OHIO TURNPIKE AND
INFRASTRUCTURE COMMISSION

ADDENDUM NO. 1
ISSUED JANUARY 29th, 2020

PROJECT NO. 54-19-01
PUMP STATION IMPROVEMENTS
PORTAGE SERVICE PLAZA
MILEPOST 197.0
PORTAGE COUNTY, OHIO
ISSUED JANUARY 13, 2020

OPENING DATE *EXTENDED TO*: 2:00 P.M. (EASTERN TIME), FEBRUARY ~~3~~ 5, 2020

ATTENTION OF BIDDERS IS DIRECTED TO:
ANSWERS TO QUESTIONS RECEIVED THROUGH 11:00AM ON JANUARY 29th, 2020

MODIFICATIONS TO THE CONTRACT DOCUMENTS

Plan Sheets:
54-19-01 – Title, 2, 3, 18, 19 and 20
-AND-
Special Provision Sheets:
SP 54-19-01 – SP-53 thru SP-62, SP-68, SP-83
-AND-
Construction Plans – 3rd Lane Construction, Contract 77-96-05
-AND-
Soil Borings – 54-98-04 and Portage SP Service Plaza
-AND-
EXTENSION OF THE BID OPENING TO 2:00 PM ON FEBRUARY 5, 2020

Issued by the Ohio Turnpike and Infrastructure Commission through Jennifer L. Stueber, Esq., General Counsel.

Jennifer L. Stueber, Esq.,
General Counsel

1/29/2020
Date

ANSWERS TO QUESTIONS RECEIVED THROUGH 11:00 A.M. ON JANUARY 29, 2020:

Q#1 Where do we look for a list of perspective general contractors who have interest etc?

A#1 See the Plan Holders page on our website at https://www.ohioturnpike.org/docs/default-source/procurement/70-20-01-plan-holders6afd8df6cc96651db1daff000092862f.pdf?sfvrsn=576be8c4_0

Q#2 We are miffed that the OTC is specifying and allowing a steel stud, cdx plywood, plastic sided, prefab modular building which doesn't carry the State of Ohio, Ohio Division of Industrial Compliance regulations -Ohio Modular Building approval? The specifications & drawings are intentionally packaged to not allow any contractor to assemble or provide any individual components, all must be from EFI, eliminating all competition! The specification states the station manufacturer shall be required to affix to the station an UNDERWRITERS LABORATORIES (UL) LABEL attesting to the compliance of the station equipment under the PACKAGED PUMPING SYSTEMS (QCZJ) UL Listing Category and/or INTERTEK TESTING SERVICES (ETL) LABEL attesting to the compliance of the station equipment under PACKAGED PUMPING SYSTEMS.

Berrington Pump & Systems are the Northern Ohio Ebara Pump distributors which are more than capable of bidding the pumps and controls portion yet with the modular building packaged it eliminates all and any EFI competition.

A#2 This Addendum No. 1 removes the requirement of being listed under the PACKAGED PUMPING SYSTEMS UL or ETL label. Special Provision Section PRE-FABRICATED PUMP STATION BUILDING beginning on Page SP-53 has been revised accordingly.

Q#3 How will flow into the existing wet well be handled during the installation of the new pumps?

A#3 During installation of the new pump and control system, the bypass manhole to be supplied and installed by the Contractor, depicted on Plan Sheet No. 16, is to be used in conjunction with a temporary pump that is supplied, operated, and maintained by OTIC to sustain force main flow. This will require the Contractor to install the bypass manhole prior to pump station work that could potentially interrupt sanitary sewer service. Also see plan note revision on Plan Sheet No. 2, "Temporary Bypass Flow Control".

Q#4 Will bypass pumping be required?

A#4 During installation of the new pump and control system, the bypass manhole to be supplied and installed by the Contractor, depicted on Plan Sheet No. 16, is to be used in conjunction with a temporary pump that is supplied, operated, and maintained by OTIC to sustain force main flow. This will require the Contractor to install the bypass manhole prior to pump station work that could potentially interrupt sanitary sewer service. Also see plan note revision on Plan Sheet No. 2, "Temporary Bypass Flow Control".

Q#5 Who is responsible for bypass pumping?

A#5 During installation of the new pump and control system, the bypass manhole to be supplied and installed by the Contractor, depicted on Plan Sheet No. 16, is to be used in conjunction with a temporary pump that is supplied, operated, and maintained by OTIC to sustain force main flow. This will require the Contractor to install the bypass manhole prior to pump station work that could potentially interrupt sanitary sewer service. As such, this will require coordination between OTIC Maintenance and the contractor.

Q#6 How long can bypass pumping be maintained?

A#6 During installation of the new pump and control system, the bypass pumping can be maintained as long as necessary to complete the work. The pump being supplied, operated, and maintained by OTIC is currently being used for the removal of sewage from the existing wet well, so it is capable of handling the typical service plaza sewage flows.

Q#7 How will flow be handled during the installation of the new air release manholes?

A#7 During the installations of the sewer line connections and air release/manhole installations, the sewage will be contained within the existing wet well, and if necessary, will be removed by an OTIC contracted service, in the event the pumps cannot be turned on in time to prevent sanitary sewer overflow. The Contractor shall pre-install as much new sewer line, air release/manhole components, and new pump station components as possible prior to the physical tie-in work that would require shut-down of sanitary sewer flow. Sanitary sewer service interruptions for sewer line connections and air release/manhole installations shall take place between the hours of 8:00 pm and 12:00pm (Noon), with the exception that interruptions shall not occur during the high traffic volume times listed in SP-104. The sanitary line shall not be out of service for longer than 4hrs continuously, unless authorized by the Chief Engineer. The Chief Engineer shall be notified 24 hours prior to work requiring shut down of the sanitary sewer service. During all sanitary sewer service interuptions the wet well shall be monitored to prevent overflow conditions. As such, this will require coordination between OTIC Maintenance and the contractor. Also see plan note revision on Plan Sheet No. 2, "Temporary Bypass Flow Control."

Q#8 Is there a pre-bid meeting scheduled for this project?

A#8 There is no pre-bid meeting for this project. All questions shall be submitted to the Procurement Manager.

Q#9 Can a site visit be scheduled?

A#9 Site visits can be coordinated through the Procurement Manager.

Q#10 How long can the force main be out of service during force main replacement and the pump station replacement?

A#10 For pump station replacement, see A#6. For force main and air release/manhole work, see A#7.

Q#11 Is there a manufacturer for the pig launching system that is recommended?

A#11 This Addendum No. 1 recommends Nevis Pipeline Products, LLC for pig launcher and receiver stations and Girard Industries for pig purchase or approved equal. This is also shown on Item Special – Pig Launching and Receiving Plan Note No. 9 on Plan Sheet No. 18.

Q#12 Do you have Geotechnical report or soil boring information for this bid? If yes, please provide soil boring information for project No. 54-19-01. We worked in the past at the project No. 53-10-04 of which drawings are posted under Appendix B; we found the existing ground was bad at project 53-10-04 site.

A#12 A Geotechnical Report/Soil Borings have not been performed for project No. 54-19-01. However, soil borings were completed for prior projects in the area and, for reference purposes only, are included as part of Addendum No. 1, see Attached "Portage SP Site Soil Borings" and "54-98-04 Soil Borings". Please note, the Boring Plan for "54-98-04" Soil Borings is not available.

Q#13 Submittals for approved equals have been reviewed and the following substitutions have been approved for use on this project.

A#13 This Addendum No. 1 adds the following approved equals.

- *A.R.I. D025 Combination Air Valve is the new standard valve to be installed. See "Sewage Combination Valves" and "Sewage Air Release Valve" notes on Plan Sheet 2.*
- *Grundfos and Flygt Pumps are listed in Section 2.02 on Page SP-68 and in Section 2.02 on Pages SP-83, and the specifications have been revised, see Process Pump Schedule on Plan Sheet 20.*
- *EFI-Solutions, Starnet Technologies, and Dakota Pump Building, are listed in Section 2.01 (A) on Page SP-55.*

Q#14 Either plan view grades or cross sections perpendicular to the mainline. Profiles showing the elevation of the manholes relative to the mainline are needed.

A#14 For reference purposes only, the plans for the 3rd Lane Construction Project, 77-96-05 are included as part of Addendum No. 1.

Q#15 Confirmation that contractor can access the work areas for the manholes through all areas within the fence lines. There is a concern wetlands are present and access if needed through them.

A#15 At this time the Commission does not anticipate that the required work will impact any locally delineated wetlands in the vicinity of the project. However, should conditions on the project change due to unforeseen conditions or require a change in the proposed plan, any impacts to the water body will be mitigated and addressed at that time.

Q#16 Location of the guardrail in the plan views (SH 4 through SH 14)

A#16 For reference purposes only, the plans for the 3rd Lane Construction Project, 77-96-05 are included as part of Addendum No. 1.

Q#17 Under what pay item should access roads, restoration and erosion control be included?

A#17 Plan Sheet 3, ITEM SPECIAL NOTES have been updated and now state that restoration and erosion control are included in those items. No access roads included in this project.

Q#18 There is no pay item for guardrail removal or replacement that may be removed and reinstalled for access

A#18 Plan Sheet 3, ITEM SPECIAL – 4" SDR 21 PVC FORCE MAIN, states that removing and replacement of guardrail is to be included in the pay item.

Q#19 Please provide the Maintenance of Traffic standard for when guardrail is removed

A#19 Ohio Turnpike and Infrastructure Commission Standard Drawings TCR-1, TCR-2 and TCR-9 shall be followed during operations that require temporary removal of guardrail. OTIC Standard Drawing TCR-2 has been added to the Plans as Part of this Addendum No. 1. Prior to

any shoulder or lane closure being removed, the guardrail shall be reinstalled to the condition prior to removal.

Q#20 Can we request for Pre-bid meeting and site visit of existing pump station.

A#20 There is no pre-bid meeting for this project. All questions shall be submitted to the Procurement Manager. For site visit informaiton see A#9

Q#21 Is OTC responsible for temporary by pass of the flow throughout the construction of the project? Is OTC planning to perform by-pass system by connecting to existing force main or by having the storage tank on site?

A#21 For pump station replacement, see A#6. For force main and air release/manhole work, see A#7.

Q#22 Who is responsible to maintain the current flow during temporary by-pass? OTC or contractor?

A#22 For pump station replacement, see A#6. For force main and air release/manhole work, see A#7.

Q#23 What is the Engineer's estimate for this project?

A#23 The engineers estimate is not published but is read at the bid opening prior to the reading of the bids.

Q#24 Bid reference item No. 15 shows total quantity of 3 each on bid form for replacing existing above ground air release manhole; whereas the drawings show only 1 each to replace existing above ground air release manhole. Please clarify which quantity is right? If there are more than 1, please indicate them with Station location.

A#24 The Total Plan Quantity of item No. 15 is 3 each. Two existing above ground air release manholes shall be installed at Sta. 187+00 and Sta. 255+80 in accordance with the plans. A contingency quantity of 1 is included in the Plan, and shall not be purchased or installed without the approval of the Chief Engineer.

Q#25 **Please provide the procedure to follow for Item #20 – Test Existing Air Release and Combination Air Valves.**

A#25 Plan Sheet 3, note "ITEM SPECIAL – TEST EXISTING AIR RELEASE AND COMBINATION AIR VALVES" states that the contractor shall walk the force main with the Chief Engineer or representative and test each air valve to ensure they are operating as intended. Testing the valve referes to operating the valve.

Receipt of Addendum No. 1
Project No. 54-19-01 is hereby acknowledged:

(Firm Name) _____

(Signature) _____

(Printed Name) _____

(Date) _____

BIDDERS MUST RETURN THE ABOVE ACKNOWLEDGEMENT OF RECEIPT OF ADDENDUM NO. 1 WITH THEIR BID.

OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION

THE JAMES W. SHOCKNESSY OHIO TURNPIKE

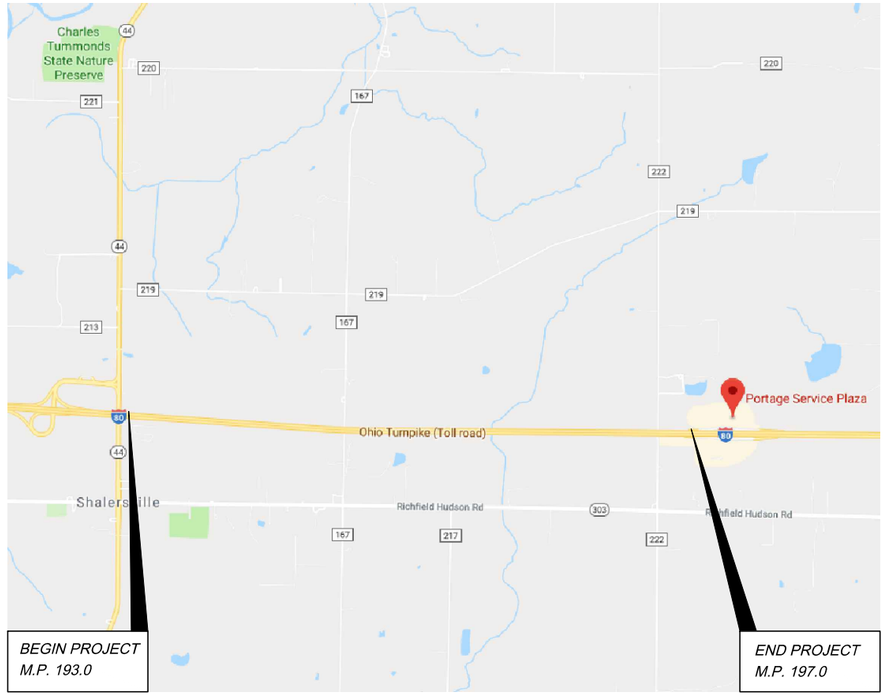
OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION STANDARD DRAWINGS					
				TCR-1	10-20-17
				TCR-2	10-20-17
				TCR-9	10-20-17
				TCR-15	10-20-17

01

OHIO DEPARTMENT OF TRANSPORTATION STANDARD DRAWINGS					
F-1.1	7/19/2013				
MH-1.1	1/15/2016				
MT-97.10	4/19/2019				

PROJECT NO. 54-19-01
PUMP STATION IMPROVEMENTS

PORTAGE SERVICE PLAZA MILEPOST 197.0
PORTAGE COUNTY, OHIO



BEGIN PROJECT
M.P. 193.0

END PROJECT
M.P. 197.0

INDEX OF SHEETS

APPROVED FOR
THE OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION
BY

CHIEF ENGINEER

DATE

UNDERGROUND UTILITIES

CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG

CALL
1-800-362-2764
OR 811 (TOLL FREE)
OHIO UTILITIES PROTECTION
SERVICE NON-MEMBERS
MUST BE CALLED DIRECTLY

OHIO OIL & GAS PRODUCERS UNDERGROUND PROTECTIVE SERVICE CALL: 614-715-2984 OR 811

OTIC DIVISION TRADES SUPERVISOR:
440-971-2731 - WEST (M.P. 0.0 - M.P. 126.4)
440-971-2781 - EAST (M.P. 126.4 - M.P. 241.26)

ENGINEERS SEAL:

STATE OF OHIO
LOUIS D. BURNOSKI
E-75236
REGISTERED PROFESSIONAL ENGINEER

SIGNED:
DATE: 12/12/2019

DESIGN CONTRACT:	54-19-01
PLAN PREPARED BY: AECOM	

NO.	REVISIONS	BY	DATE

G:\Akron\DCS\Projects\TRN\60590767_OTIC\9918031900_CAD_GIS\910_CAD\Task 5 Portage SP PS\20-SHEETS\01_TitleSheet.dwg; Title Sheet; 1/27/20 - 10:08am

SCOPE OF WORK

THE WORK EMBRACED BY THIS CONTRACT CONSISTS OF THE REPLACEMENT OF THE EXISTING PUMPS, PUMP EQUIPMENT, PIPING AT THE EXISTING PORTAGE SERVICE PLAZA PUMP STATION, INSTALLATION OF COMBINATION AIR VALVES AND MANHOLES, PIG LAUNCHING AND RECEIVING STATIONS, ABANDONING/REMOVING PIPE, SEEDING AND SITE RESTORATION, FORCE MAIN RELOCATION AT CULVERT CROSSINGS, MAINTENANCE OF TRAFFIC, AND OTHER RELATED ITEMS AS SPECIFIED HEREIN AND/OR SHOWN ON THE DRAWINGS AND SHALL INCLUDE THE FURNISHINGS OF ALL MATERIALS, LABOR SUPERINTENDENCE, EQUIPMENT, TOOLS AND SERVICES FOR AND INCIDENTAL TO THE IMPROVEMENTS PROPOSED BY THIS CONTRACT.

SUPPLEMENTAL SPECIFICATIONS

THE JANUARY 1, 2019 EDITION OF THE MANUAL ENTITLED "STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, CONSTRUCTION AND MATERIAL SPECIFICATIONS", SHALL BE INCLUDED IN THIS PROJECT UNLESS SPECIFICALLY AMENDED HEREINAFTER. ALL REFERENCES TO "O.D.O.T." OR "ODOT" ITEM NUMBERS SHOWN HEREIN REFER TO THE ITEMS IN SAID SPECIFICATIONS.

THE LATEST EDITION OF THE "AMERICAN SOCIETY OF TESTING MATERIALS" MANUAL, INCLUDING ALL GENERAL PROVISIONS CONTAINED THEREIN, SHALL BE INCLUDED IN THIS PROJECT UNLESS SPECIFICALLY AMENDED HEREINAFTER. ALL REFERENCES TO "A.S.T.M." OR "ASTM" SPECIFICATIONS SHOWN HEREIN REFER TO THE ITEMS IN SAID SPECIFICATIONS.

THE LATEST EDITION OF THE "AMERICAN WATER WORKS ASSOCIATION" MANUAL, INCLUDING ALL GENERAL PROVISIONS CONTAINED THEREIN, SHALL BE INCLUDED IN THIS PROJECT UNLESS SPECIFICALLY AMENDED HEREINAFTER. ALL REFERENCES TO "AWWA" SPECIFICATIONS SHOWN HEREIN REFER TO THE ITEMS IN SAID SPECIFICATIONS.

THE LATEST EDITION OF THE "RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES (TEN STATE STANDARDS)" MANUAL, INCLUDING ALL GENERAL PROVISIONS CONTAINED THEREIN, SHALL BE INCLUDED IN THIS PROJECT UNLESS SPECIFICALLY AMENDED HEREINAFTER.

ADDITIONALLY, INCLUDED IN THE BID DOCUMENTS ARE OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION (OTIC) SPECIAL PROVISIONS (SP) AND TECHNICAL SPECIFICATIONS THAT WILL BE USED FOR THIS PROJECT.

SCHEDULE

THE CONTRACTOR SHALL NOTIFY THE OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION OF AN INTENDED START DATE ONE WEEK PRIOR TO BEGINNING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL WORK WITH THE OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION (SEE SP 103).

CONSTRUCTION STAKING

ALL HORIZONTAL AND VERTICAL CONTROL REQUIRED FOR THE COMPLETE LAYOUT AND PERFORMANCE OF THE WORK UNDER THIS CONTRACT SHALL BE PERFORMED BY THE CONTRACTOR AND SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 623 - CONSTRUCTION LAYOUT STAKES. THE STATIONING INCLUDING IN THESE PLANS ARE BASED ON PROJECT 54-98-04 WHICH PLANS ARE INCLUDED AS REFERENCE IN THE BID DOCUMENTS.

THE CONTRACTOR SHALL REFERENCE ALL IRON PINS AND MONUMENTS BEFORE EXCAVATING AT OR NEAR SAID IRON PINS OR MONUMENTS. IF ANY PINS OR MONUMENTS ARE DESTROYED OR DAMAGED BY THE CONTRACTOR, THEY SHALL BE ACCURATELY REPLACED BY A SURVEYOR REGISTERED IN THE STATE OF OHIO AT THE COMPLETION OF THE PROJECT OR AT THE DIRECTION OF THE CHIEF ENGINEER AND AT NO EXPENSE TO THE OWNER.

PROTECTION OF PROPERTY AND WORK

THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, SUPPORT AND PROTECT ALL BUILDINGS, STRUCTURES, CONDUITS, WIRES, TREES, WATER PIPES, GAS PIPE, SEWERS, PAVEMENTS, EQUIPMENT, FIXTURES AND ALL OTHER PUBLIC OR PRIVATE PROPERTY THAT MAY BE ENCOUNTERED OR ENDANGERED DURING CONSTRUCTION. THE CONTRACTOR SHALL REPAIR AND MAKE GOOD ANY DAMAGE CAUSED TO SUCH PROPERTY.

ALL METHODS OF CONSTRUCTION ARE SUBJECT TO THE REVIEW AND APPROVAL OF THE CHIEF ENGINEER. CONSTRUCTION METHODS MAY INCLUDE CRIBBING/SHORING OPERATIONS; USE OF SHEET PILING, SLOPING/BENCHING EXCAVATIONS, OR OTHERS.

SAFETY REQUIREMENTS

THE CONTRACTOR SHALL AT ALL TIMES FOLLOW STATE AND LOCAL SAFETY REQUIREMENTS DURING THE CONSTRUCTION OF THIS PROJECT. SPECIAL CARE SHALL BE TAKEN DURING ALL CONSTRUCTION OPERATIONS. SHEETING AND BRACING, CRIBBING, ETC. MUST BE INSTALLED AS REQUIRED TO PROVIDE MAXIMUM SAFETY TO THE CONTRACTORS' WORKERS IN FULL COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS.

ONE WEEK PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL IN WRITING SUBMIT TO THE OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION AN EXCAVATION PLAN FOR SHEETING, SHORING, CRIBBING, TRENCHING, BENCHING, BACKFILLING OR ANY OTHER NECESSARY SAFETY MEASURES TO INSURE THE SAFETY OF THE WORKERS (SEE SP 110).

UNDERGROUND UTILITIES

THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THE PLANS HAVE BEEN OBTAINED BY FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT, BUT THE COMMISSION DOES NOT GUARANTEE THEIR ACCURACY OR COMPLETENESS.

THE EXACT LOCATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGE TO EXISTING UTILITIES AS A RESULT OF HIS OPERATIONS.

CARE SHALL BE TAKEN TO NOT DISTURB OR DAMAGE EXISTING UTILITIES AND STRUCTURES. THE CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO INSURE THAT ALL STRUCTURES TO BE MODIFIED ACCORDING TO THE PLANS AND SPECIFICATIONS PROVIDED WILL BE PROPERLY MAINTAINED AND SHALL BE IN THE PROPER WORKING CONDITION UPON COMPLETION OF THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE TO CORRECT ANY UNDERMINING AND DAMAGES THAT OCCURRED DURING THE PROJECT.

THE CONTRACTOR SHALL NOTIFY ALL INVOLVED UTILITY COMPANIES, INCLUDING THE OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION FOR PRIVATE UTILITIES, AT LEAST FIVE (5) CONSTRUCTION DAYS BEFORE ANY CONSTRUCTION WORK IS PERFORMED IN THE AREA WHERE UTILITIES ARE LOCATED.

FIBER OPTIC CABLE

ALL EXISTING FIBER OPTIC CABLES SHALL BE PROTECTED DURING CONSTRUCTION UNLESS THEY ARE MARKED "ABANDONED". PRIOR TO STARTING THE CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY CENTURY LINK - SP-117 AND VERIZON BUSINESS OF THEIR PROPOSED CONSTRUCTION ACTIVITIES AND COORDINATE THESE ACTIVITIES WITH CENTURY LINK - SP-117 AND VERIZON BUSINESS TO INSURE THAT THE EXISTING COMMUNICATION CABLE IS UNDISTURBED BY THE CONTRACTOR'S WORK. THE FOLLOWING CONTACT SHALL BE CONTACTED FOR LOCATING THE CABLE:
GEORGE McELVAIN
OFFICE: (303) 837-3926
CELL: (303) 992-9931
CONTRACTOR TO REFER TO SP 117 OF THE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

MATERIAL STORAGE

PROJECT MATERIALS IF APPROVED BY THE CHIEF ENGINEER MAY BE STORED TEMPORARILY ONSITE PROVIDED THAT THE AREA IS KEPT FREE FROM EXCESS DEBRIS. ALL DRIVES FOR THE SERVICE PLAZA AND THE WET WELL PUMP STATION MUST REMAIN ACCESSIBLE. UPON COMPLETION OF THE PROJECT, THE AREAS UTILIZED AS STORAGE AREAS SHALL BE RETURNED TO THE ORIGINAL CONDITION AS ACCEPTED BY THE CHIEF ENGINEER.

ELECTRICAL WORK

ALL ELECTRICAL WORK SHALL BE INSTALLED IN COMPLIANCE WITH ALL OSHA, LOCAL, STATE, AND FEDERAL CODES AND REGULATIONS.

CLEARING AND GRUBBING

TREE REMOVAL IS SUBJECT TO THREATENED AND ENDANGERED (T&E) BAT REQUIREMENTS AND MUST OCCUR AFTER OCTOBER 1ST TO MARCH 31ST, OR AS SPECIFIED BY THE US FISH & WILDLIFE SERVICE (USFWS).

PVC FORCE MAIN

ALL PVC FORCE MAIN SHALL BE PVC SDR 21 PIPE INSTALLED IN ACCORDANCE WITH ASTM D 2241 AND ODOT CMS ITEMS 611 AND 638. FORCE MAIN SHALL BE TESTED IN ACCORDANCE WITH AWWA C-600 AND ODOT CMS ITEM 638. IF SANITARY SEWER FORCE MAIN DOES NOT PASS THE LEAKAGE TEST, THE LEAKS SHALL BE LOCATED AND REPAIRED AT THE EXPENSE OF THE CONTRACTOR. INSTALL TRACER TAPE PER ODOT CMS ITEM 638 MARKED "SANITARY". THE FORCE MAIN SHALL BE INSTALLED AT A SLOPE TO ELIMINATE LOW POINTS.

DUCTILE IRON PIPE

ALL EXPOSED PIPING SHALL BE EPOXY COATED CEMENT LINED CLASS 53 WITH FLANGED PIPE AND FITTINGS. ALL BURIED PIPES CALLED OUT AS DUCTILE IRON SHALL BE CEMENT LINED CLASS 53 RESTRAINED MECHANICAL JOINTS AND SHALL BE INSTALLED COMPLETE IN ACCORDANCE WITH ODOT CMS ITEMS 611 AND 638. TESTING SHALL BE COMPLETE AND IN ACCORDANCE WITH AWWA C600. REFER TO SHEET 19 NOTES FOR COATING SPECIFICATION.

