COSTS ASSOCIATED WITH EXCAVATION, FORMING, GRADING, AND RESTORATION DIRECTLY RELATED TO THE DRIVE APPROACH AS WELL AS THE COSTS FOR THE CURB CUT/DROP CURB ARE INCIDENTAL TO THE COST OF THE DRIVE APPROACH.
7. REFER TO CITY STANDARD DRAWING NO. 28 FOR DRIVE APPROACHES WITH SIDEWALK AGAINST CURB. CONNECT APRON TO CURB WITH DOWELS OR WIRE MESH.
8. PLACE 1/2" EXPANSION JOINTS AGAINST EXISTING CONCRETE DRIVES AND WALKS, BUILDING WALLS, AND OTHER FIXED OBJECTS.
9. WHEN THE LOCATION OF THE DRIVE APPROACH IS UNKNOWN AT THE TIME OF CURB CONSTRUCTION, THE DROP MAY BE SAW-CUT WITH THE CITY ENGINEER'S APPROVAL.
10. ANY MODIFICATIONS TO THESE STANDARDS ARE SUBJECT TO THE APPROVAL OF THE CITY ENGINEER.





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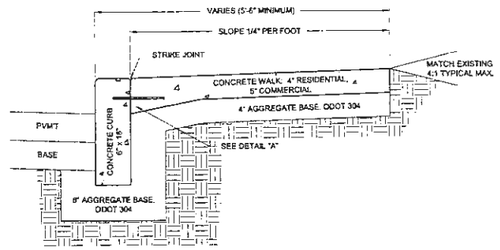
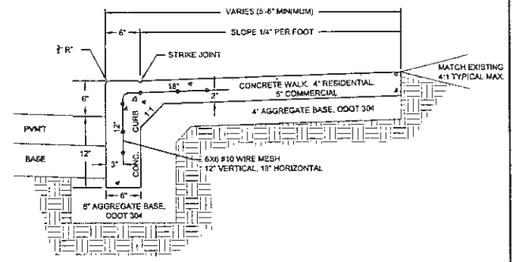
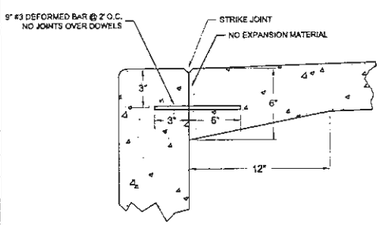
TYPE A
CONCRETE WALK
ADJACENT TO CURB



TYPE B
INTEGRAL CONCRETE WALK
AND CURB



DETAIL "A"



NOTES:

1. CURB CONSTRUCTION MUST TO CONFORM TO ODOT 609 AND THE CURRENT CITY OF CANTON SPECIFICATIONS FOR THE CONSTRUCTION, REPAIR, AND REPLACEMENT OF SIDEWALKS, CURBS, AND DRIVEWAYS.
2. CONCRETE MATERIAL FOR CURB AND WALK MUST BE ODOT 499 CLASS 'C' CONCRETE WITH LIMESTONE AGGREGATE.
3. NO FOUNDRY SAND OR SLAG PERMITTED IN AGGREGATE BASE, ODOT 304.
4. CONCRETE WALK REPLACED OR INSTALLED ADJACENT TO EXISTING CONCRETE CURB MUST BE DOWELED TO THE EXISTING CURB, UNLESS DETERMINED OTHERWISE BY THE CITY ENGINEER.
5. CURB CONTRACTION JOINT MUST BE SPACED 10 FEET TYPICALLY; WALK CONTRACTION JOINTS MUST BE SPACED 5 FEET TYPICALLY, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER. CURB EXPANSION JOINTS MUST BE INSTALLED AT CURB INLET CATCH BASIN AND AT ANY OTHER RIGID STRUCTURES. CURB EXPANSION AND CONSTRUCTION JOINTS MUST BE DOWELED WITH TWO (2) #5 THRU #8 SMOOTH BARS, 18" LONG. EXTENDING 9" INTO EACH CURB.
6. ODOT REFERENCES ARE FROM THE CURRENT ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS. ANY DISCREPANCIES SHALL BE SUBJECT TO THE CITY ENGINEER'S DISCRETION.