SEWAGE COMBINATION VALVES

FURNISH COMBINATION AIR VALVES, FLANGED, TO BE NYLON BODY A.R.I. 2" D-025 COMBINATION AIR VALVE FOR WASTEWATER, OR APPROVED EQUAL AND SHALL BE INSTALLED COMPLETE IN ACCORDANCE ODOT CMS ITEM 611. AIR GAP SHALL RETARD WASTE SOLIDS FROM FOULING OR CLOGGING TOP SHUTOFF FLOAT. MAKE INTERNALS EASILY REMOVABLE THROUGH TOP COVER WITHOUT REMOVING VALVE. FURNISH VALVE WITH INLET BALL VALVE WITH QUICK DISCONNECT COUPLING FOR FLUSHING.

SEWAGE AIR RELEASE VALVES

FURNISH AIR RELEASE VALVES TO BE A.R.I. 2" S-020 AUTOMATIC AIR RELEASE VALVE FOR WASTEWATER OR APPROVED EQUAL AND SHALL BE INSTALLED COMPLETE IN ACCORDANCE ODOT CMS ITEM 611. FURNISH VALVE WITH INLET BALL VALVE WITH QUICK DISCONNECT COUPLING FOR FLUSHING.

CHECK VALVE

FURNISH CHECK VALVES CONFORMING TO AWWA C508. CHECK VALVES SHALL BE GOLDEN ANDERSON - FIGURE 220, M&H VALVE - STYLE 159, OR APPROVED EQUAL. CHECK VALVE SHALL BE A RUBBER FLAPPER CHECK VALVE. CHECK VALVES SHALL BE INSTALLED IN THE HORIZONTAL POSITION. COAT INTERNAL AND EXTERNAL FERROUS SURFACES OF VALVE WITH NSF CERTIFIED EPOXY IN ACCORDANCE WITH ANSI/NSF STD. 61, AND IN CONFORMANCE TO AWWA D102. PROVIDE AN ADJUSTABLE LIMIT SWITCH TO INDICATE WHEN THE VALVE IS CLOSED.

FLOW METER

FLOW METER SHALL BE PROLINE PROMAG W 400 ELECTROMAGNETIC FLOW METER MANUFACTURED BY ENDRESS HAUSER. THE READOUT SHALL BE WALL MOUNTED INSIDE THE PUMP BUILDING PER MANUFACTURER'S RECOMMENDATIONS. THE FLOW METER SHALL BE CALIBRATED AND TESTED PER MANUFACTURER'S RECOMMENDATIONS.

GATE AND PLUG VALVES

GATE VALVES SHALL BE RESILIENT SEAT OS&Y TYPE. PLUG VALVES SHALL BE FULL PORT. VALVES SHALL BE MANUFACTURED BY AMERICAN RD, MUELLER, SEGURO VALVE, OR APPROVED EQUAL AND SHALL BE INSTALLED COMPLETE IN ACCORDANCE WITH APPLICABLE AWWA STANDARD AND ODOT CMS ITEM 638.

BEDDING & BACKFILL

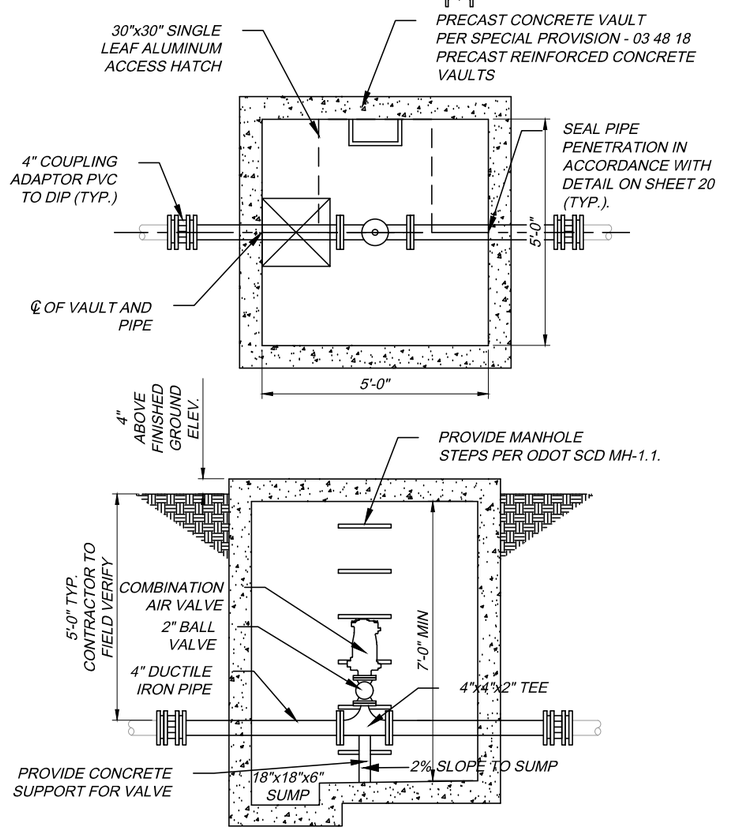
NEW FORCE MAIN, VALVES, BENDS AND FITTINGS SHALL BE PLACED ON A BEDDING OF 6-INCHES AND 12-INCHES OF PIPE COVER OF CRUSHED NO.57 LIMESTONE AND SHALL CONFORM TO THE GRADATION REQUIREMENTS OF ODOT CMS ITEM 304. FINAL BACKFILL SHALL MEET OR EXCEED THE REQUIREMENTS OF ODOT CMS ITEM 203 EMBANKMENT. BURIED VALVES AND IRON FITTINGS SHOULD SIT UPON SOLID CONCRETE BLOCKS. ALL INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF ODOT CSM ITEM 611. 01

TEMPORARY BYPASS FLOW CONTROL

TEMPORARY BYPASS FLOW CONTROL WILL BE PROVIDED BY OTIC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING OUTAGES WITH OTIC AND MUST BE APPROVED BY THE CHIEF ENGINEER. FLOW FROM THE SERVICE PLAZA MUST BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. FORCE MAIN FLOW DISRUPTIONS ARE LIMITED TO NO LONGER THAN 4 HOURS CONTINUOUSLY BETWEEN 8:00 PM AND 12:00 PM (NOON), UNLESS AUTHORIZED BY THE CHIEF ENGINEER.

LEGEND

EX. FENCE
EX. FIBER OPTIC — FO —
EX. SANITARY SEWER — SAN —
EX. CONTOUR — 1205 —
PROP. FENCE
PROP. GRAVEL
PROP. PLUG VALVE
PROP. CHECK VALVE
PROP. GATE VALVE



COMBINATION AIR VALVE AND MANHOLE DETAIL

SCALE: N.T.S.

NO.	REVISIONS	BY	DATE
01	ADDENDUM NO. 01	KJA	1/27/20
-	-	-	-
-	-	-	-

DESIGNED KJA | DRAWN KJA | CHECKED TFM | IN CHARGE LDB

DESIGN AGENCY AECOM

NOTES AND SPECFICATIONS
PORTAGE SERVICE PLAZA PUMP STATION
M.P. 197.0
PORTAGE COUNTY

PUMP STATION IMPROVEMENTS
DATE: 01/27/2020

02
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OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION

OHIO TURNPIKE

ITEM 202 - FENCE REMOVED FOR REUSE OR STORAGE

ITEM SHALL INCLUDE ALL WORK ASSOCIATED WITH THE REMOVAL OF THE EXISTING FENCE AND GATE PER ODOT ITEM 203 SPECIFICATIONS AND AS SHOWN IN THE PLANS. THE COST FOR ALL MATERIAL, LABOR, AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE ITEM.

ITEM 202 - REMOVE EXISTING STRUCTURES

ITEM SHALL INCLUDE ALL WORK ASSOCIATED WITH THE REMOVAL OF THE EXISTING BASE SLAB, PUMP STATION BUILDING, MANHOLES, AND CLEANOUTS PER ODOT ITEM 202 SPECIFICATIONS AND AS INDICATED IN THE PLANS. INCLUDES ALL COSTS ASSOCIATED WITH THE SETUP AND REMOVAL OF TEMPORARY CONSTRUCTION FENCE FOR DURATION OF CONSTRUCTION PROJECT. THE COST FOR ALL MATERIAL, LABOR, AND INCIDENTALS SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR THE ITEM.

ITEM 203 - GRANULAR MATERIAL, TYPE E (NO. 57 LIMESTONE)

ITEM SHALL INCLUDE ALL WORK ASSOCIATED WITH THE EXCAVATION AND PLACEMENT OF NO. 57 LIMESTONE PER ODOT ITEM 203 SPECIFICATIONS. THE COST FOR ALL MATERIAL, LABOR, AND INCIDENTALS NECESSARY AS INDICATED ON THE PLANS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE ITEM.

ITEM 203 - BORROW

ITEM SHALL INCLUDE ALL WORK ASSOCIATED WITH OBTAINING AND PLACING BORROW MATERIAL PER ODOT CMS ITEM 203 SPECIFICATIONS. THE COST FOR ALL MATERIAL, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE AS INDICATED ON THE PLANS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE ITEM.

ITEM 511 - CLASS QC 1 CONCRETE PUMP STATION BASE SLAB, AS PER PLAN

PROVIDE IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 511 EXCEPT PAYMENT WILL BE MADE FOR THE SLAB AND ODOT ITEM 304 AGGREGATE BASE IN THE LUMP SUM BID PRICE AND WILL INCLUDE CONCRETE REINFORCING AND ALL LABOR, MATERIAL, AND INCIDENTALS NECESSARY TO COMPLETE AS INDICATED ON THE PLANS. EXCAVATION AND REMOVAL OF THE EXISTING BASE SLAB IS INCLUDED IN SEPARATE BID ITEM, ITEM 203 - REMOVE EXISTING STRUCTURES.

ITEM 607 - FENCE, TYPE CLT, 3 STRANDS BARBED WIRE

ITEM SHALL INCLUDE ALL WORK ASSOCIATED WITH THE INSTALLATION OF NEW FENCE PER ODOT ITEM 607 SPECIFICATIONS AND AS SHOWN AND INDICATED IN THE PLANS. THE COST FOR ALL MATERIAL, LABOR, AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE ITEM.

ITEM 607 - GATE, TYPE CLT, 3 STRANDS BARBED WIRE

ITEM SHALL INCLUDE ALL WORK ASSOCIATED WITH THE INSTALLATION OF NEW GATE PER ODOT ITEM 607 SPECIFICATIONS AND AS SHOWN AND INDICATED IN THE PLANS. THE COST FOR ALL MATERIAL, LABOR, AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE ITEM.

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ITEM SPECIAL - 4" SDR 21 PVC FORCE MAIN

ITEM SHALL INCLUDE ALL WORK ASSOCIATED WITH THE FURNISHING AND INSTALLING OF A 4" FORCE MAIN INCLUDING ALL BENDS AND FITTINGS, THRUST BLOCKS, TRACER TAPE, REMOVAL OF EXISTING PIPE, EXCAVATION, BEDDING, BACKFILL, SITE RESTORATION, ACCESS, EROSION CONTROL, AND REMOVING AND REPLACING SIGNS, FENCES, GUARDRAIL, ETC. ENCOUNTERED AND SHALL BE IN ACCORDANCE WITH ODOT CMS ITEM 611 AND 638 SPECIFICATIONS. THE COSTS FOR ALL MATERIAL, LABOR AND INCIDENTALS NECESSARY TO COMPLETE AS SPECIFIED ON THE PLANS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE ITEM.

ITEM SPECIAL - FILL AND PLUG EXISTING 4" FORCE MAIN

ITEM SHALL INCLUDE THE COST OF CUTTING AND FILLING FORCE MAINS WITH LOW STRENGTH MORTAR (LSM) AS SPECIFIED IN THE PLANS. LSM SHALL MEET OR EXCEED THE MATERIAL REQUIREMENTS ESTABLISHED FOR ODOT CMS ITEM 613. THE COSTS FOR ALL MATERIAL, LABOR AND INCIDENTALS NECESSARY TO COMPLETE AS SPECIFIED IN THE PLANS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE ITEM. COSTS FOR EXCAVATION, ACCESS, EROSION CONTROL, AND SITE RESTORATION SHALL BE INCLUDED IN THE SEPARATE BID ITEM, ITEM SPECIAL - 4" SDR 21 PVC FORCE MAIN.

ITEM SPECIAL - COMBINATION AIR VALVE AND MANHOLE

ITEM SHALL INCLUDE ALL WORK ASSOCIATED WITH THE EXCAVATION, REMOVING AND REPLACING SIGNS, FENCES, GUARDRAIL, ETC. ENCOUNTERED, CLEARING AND GRUBBING, INSTALLING MANHOLE, FURNISHING FORCE MAIN AND ASSOCIATED FITTINGS INCLUDING PIPE SUPPORTS, INSTALLING AND TESTING A SEWAGE COMBINATION AIR VALVE, BEDDING, BACKFILL, ACCESS, EROSION CONTROL, AND SITE RESTORATION PER ODOT CMS ITEM 611 SPECIFICATIONS AND AS SPECIFIED BY THE DETAIL PROVIDED ON SHEET 02. THE COST FOR ALL MATERIAL, LABOR, AND INCIDENTALS NECESSARY AS INDICATED ON THE PLANS SHALL BE INCLUDED IN THE BID PRICE FOR THE ITEM.

ITEM SPECIAL - REPLACE EXISTING ABOVE GROUND AIR RELEASE MANHOLE

ITEM SHALL INCLUDE ALL WORK ASSOCIATED WITH THE EXCAVATION, CLEARING AND GRUBBING, REMOVING/DISPOSING OF EXISTING AIR RELEASE MANHOLE AND PIPING, INSTALLING NEW COMBINATION AIR MANHOLE, FURNISHING FORCE MAIN AND ASSOCIATED FITTINGS INCLUDING PIPE SUPPORTS, INSTALLING AND TESTING A SEWAGE COMBINATION AIR VALVE, BACKFILL, SITE RESTORATION, ACCESS, EROSION CONTROL, AND REMOVING AND REPLACING SIGNS, FENCES, GUARDRAIL, ETC. ENCOUNTERED. PER ODOT ITEM 202 & 611 SPECIFICATIONS AND AS SPECIFIED IN THE DETAIL PROVIDED ON SHEET 02. THE COST FOR ALL MATERIAL, LABOR, AND INCIDENTALS NECESSARY AS INDICATED ON THE PLANS SHALL BE INCLUDED IN THE BID PRICE FOR THE ITEM.

ITEM SPECIAL - PRE-FABRICATED PUMP STATION BUILDING

ITEM SHALL INCLUDE ALL WORK ASSOCIATED WITH INSTALLING AND FURNISHING A NEW PUMP STATION BUILDING COMPLETE AS SPECIFIED IN THE PLANS AND IN ACCORDANCE WITH SPECIAL PROVISION - 33 05 16 PREFABRICATED PUMP STATION BUILDING INCLUDED IN THE BID DOCUMENTS. THE COST FOR ALL MATERIAL, LABOR, AND INCIDENTALS NECESSARY AS INDICATED ON THE PLANS SHALL BE INCLUDED IN THE BID PRICE FOR THE ITEM.

ITEM SPECIAL - REPLACE EXISTING PUMPS

ITEM SHALL INCLUDE ALL WORK ASSOCIATED WITH REMOVAL OF EXISTING PUMPS, EQUIPMENT, AND PIPING AND ASSOCIATED FITTINGS, CLEANING OF EXISTING WET WELL, INSTALLATION AND FURNISHING OF NEW PUMPS, INSTALLING/TESTING LEVEL CONTROLS, EQUIPMENT INCLUDING GUIDE RAILS, LEVEL TRANSDUCER, ANY MODIFICATION TO EXISTING FLOAT SYSTEM, ELECTRICAL IMPROVEMENTS, AND STARTUP AND TESTING AS SPECIFIED ON THE PLANS, AND IN ACCORDANCE WITH SPECIAL PROVISIONS - 43 21 00.06, 43 21 00.07, 26 05 19, 26 05 26, 26 05 29, 26 05 33, 26 29 23 INCLUDED IN THE BID DOCUMENTS. THE COST FOR ALL MATERIAL, LABOR, AND INCIDENTALS NECESSARY FOR COMPLETING THE PUMP STATION IMPROVEMENTS AS INDICATED ON THE PLANS SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM

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ITEM SPECIAL - PIG LAUNCHING STATION

ITEM SHALL INCLUDE ALL WORK ASSOCIATED WITH THE EXCAVATION, REMOVING AND REPLACING SIGNS, FENCES, GUARDRAIL, ETC. ENCOUNTERED, CLEARING AND GRUBBING, SITE RESTORATION, ACCESS, EROSION CONTROL, INSTALLING PRECAST VAULT, BACKFILL, BEDDING, FURNISHING/TESTING AND INSTALLING PIPING AND ASSOCIATED APPURTENANCES INCLUDING PIPE SUPPORTS, FURNISHING/TESTING AND INSTALLING REQUIRED ELECTRICAL WORK FOR MAG METER INCLUDING INSTALLING WALL MOUNTED READOUT IN PUMP STATION BUILDING INCLUDING ANY WIRING AND CONDUIT, SUPPLYING PIGS, AND FURNISHING/TESTING A PRE-MANUFACTURED PIG LAUNCHER AS INDICATED AND SPECIFIED ON THE PLANS. ALL PIPING AND APPURTENANCES SHALL BE IN ACCORDANCE WITH ODOT CMS ITEM 611 SPECIFICATIONS, PRE-CAST VAULT SHALL BE IN ACCORDANCE WITH SPECIAL PROVISION - 03 48 18 PRECAST REINFORCED CONCRETE VAULTS INCLUDED IN THE BID DOCUMENTS. THE COST FOR ALL MATERIAL, LABOR, AND INCIDENTALS NECESSARY FOR COMPLETING THE PIG LAUNCHING STATION AS INDICATED ON THE PLANS SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR THE ITEM.

ITEM SPECIAL - PIG RECEIVING STATION

ITEM SHALL INCLUDE ALL WORK ASSOCIATED WITH THE EXCAVATION, REMOVING AND REPLACING SIGNS, FENCES, GUARDRAIL, ETC. ENCOUNTERED, CLEARING AND GRUBBING, SITE RESTORATION, ACCESS, EROSION CONTROL, INSTALLING PRECAST VAULT, BACKFILL, BEDDING, FURNISHING/TESTING AND INSTALLING PIPING AND ASSOCIATED APPURTENANCES INCLUDING PIPE SUPPORTS, AND FURNISHING/TESTING A PRE-MANUFACTURED PIG RECEIVER AS INDICATED AND SPECIFIED IN THE PLANS. ALL PIPING AND APPURTENANCES SHALL BE IN ACCORDANCE WITH ODOT CMS ITEM 611 SPECIFICATIONS, PRE-CAST VAULT SHALL BE IN ACCORDANCE WITH SPECIAL PROVISION - 03 48 18 PRECAST REINFORCED CONCRETE VAULTS INCLUDED IN THE BID DOCUMENTS. THE COST FOR ALL MATERIAL, LABOR, AND INCIDENTALS NECESSARY FOR COMPLETING THE PIG LAUNCHING STATION AS INDICATED ON THE PLANS SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR THE ITEM.

ITEM SPECIAL - TEST EXISTING AIR RELEASE AND COMBINATION AIR VALVES

ITEM SHALL INCLUDE ALL WORK ASSOCIATED WITH TESTING EXISTING AIR RELEASE AND COMBINATION VALVES ALONG THE FORCE MAIN AS INDICATED ON THE PLANS. THE CONTRACTOR SHALL WALK THE FORCE MAIN AND TEST EACH AIR VALVE TO ENSURE THEY ARE OPERATING AS INTENDED IN THE PRESENCE OF THE CHIEF ENGINEER OR REPRESENTATIVE. CONTRACTOR SHALL GIVE A 48 HOUR NOTICE TO THE CHIEF ENGINEER PRIOR TO TESTING. THE COST FOR ALL MATERIAL, LABOR, AND INCIDENTALS NECESSARY FOR COMPLETING VALVE TESTING AS INDICATED ON THE PLANS SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR THE ITEM.

01

ITEM SPECIAL - REPLACE DEFECTIVE AIR RELEASE VALVE

ITEM SHALL INCLUDE ALL WORK ASSOCIATED WITH THE REPLACEMENT OF EXISTING AIR RELEASE VALVES FOUND TO BE DEFECTIVE DURING TESTING AND AS DIRECTED BY THE CHIEF ENGINEER. WORK SHALL INCLUDE REMOVAL OF EXISTING VALVE, ANY EXCAVATION REQUIRED, FURNISHING FORCE MAIN AND ASSOCIATED FITTINGS INCLUDING PIPE SUPPORTS, INSTALLING AND TESTING A SEWAGE COMBINATION AIR VALVE, BACKFILL, BEDDING, ACCESS, EROSION CONTROL, AND SITE RESTORATION AS REQUIRED PER ODOT ITEM 611 SPECIFICATIONS AND AS SPECIFIED IN THE SPECIFICATIONS ON SHEET 02. THE COST FOR ALL MATERIAL, LABOR, AND INCIDENTALS NECESSARY AS INDICATED ON THE PLANS SHALL BE INCLUDED IN THE BID PRICE FOR THE ITEM.

01

ITEM SPECIAL - REPLACE DEFECTIVE COMBINATION AIR VALVE

ITEM SHALL INCLUDE ALL WORK ASSOCIATED WITH THE REPLACEMENT OF EXISTING COMBINATION AIR VALVES FOUND TO BE DEFECTIVE DURING TESTING AND AS DIRECTED BY THE CHIEF ENGINEER. WORK SHALL INCLUDE REMOVAL OF EXISTING VALVE, ANY EXCAVATION REQUIRED, FURNISHING FORCE MAIN AND ASSOCIATED FITTINGS INCLUDING PIPE SUPPORTS, INSTALLING AND TESTING A SEWAGE COMBINATION AIR VALVE, BACKFILL, BEDDING, ACCESS, EROSION CONTROL, AND SITE RESTORATION AS REQUIRED PER ODOT ITEM 611 SPECIFICATIONS AND AS SPECIFIED IN THE SPECIFICATIONS ON SHEET 2. THE COST FOR ALL MATERIAL, LABOR, AND INCIDENTALS NECESSARY AS INDICATED ON THE PLANS SHALL BE INCLUDED IN THE BID PRICE FOR THE ITEM.

ITEM SPECIAL - BYPASS MANHOLE

ITEM SHALL INCLUDE ALL WORK ASSOCIATED WITH THE REMOVAL OF EXISTING MANHOLE, EXCAVATION, REMOVING AND REPLACING SIGNS, FENCES, GUARDRAIL, ETC. ENCOUNTERED, CLEARING AND GRUBBING, SITE RESTORATION, ACCESS, EROSION CONTROL, INSTALLING MANHOLE, FURNISHING FORCE MAIN AND ASSOCIATED FITTINGS INCLUDING PIPE SUPPORTS, INSTALLING AND TESTING A SEWAGE COMBINATION AIR VALVE, BACKFILL, BEDDING, AND SITE RESTORATION IN ACCORDANCE WITH ODOT CMS ITEM 611 AND 203 SPECIFICATIONS, SPECIAL PROVISION - 03 48 18 PRECAST REINFORCED CONCRETE VAULTS, AND AS INDICATED IN THE PLANS. THE COST FOR ALL MATERIAL, LABOR, AND INCIDENTALS NECESSARY AS INDICATED ON THE PLANS SHALL BE INCLUDED IN THE LUMP SUM FOR THE ITEM.

ITEM 614 - MAINTAINING TRAFFIC

TRAFFIC SHALL BE MAINTAINED FOR WORK ALONG THE OTIC MAINLINE AS DETAILED ON OTIC STANDARD DRAWINGS TCR-1, TRC-2, TCR-9, AND TCR-15. FOR WORK AT THE PUMP STATION BUILDING, ONE LANE OF TRAFFIC OF THE ACCESS ROAD SHALL BE MAINTAINED AT ALL TIMES. ACCESS ROAD TRAFFIC SHALL BE MAINTAINED PER ODOT STANDARD DRAWINGS MT-97.10. ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH OTIC SPECIAL PROVISIONS AND CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614, MAINTAINING TRAFFIC.

1. CONTRACTOR WILL BE RESPONSIBLE FOR ERECTING AND MAINTAINING ALL TRAFFIC CONTROL REQUIRED TO PERFORM WORK. SIGNS WILL BE PROVIDED BY OTIC.

SEQUENCE OF CONSTRUCTION

1. INSTALL PIG RECEIVING STATION, INSTALL AND ABANDON FORCE MAIN NEAR CULVERT CROSSINGS, INSTALL COMBINATION AIR VALVES, TEST AND REPLACE EXISTING AIR RELEASE VALVES, AND INSTALL BYPASS MANHOLE PRIOR TO STARTING WORK AT THE PUMP STATION AND PIG LAUNCHING STATION.

01

ITEM SPECIAL - REPLACE DEFECTIVE AIR RELEASE VALVE

ITEM SHALL INCLUDE ALL WORK ASSOCIATED WITH THE REPLACEMENT OF EXISTING AIR RELEASE VALVES FOUND TO BE DEFECTIVE DURING TESTING AND AS DIRECTED BY THE CHIEF ENGINEER. WORK SHALL INCLUDE REMOVAL OF EXISTING VALVE, ANY EXCAVATION REQUIRED, FURNISHING FORCE MAIN AND ASSOCIATED FITTINGS INCLUDING PIPE SUPPORTS, INSTALLING AND TESTING A SEWAGE COMBINATION AIR VALVE, BACKFILL, BEDDING, ACCESS, EROSION CONTROL, AND SITE RESTORATION AS REQUIRED PER ODOT ITEM 611 SPECIFICATIONS AND AS SPECIFIED IN THE SPECIFICATIONS ON SHEET 02. THE COST FOR ALL MATERIAL, LABOR, AND INCIDENTALS NECESSARY AS INDICATED ON THE PLANS SHALL BE INCLUDED IN THE BID PRICE FOR THE ITEM.

NO.	ITEM	QUANTITY			UNIT	DESCRIPTION
		SUBTOTAL	CONTINGENCY*	TOTAL		
1	103.05			1	LUMP	PREMIUM FOR CONTRACT PERFORMANCE AND PAYMENT BOND
2	614			1	LUMP	MAINTAINING TRAFFIC
3	623			1	LUMP	CONSTRUCTION LAYOUT STAKES
4	624			1	LUMP	MOBILIZATION
5	202	145	15	160	LF	FENCE REMOVED FOR REUSE OR STORAGE
6	202			1	LUMP	REMOVE EXISTING STRUCTURES
7	203	17	8	25	CY	GRANULAR MATERIAL, TYPE E (NO. 57 LIMESTONE)
8	203	10	10	20	CY	BORROW
9	511			1	LUMP	CLASS QC 1 CONCRETE PUMP STATION BASE SLAB, AS PER PLAN
10	607	140	30	170	LF	FENCE, TYPE CLT, 3 STRANDS BARBED WIRE
11	607	1	0	1	EACH	GATE, TYPE CLT, 3 STRANDS BARBED WIRE
12	SPECIAL	1000	100	1100	LF	4" SDR 21 PVC FORCE MAIN
13	SPECIAL	60	20	80	LF	FILL AND PLUG EXISTING 4" FORCE MAIN
14	SPECIAL	6	0	6	EACH	COMBINATION AIR VALVE AND MANHOLE
15	SPECIAL	2	1	3	EACH	REPLACE EXISTING ABOVE GROUND AIR RELEASE MANHOLE
16	SPECIAL			1	LUMP	PRE-FABRICATED PUMP STATION BUILDING
17	SPECIAL			1	LUMP	REPLACE EXISTING PUMPS
18	SPECIAL			1	LUMP	PIG LAUNCHING STATION
19	SPECIAL			1	LUMP	PIG RECEIVING STATION
20	SPECIAL			1	LUMP	TEST EXISTING AIR RELEASE AND COMBINATION AIR VALVES
21	SPECIAL	2	0	2	EACH	REPLACE DEFECTIVE AIR RELEASE VALVE
22	SPECIAL	1	0	1	EACH	REPLACE DEFECTIVE COMBINATION AIR VALVE
23	SPECIAL			1	LUMP	BYPASS MANHOLE

*CONTINGENCY ITEM QUANTITIES SHALL NOT BE PURCHASED/INSTALLED WITHOUT THE APPROVAL OF THE CHIEF ENGINEER

DESIGNED KJA | CHECKED TFM
DRAWN KJA | IN CHARGE LDB

NO.	REVISIONS	BY	DATE
01	ADDENDUM NO. 01	KJA	1/27/20
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AECOM

OHIO TURNPIKE

OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION

NOTES AND SPECIFICATIONS
PORTAGE SERVICE PLAZA PUMP STATION
M.P. 197.0

PUMP STATION IMPROVEMENTS
DATE: 01/27/2020

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OHIO TURNPIKE

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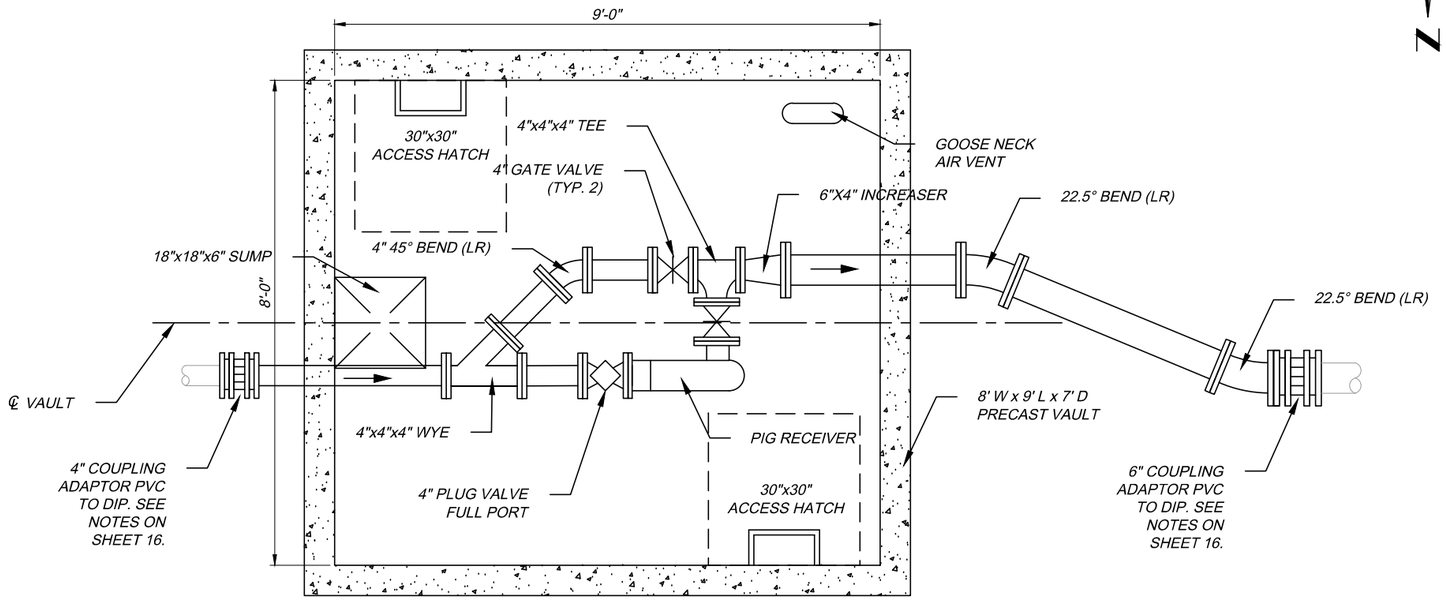
NOTES:

1. ALL NEW PIPING SHALL BE ADEQUATELY SUPPORTED PER THE MECHANICAL DETAILS ON SHEET 20 AND BY MANUFACTURERS RECOMMENDATIONS.
2. VAULT FLOOR SHALL BE SLOPED TO DRAIN/SUMP AT A MINIMUM OF 2%
3. ALL PIPING, FITTINGS, AND VALVES SHALL BE DUCTILE IRON, COATED, AND MEET THE REQUIREMENTS OF SHEET 02. ALL DUCTILE IRON PIPE SHALL BE COATED WITH SHERWIN 9/11 MIL SYSTEM OR APPROVED EQUAL. ONE COAT RECOATABLE EPOXY PRIMER B67-5/B67V5 AT 4.0 MILS DFT. ONE COAT MACROPOXY 646 B58-600/B58V600 AT 5.0 MILS DFT.
4. PIPE PENETRATION THROUGH WALL SHALL BE IN ACCORDANCE WITH DETAIL ON SHEET 20.
5. ACCESS HATCHES SHALL BE SINGLE LEAF AND BE IN ACCORDANCE WITH SPECIAL PROVISION - 03 48 18 PRECAST REINFORCED CONCRETE VAULTS.
6. FOR MEASUREMENT AND PAYMENT REFER TO SHEET 03.
7. VAULTS SHALL BE PRECAST CONCRETE AND IN ACCORDANCE WITH SPECIAL PROVISION - 03 48 18 PRECAST REINFORCED CONCRETE VAULTS.
8. PIG RECEIVER AND ASSOCIATED PIPING AND FITTINGS SHALL BE PROPERLY RESTRAINED TO RESIST THRUST FORCES PER MANUFACTURER'S RECOMMENDATIONS.
9. PIG LAUNCHER AND RECEIVER SHALL BE MANUFACTURED BY NEVIS PIPELINE PRODUCTS, LLC OR APPROVED EQUAL. PIGS SHALL BE MANUFACTURED BY GIRARD INDUSTRIES OR APPROVED EQUAL. 01



PIG RECEIVING STATION PLAN

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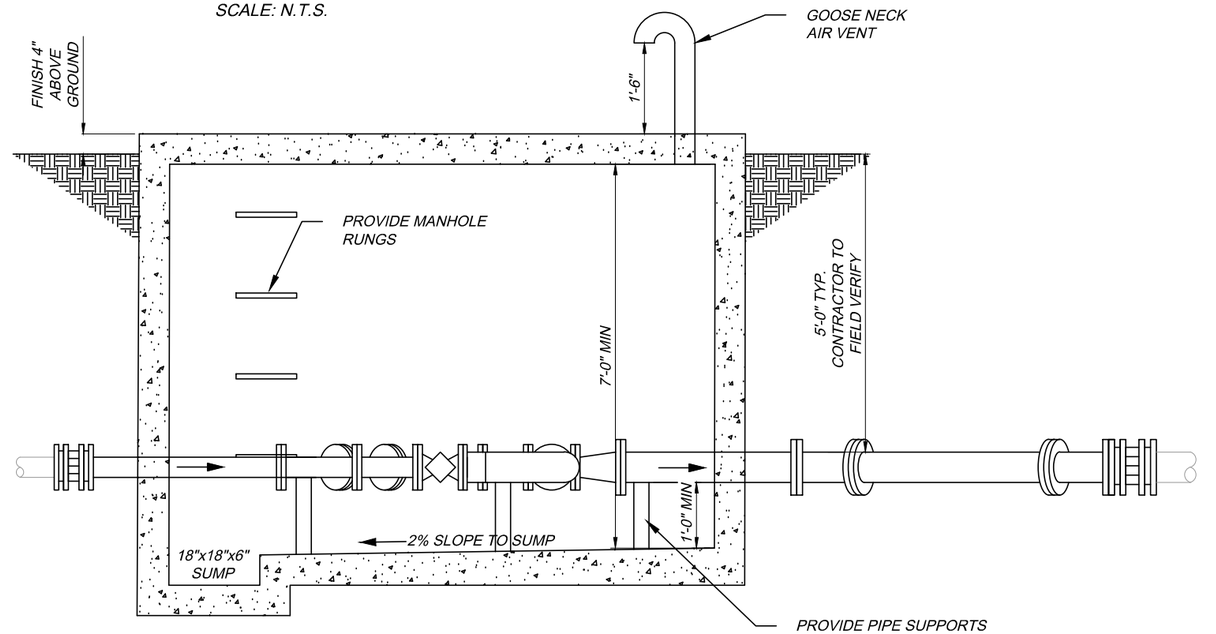

PIG RECEIVING STATION SECTION

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PUMP STATION IMPROVEMENTS
DATE: 01/27/2020

PIG RECEIVING STATION PLAN AND SECTION
PORTAGE SERVICE PLAZA PUMP STATION
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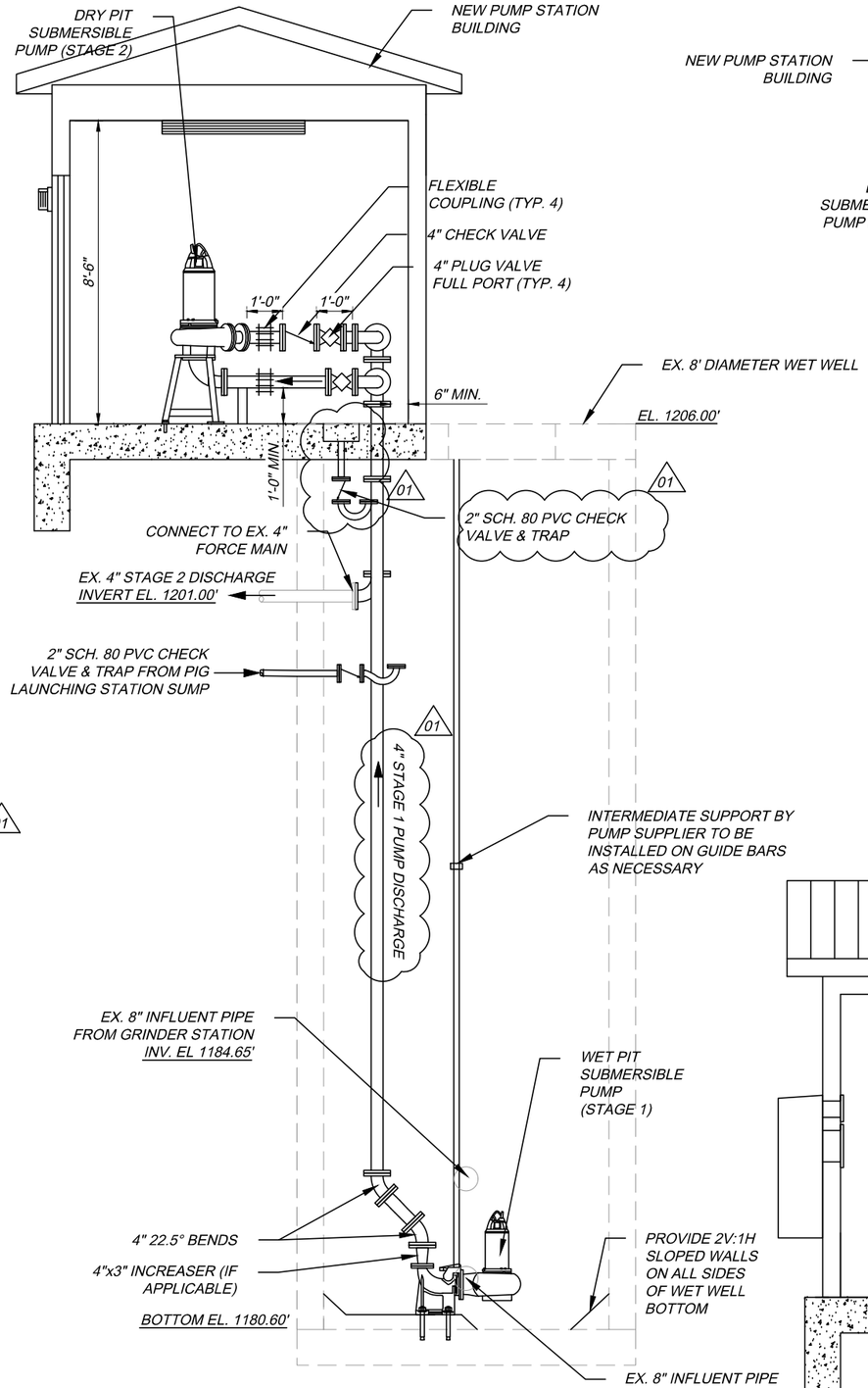
NOTES:

1. CONTRACTOR SHALL THOROUGHLY CLEAN EXISTING WET WELL ACCEPTABLE TO THE ENGINEER PRIOR TO INSTALLING ANY PUMP EQUIPMENT, PIPING, OR FITTINGS.
2. PROVIDE SUPPORTS FOR GUIDE RAILS AT 10'-0" MAX, SPACING, SUPPORTS TO BE STAINLESS STEEL WITH 316 STAINLESS STEEL HARDWARE.
3. EXISTING REMOVAL HATCH DIMENSIONS SHOWN, ENLARGE TO SUIT EQUIPMENT FURNISHED. IF NEEDED NEW ACCESS HATCH SHALL BE EAST JORDAN IRON WORKS, BILCO OR BABCOCK DAVIS, ALUMINUM, DOUBLE LEAF, CHANNEL FRAME, WITH RECESSED PADLOCK HASP AND FLUSH HINGED COVER, ORDER RESISTANT EPDM GASKET, STAINLESS STEEL HARDWARE, AND ALUMINUM SAFETY GRATE.
4. ALL PIPE WALL AND FLOOR PENETRATIONS SHALL BE IN ACCORDANCE WITH DETAIL ON SHEET 20.
5. MAKE ALL FORCE MAIN PENETRATIONS IN WET WELL GAS TIGHT.
6. ALL DUCTILE IRON PIPE SHALL BE COATED WITH SHERWIN 9/11 MIL SYSTEM OR APPROVED EQUAL. ONE COAT RECOATABLE EPOXY PRIMER B67-5/B67V5 AT 4.0 MILS DFT. ONE COAT MACROPOXY 646 B58-600/B58V600 AT 5.0 MILS DFT.
7. PUMPS TO BE INSTALLED IN ACCORDANCE WITH SPECIAL PROVISIONS - 43 21 00.06, 43 21 00.07, AND 26 29 23 AND BE ABLE TO OPERATE WITHOUT VIBRATION, CAVITATION OR OVERHEATING AT THE CONDITIONS INDICATED IN THE PROCESS PUMP SCHEDULE ON SHEET 20.
8. ALL PIPING, FITTINGS, AND VALVES INTERNAL OF THE PUMP STATION ENCLOSURE SHALL BE COATED FLANGED DUCTILE IRON PIPE. ALL PIPING, FITTINGS, AND VALVES LOCATED INSIDE THE WET WELL SHALL BE FLANGED 316 STAINLESS STEEL SCHEDULE 40 PIPE.
9. PROVIDE A MINIMUM OF 1'-0" OF STRAIGHT PIPING UPSTREAM AND DOWNSTREAM OF PROPOSED CHECK VALVES. PIPING SHALL BE INSTALLED WITH A MINIMUM FLOOR CLEARANCE OF 12" MEASURED FROM THE PIPE INVERT.
10. PROVIDE FLEXIBLE CONNECTORS WHERE NECESSARY, AND AS APPROVED TO FACILITATE PIPING INSTALLATION AND EQUIPMENT REMOVAL. ALL FLEXIBLE CONNECTORS, INCLUDING EXPANSION JOINTS AND SLEEVE COUPLINGS SHALL BE RESTRAINED AS INDICATED OR AS REQUIRED FOR EXPANSION AND FOR FLEXIBILITY.
11. CHECK VALVES SHALL HAVE INLET ENDS TAPPED WITH 1-INCH PORTS FITTED WITH 1-INCH STAINLESS STEEL FULL-PORT BALL VALVES ATTACHED TO AN AIR RELEASE VALVE WITH RETURN LINE TO WET WELL. (01)
12. NEW PUMP STATION BUILDING SHALL BE INSTALLED AND ANCHORED TO THE BASE SLAB PER MANUFACTURER'S RECOMMENDATIONS.
13. INSTALL A TOTAL OF FOUR (4) PRESSURES GAUGES, ONE ON EACH PUMP SUCTION AND PUMP DISCHARGE. THE GAUGES SHALL BE 4.5-INCH GAUGE DIAMETER, 1% FULL-SCALE ACCURACY, GLYCERIN FILLED WITH GAUGE ISOLATORS WITH STAINLESS STEEL PIPING, ISOLATION BALL VALVES, AND FLUSHING PORT AT ISOLATOR INLET. REFER TO DETAIL ON SHEET 20.
14. PROVIDE PIPE SUPPORTS AS NECESSARY. FLOOR MOUNTED PIPE SUPPORTS SHALL BE STANDON #C92 SADDLE CLAMP TYPE, 304 STAINLESS STEEL. NO WELDS SHALL BE ALLOWED ON PROCESS PIPE. WALL MOUNTED PIPE SUPPORTS SHALL BE PER BUILDING MANUFACTURER'S RECOMMENDATIONS. REFER TO DETAIL ON SHEET 20.
15. CONTRACTOR SHALL ANCHOR AND GROUT PUMPS TO NEW BASE SLAB PER MANUFACTURER'S DIRECTIVES.
16. INSTALL ENDRESS+HAUSER HYDROSTATIC HEAD-PRESSURE TRANSDUCER MODEL FMX21 PER MANUFACTURER'S SPECIFICATIONS. WET WELL LEVEL CONTROLS SHALL BE SETUP TO USE THE TRANSDUCER AS PRIMARY AND EXISTING FLOAT SYSTEM AS BACK-UP.
17. FOR MEASUREMENT AND PAYMENT REFER TO SHEET 03.



PUMP STATION ELEVATION

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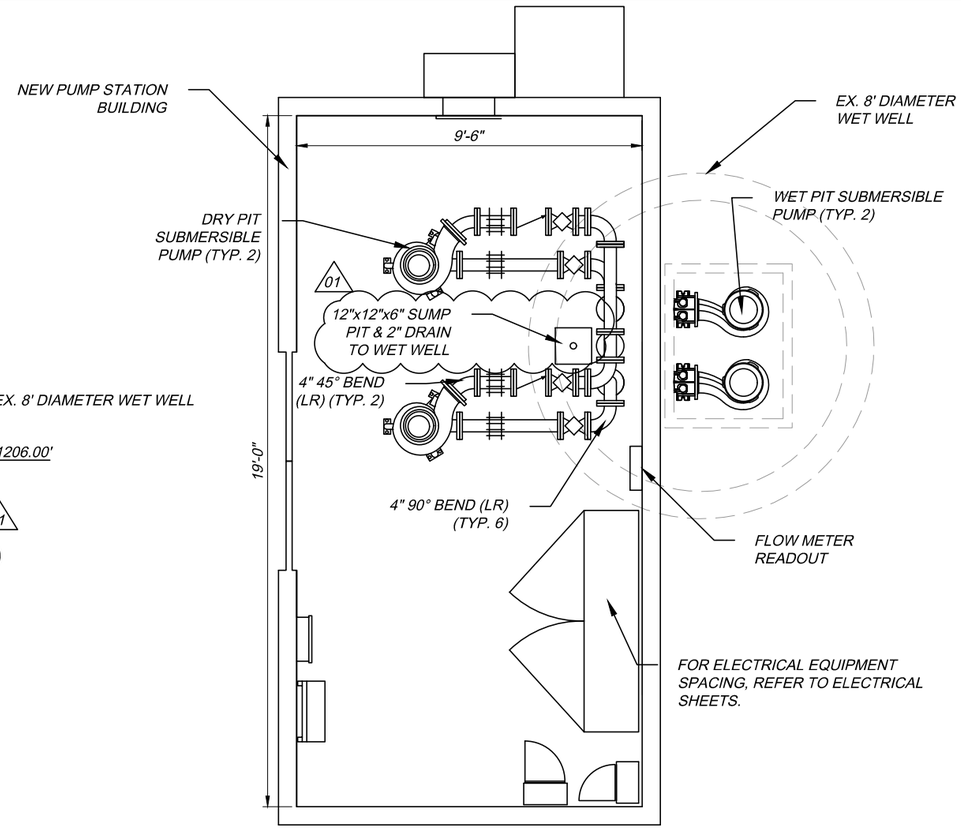

PUMP STATION PLAN

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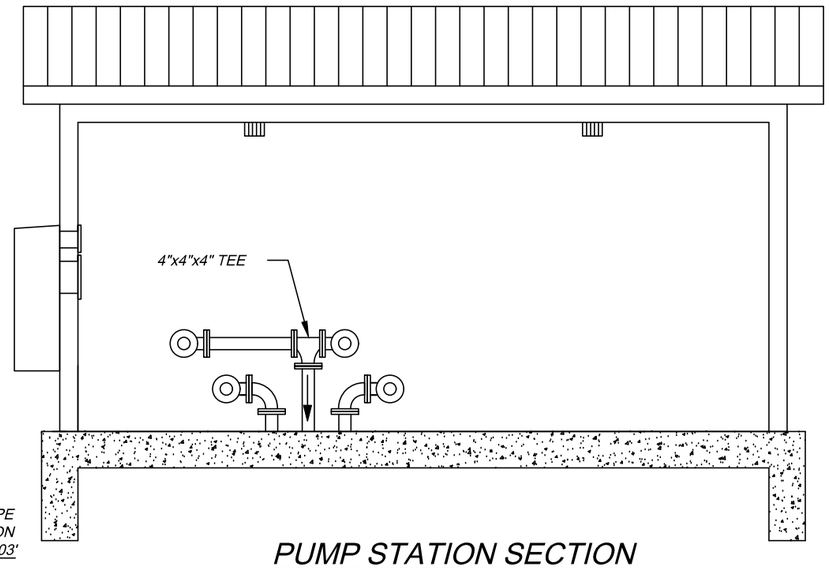

PUMP STATION SECTION

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PUMP STATION PLAN AND SECTION
PORTAGE SERVICE PLAZA PUMP STATION
M.P. 197.0
PORTAGE

PUMP STATION IMPROVEMENTS
DATE: 01/27/2020

OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION

OHIO TURNPIKE

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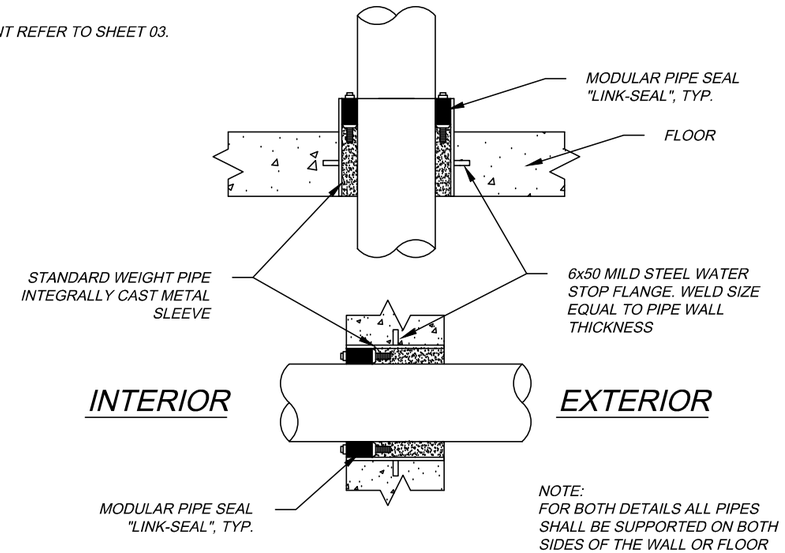
NOTES:
1. FOR MEASUREMENT AND PAYMENT REFER TO SHEET 03.

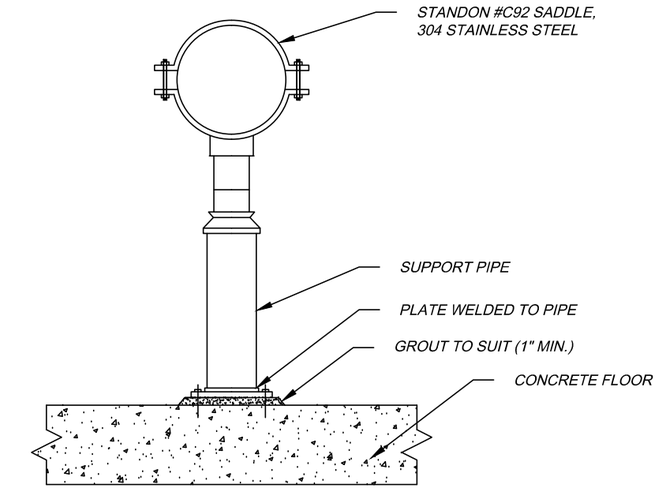


NOTE:
FOR BOTH DETAILS ALL PIPES SHALL BE SUPPORTED ON BOTH SIDES OF THE WALL OR FLOOR

FOR SIZES OF WALL SLEEVE AND LINK SEAL, REFER TO SUPPLIER'S TABLES

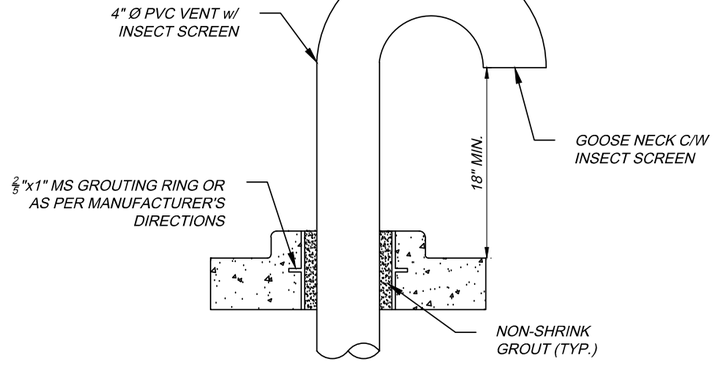
FLOOR AND WALL PENETRATION DETAIL

SCALE: N.T.S.