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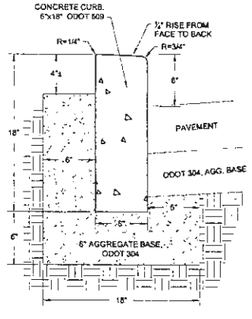
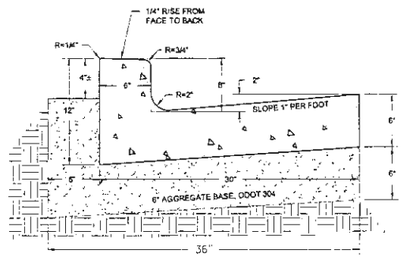
CANTON TYPE 1
STANDARD CONCRETE CURB



CANTON TYPE 2
STANDARD CONCRETE COMBINED
CONCRETE & GUTTER



NOTES:

1. CURB CONSTRUCTION MUST TO CONFORM TO ODOT 609 AND THE CURRENT CITY OF CANTON SPECIFICATIONS FOR THE CONSTRUCTION, REPAIR, AND REPLACEMENT OF SIDEWALKS, CURBS, AND DRIVEWAYS.
2. CONCRETE MATERIAL FOR CURB AND WALK MUST BE ODOT 499 CLASS 'C' CONCRETE WITH LIMESTONE AGGREGATE.
3. NO FOUNDRY SAND OR SLAG PERMITTED IN AGGREGATE BASE, ODOT 304.
4. CURB CONTRACTION JOINT MUST BE SPACED 10 FEET TYPICALLY; WALK CONTRACTION JOINTS MUST BE SPACED 5 FEET TYPICALLY, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER. CURB EXPANSION JOINTS MUST BE INSTALLED AT CURB INLET CATCH BASIN AND AT ANY OTHER RIGID STRUCTURES. CURB EXPANSION AND CONSTRUCTION JOINTS MUST BE DOWELED WITH TWO (2) #5 THRU #8 SMOOTH BARS, 18" LONG. EXTENDING 9" INTO EACH CURB.
5. CONCRETE WALK REPLACED OR INSTALLED ADJACENT TO EXISTING CONCRETE CURB MUST BE DOWELED TO THE EXISTING CURB, UNLESS DETERMINED OTHERWISE BY THE CITY ENGINEER. (SEE CITY STD. DWG. 29).
6. ODOT REFERENCES ARE FROM THE CURRENT ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS. ANY DISCREPANCIES SHALL BE SUBJECT TO THE CITY ENGINEER'S DISCRETION.
7. ODOT CURB TYPE 6 AND TYPE 2 (ODOT STD CONST. DWG. BP-8.1) ARE ACCEPTABLE OPTIONS RESPECTIVELY TO CITY STANDARD CURB TYPE 1 AND 2 FOR NEW ROADWAY OR CITY PROJECTS, AS APPROVED BY THE CITY ENGINEER. WHEN A CANTON CURB TYPE ABUTS AN ODOT CURB TYPE, THE CONTACTOR MUST TRANSITION THE CURB FACE AND TOP TO MATCH THE EXISTING CURB FACE AND TOP WITHIN A 4' LENGTH, BUT NOT LESS THAN 1' LENGTH.

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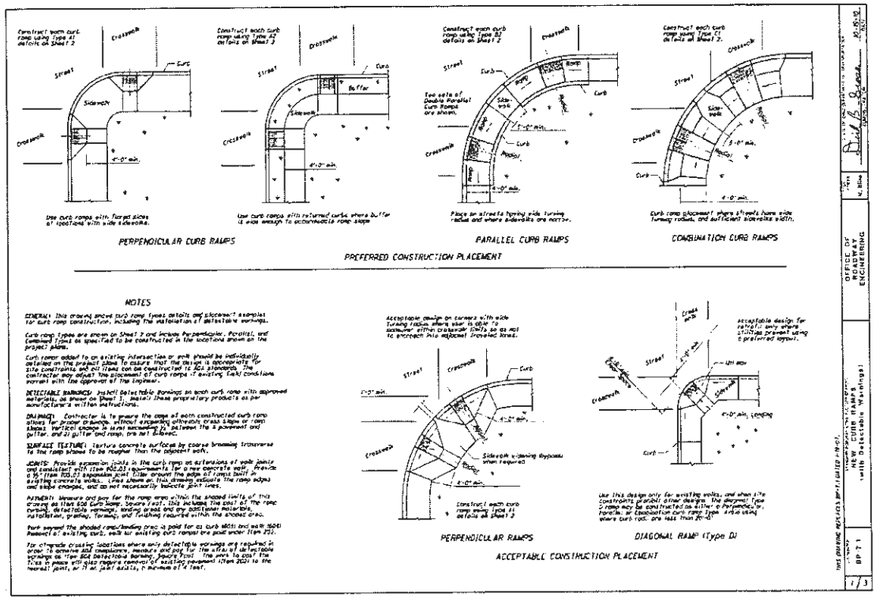

THE CITY'S STANDARD WHEEL CHAIR RAMP IS THE ODOT BP-7.1 WITH THE MODIFICATIONS NOTED.
SEE SHEET 4 OF 4 FOR CITY'S APPROVED TRUNCATED DOME PRODUCTS.

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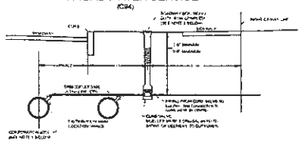
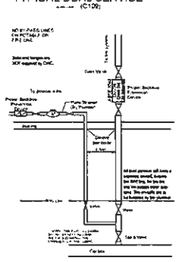
TYPICAL WATER SERVICE
(C04)

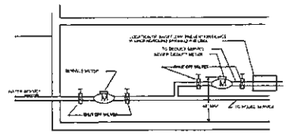


NOTES

TYPICAL DUAL SERVICE
(C10)

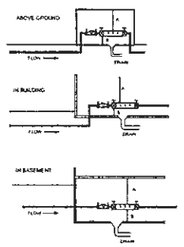


STANDARD SEWER DEDUCT METER INSTALLATION
(C07)



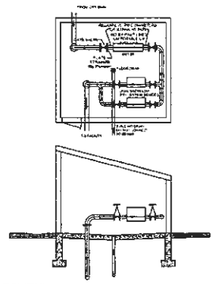
NOTE
The service meter and the sewer deduct meters must be placed in a meter pit.

STANDARD RP UNIT INSTALLATION
(C27)

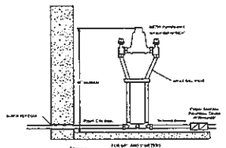


A = ADEQUATE CLEARANCE ABOVE UNIT FOR OPERATION OF VALVES OR REPAIR
B = MINIMUM CLEARANCE 12" MAXIMUM CLEARANCE 30"
NO BY-PASS ALLOWED AT METER
ALL METERS AND RP UNITS MUST BE PROTECTED FROM FREEZING

METER AND BACKFLOW PREVENTION HOUSE
(C172)



COPPERSETTER FOR WATER METER
(C343)

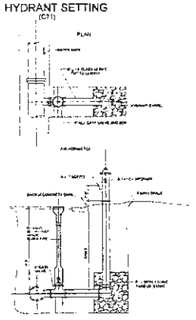


Notes:
All meters 1 inch and smaller require a copppersetter (Supplied by owner) for proper installation.
Meters are to be placed in an area which provides easy access to the meter for repairs, replacement, and meter readings. Also require drainage.
Water meters to be placed and installed by Canton Water Department personnel inside the building.
Water meters to be installed in a horizontal position only. Installing the water meter vertically is prohibited.