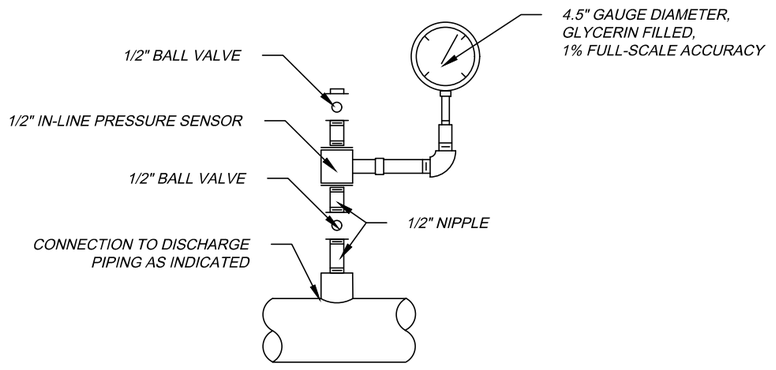
PIPE FLOOR SUPPORT DETAIL

SCALE: N.T.S.



GOOSE NECK AIR VENT DETAIL

SCALE: N.T.S.



PRESSURE GAUGE DETAIL

SCALE: N.T.S.

01

PROCESS PUMP SCHEDULE

TAG NO.	NUMBER OF UNITS	NAME	LOCATION	TYPE	RATING POINT				MIN. SUCTION/ DISCHARGE SIZE	PUMP RPM MAX.	SEAL TYPE	MOTOR DATA			DRIVE TYPE	REMARKS
					CAPACITY (GPM)	MIN. HEAD (FEET)	MIN EFF. %	MIN. SHUTOFF HEAD FT.				MAX. HP	RPM (MAX.)	ENCL. TYPE		
PSP-1 & 3	2	STAGE 1	WET WELL	SUBMERSIBLE	125	143	29	182	3/4	3600	TANDEM MECHANICAL	25		SUBMERSIBLE	VFD	MUST PASS 3 IN. SOLID
PSP-2 & 4	2	STAGE 2	PUMP BUILDING	DRY PIT SUBMERSIBLE	125	143	29	182	3/4	3600	TANDEM MECHANICAL	25		SUBMERSIBLE	VFD	MUST PASS 3 IN. SOLID

BOTH PUMPS SHALL BE ABLE TO MEET THE FOLLOWING VARYING CONDITIONS IN ADDITION TO THE RATING POINT AS SPECIFIED ABOVE: 200 TDH (FEET) AT A MIN. 125 GPM AND NOT TO EXCEED A PRESSURE TO WHICH WOULD DAMAGE 200 PSI PRESSURE RATED PIPE. STAGE 2 PUMP MUST OPERATE IN SERIES WITH A SUCTION PRESSURE OF +143 FT AND DISCHARGE PRESSURE OF +286 FT.

DESIGN AGENCY: AECOM

NO.	REVISIONS	BY	DATE
01	ADDENDUM NO. 01	KJA	1/27/20
-	-	-	-
-	-	-	-

DESIGNED KJA | DRAWN KJA | CHECKED TFM | IN CHARGE LDB

PORTAGE

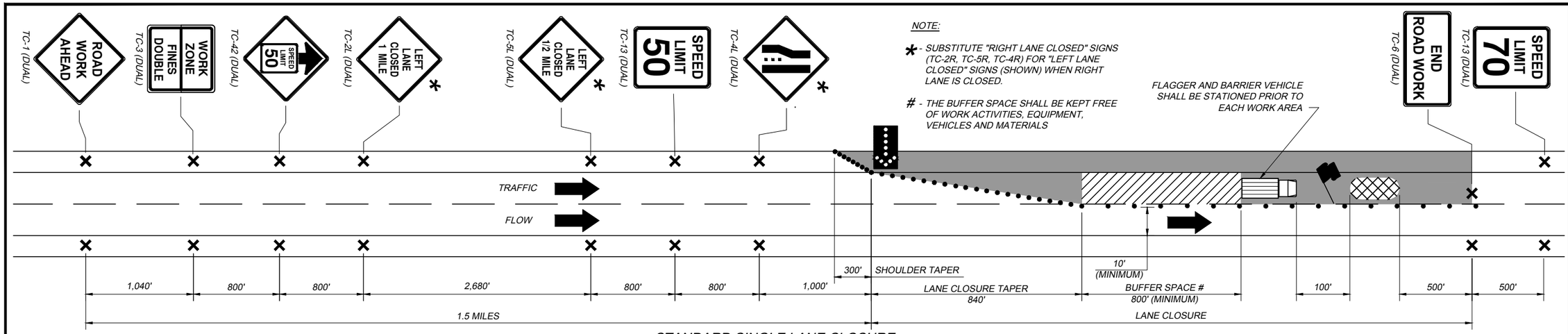
MECHANICAL DETAILS
PORTAGE SERVICE PLAZA PUMP STATION
M.P. 197.0

PUMP STATION IMPROVEMENTS
DATE: 01/27/2020

20
24

OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION

OHIO TURNPIKE



NOTE:

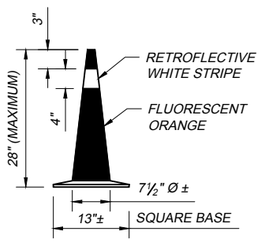
* - SUBSTITUTE "RIGHT LANE CLOSED" SIGNS (TC-2R, TC-5R, TC-4R) FOR "LEFT LANE CLOSED" SIGNS (SHOWN) WHEN RIGHT LANE IS CLOSED.

\# - THE BUFFER SPACE SHALL BE KEPT FREE OF WORK ACTIVITIES, EQUIPMENT, VEHICLES AND MATERIALS

STANDARD SINGLE LANE CLOSURE

TWO-LANE AND THREE-LANE ROADWAY

DETAILS



28" TRAFFIC CONE

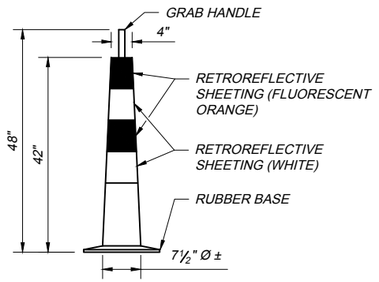
NOTES:

TRAFFIC CONES SHALL BE THE SLIMLINE OR TRIMLINE STYLE WITH THE BODY OF THE TRAFFIC CONE CONSTRUCTED OF POLYVINYL CHLORIDE MATERIAL. THE BASE OF THE TRAFFIC CONE SHALL BE CONSTRUCTED OF POLYVINYL CHLORIDE OR MOLDED RUBBER MATERIAL. THE CONE SHALL BE HOLLOW. THE NET WEIGHT OF THE CONE SHALL NOT BE LESS THAN 5½ POUNDS.

THE EXTERIOR OF THE CONE SHALL BE HIGH VISIBILITY, FADE RESISTANT, IMPREGNATED FLUORESCENT ORANGE. THE GUIDE SHALL HAVE ONE RETROREFLECTIVE WHITE STRIPE ENCIRCLING THE CONE AND BE NOT LESS THAN 4 INCHES IN WIDTH. THE STRIPE SHALL BE PERMANENTLY APPLIED SO THAT THE TOP EDGE IS APPROXIMATELY 3 INCHES FROM THE CONE APEX.

EACH CONE IS TO HAVE A SLIP-OVER COLLAR BASE. THE SLIP-OVER COLLAR BASE SHALL BE BLACK IN COLOR AND SHALL BE CONSTRUCTED OF A RUBBER MATERIAL AND SHALL WEIGH NOT LESS THAN 5 POUNDS. THE SLIP-OVER COLLAR BASE SHALL BE FULLY COMPATIBLE WITH THE PHYSICAL PROPERTIES OF THE CONE.

A ONE-PIECE TRAFFIC CONE MEETING THE ABOVE MATERIAL REQUIREMENTS AND HAVING A NET WEIGHT OF APPROXIMATELY 10½ POUNDS, WITH THE WEIGHT DISTRIBUTED TO ENSURE MAXIMUM STABILITY, MAY BE USED.



42" TRAFFIC CONE

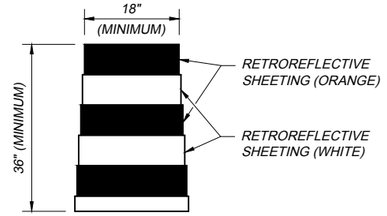
NOTES:

42 INCH TRAFFIC CONES SHALL BE A TWO PIECE DESIGN CONSISTING OF A HOLLOW STEM AND A WEIGHTED BASE. THE STEM SHALL BE MANUFACTURED FROM ULTRAVIOLET STABILIZED, HIGH VISIBILITY ORANGE IMPACT RESISTANT LOW DENSITY POLYETHYLENE AND SHALL HAVE AN INTEGRAL MOLDED HANDLE AT THE TOP OF THE STEM AND SHALL BE CERTIFIED BY THE MANUFACTURER TO MEET NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM, (NCHRP) REPORT 350 CRASH TEST STANDARDS.

EACH CONE IS TO HAVE A SLIP-OVER COLLAR BASE. THE SLIP-OVER COLLAR BASE SHALL BE BLACK IN COLOR AND SHALL BE MANUFACTURED FROM MOLDED RUBBER MATERIAL AND SHALL WEIGH 16 POUNDS. THE SLIP-OVER COLLAR BASE SHALL BE FULLY COMPATIBLE WITH THE PHYSICAL PROPERTIES OF THE CONE.

THE 42 INCH CONE SHALL HAVE A MINIMUM OF 4 EACH, NOMINAL 6 INCH WIDE RETROREFLECTIVE STRIPES STARTING FROM THE TOP IN FLUORESCENT ORANGE, WHITE, FLUORESCENT ORANGE, WHITE SEQUENCE. ANY NONRETROREFLECTIVE SPACES BETWEEN THE FLUORESCENT ORANGE AND WHITE STRIPES SHALL NOT EXCEED 3 INCHES IN WIDTH.

THE RETROREFLECTIVE SHEETING SHALL BE NO. 3910 WHITE AND NO. 3914 FLUORESCENT ORANGE SCOTCHLITE DIAMOND GRADE WORK ZONE SHEETING AS MANUFACTURED BY 3M, OR EQUAL AS APPROVED BY THE CHIEF ENGINEER, CONSIDERING REFLECTIVITY, DURABILITY, PLIABILITY AND ADHESION QUALITIES.



TRAFFIC DRUM

NOTES:

THE TRAFFIC DRUM SHALL BE A TWO PIECE, BREAKAWAY STYLE, DESIGNED THAT DAMAGE AFTER IMPACT WILL BE MINIMAL THROUGH A TEMPERATURE OF -15 °F TO +125 °F. THE DRUM SHALL BE CONSTRUCTED OF NOT LESS THAN ⅛ INCH THICK, IMPACT RESISTANT, POLYETHYLENE, FORMULATED TO ALLOW THE DRUM TO RETURN TO THE ORIGINAL DESIGN AFTER IMPACT.

THE DRUM SHALL BE A MINIMUM OF 36 INCHES IN HEIGHT AND A MINIMUM OF 18 INCHES IN DIAMETER. THE DRUM SHALL CONTAIN 5 RECESSED BANDS WHICH SHALL ACCEPT RETROREFLECTIVE SHEETING BANDS OF 6 INCH WIDTH. THE DRUM SHALL BE DESIGNED WITH ONE OR MORE FLAT SIDES OR WITH AN ANTI-ROLL DEVICE, TO MINIMIZE ROLLING, SHOULD THE UNIT BE KNOCKED OVER. TOTAL WEIGHT OF THE DRUM SHALL BE NOT LESS THAN 12 POUNDS.

COLOR OF THE DRUM SHALL BE COLOR STABILIZED, SAFETY ORANGE. TO PROVIDE STABILITY OF THE DRUM THE WEIGHTED BASE PORTION SHALL BE THE RUBBER COLLAR WEIGHTING TYPE WITH COMPATIBLE DRUM. DOUBLE WEIGHTING OF DRUMS MAY BE NECESSARY TO PREVENT MOVEMENT.

THE TRAFFIC DRUM SHALL HAVE A MINIMUM OF 4 EACH, NOMINAL 6 INCH WIDE, RETROREFLECTIVE STRIPES APPLIED TO THE DRUM RECESSED BANDS, STARTING FROM THE TOP, IN FLUORESCENT ORANGE, WHITE, FLUORESCENT ORANGE, WHITE SEQUENCE. THE RETROREFLECTIVE SHEETING SHALL BE NO. 3810 WHITE AND NO. 3814 ORANGE AS MANUFACTURED BY THE 3M COMPANY, HIGH IMPACT CHANNELIZER MATERIAL AS MANUFACTURED BY REFLEXITE NORTH AMERICA, OR EQUAL AS APPROVED BY THE CHIEF ENGINEER, CONSIDERING REFLECTIVITY, DURABILITY, PLIABILITY AND ADHESION QUALITIES.

NOTES

1. DRUM/CONE SPACING IS 50 FEET ON-CENTER IN TAPERS, CROSSOVERS AND RAMPS; 100 FEET ON-CENTER IN TANGENTS UNLESS OTHERWISE NOTED.
2. FINAL LOCATION OF TEMPORARY TRAFFIC CONTROL DEVICES MAY NEED TO BE ADJUSTED TO PROVIDE MAXIMUM VISIBILITY.
3. SIGNS USED FOR LONG TERM STATIONARY ZONES, WHICH ARE LOCATED ON THE LEFT SIDE OF AN OPEN 3-LANE SECTION OF ROADWAY ARE TO BE MOUNTED ON MEDIAN BARRIER CLAMPS WHEN THE MEDIAN BARRIER WALL HEIGHT IS 6 FEET OR LESS. SIGNS ON X - FOOTPRINT SIGN STANDS MAY BE USED IF AUTHORIZED BY THE CHIEF ENGINEER. WHEN THE MEDIAN BARRIER WALL IS OVER 6 FEET HIGH, SIGNS SHALL BE MOUNTED ON APPROVED SIGN SUPPORTS LOCATED ON THE SHOULDER.
4. FOR SHORT TERM AND DAYTIME ZONES, SIGNS SHALL BE MOUNTED ON X-FOOTPRINT SIGN STANDS THAT MEET THE REQUIREMENTS OF SP 730. IF A TC-3 OR TC-13 IS REQUIRED ON A PORTABLE SIGN STAND THEN USE A TC-28 OR TC-29, RESPECTIVELY. FOR BI-DIRECTIONAL AND LONG TERM STATIONARY ZONES SIGNS ARE TO BE MOUNTED ON BREAKAWAY POSTS OR APPROVED SIGN SUPPORTS, UNLESS OTHERWISE SHOWN.
5. "END ROAD WORK" AND "SPEED LIMIT 70 MPH" SIGN SHALL BE OMITTED IF ANOTHER ACTIVE WORK ZONE'S ADVANCED SIGNAGE IS LOCATED LESS THAN 1.5 MILES FROM THE INTENDED LOCATION OF THE "END ROAD WORK" SIGN.
6. IN LONG TERM STATIONARY ZONES REMOVE REFLECTORS FROM ALL EXISTING RAISED PAVEMENT MARKERS (RPM'S) THAT ARE IN CONFLICT WITH TEMPORARY TRAVEL LANES AND PAVEMENT MARKINGS.
7. ANY EXISTING SPEED LIMIT SIGN(S) LOCATED BETWEEN THE TC-1 AND TC-6 SIGNS SHALL BE COVERED WHILE THE ZONE IS IN PLACE.
8. ALL MAINTENANCE OF TRAFFIC DEVICES AND ZONES SHALL FOLLOW THESE STANDARDS. IF SITE SPECIFIC TRAFFIC CONDITIONS EXIST, THE MAINTENANCE OF TRAFFIC PLANS MAY BE MODIFIED TO SUIT THESE CONDITIONS; HOWEVER, NO MODIFICATIONS TO THE MAINTENANCE OF TRAFFIC PLANS SHALL BE MADE UNLESS APPROVED BY THE CHIEF ENGINEER.
9. WHEN WORKERS ARE REQUIRED TO WORK NEXT TO LIVE TRAFFIC (E.G., FULL DEPTH REPAIR, RPM REPLACEMENT, ETC.) A SINGLE TEMPORARY LANE MAY BE PARTIALLY SHIFTED ON TO THE SHOULDER DURING SHORT TERM ZONES OR SHORT DURATION INTERMITTENT ZONES. THE TEMPORARY SINGLE LANE "BUMP OUT" SHALL BE ALIGNED SUCH THAT THE WHEELS OF THE VEHICLES STRADDLE THE SONIC NAP ALERT PATTERN (SNAP).

   IF A "BUMP OUT" IS NEEDED WITHIN A HALF-MILE OF THE START OF THE SINGLE TEMPORARY LANE THEN THE LANE CLOSURE TAPER SHOULD BE EXTENDED SO TRAFFIC IS SHIFTED ONTO THE SHOULDER AT THE BEGINNING OF THE WORK ZONE AND A "RUMBLE STRIPS AHEAD" SIGN SHALL BE PLACED 500 FEET PRIOR TO THE ARROW BOARD.

   IF A "BUMP OUT" IS NEEDED FURTHER INTO THE WORK ZONE, THEN THE "BUMP OUT" TAPER SHOULD BE SET AT A 70:1 TAPER RATE. THE "BUMP OUT" TAPER SHALL BE LOCATED SO THERE IS AN 800 FOOT BUFFER SPACE, SPACE FOR A BARRIER VEHICLE, AND 100 FOOT SPACE FOR THE FLAGGER PRIOR TO THE WORK AREA. A LANE SHIFT SIGN (TC-7L/R) SHALL BE PLACED 1,000 FEET PRIOR TO THE START OF THE "BUMP OUT" TAPER. A "RUMBLE STRIPS AHEAD" SIGN SHALL BE PLACED 500 FEET PRIOR TO THE START OF THE "BUMP OUT" TAPER.

   THE "BUMP OUT" SHOULD BE TAPERED BACK TO THE SINGLE TEMPORARY LANE AFTER THE WORK AREA. THIS TAPER SHOULD BE SET AT A 70:1 TAPER RATE AND A LANE SHIFT SIGN (TC-7L/R) SHALL BE PLACED 1,000 FEET PRIOR TO THE START OF THE TAPER.

   IF MULTIPLE "BUMP OUTS" ARE NEEDED THROUGHOUT THE WORK ZONE THEN THE SINGLE TEMPORARY LANE SHOULD REMAIN SHIFTED UNTIL AFTER THE LAST "BUMP OUT" AREA.

   DRUM / CONES SPACING IS 50 FEET ON-CENTER IN THE "BUMP OUT" TAPER AND TANGENT SECTION.

LEGEND

- TYPE III PORTABLE BARRICADE WITH APPROPRIATE SIGN
- SIGN MOUNTED ON X-FOOTPRINT SIGN STAND (SEE NOTES 4 & 5)
- SIGN MOUNTED ON BREAKAWAY OR YIELDING POST(S)
- SIGN MOUNTED ON PERFORATED STEEL SQUARE TUBE SUPPORT (PSST)
- REFLECTORIZED TRAFFIC DRUMS
- REFLECTORIZED TRAFFIC CONES
- WORK AREA
- WORK SPACE
- BUFFER SPACE
- FLAGGER LOCATION (ALL WORKING HOURS)
- ARROW BOARD (AB) TYPE C PER ODOT SUPPLEMENTAL SPECIFICATION 821
- BARRIER VEHICLE
- WORK VEHICLE

DATE: OCTOBER 20, 2017

STANDARD DRAWING

TEMPORARY TRAFFIC CONTROL DETAILS, LEGEND, NOTES AND STANDARD SINGLE LANE CLOSURE

TCR-2

1 / 1

OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION

OHIO TURNPIKE

TCR-2 2017.10.20.DWG; 10/25/17 - 4:44pm

B. Field Tests:

1. Test each drive over the total speed range that it will be required to operate through for the load being driven for a minimum of two hours. Determine for each drive, motor, and load combination the following at minimum speed, maximum speed, and at 1/3 and 2/3 points between the minimum and maximum speeds:

   a. Input power (kW), voltage, current and RMS power factor on the line side of the drive isolation device.

   b. Output to the driven load in kilowatts.

   c. For each drive, measure the harmonic voltage distortion and harmonic current distortion for each harmonic at the main distribution bus for maximum and minimum load conditions.

   d. Measure the total harmonic voltage distortion and total harmonic current distortion at each PCC for maximum and minimum load conditions.

2. Test each drive by using the actual control signal for remote and local operation.

3. Test each drive's alarm functions.

4. Perform all tests in the presence of the Chief Engineer.

5. Perform the above test in addition to the manufacturer's normal field tests.

6. Submit final test report with summary comparing field test data with harmonic analysis design calculated values for each drive.

7. Testing determined not in compliance with Contract documents shall be repeated by the Contractor at no additional cost to the Owner.

END OF SECTION

SPECIAL PRE-FABRICATED PUMP STATION BUILDING

PART 1 - GENERAL

1.01 DESCRIPTION:

A. The contractor shall furnish and install one (1) - factory built, factory delivered, above-ground modular building with wall mount air conditioner, electric heater, interior LED lights, exterior LED light, main distribution panel, transformer, lighting panel, and other necessary appurtenances as shown on the plans and specified herein. The building shall be complete when delivered.

1.02 SUBMITTALS:

A. Shop Drawings:

1. Completely detailed shop drawings for prefabricated building. Indicate all dimensions, details, locations of electrical panels, lighting, HVAC, doors, and heater.

B. Drawings of modifications or changes in features or details, which are necessitated by design requirements. Make such modifications without additional compensation.

C. Do not fabricate building before shop drawings are accepted by the Chief Engineer.

1.03 QUALITY ASSURANCE

A. The equipment furnished shall be designed, constructed, and installed in accordance with the best practices and methods and shall operate satisfactorily when installed as shown on the contract drawings and operated per manufacturer's recommendations.

~~**1.04 THIRD PARTY INSPECTION LISTING (STATION 600V MAX.)**~~

~~A. The station manufacturer shall be required to affix to the station an UNDERWRITERS LABORATORIES (UL) LABEL attesting to the compliance of the station equipment under the PACKAGED PUMPING SYSTEMS (QCZJ) UL Listing Category and/or INTERTEK TESTING SERVICES (ETL) LABEL attesting to the compliance of the station equipment under PACKAGED PUMPING SYSTEMS. The ETL label shall state the station conforms to UL STD 778.~~

1.05 SHIPPING AND DELIVERY

A. The specified equipment shall be delivered by the manufacturer FOB DESTINATION and thereby the station manufacturer shall hold the full responsibility for the condition and completeness of the equipment upon its delivery.

B. The Chief Engineer or designated representative shall hold the right to inspect the equipment prior to unloading and setting to assure the quality and condition of the equipment is in no way deficient.

C. If in the view of the Chief Engineer or Chief Engineer’s inspector, the equipment is deficient when delivered, delivery shall be refused.

1.06 SPECIFIED COMPONENTS

A. Within the body of this specification and on the drawings, certain components are listed by name and/or model number for at least One (1) manufacturer’s specific product. As such, no “OR EQUAL” is listed or allowed where at least the one manufacturer is listed.

B. These listed components have been chosen because of the Engineer’s and Owner’s knowledge of and experience with these listed components.

C. No other components other than those listed are acceptable.

1.07 FACTORY START-UP AND TRAINING SERVICE

A. Without exception, the station manufacturer is directly responsible for station start-up and operator training. Third party contractors, agents or representatives are not to be allowed to start up the station nor the equipment therein. As such;

1. Start-up Factory Service Technician shall be a regular employee of the station manufacturer.

2. The manufacturer shall provide two (2) copies of the complete Operation & Maintenance Manual in electronic form.

1.08 MANUFACTURER'S WARRANTY

A. The warranty is the sole responsibility of the station manufacturer and that manufacturer's warranty shall be provided in written form, being placed in both the Submittal documents covering the specified equipment and the O&M manuals provided with that equipment.

B. It is required the station warranty provide the Owner with a single source responsibility for all components specified herein and the system. That single source shall be none other than the station manufacturer. Third party suppliers, service contractors, "Pass-through" warranties and service by the representative are not acceptable.

C. Said manufacturer's warranty shall at a minimum cover:

1. A period of one (1) year commencing upon successful start-up, after authorized manufacturer's start-up, not to exceed eighteen (18) months from the date of shipment.

2. The warranty period shall be inviolate regardless of any component manufacturer's warranty for equipment and components within the station.

3. The manufacturer's warranty shall cover all equipment, components and systems provided in or with the station by the manufacturer of the station, exclusive of those components supplied by and/or installed by others independent of the manufacturer of record for this station.

4. The warranty shall provide for the station manufacturer to bear the full cost of labor and materials for replacement and/or repair of faulty or defective components so there shall be no cost incurred by the Owner for this work during the warranty period.

5. The manufacturer's warranty policy is amended only by the items considered consumable, i.e., light bulbs, pump seals, pump packing, lubricants and other maintenance items consumed by usage.

6. No assumption of contingent liabilities for any component failure during manufacturer's warranty is made.

7. The warranty pertains only where the equipment has been operated in strict accordance with the manufacturer's instructions and requirements. Evidence of misuse or modification to the equipment voids the warranty.

D. If the submitted written manufacturer's warranty does not meet the minimum requirements set forth above, that submittal will forthrightly be rejected.

PART 2 - PRODUCTS

2.01 PRE-FABRICATED PUMP STATION BUILDING:

A. Manufacturers:

1. EFI-Solutions

2. Starnet Technologies

3. Dakota Pump

4. Or approved equal

2.02 BUILDING DESIGN CRITERIA

A. ~~The station building enclosure shall be a factory assembled, modular structure of one (1) compartment attached to the station base structure and requiring no additional assembly at the job site.~~

B. ~~The building design criteria shall be: (1.) To withstand snow load based on ASCE 7-10 Ground Snow Loads for the state and county of installation (2.) To withstand wind loads based on ASCE 7-10 for wind speeds; (3.) Be designed for site specific seismic requirements based on local conditions as dictated by the Available Ground Motion Parameters according to ASCE 7 and OHBC 2011 established by zip code and a live floor load of 125 PSF; (4) Be designed to IECC 2012 version of the energy code.~~

C. The modular building enclosing each of the stations is shown at its minimum size so that National Standards mandated clearances are maintained above, below and around equipment for proper and safe servicing, removal and reinstallation of this equipment.