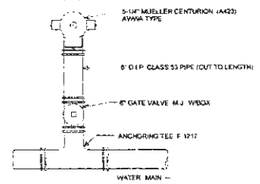
REVISED 4-23-15 RJW
REVISED 10-16-01 LAM
REVISED 12-1-95 RJW
REVISED 11-1-93 LAM
REVISED 1-21-99 RJW
REVISED 7-14-95 LAM
REVISED 2-22-93

CANTON WATER WORKS STANDARD DRAWINGS SHEET 1		
SCALE NONE	DRAWING NO C-102	
DRAWN BY RJW	CHECKED BY TD	DATE 5-9-89

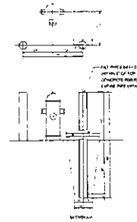
HYDRANT SETTING
(C11)



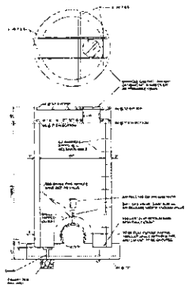
HYDRANT CONNECTION
(C70)



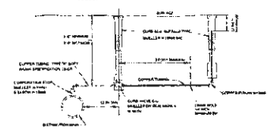
HYDRANT POST GUARDS
(IF REQUIRED)
(C67)



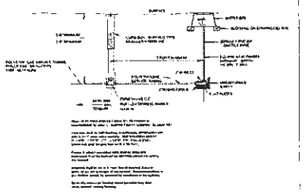
TYPICAL AIR AND VACUUM RELEASE VALVE CHAMBER
MAINS SIZE FROM 16 INCHES AND UP
(C136)



MANUAL AIR RELEASE VALVE
MAIN SIZES UP TO AND INCLUDING 12"
(C255)



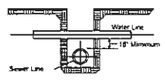
STANDARD BLOW OFF ASSEMBLY
(SUPERSEDES 83 BLOW-OFF ASSEMBLY)
(MANHOLE PROOF)



REVISED 3-23-95 RJW
REVISED 7-11-94 LAM
REVISED 7-14-95 LAM
REVISED 8-7-95 LAM
REVISED 1-21-97 LAM
REVISED 12-13-94 LAM

CANTON WATER WORKS STANDARD DRAWINGS SHEET 2		
SCALE NONE	DRAWING NO C-103	
DRAWN BY RJW	CHECKED BY TD	DATE 5-9-89

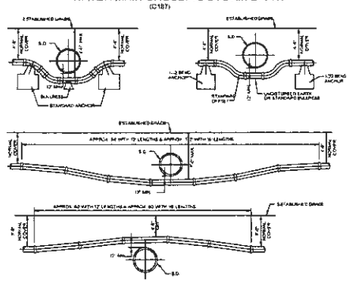
VERTICAL WATER MAIN CLEARANCE
(C186)



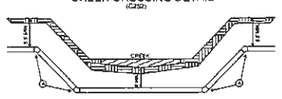
NOTES

1. If joint on water main is within limits of sewer trench, install mechanical bell joint clamp
2. If clearance is less than 18" encase sewer pipe 6 ft. each side of water main. To be paid at unit price bid per cubic yard of concrete
3. In no case shall the sewer pipe contact any water main, service line or appurtenance

WATER MAIN CROSSING STORM DRAIN
(C187)

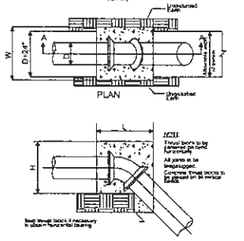


CREEK CROSSING DETAIL
(C252)



4 VERTICAL BEND CREEK CROSSING
(A) MECHANICAL JOINT BRIDGE - PIT WITH 8 GLANDS TO BE MEGALUGS 350 PSI RATING WILL LUGS ON EACH JOINT ALL 4 BENDS TO BE RODDED TOGETHER WITH 3/4" RODS AND ENC GLASS
ALSO TO HAVE CONCRETE THRUST BLOCKS AT ALL BENDS (C142)

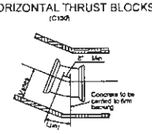
CONCRETE THRUST BLOCKS FOR VERTICAL BENDS ON WATER MAINS
POURED IN PLACE (CLASS C)
(C142)

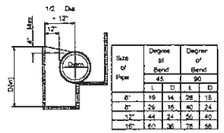


SECTION A-A

SIZE OF PIPE	DEGREE OF BEND 11-1/4°				22-1/2°				45°			
	W	H	TRUE		W	H	TRUE		W	H	TRUE	
4"	1'-0"	1'-0"	0'-8"	1'-0"	1'-0"	1'-0"	0'-8"	1'-0"	1'-0"	1'-0"	0'-8"	1'-0"
6"	1'-0"	1'-0"	0'-8"	1'-0"	1'-0"	1'-0"	0'-8"	1'-0"	1'-0"	1'-0"	0'-8"	1'-0"
8"	1'-0"	1'-0"	0'-8"	1'-0"	1'-0"	1'-0"	0'-8"	1'-0"	1'-0"	1'-0"	0'-8"	1'-0"
12"	1'-0"	1'-0"	0'-8"	1'-0"	1'-0"	1'-0"	0'-8"	1'-0"	1'-0"	1'-0"	0'-8"	1'-0"
16"	1'-0"	1'-0"	0'-8"	1'-0"	1'-0"	1'-0"	0'-8"	1'-0"	1'-0"	1'-0"	0'-8"	1'-0"

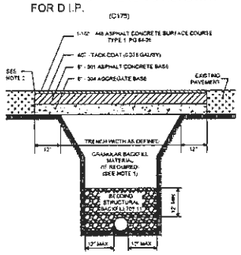
HORIZONTAL THRUST BLOCKS
(C139)





Size of Pipe	Degree of Bend 45 L	T3	L	Degree of Bend 90 L	D
6"	19	14	28	19	
8"	26	16	40	24	
12"	44	24	56	40	
16"	60	36	78	56	

PAY LIMITS - TRENCH & ROADWAY FOR D.I.P.
(C175)

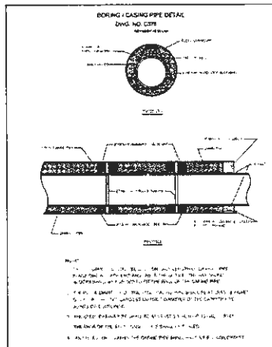


NOTES
1. CHECK WITH LOCAL AUTHORITY HAVING JURISDICTION WITHIN THE RIGHT OF WAY REGARDING BACKFILL REQUIREMENTS.
2. SAW CUT EXISTING PAVEMENT. BEAU JOINT PER CDOT ITEM 423 - CRACK SEALING, TYPE IV. INCLUDE COST IN BID PRICE FOR THE PROPOSED PAVEMENT.

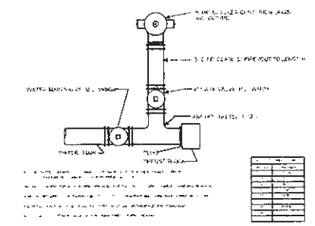
REVISED 8-7-96 LAM
REVISED 11-1-93 LAM

CANTON WATER WORKS STANDARD DRAWINGS SHEET 3		
SCALE NONE	DRAWING NO C-237	
DRAWN BY LAM	CHECKED BY	DATE 7-13-95

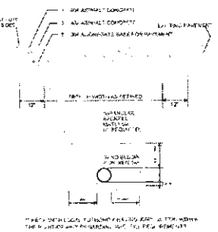
BORING / CASING PIPE DETAIL
DWG. NO. C209



HYDRANT CONNECTION AT END OF MAIN
DWG NO C342



TRENCH DETAIL D.I.P. PIPE
DWG NO C350



REVISED 4-13-95 LAM

CANTON WATER WORKS STANDARD DRAWINGS SHEET 4		
SCALE NONE	DRAWING NO C-379	
DRAWN BY RJW	CHECKED BY	DATE 5-5-05

CALCULATED SCB
CHECKED RAB

DETAILS

CANTON-41ST.NW

46
46

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7/19/2013
8:27:52 AM
RJOHNT