D. The building specified shall be of the size shown on the drawings. Building sizes less than those shown will not be allowed.

E. ***The building shall be adequately sized to house all equipment.***

F. Plans for the building shall be designed to blend in with the surrounding architecture. The Ohio Department Building of Commerce will have the final design approval, prior to issuance of the building permit.

2.03 BUILDING CONSTRUCTION

A. The materials specified ***for building constructions shall*** ~~are specifically chosen to~~ be resistant to moisture degradation and infestation and to be maintainable.

B. ~~Insulation values for the walls and roof structure shall be a minimum R-21 in the walls and the roof. Insulation within the roof and wall panels shall be foam-in-place polyurethane material applied between the interior and exterior sheathing forming a closed cell bounded by the steel framing. The insulation shall have a minimum density of 2.2 lbs/cu. ft. nominal and shall be applied to the thickness required to provide a minimum R value of 21. The insulation shall have an ASTM E-84 flame spread index of 25 and smoke developed of 450.~~

C. ~~Building framing materials shall comply with the A.I.S.I. Specification for the Design of Cold-formed Steel Structural Members and to Standards ASTM C-955, ASTM C- 1007, ASTM C-645, ASTM C-754 and ICBO 4782P and 4784P. A framing design incorporating the members covered by the listed specifications and standards shall develop a structure meeting or exceeding the building design criteria listed previously.~~

D. ~~Metal-clad, foam insulated panels or SIPS will not be allowed.~~

E. ~~The building structure shall be fabricated using steel C-studs as wall framing members and C-joists for roof support. The size, placement and spacing of studs and joists shall be in accordance with the design criteria and material standards. The wall C-studs shall be a minimum 2" x 3 5/8" of 16 gauge material minimum. The roof C-joists shall be a minimum 1-5/8" x 8" size of 16 gauge material minimum.~~

F. ~~The exterior wall sheathing shall be 1/2" thick, exterior, CDX grade plywood.~~

G. ~~The exterior roof sheathing shall be 5/8" thick, exterior, CDX grade plywood.~~

H. ~~The interior wall and ceiling sheathing shall be 3/4" thick, exterior, CDX grade plywood.~~

I. ~~All interior wall & ceiling surfaces shall be covered with .090" thick FRP (fiberglass reinforced plastic) sheeting of pebble grain, gloss, white finish. The individual wall faces shall be covered with one continuous sheet. The FRP sheets shall be glued to the interior sheathing requiring no fasteners. Corner moldings of like FRP material shall be installed & finished in a workmanlike manner.~~

J. Openings in the sidewalls and/or roof shall be as shown and be fully framed out and supported using single or multiple framing members sufficient to support and fasten those devices or equipment items requiring a framed opening, these being access hatches, HVAC equipment, pipe passages, conduit passages, door and window openings and other special purpose openings as might be shown and required. The attaching of devices or equipment to the building at a framed opening shall be done fully according to the device manufacturers mounting instructions.

K. ~~The building shall be warranted by the station manufacturer for a period of ten (10) years from the date of delivery.~~

L. ***The building shall be constructed out of materials approved by the Ohio Department Building of Commerce.***

2.04 ~~HEAVY DUTY STEEL~~ DOORS

A. ~~Doors, single and double leaf and of the size shown, are manufactured of 18-gauge galvanized steel. All doors shall be full flush construction and 1-3/4 inches thick. Doors shall be reinforced, stiffened, insulated, and sound deadened with a solid polystyrene foam board permanently bonded to the inside of each face skin. The lock and hinge edge of each door shall be welded with a center hairline seam the full height of the door. The lock edge shall be reinforced full height by a 14-gauge continuous one-piece channel extruded templating. The hinge edge shall be reinforced full height by a 14-gauge continuous one-piece channel, formed and tapped for hinges. Top and bottom of the door shall be closed with 16-gauge channels. Doors shall be thoroughly cleaned and receive an iron phosphate treatment prior to receiving one coat of prime paint. Door closures and rim panics are reinforced with 14-gauge channels.~~

B. ~~Doors shall be fully mounted in frames produced for pre-hanging of commercial 1- 3/4" doors. Frames are formed to 16-gauge commercial quality cold rolled steel conforming to ASTM A366 or A620 and A568. Frames are produced in two welded units, to be mechanically joined during installation. The base side is prepared for all required hardware. Both units, base and trim, are furnished with welded mitered faces. Frame anchoring includes compression anchors and stud screws. Door hinges shall be continuous gear hinges, fabricated of extruded 6063-T6 aluminum alloy/temper with pinless assembly. The doors shall have a lockset, exterior handle, and top mounted-door closer with hold-open device.~~

C. ~~Doors and frames shall be finished with a two-component, aliphatic/acrylic polyurethane coating, white in color, with a high gloss finish. The coating shall be resistant to a wide range of solvents and chemicals under splash and spill conditions. The coating system is V.O.C. compliant.~~

D. Door sizes and locations are as shown on the drawings. ***Doors shall be at a minimum moisture resistant fiberglass or galvanized steel.***

2.05 MOUNTING AND FASTENING

A. The building shall be mounted and anchored to the concrete base slab in accordance with the building manufacturer's recommendations.

~~2.06 EXTERIOR FINISHES – EXTERIOR TREATMENT – SIDE LAP, RIBBED METAL SIDING~~

A. ~~The exterior sheathing shall be covered with 29 gauge metal siding. The siding shall have a trapezoidal rib on 9" centers. Each panel shall be of the exposed fastener, sidelap seam type and have a rib height of 7/16 inches and be 36" wide with a smooth texture. The steel siding shall be warranted for twenty years and shall be Max-Rib as manufactured by McElroy Metal.~~

B. ~~The station manufacturer shall apply a layer of housewrap to the exterior of the building. The housewrap shall reduce air infiltration and moisture penetration and damage. The housewrap shall be stapled to the exterior sheathing.~~

2.07 ROOF SYSTEMS – METAL ROOF SYSTEM

A. ~~The roof sheathing shall be covered with a 26 gauge metal panel system to form a standing seam roof as shown. The panels shall have a Galvalume® substrate with a Kynar 500® finish. The panels shall meet UL Standard 2218, Class 4 impact resistant and Class A fire resistant rating. The system shall be complete with fascia and soffit. The minimum roof slope shall be 3:12.~~

B. ~~The ridgeline of the roof shall be covered end to end with a broken edge panel open along the sides to create a roof vent along both sides of the entire ridge line. The top of the broken edge panel along the ridge line shall cover over the top of the standing seams to provide a finished appearance.~~

C. ***Roofs shall be standing metal seam type.***

~~2.08 FACTORY INSTALLED TRUSSED ROOF SYSTEM~~

A. ~~The building manufacturer shall provide wooden roof trusses, plywood sheathing, underlaying felt to be factory applied and be covered by the finished roof surface which shall be factory applied to the building to form a gabled roof system as shown.~~

B. ~~When installed, the trusses shall be covered by 1/2" thick C-C Grade plywood. The selected roof material shall be called out in these specifications.~~

C. ~~When required, the roof structure shall include the roof hatches being built into the roof field by the station manufacturer using the same materials as specified above.~~

D. ~~Metal Facia and Soffits shall be installed on the building by the building manufacturer. These materials for the facia and soffit shall be complimentary in color and texture and approved by the Chief Engineer.~~

E. ~~A ridge line, metal airvent system shall be installed as a part of the roof.~~

~~2.09 ELECTRICAL DESIGN, ASSEMBLY & TEST~~

A. ~~The electrical apparatus and control panel design, assembly, and installation, and the integration of component parts will be the responsibility of the manufacturer of record for this booster pumping equipment. That manufacturer shall maintain at his regular place of business a complete electrical design, assembly and test facility to assure continuity of electrical design with equipment application. Control panels designed, assembled or tested at other than the regular production~~

~~facilities or by other than the regular production employees of the manufacturer of record for this booster pumping equipment will not be approved.~~

2.10 CONFORMANCE TO BASIC ELECTRICAL STANDARDS

A. The manufacturer of electrical control panels and their mounting and installation shall be done in strict accordance with the requirements of UL Standard 508A and the National Electrical Code (NEC), NFPA 70 latest revision to afford a measure of security as to the ability of the eventual owner to safely operate the equipment.

B. No exceptions to the requirements of these codes and standards will be allowed; failure to meet these requirements will be cause to remove the equipment and correct the violation.

2.11 U.L. LISTING

A. All service entrance, power distribution, control and starting equipment panels shall be constructed and installed in strict accordance with Underwriter's Laboratories (UL) Standard 508A "Industrial Control Equipment." The panels shall be shop inspected by UL, or constructed in a UL recognized facility. All panels shall bear a serialized UL label indicating acceptance under Standard 508A and under Enclosed Industrial Control Panel or Service Equipment Panel.

B. A photocopy of the UL labels for this specific project shall be transmitted to both the Chief Engineer and the contractor for installation within their permanent project files, prior to shipment of the equipment covered under these specifications.

~~2.12 E.T.L. LISTING~~

A. ~~All control panels shall be E.T.L. Listed by Interek Testing Services (ITS) under the Industrial Control Panel (ICP) Category. Each completed control panel shall bear an ETL listing label stating that the panel conforms to UL STD 508A. The listing label shall include the station manufacturer's name, address and telephone number. The station manufacturer shall have quarterly inspections performed by ETL at the manufacturer's facility to ensure that the products being listed comply with the report and procedural guide for that product.~~

2.13 EQUIPMENT GROUNDING

A. Each electrical equipment item in the station shall be properly grounded per Section 250 of the National Electrical Code. Items to be grounded include, but are not limited to, pump motor frames, control panel, transformer, electrical panels, convenience receptacles, dedicated receptacle for heater, air conditioner, dehumidifier, lights, light switch, exhaust fans and pressure switches.

B. All ground wires from installed equipment shall be in conduit and shall lead back to the control panel to a copper ground buss specific for grounding purposes and so labeled. The ground buss shall be complete with a lug large enough to accept the installing electrician's bare copper earth ground wire. The bus shall serve as a bond between the earth ground and the equipment ground wires.

2.14 PANEL MOUNTING HARDWARE

A. Metal framing channel and hangers shall be used exclusively for mounting of electrical panels and electrical components except for those specifically designated otherwise.

B. ~~When mounting panels in buildings with ¾" plywood interior sheathing, certain panels and components may be mounted by screwing these devices into the wall, The maximum weight of~~

~~a panel mounted with four lag screws cannot exceed 250#. The lag screws must either be 5/16" or 3/8" diameter and be fully threaded.~~

2.15 ELECTRICAL SERVICE

A. The incoming electrical feeder provided for this station will be 480 volt, 3 phase, 60 Hertz, 3 wire, 200 Amp max.

~~2.16 DISTRIBUTION PANEL~~

A. ~~Circuit breakers shall be incorporated into one (1), separate NEMA 1 480V circuit breaker panel.~~

B. ~~Provide thermal-magnetic trip circuit breakers for main and feeder breakers as follows:~~

~~1. One 3p main breaker, sized per building manufacturer.~~

~~2. One 3p breaker for pump power and control cabinet. Size of breaker to be determined by pump power and control cabinet manufacturer.~~

~~3. One 2p breaker for a 480V-120/240V transformer, sized per building manufacturer.~~

~~4. One 3p, 30 Amp for feed to existing grinder control panel.~~

~~5. Two or more 3p spaces for future breakers.~~

~~2.17 LIGHTING PANEL~~

A. ~~Circuit breakers shall be incorporated into one (1), separate NEMA 1 circuit breaker panel.~~

B. ~~There shall be provided, thermal-magnetic trip circuit breakers as follows:~~

~~Nine (9) Branch Circuit Breakers, as follows:~~

~~1. 1p,15amp Controls~~

~~2. 1p,15amp Telemetry~~

~~3. 1p,15amp Lights~~

~~4. 1p,15amp Convenience Outlets~~

~~5. 2p,20amp Heater~~

~~6. 2p,30amp AC unit~~

~~7. 1p,20amp Flow Meter~~

~~8. Spare~~

~~9. Spare~~

2.18 ELECTRICAL CONDUIT AND WIRING

A. All incoming feeders conduits power and signal, shall be rigid steel conduit, individually sized to accept the inbound feeder conductors and telemetry/telephone/radio cables.

B. These incoming feeder conduits shall be installed from the main power or control panel through the capsule steel sidewall or the building floor and terminate exterior to the equipment enclosure as a thread hub. The incoming feeder exterior conduit connection points shall be capped or plugged for shipment. Coordinate location of incoming feeder and signal exterior conduit connections with existing incoming feeder and signal underground conduits.

C. All wiring within the equipment enclosure and outside of the panel enclosures shall be run in conduit except where watertight flexible conduit is properly used to connect pump drivers, fan motors, solenoid valves, limit switches, etc., where flexible connections are best utilized.

D. Devices and appliances where furnished by the original manufacturer and being equipped with a UL approved rubber cord and plug, may be plugged into a receptacle.

E. Equipment enclosure conduits shall be rigid, heavy wall, Schedule 40 PVC with solvent weld moisture-proof connections, in minimum size 3/4" or larger, sized to handle the type, number and size of equipment conductors to be carried.

F. The conduiting shall be in compliance with Article 347 of the National Electrical Code and NEMA TC-2, Federal WC-1094A and UL-651 Underwriters Laboratory Specifications.

G. Where flexible conduit connections are necessary, the conduit used shall be Liquid-tight, flexible, totally nonmetallic, corrosion resistant, nonconductive, U.L. listed conduit sized to handle the type, number and size of equipment conductors to be carried - in compliance with Article 351 of the National Electrical Code.

H. Motor circuit conductors shall be sized for load. All branch circuit conductors supplying a single motor of one (1) horsepower or more shall have an ampacity of not less than 125 percent of the motor full load current rating, dual rated type THHN/THWN, as set forth in Article 310 and 430-B of the National Electrical Code, Schedule 310-13 for flame retardant, heat resistant thermoplastic, copper conductors in a nylon or equivalent outer covering.

I. Control and accessory wiring shall be sized for load, type MTW/AWM (Machine tool wire/appliance wiring material) as set forth in Article 310 and 670 of the National Electrical Code, Schedule 310-13 and NFPA Standard 79 for flame retardant, moisture, heat and oil resistant thermoplastic, copper conductors in compliance with NTMA and as listed by Underwriters Laboratories (AWM), except where accessories are furnished with a manufacturer supplied UL approved rubber cord and plug.

2.19 STATION EXTERIOR LIGHTING

A. An exterior light shall be provided as located on the drawing. The light shall be LED. Housing shall be one piece, injection molded, bronze polycarbonate. A button type photo control shall be provided.

2.20 STATION INTERIOR LIGHTING

A. There shall be two or more enclosed and gasketed, forty-eight (48) inch minimum length LED light fixtures installed within the equipment enclosure, as shown on the plan for this item. The light switch shall be of the night glow type and be located conveniently adjacent to the door. Light levels shall be a minimum of 30 foot-candles at the floor.

B. Fluorescent or incandescent fixtures **will not** be accepted.

~~**2.21 COOLING/EXHAUST UNIT**~~

A. ~~The unit shall be one-piece, wall-mounted, factory-assembled, pre-charged, prewired, tested and ready-to-operate. The unit shall have a limited warranty of 5-years on parts and 1-year on compressor. Capacity and EER certified in accordance with ANSI/ARI Standard390-2003.One (1) each exterior wall mounted, hard-wired as shown;~~

1. ~~Enclosed weatherproof casing constructed of 20 gauge galvanized steel, finished with baked-on polyester enamel paint;~~

2. ~~One (1) washable filter;~~

3. ~~Remote adjustable thermostat;~~

4. ~~Refrigerant: 410A (HFC);~~

5. ~~Minimum EER Rating: 9.00~~

~~Cooling Capacity~~	~~BTUH~~	~~Breaker size~~	~~CFM @ 0.2" ESP, (Max/Min)~~	~~Heater~~	~~Bard Manufacturing Part Number~~
~~1 Ton~~	~~10,800~~	~~20~~	~~440/350~~	~~N/A~~	~~W12A1-A0ZBW~~

2.22 HEATER

A. ***A minimum of*** ~~One~~ ***one*** (1) ***heater, sized appropriately for the building space*** ~~each~~, wall mounted as shown.

B. ~~Rating - 10,239 BTU/HR - 3000 watts, 240 volt.~~

C. ~~Enclosed resistance wire within steel finned element.~~

D. ~~Control - thermostat.~~

E. ~~UL listed.~~

F. ~~Fan forced.~~

G. ~~Hard wired in conduit per UL 400-1.~~

PART 3 - EXECUTION

3.01 INSTALLATION:

A. The contractor shall be required to provide a crane and spreader bars to set the station on the foundation designed by the engineer shown in the plan set. The foundation shall be built by the contractor and as directed by the engineer. Following setting of the station, the contractor will be required to anchor the station to the foundation. The contractor shall supply the anchor bolts.

END OF SECTION

SPECIAL DRY PIT SUBMERSIBLE SOLIDS HANDLING PUMPS AND APPURTENANCES

D. Design pumps so that future conditions can be achieved by:

1. Installation of future impellers (impeller installed should not be the maximum size available).

E. Design pumps so that varying conditions specified can be achieved as indicated in the Process Pump Schedule.

F. Pump casing, seals, bearings, etc. must be able to accommodate the additional suction pressure from the first stage submersible pump.

G. The starting and stopping sequences of the pumps must take in consideration the series configuration and the delay of the fluid reaching the second stage pump. A means of protecting the pumps against damage due to a pump failure shall be in place.

2.02 MANUFACTURERS:

A. Dry Pit Submersible Solids Handling Pumps

1. Grundfos

2. Flygt

3. Or approved equal

2.03 SEISMIC DESIGN REQUIREMENTS:

A. The Contractor shall conform to the seismic design requirements for this project and for the work of this specification section.

B. Provide all equipment bases, anchorage, supports and foundations designed in accordance with the seismic requirements indicated and specified.

C. Additionally, provide with the Certificate of Unit Responsibility, certification for all equipment signed by a registered structural engineer stating that computations were performed and that all components have been sized for the seismic forces specified and indicated.

2.04 PUMP CONSTRUCTION:

A. Pumps: Solids handling radial and mixed flow single-stage, rotodynamic pumps. Driven as indicated in the Process Pump Schedule.

B. Pump Configuration: As indicated in the Process Pump Schedule.

C. Design and proportion all parts of pump specially adapted for the service specified and indicated.

D. Pump Mounting: Provide type as indicated and specified.

1. Vertical Pumps:

a. Mount each pump on a fabricated steel pedestal with separate suction elbow as indicated.

(1) Provide handhole cleanout in elbow.

F. The starting and stopping sequences of the pumps must take in consideration the series configuration and the delay of the fluid reaching the second stage pump. A means of protecting the pumps against damage due to a pump failure shall be in place.

2.02 MANUFACTURERS:

A. Submersible Solids Handling Pumps

1. Grundfos

2. Flygt

3. Or approved equal

2.03 SEISMIC DESIGN REQUIREMENTS:

A. The Contractor shall conform to the seismic design requirements for this project and for the work of this specification section.

B. Provide all equipment bases, anchorage, supports and foundations designed in accordance with the seismic requirements indicated and specified.

C. Additionally, provide with the Certificate of Unit Responsibility, certification for all equipment signed by a registered structural engineer stating that computations were performed and that all components have been sized for the seismic forces specified and indicated.

2.04 PUMP CONSTRUCTION:

A. Pumps: Solids handling radial and mixed flow single-stage, centrifugal pumps. Driven as indicated in the Process Pump Schedule.

B. Design and proportion all parts of pump specially adapted for the service specified and indicated.

C. Pump Mounting: Provide type as indicated and specified.

1. Mount each pump on a discharge elbow with discharging vertically.

D. Pump Casing, Fronthead, Backhead and Lower Housing:

1. Ductile Iron ASTM A536.

2. Provide lifting devices on pump/motor assembly for handling.

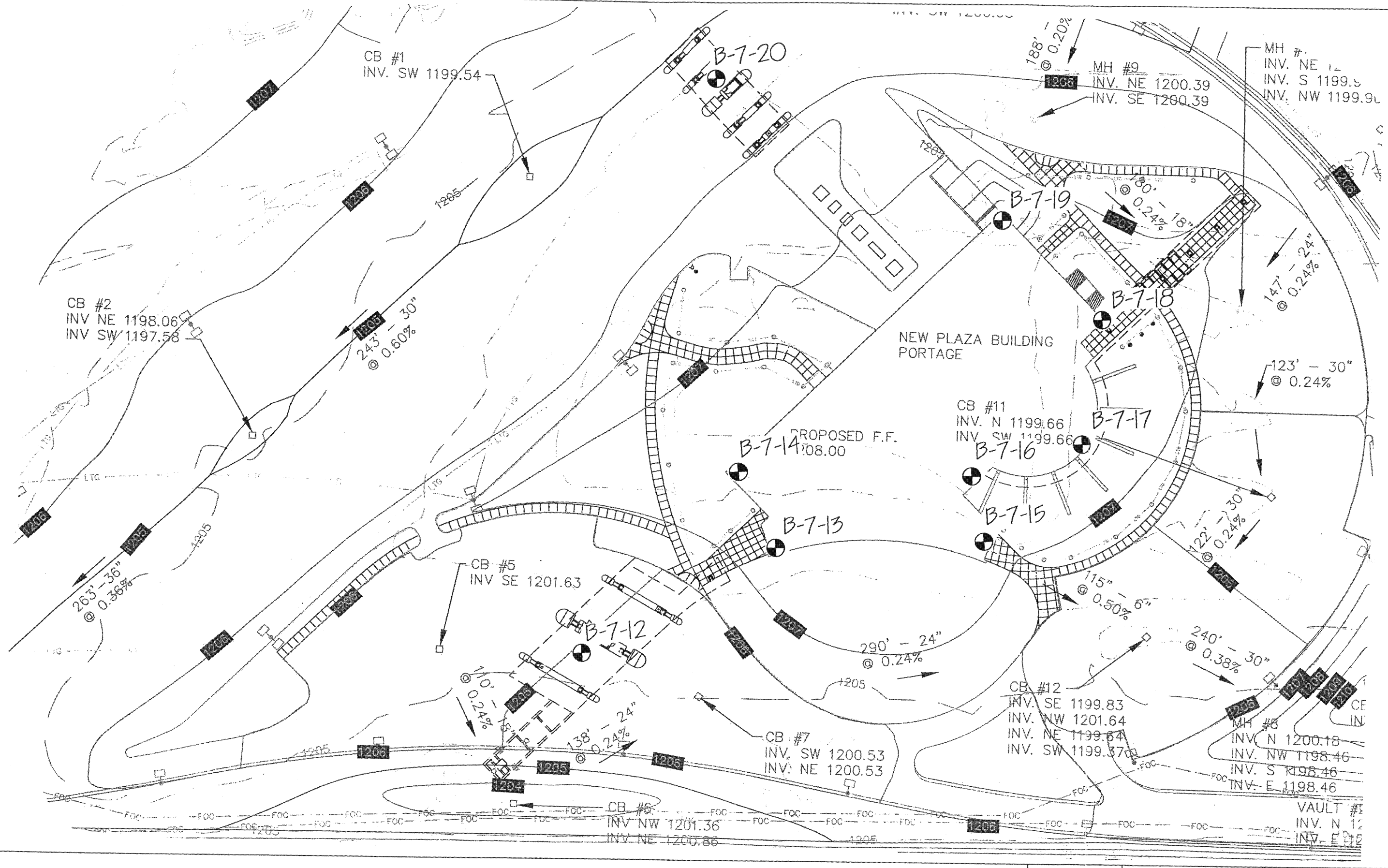
a. Type 316 stainless steel.

3. Provide ribs or reinforcing if required to withstand the specified hydrostatic test pressure, to prevent deflection caused by hydraulic thrust and to support the motor.

4. Face and drill flanges of discharge connections in accordance with 125-lb ANSI/ASME B16.1 Class 125 Standard (PN10).

5. Where a rail pipe is required face and drill suction in accordance with 125-lb ANSI/ASME B16.1 Class 125 Standard (PN10).

PORTAGE SP SITE SOIL BORINGS
FOR REFERENANCE ONLY



BORING PLAN

OHIO TURNPIKE - SERVICE PLAZA #7
PORTAGE

PROJECT NO.
RII #C-8098

1" = 60'

RESOURCE INTERNATIONAL

RESOURCE INTERNATIONAL, INC.
281 ENTERPRISE DRIVE
WESTERVILLE, OHIO 43081
(614) 885-1959

REPORT OF SOIL EXPLORATION

Client: GSI Architects, Incorporated
Project: Ohio Turnpike Service Plaza #7
Project Number: C-8098

Boring Number: B-7-12
Sheet: 1 of 1
Completion Depth: 15.0'

Date Started: 12/8/98
Date Finished: 12/8/98
Drilled By: J.T.

Station: See Boring Plan
Offset:
Elevation: 1205 ft*

Boring Method: 3.75" HSA
Hammer Weight: 140 lbs.
Hammer Drop: 30 inches

SAMPLE NO	BLOWS PER 6"	PERCENT RECOVERY	DEPTH	SOIL DESCRIPTION	MOISTURE CONTENT	ATTERBERG LL	ATTERBERG PL
				4" - Asphalt (0.4)			
SS-1	50/1"	100		Sand, gravel, and slag base.			
			2.5				
SS-2	17 17 14	22	5.0				
				(6.0)			
SS-3	16 16 16	33	7.5	Reddish brown coarse to fine SANDY SILT, little clay, trace fine gravel. Hard. Moist. -SS-3: qh = 9.0+ ksf			
				(8.5)			
SS-4	8 6 4	100	10.0	Brown coarse to fine SAND, some fine gravel, little silty clay. Medium dense. Moist. -SS-4: Visual USCS SM	11		
			12.5				
				(13.5)			
SS-5	8 6 10	100	15.0	Gray coarse to fine SANDY SILT, little clay, trace fine gravel. Very stiff. Moist. -SS-5: qh = 6.5 ksf -groundwater initially encountered @ 14.0 ft Bottom of Boring = 15.0 feet			
				(15.0)			

NOTES: *Elevation is approximate

SAMPLE TYPE
SS - 2" OD Split Spoon
GS - Geoprobe Sample
ST - Shelby Tube
RC - Rock Core
AS - Auger Sample

GROUND WATER READING
At Completion ▽ N/A** Ft
After 24 Hrs ▼ N/A
**Cave in depth @ 7.0 feet

BORING METHOD
HSA - Hollow Stem Augers
SFA - Solid Flight Augers
MD - Mud Drilling
WD - Wash Drilling
RC - Rock Coring

RESOURCE INTERNATIONAL, INC.
281 ENTERPRISE DRIVE
WESTERVILLE, OHIO 43081
(614) 885-1959

REPORT OF SOIL EXPLORATION

Client: GSI Architects, Incorporated
Project: Ohio Turnpike Service Plaza #7
Project Number: C-8098

Boring Number: B-7-13
Sheet: 1 of 1
Completion Depth: 15.0'

Date Started: 12/9/98
Date Finished: 12/9/98
Drilled By: J.T.

Station: See Boring Plan
Offset:
Elevation: 1206.5ft*

Boring Method: 3.75" HSA
Hammer Weight: 140 lbs.
Hammer Drop: 30 inches

SAMPLE NO	BLOWS PER 6"	PERCENT RECOVERY	DEPTH	SOIL DESCRIPTION	MOISTURE CONTENT	ATTERBERG LL	ATTERBERG PL
				4" - Asphalt (0.4)			
SS-1	50/2"	100		Sand, gravel, and slag base.			
			2.5	(2.5) Brown to gray CLAYEY SILT, some fine sand, little to trace coarse to medium sand, trace fine gravel. Very stiff. Moist to wet.			
SS-2	5 11 14	100		-SS-2: USCS CL-ML; qh = 5.5 ksf	13	20	14
			5.0				
SS-3	16 9 9	100		-SS-3: qh = 8.0 ksf			
			7.5				
SS-4	6 7 9	100		-SS-4: Visual USCS CL-ML; qh = 9.0 ksf -groundwater initially encountered @ 9.5 ft	17		
			10.0				
			12.5				
SS-5	13 10 13	100		-SS-5: qh = 8.5 ksf Bottom of Boring = 15.0 feet (15.0)			

NOTES: *Elevation is approximate

SAMPLE TYPE
SS - 2" OD Split Spoon
GS - Geoprobe Sample
ST - Shelby Tube
RC - Rock Core
AS - Auger Sample

GROUND WATER READING
At Completion ▽ N/A** Ft
After 24 Hrs ▼ N/A
**Cave in depth @ 6.0 feet

BORING METHOD
HSA - Hollow Stem Augers
SFA - Solid Flight Augers
MD - Mud Drilling
WD - Wash Drilling
RC - Rock Coring

RESOURCE INTERNATIONAL, INC.
281 ENTERPRISE DRIVE
WESTERVILLE, OHIO 43081
(614) 885-1959

REPORT OF SOIL EXPLORATION

Client: GSI Architects, Incorporated
Project: Ohio Turnpike Service Plaza #7
Project Number: C-8098

Boring Number: B-7-14
Sheet: 1 of 2
Completion Depth: 25.0'

Date Started: 12/8/98
Date Finished: 12/8/98
Drilled By: J.T.

Station: See Boring Plan
Offset:
Elevation: 1207 ft*

Boring Method: 3.75" HSA
Hammer Weight: 140 lbs.
Hammer Drop: 30 inches

SAMPLE NO	BLOWS PER 6"	PERCENT RECOVERY	DEPTH	SOIL DESCRIPTION	MOISTURE CONTENT	ATTERBERG LL	ATTERBERG PL
				4" - Asphalt (0.4)			
SS-1	50/3"	100		Sand, gravel, and slag base.			
			2.5	(2.5) Brown SILTY coarse to fine SAND, little fine gravel, little clay. Medium dense. Moist.			
SS-2	7 7 8	100		-SS-2: USCS SM	13	NP	NP
			5.0				
SS-3	3 3 7	100					
			7.5	-groundwater initially encountered @ 8.0 ft			
SS-4	8 9 10	22					
			10.0				
				(12.0)			
			12.5	Gray CLAYEY SILT, some fine sand, trace coarse to medium sand, trace fine gravel. Stiff. Moist.			
SS-5	5 6 5	100		-SS-5: qh = 7.0 ksf	11		

NOTES: *Elevation is approximate NP = non-plastic

SAMPLE TYPE
SS - 2" OD Split Spoon
GS - Geoprobe Sample
ST - Shelby Tube
RC - Rock Core
AS - Auger Sample

GROUND WATER READING
At Completion ▽ N/A** Ft
After 24 Hrs ▼ N/A
**Cave in depth @ 5.0 feet

BORING METHOD
HSA - Hollow Stem Augers
SFA - Solid Flight Augers
MD - Mud Drilling
WD - Wash Drilling
RC - Rock Coring

RESOURCE INTERNATIONAL, INC.
281 ENTERPRISE DRIVE
WESTERVILLE, OHIO 43081
(614) 885-1959

REPORT OF SOIL EXPLORATION

Client GSI Architects, Incorporated
Project Ohio Turnpike Service Plaza #7
Project Number C-8098

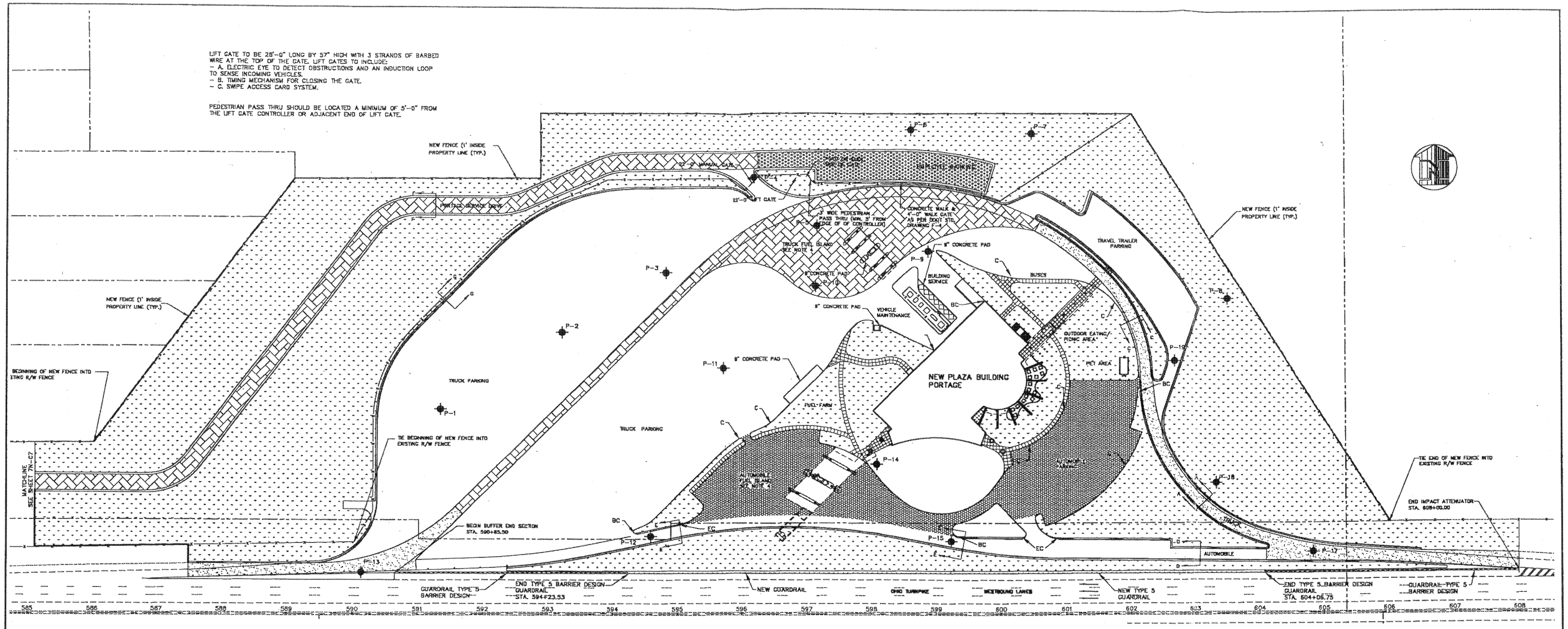
Boring Number B-7-14
Sheet 2 of 2
Completion Depth 25.0'

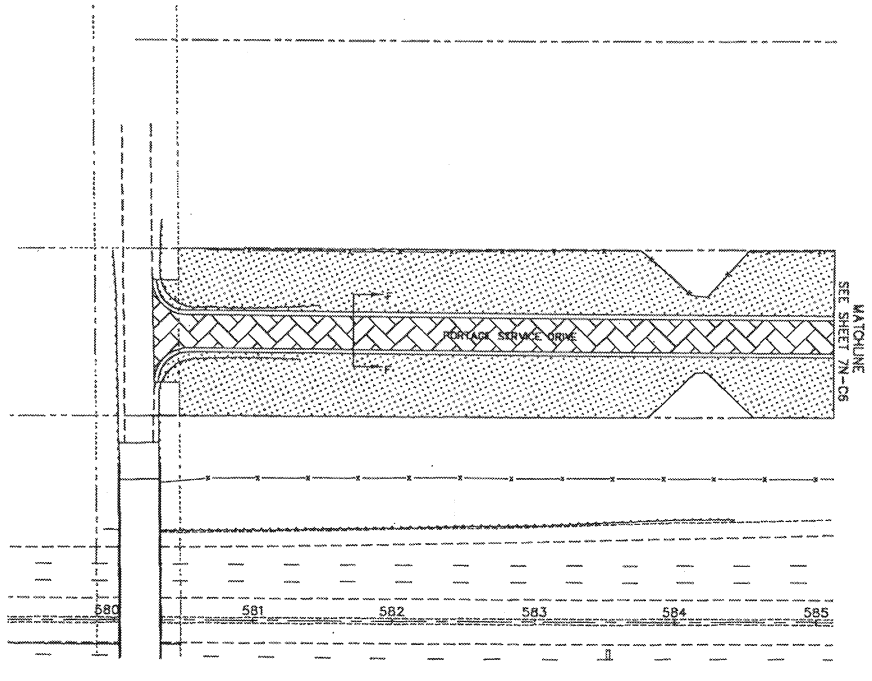
SAMPLE NO	BLOWS PER 6"	PERCENT RECOVERY	DEPTH	SOIL DESCRIPTION	MOISTURE CONTENT	ATTERBERG LL	ATTERBERG PL
			17.5				
				18.5			
SS-6	50/2"	100		Gray weathered SHALE/Indurated CLAY. Hard soil/very soft bedrock.			
			20.0				
			22.5				
SS-7	50/2"	100					
			25.0	Auger refusal @ 25.0 feet			
				25.0			
				Bottom of Boring = 25.0 feet			

NOTES: *Elevation is approximate NP = non-plastic

LIFT GATE TO BE 28'-0" LONG BY 57" HIGH WITH 3 STRANDS OF BARBED WIRE AT THE TOP OF THE GATE. LIFT GATES TO INCLUDE:
- A. ELECTRIC EYE TO DETECT OBSTRUCTIONS AND AN INDUCTION LOOP TO SENSE INCOMING VEHICLES.
- B. TIMING MECHANISM FOR CLOSING THE GATE.
- C. SWIPE ACCESS CARD SYSTEM.

PEDESTRIAN PASS THRU SHOULD BE LOCATED A MINIMUM OF 5'-0" FROM THE LIFT GATE CONTROLLER OR ADJACENT END OF LIFT GATE.





ASPHALT PAVING LEGEND

NOT TO SCALE

10" ASPHALT PAVEMENT

11" ASPHALT PAVEMENT

13" ASPHALT PAVEMENT

15" ASPHALT PAVEMENT

4 1/2" ASPHALT PAVEMENT

10" ASPHALT

11" ASPHALT

13" ASPHALT

15" ASPHALT

4 1/2" ASPHALT

SIDEWALK

NEW GRASS

CURB, TYPE 6

NOTES:

1. GATE OPENING SHALL BE CONSTRUCTED WITH A 28'-0" MANUAL GATE AND A 28'-0" LIFT GATE. GATES ARE TO BE 57" HIGH WITH 3 STRANDS OF BARBED WIRE AT THE TOP OF THE GATE. LIFT GATES TO INCLUDE:
   - A. ELECTRIC EYE TO DETECT OBSTRUCTIONS AND AN INDUCTION LOOP TO SENSE INCOMING VEHICLES.
   - B. TIMING MECHANISM FOR CLOSING THE GATE.
   - C. SWIPE ACCESS CARD SYSTEM.
2. NEW FENCE SHALL BE TYPE 47 PER DTC, UNLESS OTHERWISE NOTED.
3. ALL PROPOSED FENCING SHALL BE PLACED 1' INSIDE THE PROPERTY LINE.
4. 9" CONCRETE PAD UNDERNEATH CANOPY.
5. SEEDING QUANTITIES HAVE BEEN PROVIDED TO COVER ALL GRASS AREAS WITHIN TURNPIKE PROPERTY.
6. CONTINGENCY QUANTITIES OF WATER, COMMERCIAL FERTILIZER AND MOWING HAVE BEEN PROVIDED IN THE PLANS TO CARE FOR THE PERMANENT SEEDED AREAS AS DIRECTED BY THE ENGINEER.
7. FOR SECTION DETAILS SEE SHEET 7N-C7.

SHEET REFERENCES

FOR PAVING PLAN DETAILS SEE SHEET 7N-C7
FOR DEMOLITION DETAIL SEE SHEETS 7N-C2
FOR UTILITY DETAILS SEE SHEETS 7-C7, AND 7N-15 THROUGH 7N-C21
FOR PROPOSED GRADING DETAILS SEE SHEETS 7N-C8 THROUGH 7N-C14
FOR PAVEMENT CROSS SECTIONS SEE SHEET 7N-C7

LEGEND

C – CURB
BC – BEGIN CURB
EC – END CURB

GSI ARCHITECTS, Inc.
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Phone (216) 566-0000 · Fax (216) 566-1660

RESOURCE INTERNATIONAL INC.
281 ENTERPRISE DRIVE
WESTERVILLE, OHIO 43081
(614) 885-1959

AUTHORIZED USE:
- ☐ SCHEMATIC DESIGN
- ☐ DESIGN DEVELOPMENT
- ☑ PROGRESS
- ☐ BIDDING
- ☐ BUILDING PERMIT
- ☐ CONSTRUCTION
- ☐ REFERENCE
- ☐ RECORD

REVISIONS	DATE	BY
95% REVIEW SUBMITTAL	01/29/99	MAK

PREPARED FOR:
OHIO TURNPIKE COMMISSION

DRAWING TITLE:
SITE PAVING PLAN
PORTAGE

PLAZA 7	SHEET NO. 7N-C6	ISSUED A

DATE: 01-29-99 – BY: MAK
SCALE: 1" = 80'
OTC CONTRACT #: 71-97-12
GSI CONTRACT #: 96-111

RESOURCE INTERNATIONAL, INC.
281 ENTERPRISE DRIVE
WESTERVILLE, OHIO 43081
(614) 885-1959

REPORT OF SOIL EXPLORATION

Client: GSI Architects, Incorporated
Project: Ohio Turnpike Service Plaza #7
Project Number: C-8098

Boring Number: P-1
Sheet: 1 of 1
Completion Depth: 8.0'

Date Started: 11/4/98
Date Finished: 11/4/98
Drilled By: M.B.

Station: See Boring Plan
Offset:
Elevation: 1209 ft*

Boring Method: Geoprobe
Hammer Weight: N/A
Hammer Drop: N/A

SAMPLE NO	BLOWS PER 6"	PERCENT RECOVERY	DEPTH	SOIL DESCRIPTION	MOISTURE CONTENT	ATTERBERG LL	ATTERBERG PL
GS-1		100		5" - Dark brown CLAYEY SILT, little coarse to fine sand (topsoil). Moist. 0.4			
GS-2		100	2.5	Gray and brown SILT and CLAY, some coarse to fine sand, trace fine gravel. Damp. -GS-2: ODOT A-6b (10) 3.5	15	36	19
GS-3		100		Brown coarse to fine SAND, little silty clay, trace fine gravel. Damp. 4.5			
GS-4		100	5.0	Brown SILT and CLAY, some coarse to fine sand, trace fine gravel. Damp.	11		
			7.5	7.5			
GS-5		100		Brown coarse to fine SAND, little silty clay, trace fine gravel. Damp. 8.0			
				Bottom of Boring = 8.0 feet			

NOTES: *Elevation is approximate

SAMPLE TYPE
SS - 2" OD Split Spoon
GS - Geoprobe Sample
ST - Shelby Tube
RC - Rock Core
AS - Auger Sample

GROUND WATER READING
At Completion ▽ Dry Ft
After 24 Hrs ▼ N/A

BORING METHOD
HSA - Hollow Stem Augers
SFA - Solid Flight Augers
MD - Mud Drilling
WD - Wash Drilling
RC - Rock Coring

RESOURCE INTERNATIONAL, INC.
281 ENTERPRISE DRIVE
WESTERVILLE, OHIO 43081
(614) 885-1959

REPORT OF SOIL EXPLORATION

Client: GSI Architects, Incorporated
Project: Ohio Turnpike Service Plaza #7
Project Number: C-8098

Boring Number: P-2
Sheet: 1 of 1
Completion Depth: 9.0'

Date Started: 11/4/98
Date Finished: 11/4/98
Drilled By: M.B.

Station: See Boring Plan
Offset:
Elevation: 1206 ft*

Boring Method: Geoprobe
Hammer Weight: N/A
Hammer Drop: N/A

SAMPLE NO	BLOWS PER 6"	PERCENT RECOVERY	DEPTH	SOIL DESCRIPTION	MOISTURE CONTENT	ATTERBERG LL	ATTERBERG PL
GS-1		80		Brown coarse and fine SAND, fine GRAVEL, and SLAG, some silt, trace clay. Moist.	17		
				-GS-1: Visual ODOT A-2-4			
			2.5				
				4.0			
GS-2		80		18" - Slag base			
			5.0	-highly contaminated with oil from 4.0-5.5 ft			
				5.5			
GS-3		80		Mottled brown, green and blue SILT, CLAY and SLAG (Fill). Moist to wet.			
				-groundwater initially encountered @ 6.0 ft			
GS-4		80	7.5	-highly contaminated with oil from 7.0-8.0 ft			
				Refusal @ 9.0 feet			
				9.0			
				Bottom of Boring = 9.0 feet			

NOTES: *Elevation is approximate

SAMPLE TYPE
SS - 2" OD Split Spoon
GS - Geoprobe Sample
ST - Shelby Tube
RC - Rock Core
AS - Auger Sample

GROUND WATER READING
At Completion ▽ Seepage Ft
After 24 Hrs ▼ N/A

BORING METHOD
HSA - Hollow Stem Augers
SFA - Solid Flight Augers
MD - Mud Drilling
WD - Wash Drilling
RC - Rock Coring

RESOURCE INTERNATIONAL, INC.
281 ENTERPRISE DRIVE
WESTERVILLE, OHIO 43081
(614) 885-1959

REPORT OF SOIL EXPLORATION

Client: GSI Architects, Incorporated
Project: Ohio Turnpike Service Plaza #7
Project Number: C-8098

Boring Number: P-12
Sheet: 1 of 1
Completion Depth: 10.0'

Date Started: 11/4/98
Date Finished: 11/4/98
Drilled By: M.B.

Station: See Boring Plan
Offset:
Elevation: 1205 ft*

Boring Method: Geoprobe
Hammer Weight: N/A
Hammer Drop: N/A

SAMPLE NO	BLOWS PER 6"	PERCENT RECOVERY	DEPTH	SOIL DESCRIPTION	MOISTURE CONTENT	ATTERBERG LL	ATTERBERG PL
GS-1		100		7" - Dark brown and black coarse to fine SANDY SILT, some clay, trace organics (topsoil). Moist. 0.6			
				Brown SILTY coarse to fine SAND, little clay, little fine gravel. Moist. 1.5 / 1.8			
GS-2		100	2.5	Brown coarse to fine SAND, little fine gravel. Moist.	10	20	15
				Brown SILTY coarse to fine SAND, little clay, little fine gravel. Moist. -GS-2: ODOT A-4a (3)			
			5.0	6.1			
GS-3		100		Brown to mottled brown and gray CLAYEY SILT, little to trace coarse to fine sand, trace fine gravel. Moist.	14		
GS-4		100	7.5				
			10.0	10.0			
				Bottom of Boring = 10.0 feet			

NOTES: *Elevation is approximate

SAMPLE TYPE
SS - 2" OD Split Spoon
GS - Geoprobe Sample
ST - Shelby Tube
RC - Rock Core
AS - Auger Sample

GROUND WATER READING
At Completion ▽ Dry Ft
After 24 Hrs ▼ N/A

BORING METHOD
HSA - Hollow Stem Augers
SFA - Solid Flight Augers
MD - Mud Drilling
WD - Wash Drilling
RC - Rock Coring

RESOURCE INTERNATIONAL, INC.
281 ENTERPRISE DRIVE
WESTERVILLE, OHIO 43081
(614) 885-1959

REPORT OF SOIL EXPLORATION

Client: GSI Architects, Incorporated
Project: Ohio Turnpike Service Plaza #7
Project Number: C-8098

Boring Number: P-13
Sheet: 1 of 1
Completion Depth: 11.0'

Date Started: 11/20/98
Date Finished: 11/20/98
Drilled By: M.B.

Station: See Boring Plan
Offset:
Elevation: 1205 ft*

Boring Method: Geoprobe
Hammer Weight: N/A
Hammer Drop: N/A

SAMPLE NO	BLOWS PER 6"	PERCENT RECOVERY	DEPTH	SOIL DESCRIPTION	MOISTURE CONTENT	ATTERBERG LL	ATTERBERG PL
				4" - Asphalt 0.3			
				10" - Concrete 1.2			
GS-1		100		7" - Sand and gravel base material 1.8			
GS-2		100		Brown SILTY fine SAND, some clay, trace fine			
GS-3		100	2.5	gravel, trace coarse sand. Moist.	13		
				-GS-3: Visual ODOT A-4a			
GS-4		100					
				-increase in fine gravel content in GS-4			
			5.0				
GS-5		100					
GS-6		100	7.5	-increase in sand content in GS-6			
				9.0			
GS-7		100		Brown to gray CLAYEY SILT, some fine sand,	17		
			10.0	trace fine gravel. Moist.			
				11.0			
				Bottom of Boring = 11.0 feet			

NOTES: *Elevation is approximate

SAMPLE TYPE
SS - 2" OD Split Spoon
GS - Geoprobe Sample
ST - Shelby Tube
RC - Rock Core
AS - Auger Sample

GROUND WATER READING
At Completion ▽ Dry Ft
After 24 Hrs ▼ N/A

BORING METHOD
HSA - Hollow Stem Augers
SFA - Solid Flight Augers
MD - Mud Drilling
WD - Wash Drilling
RC - Rock Coring

54-98-04 SOIL BORINGS
FOR REFERENANCE ONLY

APPENDIX A

SUBSURFACE INVESTIGATION REPORT

SOLAR TESTING LABORATORIES, INC.

PROJECT : Portage & Brady's Leap Sewer Connection

LOCATION: I-80, ≈STA. 292+00
Shalersville, Ohio (OTC Project #71-99-09)

BORING NO: SB-1 | **DATE** : 2-25-00

CLIENT : The Ohio Turnpike Commission | **ELEVATION:** 1203.47 | **DEPTH:** 30'

WATER ON ENCOUNTER : None
WATER ON COMPLETION: None
WATER AFTER HRS:

AUGER SIZE: Hollow Stem 2.25" I.D.
REMARK:

SAMPLE TYPE & DEPTH (ft)	SOIL DESCRIPTION	STD. PEN. (blows/6")	Wc (%)	Qu (tsf)	τ_d (pcf)	LL (%)	PI (%)
SS	FILL: Brown SILTY CLAY, some sand, trace gravel, hair roots.	5-6-10-13					
SS	FILL: Brown CLAYEY SILT, some sand, trace coal fragments.	5-13-10					
SS	FILL: Gray CLAYEY SILT, some sand, gravel.	9-9-10					
SS	FILL: Gray and red SANDY SILT, some gravel, trace asphalt fragments.	3-4-6					
SS	FILL: Gray SANDY SILT, some gravel.	2-3-4					
SS	Medium to very dense gray SILTY SAND AND GRAVEL, some shale fragments. (SM-GM)	15-21-27					
SS		8-7-8					
SS		11-11-11					
	End of hole @ 30'						

FILE NO: E99000x10
DRILLER: Adam Baer

SS: Split Spoon Sample
ST: Shelby Tube Sample
NX: Rock Core Sample
Wc: Water Content

LL: Liquid Limit
PI: Plasticity Index
Qu: Unconf. Comp. Strength
τ_d: Dry Density

SOLAR TESTING LABORATORIES, INC.

PROJECT : Portage & Brady's Leap Sewer Connection

LOCATION: I-80, ≈STA. 276+50
Shalersville, Ohio (OTC Project #71-99-09)

BORING NO: SB-2 | **DATE** : 2-28-00

CLIENT : The Ohio Turnpike Commission | **ELEVATION:** 1195.98 | **DEPTH:** 10'

WATER ON ENCOUNTER : None
WATER ON COMPLETION: None
WATER AFTER **HRS:**

AUGER SIZE: Hollow Stem 2.25" I.D.
REMARK: Tripod Equiment

SAMPLE TYPE & DEPTH (ft)	SOIL DESCRIPTION	STD. PEN. (blows/6")	Wc (%)	Qu (tsf)	τ_d (pcf)	LL (%)	PI (%)
	3" Topsoil.						
SS 1	Medium dense brown CLAYEY SILT, some sand, hairroots. (ML)	2-2-4-8					
SS 3	Medium dense gray CLAYEY SILT, some sand, sandstone fragments. (ML)	18-18-18-15					
SS 5		14-13-11-11					
SS 7		7-8-8-11					
SS 9		8-9-8-12					
10	End of hole @ 10'.						

FILE NO: E99000x10
DRILLER: Adam Baer

SS: Split Spoon Sample
ST: Shelby Tube Sample
NX: Rock Core Sample
Wc: Water Content

LL: Liquid Limit
PI: Plasticity Index
Qu: Unconf. Comp. Strength
τ_d: Dry Density

SOLAR TESTING LABORATORIES, INC.

PROJECT : Portage & Brady's Leap Sewer Connection

LOCATION: I-80, ≈STA. 245+00
Shalersville, Ohio (OTC Project #71-99-09)

BORING NO: SB-3 | **DATE** : 2-28-00

CLIENT : The Ohio Turnpike Commission | **ELEVATION:** 1179.01 | **DEPTH:** 10'

SAMPLE TYPE & DEPTH (ft)

WATER ON ENCOUNTER : None
WATER ON COMPLETION: 3'
WATER AFTER HRS:

AUGER SIZE: Hollow Stem 2.25" I.D.
REMARK: Tripod Equiment

SAMPLE TYPE & DEPTH (ft)	SOIL DESCRIPTION	STD. PEN. (blows/6")	Wc (%)	Qu (tsf)	τ_d (pcf)	LL (%)	PI (%)
	3" Topsoil.						
SS 1	Medium stiff brown CLAYEY SILT, some sand, hairroots. (ML)	2-2-4-2					
2							
SS 3	Medium to very stiff brown and gray SILTY CLAY, trace sand, gravel. (CL)	2-2-3-4					
4							
SS 5		3-8-10-13					
6							
SS 7		6-8-9-12					
8							
SS 9		8-8-10-11					
10							
	End of hole @ 10'.						
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

FILE NO: E99000x10
DRILLER: Adam Baer

SS: Split Spoon Sample
ST: Shelby Tube Sample
NX: Rock Core Sample
Wc: Water Content

LL: Liquid Limit
PI: Plasticity Index
Qu: Unconf. Comp. Strength
τ_d: Dry Density

SOLAR TESTING LABORATORIES, INC.

PROJECT : Portage & Brady's Leap Sewer Connection

LOCATION: I-80, ≈STA. 215+00
Shalersville, Ohio (OTC Project #71-99-09)

BORING NO: SB-4 | **DATE** : 2-28-00

CLIENT : The Ohio Turnpike Commission | **ELEVATION:** 1235.36 | **DEPTH:** 10'

SAMPLE TYPE & DEPTH (ft)

WATER ON ENCOUNTER : None
WATER ON COMPLETION: 3'
WATER AFTER HRS:

AUGER SIZE: Hollow Stem 2.25" I.D.
REMARK: Tripod Equiment

SAMPLE TYPE & DEPTH (ft)	SOIL DESCRIPTION	STD. PEN. (blows/6")	Wc (%)	Qu (tsf)	τ_d (pcf)	LL (%)	PI (%)
	3" Topsoil.						
SS 1	Medium stiff brown CLAYEY SILT, some sand, trace hairroots. (ML)	2-2-3-4					
SS 3	Medium to very stiff light brown CLAYEY SILT, some sand, trace gravel. (ML)	4-4-4-4					
SS 5		5-8-11-15					
SS 7		8-9-9-10					
SS 9		9-11-11-11					
10	End of hole @ 10'.						

FILE NO: E99000x10
DRILLER: Adam Baer

SS: Split Spoon Sample
ST: Shelby Tube Sample
NX: Rock Core Sample
Wc: Water Content

LL: Liquid Limit
PI: Plasticity Index
Qu: Unconf. Comp. Strength
τ_d: Dry Density

SOLAR TESTING LABORATORIES, INC.

PROJECT : Portage & Brady's Leap Sewer Connection

LOCATION: I-80. ≈STA. 171+50
Shalersville, Ohio (OTC Project #71-99-09)

BORING NO: SB-5 | **DATE** : 2-28-00

CLIENT : The Ohio Turnpike Commission | **ELEVATION:** 1214.20 | **DEPTH:** 10'

AUGER SIZE: Hollow Stem 2.25" I.D.
REMARK: Tripod Equiment

WATER ON ENCOUNTER : None
WATER ON COMPLETION: None
WATER AFTER **HRS:**

SAMPLE TYPE & DEPTH (ft)	SOIL DESCRIPTION	STD. PEN. (blows/6")	Wc (%)	Qu (tsf)	τ_d (pcf)	LL (%)	PI (%)
SS 1	4" Topsoil.	1-2-3-7					
2	Stiff gray SILTY CLAY W/SHALE FRAGMENTS, trace hairroots. (CL)						
SS 3	Medium dense brown w/trace gray CLAYEY SILT, some sand, trace shale, gravel. (ML)	6-5-5-6					
4							
SS 5		6-6-7-8					
6							
SS 7		9-9-12-14					
8							
SS 9	Medium dense light brown SILTY SAND, some sandsone fragments. (SM)	8-10-14-21					
10							
	End of hole @ 10'.						
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

FILE NO: E99000x10
DRILLER: Adam Baer

SS: Split Spoon Sample
ST: Shelby Tube Sample
NX: Rock Core Sample
Wc: Water Content

LL: Liquid Limit
PI: Plasticity Index
Qu: Unconf. Comp. Strength
τ_d: Dry Density

SOLAR TESTING LABORATORIES, INC.

PROJECT : Portage & Brady's Leap Sewer Connection

LOCATION: I-80, ≈STA. 157+50
Shalersville, Ohio (OTC Project #71-99-09)

BORING NO: SB-6 | **DATE** : 2-28-00

CLIENT : The Ohio Turnpike Commission | **ELEVATION:** 1238.51 | **DEPTH:** 10'

SAMPLE TYPE & DEPTH | **WATER ON ENCOUNTER** : None
WATER ON COMPLETION: None
WATER AFTER HRS:

AUGER SIZE: Hollow Stem 2.25" I.D.
REMARK: Tripod Equiment

(ft)	SOIL DESCRIPTION	STD. PEN. (blows/6")	Wc (%)	Qu (tsf)	τ_d (pcf)	LL (%)	PI (%)
	4" Topsoil.						
SS 1	Loose brown CLAYEY SILT, some sand, trace roots. (ML)	2-2-3-6					
2							
SS 3	Medium dense brown w/trace gray SANDY SILT, some clay, rock fragments, trace roots. (ML)	5-6-10-12					
4							
SS 5		6-8-10-12					
6							
SS 7	Very dense light brown SANDY SILT, some clay, rock fragments. (ML)	8-12-15-20					
8							
SS 9		8-14-20-22					
10							
	End of hole @ 10'.						
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

FILE NO: E99000x10
DRILLER: Adam Baer

SS: Split Spoon Sample
ST: Shelby Tube Sample
NX: Rock Core Sample
Wc: Water Content

LL: Liquid Limit
PI: Plasticity Index
Qu: Unconf. Comp. Strength
τ_d: Dry Density

SOLAR TESTING LABORATORIES, INC.

PROJECT : Portage & Brady's Leap Sewer Connection

LOCATION: S.R. 44, ≈STA. 126+75
Shalersville, Ohio (OTC Project #71-99-09)

BORING NO: SB-7 | **DATE** : 2-25-00

CLIENT : The Ohio Turnpike Commission | **ELEVATION:** 1186.20 | **DEPTH:** 10'

SAMPLE TYPE & DEPTH (ft)

WATER ON ENCOUNTER : None
WATER ON COMPLETION: None
WATER AFTER HRS:

AUGER SIZE: Hollow Stem 2.25" I.D.
REMARK:

SAMPLE TYPE & DEPTH (ft)	SOIL DESCRIPTION	STD. PEN. (blows/6")	Wc (%)	Qu (tsf)	τ_d (pcf)	LL (%)	PI (%)
SS 1–2	FILL: Brown SAND AND GRAVEL, some black cinders, trace shale fragements.	6-6-8-8					
SS 3–4	FILL: Brown and gray CLAYEY SAND, trace gravel, hairroots.	8-12-15					
SS 6–7	FILL: Brown SANDY SILT, some clay, trace gravel, sandstone fragments.	11-11-13					
SS 9–10		4-5-9					
10–20	End of hole @ 10'.						

FILE NO: E99000x10
DRILLER: Adam Baer

SS: Split Spoon Sample
ST: Shelby Tube Sample
NX: Rock Core Sample
Wc: Water Content

LL: Liquid Limit
PI: Plasticity Index
Qu: Unconf. Comp. Strength
τ_d: Dry Density

SOLAR TESTING LABORATORIES, INC.

PROJECT : Portage & Brady's Leap Sewer Connection

LOCATION: S.R. 44, ≈STA. 102+25
Shalersville, Ohio (OTC Project #71-99-09)

BORING NO: SB-8 | **DATE** : 2-25-00

CLIENT : The Ohio Turnpike Commission | **ELEVATION:** 1170.76 | **DEPTH:** 10'

AUGER SIZE: Hollow Stem 2.25" I.D.

WATER ON ENCOUNTER : None
WATER ON COMPLETION: None
WATER AFTER HRS:

REMARK:

SAMPLE TYPE & DEPTH (ft)	SOIL DESCRIPTION	STD. PEN. (blows/6")	Wc (%)	Qu (tsf)	τ_d (pcf)	LL (%)	PI (%)
SS 1–2	FILL: Brown SANDY SILT, some gravel, black cinders.	2-3-32					
SS 3–4	FILL: Brown SANDY SILT, some gravel, trace asphalt fragments.	2-2-6					
SS 6	FILL: Brown SANDY SILT, some gravel.	6-6-8					
SS 9		6-5-6					
10	End of hole @ 10'.						

FILE NO: E99000x10
DRILLER: Adam Baer

SS: Split Spoon Sample
ST: Shelby Tube Sample
NX: Rock Core Sample
Wc: Water Content

LL: Liquid Limit
PI: Plasticity Index
Qu: Unconf. Comp. Strength
τ_d: Dry Density

SOLAR TESTING LABORATORIES, INC.

PROJECT : Portage & Brady's Leap Sewer Connection

LOCATION: S.R. 44, ≃STA. 73+75
Shalersville, Ohio (OTC Project #71-99-09)

BORING NO: SB-9 | **DATE** : 2-25-00

CLIENT : The Ohio Turnpike Commission | **ELEVATION:** 1173.97 | **DEPTH:** 10'

SAMPLE TYPE & DEPTH (ft)

WATER ON ENCOUNTER : None
WATER ON COMPLETION: None
WATER AFTER HRS:

AUGER SIZE: Hollow Stem 2.25" I.D.
REMARK:

SAMPLE TYPE & DEPTH (ft)	SOIL DESCRIPTION	STD. PEN. (blows/6")	Wc (%)	Qu (tsf)	τ_d (pcf)	LL (%)	PI (%)
SS 1	FILL: Brown SANDY SILT AND GRAVEL, some black cinders, trace asphalt fragments.	3-5-6-9					
2							
3	FILL: Brown SILTY SAND, some gravel, sandstone fragments.						
SS 4		5-6-6					
5							
SS 6	FILL: Brown SANDY SILT, some gravel.	4-4-4					
7							
8							
SS 9		50/0"					
10							
11	End of hole @ 10'.						
12							
13							
14							
15							
16							
17							
18							
19							
20							

FILE NO: E99000x10
DRILLER: Adam Baer

SS: Split Spoon Sample
ST: Shelby Tube Sample
NX: Rock Core Sample
Wc: Water Content

LL: Liquid Limit
PI: Plasticity Index
Qu: Unconf. Comp. Strength
τ_d: Dry Density

SOLAR TESTING LABORATORIES, INC.

PROJECT : Portage & Brady's Leap Sewer Connection

LOCATION: S.R. 44 ≈STA. 33+50
Mantua, Ohio (OTC Project #71-99-09)

BORING NO: SB-10 | **DATE** : 2-25-00

CLIENT : The Ohio Turnpike Commission

ELEVATION: 1183.09 | **DEPTH:** 15'

AUGER SIZE: Hollow Stem 2.25" I.D.

REMARK:

WATER ON ENCOUNTER : None
WATER ON COMPLETION: None
WATER AFTER HRS:

SAMPLE TYPE & DEPTH (ft)	SOIL DESCRIPTION	STD. PEN. (blows/6")	Wc (%)	Qu (tsf)	τ_d (pcf)	LL (%)	PI (%)
SS 1	FILL: Brown SILTY SAND AND GRAVEL, some black cinders.	12-23-21-15					
2							
3	Loose gray CLAYEY SILT, some gravel, trace sand, hairroots. (ML)						
SS 4		9-5-5					
5							
SS 6	Medium dense brown w/trace gray CLAYEY SILT. (ML)	3-5-6					
7							
8							
SS 9	Stiff brown SILTY CLAY, some sand. (CL)	3-5-8					
10							
11	Very loose gray CLAYEY SILT, some sand. (ML)						
12							
13							
SS 14		2-2-2					
15							
16	End of hole @ 15'.						
17							
18							
19							
20							

FILE NO: E99000x10
DRILLER: Adam Baer

SS: Split Spoon Sample
ST: Shelby Tube Sample
NX: Rock Core Sample
Wc: Water Content

LL: Liquid Limit
PI: Plasticity Index
Qu: Unconf. Comp. Strength
τ_d: Dry Density

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			GROUP SYMBOLS	TYPICAL NAMES
COARSE GRAINED SOILS	GRAVELS	CLEAN GRAVELS	GW	Well-graded gravels and gravel sand mixtures, little or no fines
			GP	Poorly-graded gravels and gravel-sand mixtures, little or no fines
		GRAVELS WITH FINES	GM	Silty gravels, gravel sand-silt mixtures
			GC	Clayey gravels, gravel-sand clay mixtures
	SANDS	CLEAN SAND	SW	Well-graded sands and gravelly sands, little or no fines
			SP	Poorly-graded sands and gravelly sands, little or no fines
		SAND WITH FINES	SM	Silty sands, and-silt mixtures
			SC	Clayey sand, sand-clay mixtures
FINE GRAINED SOILS	SILTS AND CLAYS LL < 50		ML	Inorganic silts, very fine sands, rock flour, silty or clayey fine sands
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sand clays, silty clays, lean clays
			OL	Organic silts and organic silty clays of low plasticity
	SILTS AND CLAYS LL > 50		MH	Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts
			CH	Inorganic clays of high plasticity, fat clays
			OH	Organic clays of medium to high plasticity
HIGHLY ORGANIC SOILS			PT	Peat, muck and other highly organic soils

COMPONENT		SIZE
BOULDERS		Larger than 8"
COBBLES		8" to 3"
GRAVEL	COARSE	3" to 3/4"
	FINE	3/4" to 2.0 mm (3/4" to #10 sieve)
SAND	COARSE	2.0 mm to 0.42 mm (#10 to #40 sieve)
	FINE	0.42 mm to 0.074 mm (#40 to #200 sieve)
SILT		0.074 mm to 0.005 mm (#200 to .005 mm)
CLAY		Smaller than .002 mm

TERMS	RANGE
Trace	0 - 10%
Little	10 - 20%
Some	20 - 35%
And	35 - 50%

OHIO TURNPIKE COMMISSION

THE JAMES W. SHOCKNESSY OHIO TURNPIKE

CONTRACT 77-96-05
3 RD. LANE CONSTRUCTION
MP. 193.38 TO MP. 199.05

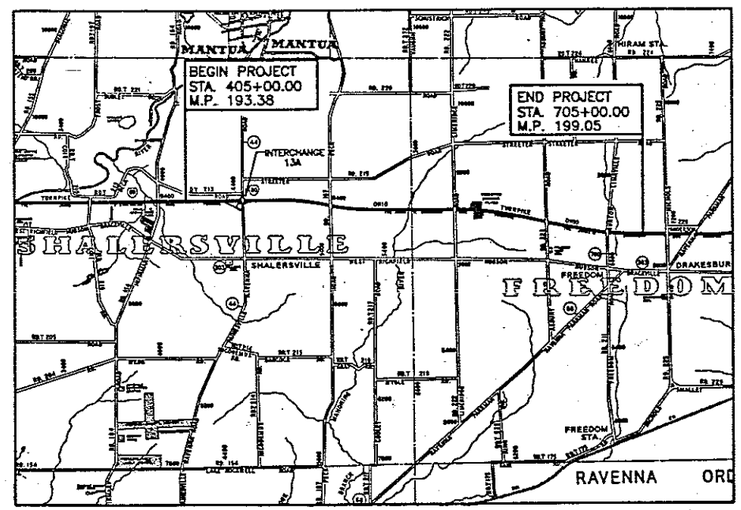
STATION 405+00 TO STATION 705+00 PORTAGE COUNTY

INDEX OF SHEETS

FIBER OPTIC CABLE DRAWINGS

LCI COMMUNICATIONS CORP. 1, 2, 9-18, 56-66

SUPPLEMENTAL SPECIFICATIONS	
802 3-23-95	



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APPROVED FOR
THE OHIO TURNPIKE COMMISSION
BY
CHIEF ENGINEER
1/18/96
DATE

RECOMMENDED FOR APPROVAL
BY
URS CONSULTANTS, INC.
REVIEW CONSULTANT
1-16-96
DATE

OHIO DEPARTMENT OF TRANSPORTATION STANDARD DRAWINGS

BP-2.1	10/28/92
BP-2.2	10/28/92
BP-3.1	02/21/92
F-2	05/01/76
F-5	05/01/76
GR-1.1	05/06/91
GR-1.2	10/30/92
GR-2.1	05/06/91
MC-1	06/13/69
MC-9.1	10/30/92
MC-9.3	10/30/92
MC-9.4	10/30/92
HW-4B	04/01/80

I-3A & B	04/01/80
MH-3	12/18/94
MC-4	07/26/76
MC-11	08/01/78
HL-20.11	05/01/87
HL-30.11	05/01/87
HL-30.21	05/01/87
HL-30.22	05/01/87
HL-60.11	05/01/87

TC-7.65	03/01/79
TC-12.30	01/20/84
TC-21.10	09/01/92
TC-21.40	09/01/92
TC-22.10	09/01/92
TC-22.20	09/01/92
TC-31.21	09/01/92
TC-32.10	09/01/92
TC-32.11	09/01/92
TC-41.40	06/18/79
TC-42.10	08/19/77
TC-42.20	03/26/79

TC-51.11	09/30/94
TC-51.12	01/03/94
TC-52.10	04/03/79
TC-52.20	04/03/79
TC-41.20	03/26/79
M T-105.11	07/01/92
MC-9.2	05/06/91
MH-1	12/18/84
HL-10.13	05/01/87

2 WORKING DAYS
BEFORE YOU DIG
Call...800-362-2764 (Toll Free)
OHIO UTILITIES PROTECTION SERVICE
CALL JAYTEL - (419) 884-0400
(LCI FIBER OPTIC CABLE)
OHIO TURNPIKE DIVISION SUPERINTENDANT
(419) 862-2922
(ROADWAY LIGHTING CABLE)

SCALES

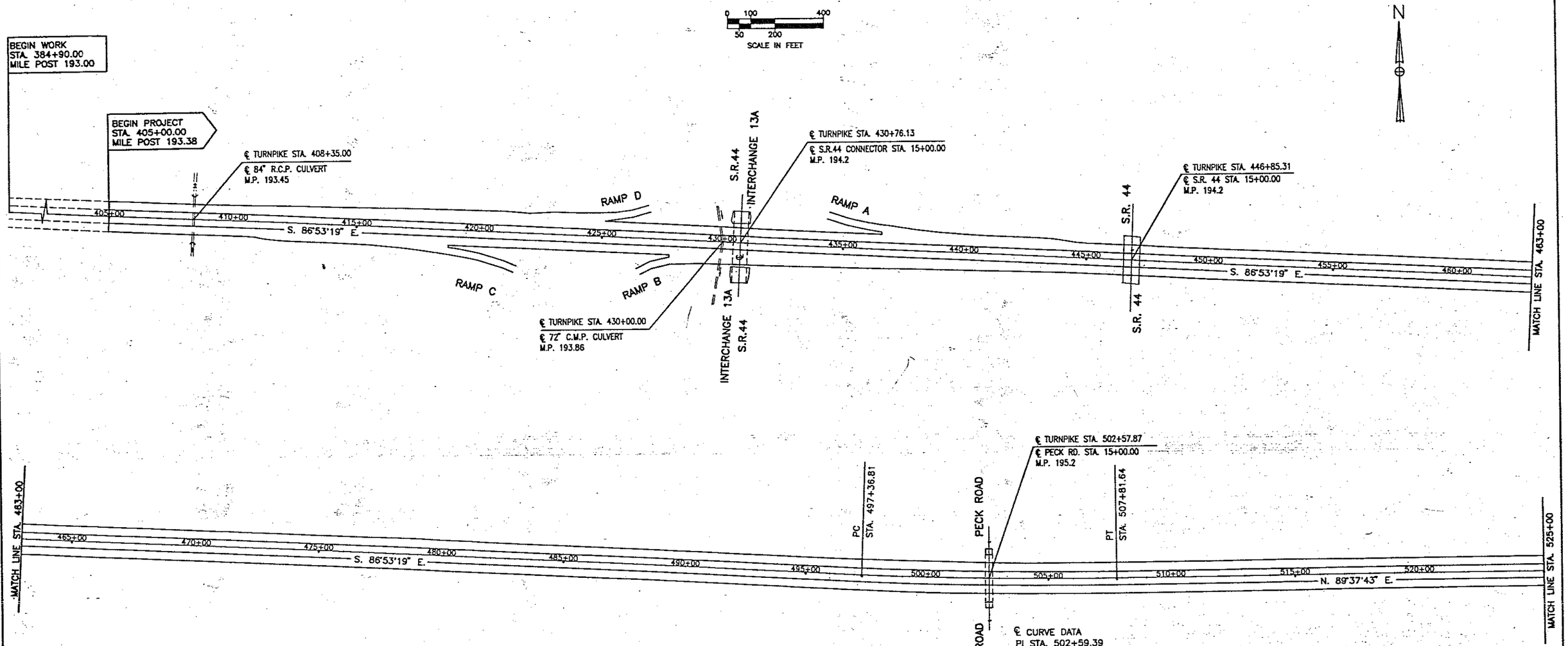
PLAN 0 50
PROFILE HORIZONTAL 0 50 VERTICAL 0 5
CROSS SECTIONS HORIZONTAL 0 10 VERTICAL 0 10

STATE OF OHIO
JOHN E. ALEXANDROU
E-43788
REGISTERED
PROFESSIONAL ENGINEER

PLAN PREPARED BY
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGN CONTRACT NO. 71-95-17

SCHEMATIC PLAN



MONUMENTS TO BE SET DURING CONSTRUCTION AT A TOLERANCE OF ±0.02 FT.			
LOCATION	EA.	LOCATION	EA.
P.O.T. STA. 405+00.00, 5'RT.	1	P.O.T. STA. 495+00.00, 5'RT.	1
P.O.T. STA. 415+00.00, 5'RT.	1	P.C. STA. 497+36.81, 5'RT.	1
P.O.T. STA. 425+00.00, 5'RT.	1	P.O.C. STA. 505+00.00, 5'RT.	1
P.O.T. STA. 435+00.00, 5'RT.	1	P.T. STA. 507+81.64, 5'RT.	1
P.O.T. STA. 445+00.00, 5'RT.	1	P.O.T. STA. 515+00.00, 5'RT.	1
P.O.T. STA. 455+00.00, 5'RT.	1	P.O.T. STA. 525+00.00, 5'RT.	1
P.O.T. STA. 465+00.00, 5'RT.	1		
P.O.T. STA. 475+00.00, 5'RT.	1		
P.O.T. STA. 485+00.00, 5'RT.	1		
		MONUMENT ASSEMBLY	
		SUB-TOTAL #1	15

℄ CURVE DATA
PI STA. 502+59.39
Δ = 03°28'58" LT.
Dc = 00°20'00"
R = 17,188.73'
T = 522.58'
L = 1,044.83'
E = 7.94'
eMAX = 0.0156/FT.
PC STA. 497+36.81
PT STA. 507+81.64

NOTE:
CENTERLINE INFORMATION IS "AS BUILT"
FROM ORIGINAL CONSTRUCTION DRAWINGS.

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

SCHEMATIC PLAN

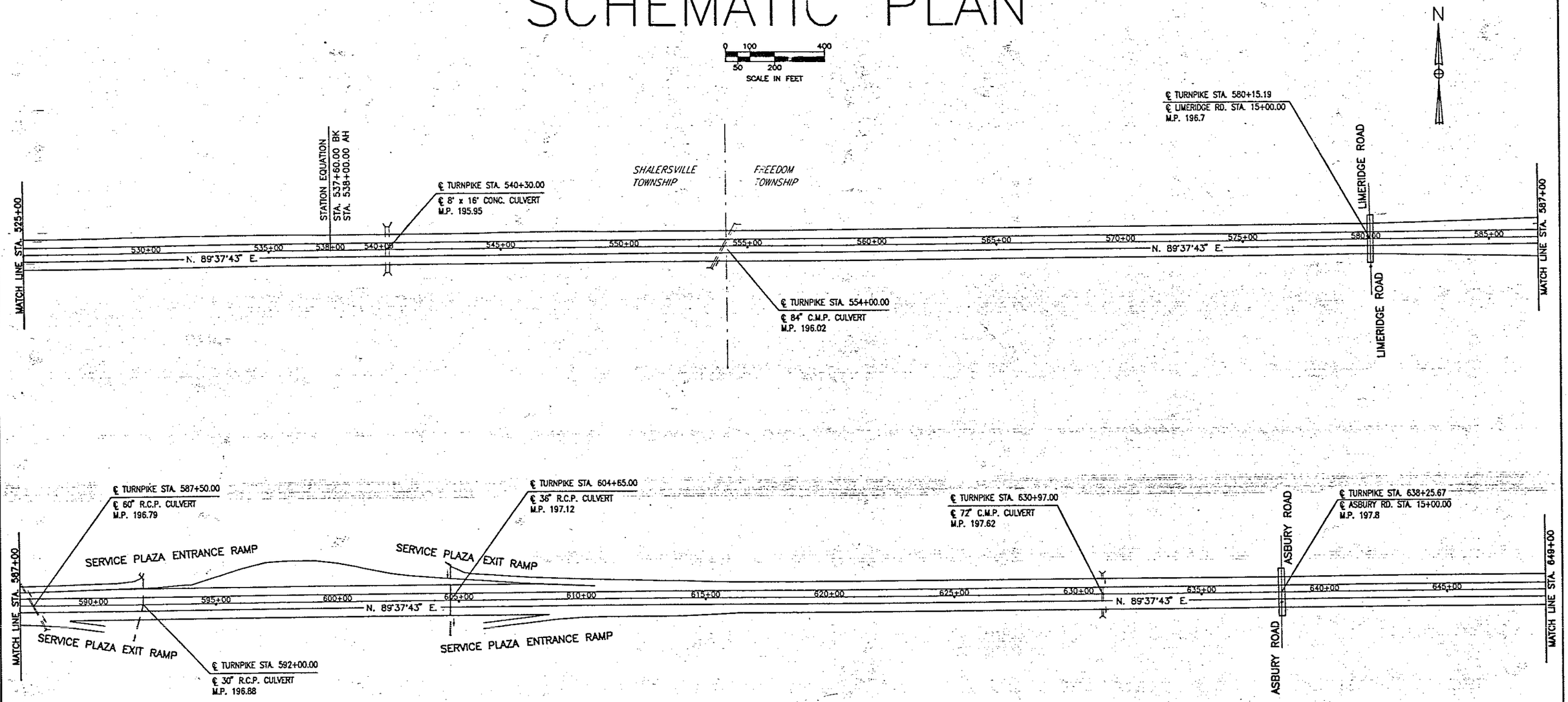
CT Consultants, Inc.
Engineers • Architects • Planners
Willoughby • Akron • Columbus • North Canton • Youngstown

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95
DRAWN: TJS	IN CHARGE: JEA	SCALE: 1"=200'

CONTRACT 77-96-05 SHEET 2 OF 196

77960502.DWG

SCHEMATIC PLAN



MONUMENTS TO BE SET DURING CONSTRUCTION AT A TOLERANCE OF ±0.02 FT.			
LOCATION	EA.	LOCATION	EA.
P.O.T. STA. 535+00.00, 5'RT.	1	P.O.T. STA. 615+00.00, 5'RT.	1
P.O.T. STA. 545+00.00, 5'RT.	1	P.O.T. STA. 625+00.00, 5'RT.	1
P.O.T. STA. 555+00.00, 5'RT.	1	P.O.T. STA. 635+00.00, 5'RT.	1
P.O.T. STA. 565+00.00, 5'RT.	1	P.O.T. STA. 645+00.00, 5'RT.	1
P.O.T. STA. 575+00.00, 5'RT.	1		
P.O.T. STA. 585+00.00, 5'RT.	1		
P.O.T. STA. 595+00.00, 5'RT.	1		
P.O.T. STA. 605+00.00, 5'RT.	1		
		MONUMENT ASSEMBLY	
		SUB-TOTAL #2	12

NOTE:
CENTERLINE INFORMATION IS "AS BUILT"
FROM ORIGINAL CONSTRUCTION DRAWINGS.

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

SCHEMATIC PLAN

CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WOB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: TJS	IN CHARGE: JEA	SCALE: 1"=200'	

CONTRACT 77-96-05 SHEET 3 OF 196

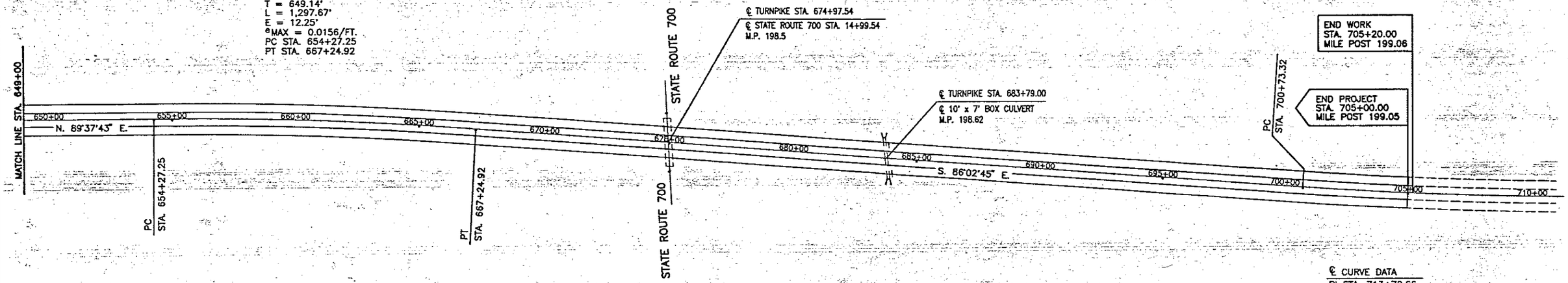
77960503.DWG

SCHEMATIC PLAN

0 100 400
50 200
SCALE IN FEET

N

℄ CURVE DATA
PI STA. 660+76.39
Δ = 04°19'32" RT.
Dc = 00°20'00"
R = 17,188.73'
T = 649.14'
L = 1,297.67'
E = 12.25'
e_{MAX} = 0.0156/FT.
PC STA. 654+27.25
PT STA. 667+24.92



℄ CURVE DATA
PI STA. 713+72.66
Δ = 08°38'45" LT.
Dc = 00°20'00"
R = 17,188.73'
T = 1299.34'
L = 2,593.75'
E = 49.04'
e_{MAX} = 0.0156/FT.
PC STA. 700+73.32
PT STA. 726+67.07

MONUMENTS TO BE SET DURING CONSTRUCTION AT A TOLERANCE OF ±0.02 FT.			
LOCATION	EA.	LOCATION	EA.
P.C. STA. 654+06.62, 5'RT.	1	P.O.T. STA. 685+00.00, 5'RT.	1
P.O.C. STA. 655+00.00, 5'RT.	1	P.O.T. STA. 695+00.00, 5'RT.	1
P.O.C. STA. 665+00.00, 5'RT.	1	P.C. STA. 700+73.32, 5'RT.	1
P.T. STA. 667+04.29, 5'RT.	1	P.O.C. STA. 705+00.00, 5'RT.	1
P.O.T. STA. 675+00.00, 5'RT.	1		
		MONUMENT ASSEMBLY	
		SUB–TOTAL #3	9

ITEM 604 – MONUMENT ASSEMBLY	
	EA.
MONUMENT ASSEMBLY SUB–TOTAL #1	15
MONUMENT ASSEMBLY SUB–TOTAL #2	12
MONUMENT ASSEMBLY SUB–TOTAL #3	9
GRAND TOTAL MONUMENT ASSEMBLY	36

THE MONUMENT ASSEMBLY GRAND TOTAL QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY SHEET

NOTE:
CENTERLINE INFORMATION IS "AS BUILT" FROM ORIGINAL CONSTRUCTION DRAWINGS.

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

SCHEMATIC PLAN

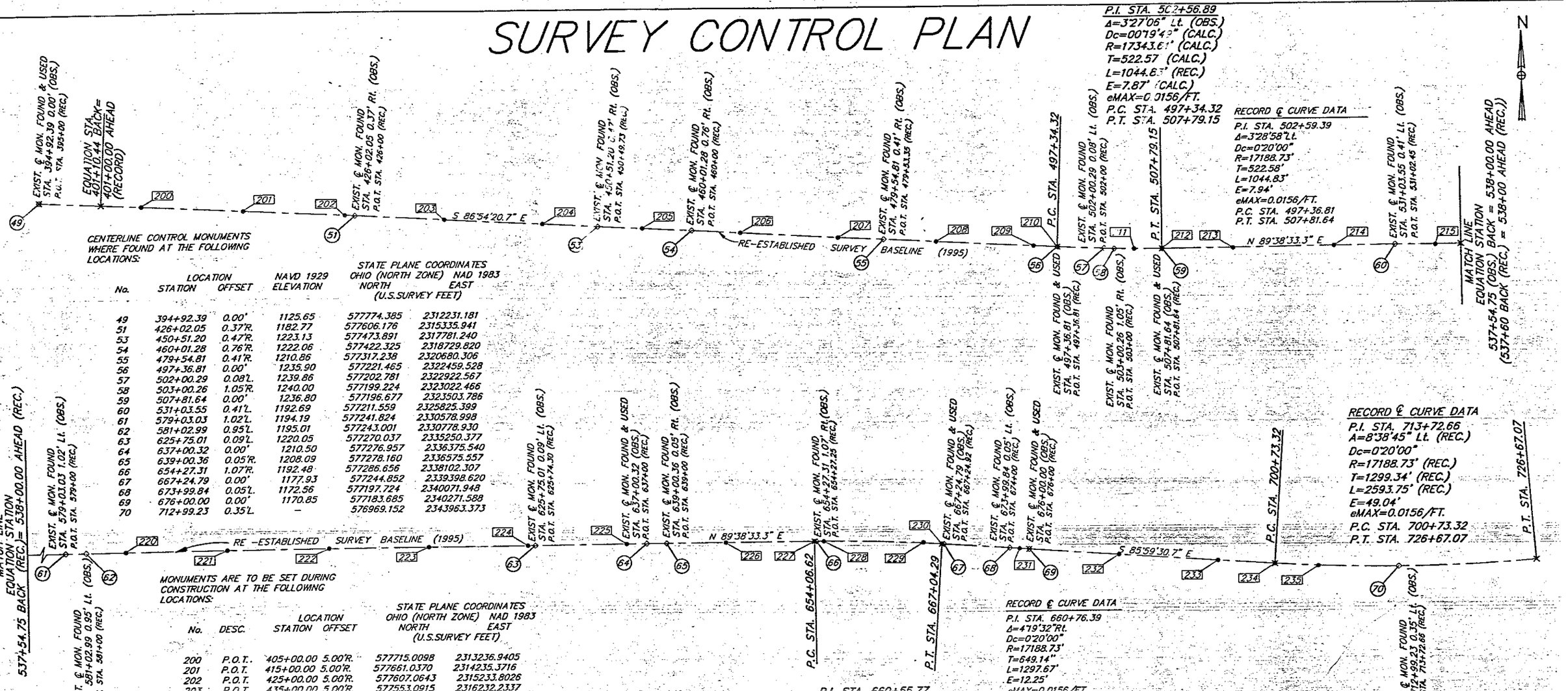
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95
DRAWN: TJS	IN CHARGE: JEA	SCALE: 1"=200'

CONTRACT 77-96-05 SHEET 4 OF 196

77960504.DWG

SURVEY CONTROL PLAN



CENTERLINE CONTROL MONUMENTS WHERE FOUND AT THE FOLLOWING LOCATIONS:

No.	LOCATION STATION	LOCATION OFFSET	NAVD 1929 ELEVATION	STATE PLANE COORDINATES OHIO (NORTH ZONE) NAD 1983 NORTH (U.S.SURVEY FEET)	EAST (U.S.SURVEY FEET)
49	394+92.39	0.00'	1125.65	577774.385	2312231.181
51	426+02.05	0.37'R.	1182.77	577606.176	2315335.941
53	450+51.20	0.47'R.	1223.13	577473.891	2317781.240
54	460+01.28	0.76'R.	1222.06	577422.325	2318729.820
55	479+54.81	0.41'R.	1210.86	577317.238	2320680.306
56	497+36.81	0.00'	1235.90	577221.465	2322459.528
57	502+00.29	0.08'L.	1239.86	577202.781	2322922.567
58	503+00.26	1.05'R.	1240.00	577199.224	2323022.466
59	507+81.64	0.00'	1236.80	577196.677	2323503.786
60	531+03.55	0.41'L.	1192.69	577211.559	2325825.399
61	579+03.03	1.02'L.	1194.19	577241.824	2330578.998
62	581+02.99	0.95'L.	1195.01	577243.001	2330778.930
63	625+75.01	0.09'L.	1220.05	577270.037	2335250.377
64	637+00.32	0.00'	1210.50	577276.957	2336375.540
65	639+00.36	0.05'R.	1208.09	577278.160	2336575.557
66	654+27.31	1.07'R.	1192.48	577286.656	2338102.307
67	667+24.79	0.00'	1177.93	577244.852	2339398.620
68	673+99.84	0.05'L.	1172.56	577197.724	2340071.948
69	676+00.00	0.00'	1170.85	577183.685	2340271.588
70	712+99.23	0.35'L.	–	576969.152	2343963.373

MONUMENTS ARE TO BE SET DURING CONSTRUCTION AT THE FOLLOWING LOCATIONS:

No.	DESC.	LOCATION STATION	LOCATION OFFSET	STATE PLANE COORDINATES OHIO (NORTH ZONE) NAD 1983 NORTH (U.S.SURVEY FEET)	EAST (U.S.SURVEY FEET)
200	P.O.T.	405+00.00	5.00'R.	577715.0098	2313236.9405
201	P.O.T.	415+00.00	5.00'R.	577661.0370	2314235.3716
202	P.O.T.	425+00.00	5.00'R.	577607.0643	2315233.8026
203	P.O.T.	435+00.00	5.00'R.	577553.0915	2316232.2337
204	P.O.T.	445+00.00	5.00'R.	577499.1187	2317230.6647
205	P.O.T.	455+00.00	5.00'R.	577445.1459	2318229.0958
206	P.O.T.	465+00.00	5.00'R.	577391.1731	2319227.5268
207	P.O.T.	475+00.00	5.00'R.	577337.2003	2320225.9579
208	P.O.T.	485+00.00	5.00'R.	577283.2275	2321224.3889
209	P.O.T.	495+00.00	5.00'R.	577229.2547	2322222.8200
210	P.C.	497+34.32	5.00'R.	577216.6078	2322456.7724
211	P.O.C.	505+00.00	5.00'R.	577192.1608	2323222.1354
212	P.T.	507+79.15	5.00'R.	577191.6556	2323501.3314
213	P.O.T.	515+00.00	5.00'R.	577196.1517	2324222.0872
214	P.O.T.	525+00.00	5.00'R.	577202.3889	2325221.9565
215	P.O.T.	535+00.00	5.00'R.	577208.6260	2326221.8259
216	P.O.T.	545+00.00	5.00'R.	577214.5810	2327176.4511
217	P.O.T.	555+00.00	5.00'R.	577220.8182	2328176.3205
218	P.O.T.	565+00.00	5.00'R.	577227.0553	2329176.1898
219	P.O.T.	575+00.00	5.00'R.	577233.2925	2330176.0592
220	P.O.T.	585+00.00	5.00'R.	577239.5297	2331175.9286
221	P.O.T.	595+00.00	5.00'R.	577245.7669	2332175.7979
222	P.O.T.	605+00.00	5.00'R.	577252.0040	2333175.6673
223	P.O.T.	615+00.00	5.00'R.	577258.2412	2334175.5366
224	P.O.T.	625+00.00	5.00'R.	577264.4784	2335175.4060
225	P.O.T.	635+00.00	5.00'R.	577270.7156	2336175.2753
226	P.O.T.	645+00.00	5.00'R.	577276.9527	2337175.1447
227	P.C.	654+06.62	5.00'R.	577282.6075	2338081.6463
228	P.O.C.	655+00.00	5.00'R.	577282.9339	2338174.9878
229	P.O.C.	665+00.00	5.00'R.	577254.3506	2339174.0306
230	P.T.	667+04.29	5.00'R.	577241.2989	2339377.8192
231	P.O.T.	675+00.00	5.00'R.	577185.6863	2340171.4947
232	P.O.T.	685+00.00	5.00'R.	577115.7957	2341168.9379
233	P.O.T.	695+00.00	5.00'R.	577045.9051	2342166.3811
234	P.C.	700+73.32	5.00'R.	577005.8354	2342738.2353
235	P.O.C.	705+00.00	5.00'R.	576981.2924	2343164.2746

LEGEND

◇ EXISTING ℄ MONUMENT FOUND

• ℄ MONUMENT TO BE SET

I HEREBY CERTIFY THAT THIS PLAT IS A TRUE DELINEATION OF A SURVEY MADE FOR THE OHIO TURNPIKE COMMISSION IN 1995, BY CT CONSULTANTS, INC.

BY Richard J. Bilski
RICHARD J. BILSKI

SURVEYOR NO. 5299 DATE 1-02-96

STATE OF OHIO · RICHARD BILSKI 5244 · REGISTERED SURVEYOR

NO.	REVISIONS	BY	D

OHIO TURNPIKE COMMISSIO

SURVEY CONTROL PLAN
STA.405+00 TO STA.705+0

CT Consultants, Inc.
Engineers · Architects · Planners

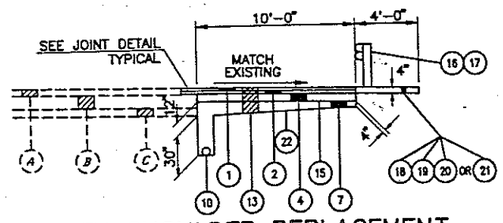
DESIGNED: RJB	CHECKED: TPH	DATE: 12-01	
DRAWN: JL	IN CHARGE: JEA	SCALE: 1"=50	

CONTRACT 77-96-05 SHEET 5 OF 1

7796005E7.DWG.

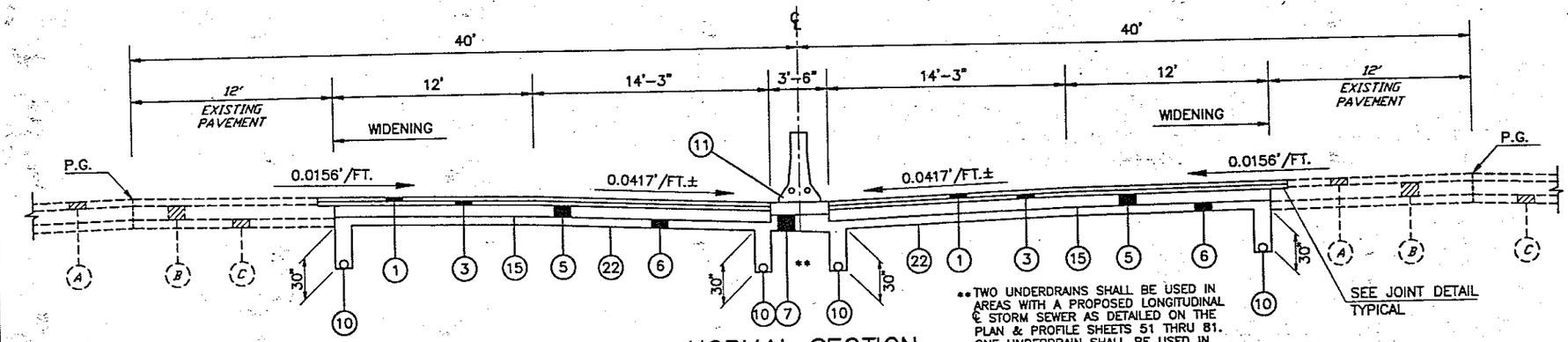
TYPICAL SECTIONS

SCALE IN FEET



FULL DEPTH SHOULDER REPLACEMENT

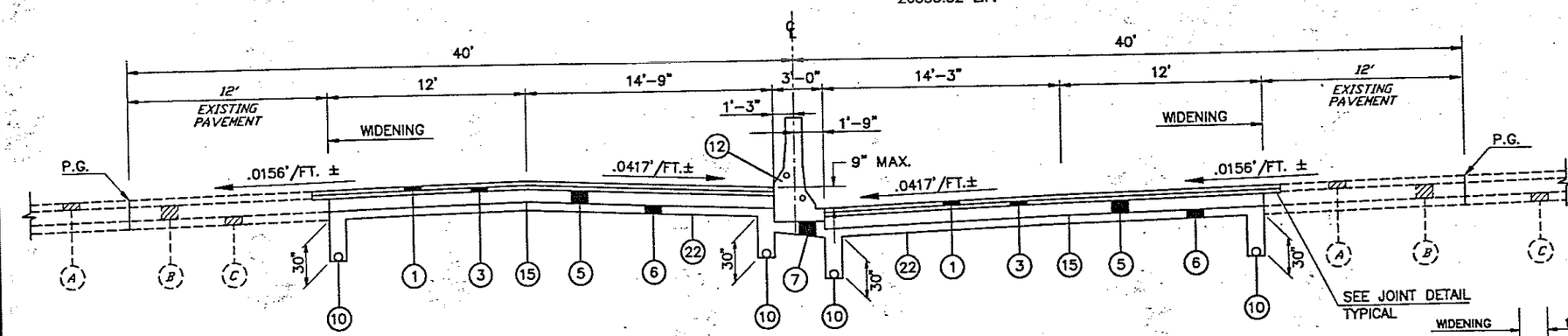
STA. 385+00.00 TO STA. 428+55.00, LT.
STA. 387+00.00 TO STA. 412+00.00, RT.
STA. 424+80.00 TO STA. 466+30.00, RT.
STA. 443+65.00 TO STA. 469+65.00, LT.
STA. 556+00.00 TO STA. 591+80.00, LT.
STA. 556+00.00 TO STA. 582+00.00, RT.
STA. 605+65.00 TO STA. 642+00.00, RT.
STA. 615+00.00 TO STA. 642+00.00, LT.



** TWO UNDERDRAINS SHALL BE USED IN AREAS WITH A PROPOSED LONGITUDINAL ℄ STORM SEWER AS DETAILED ON THE PLAN & PROFILE SHEETS 51 THRU 81. ONE UNDERDRAIN SHALL BE USED IN ALL OTHER AREAS.

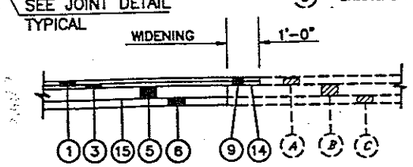
NORMAL SECTION

STA. 405+00.00 TO STA. 495+61.81 = 9061.81 L.F.
STA. 509+56.64 TO STA. 652+52.25 = 14295.61 L.F.
STA. 668+992.92 TO STA. 698+98.32 = 2998.40 L.F.
26355.82 L.F.

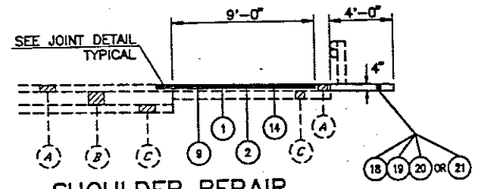


SUPERELEVATED SECTION

STA. 495+61.81 TO STA. 498+36.81 SUPERELEVATION TRANSITION = 275.00 L.F.
STA. 498+36.81 TO STA. 506+81.64 FULL SUPERELEVATION = 6244.83 L.F. (CURVE LEFT)
STA. 506+81.64 TO STA. 509+56.64 SUPERELEVATION TRANSITION = 275.00 L.F.
STA. 652+52.25 TO STA. 655+27.25 SUPERELEVATION TRANSITION = 275.00 L.F.
STA. 655+27.25 TO STA. 666+24.92 FULL SUPERELEVATION = 1097.67 L.F. (CURVE RIGHT)
STA. 666+24.92 TO STA. 668+99.92 SUPERELEVATION TRANSITION = 275.00 L.F.
STA. 698+98.32 TO STA. 701+73.32 SUPERELEVATION TRANSITION = 275.00 L.F.
STA. 701+73.32 TO STA. 705+00.00 FULL SUPERELEVATION = 326.68 L.F. (CURVE LEFT)
9044.18 L.F.



JOINT DETAIL



SHOULDER REPAIR

STA. 418+75.00 TO STA. 427+80.00, RT.
STA. 425+55.00 TO STA. 436+60.00, LT.
STA. 466+30.00 TO STA. 537+60.00, RT.
STA. 538+00.00 TO STA. 556+00.00, LT.
STA. 538+00.00 TO STA. 556+00.00, RT.
STA. 589+05.00 TO STA. 608+00.00, RT.
STA. 591+65.00 TO STA. 608+00.00, LT.
STA. 642+00.00 TO STA. 705+00.00, LT.
STA. 642+00.00 TO STA. 705+00.00, RT.

LEGEND

1. ITEM SP 404 – 1¼" ASPHALT CONCRETE SURFACE COURSE, USING CRUSHED SLAG
   ALTERNATE 1 SP 404 – ASPHALT CONCRETE SURFACE COURSE, USING CRUSHED STONE
2. ITEM SP 402 – 1¾" ASPHALT CONCRETE BASE COURSE OR RECYCLED ASPHALT BASE COURSE
3. ITEM SP 402 – 3¾" ASPHALT CONCRETE BASE COURSE OR RECYCLED ASPHALT BASE COURSE
4. ITEM SP 302 – 6" BITUMINOUS AGGREGATE BASE
5. ITEM SP 302 – 10" BITUMINOUS AGGREGATE BASE
6. ITEM SP 304 – 6" AGGREGATE BASE
7. ITEM SP 304 – AGGREGATE BASE (8" AVG. THICKNESS)
8. ITEM SP 304 – AGGREGATE BASE (15" AVG. THICKNESS)
9. ITEM 254 – PAVEMENT PLANING, BITUMINOUS (3" THICKNESS)
10. ITEM 605 – 6" SHALLOW PIPE UNDERDRAIN, 707.15 WITH FABRIC WRAP
11. ITEM 622 – CONCRETE BARRIER, TYPE B50, AS PER PLAN
12. ITEM 622 – CONCRETE BARRIER, TYPE C50, AS PER PLAN
13. ITEM 203 – EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION (17" AVG. DEPTH)
14. ITEM SP 407 – TACK COAT
15. ITEM SP 408 – PRIME COAT
16. ITEM 202 – GUARDRAIL REMOVED FOR REUSE
17. ITEM SP 606 – GUARDRAIL REBUILT, TYPE 5
18. ITEM SP 617 – SHOULDER PREPARATION
19. ITEM SP 617 – COMPACTED AGGREGATE
20. ITEM SP 617 – WATER
21. ITEM SP 627 – STONE SHOULDER PROTECTION
22. ITEM 203 – SUBGRADE COMPACTION

(A) *EXISTING 5" ASPHALT CONCRETE*
(B) *EXISTING 10" CONCRETE BASE*
(C) *EXISTING 6" AGGREGATE BASE*

NO.	REVISIONS	BY	DAT

OHIO TURNPIKE COMMISSION

TYPICAL SECTIONS

CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 09-01-9
DRAWN: TJS	IN CHARGE: JEA	SCALE: 1"=4'

CONTRACT 77-96-05 SHEET 6 OF 19

71951705.DWG

PAVEMENT AND SHOULDER ELEVATION TABLE

EXISTING PAVEMENT EDGE 28' LT.	PROPOSED PAVEMENT EDGE 16' LT.	PROPOSED SHOULDER EDGE 1.75' LT.	STATION LOCATION	PROPOSED SHOULDER EDGE 1.75' RT.	PROPOSED PAVEMENT EDGE 16' RT.	EXISTING PAVEMENT EDGE 28' RT.
1148.87	1148.68	1148.08	405+00.00	1148.08	1148.67	1148.86
1150.53	1150.34	1149.75	406+00.00	1149.75	1150.48	1150.67
1152.37	1152.18	1151.59	407+00.00	1151.59	1152.27	1152.46
1154.07	1153.88	1153.29	408+00.00	1153.29	1153.89	1154.08
1155.87	1155.68	1155.09	409+00.00	1155.09	1155.72	1155.91
1157.73	1157.54	1156.95	410+00.00	1157.54	1157.55	1157.74
1159.57	1159.38	1158.79	411+00.00	1158.79	1159.42	1159.61
1161.40	1161.21	1160.60	412+00.00	1160.60	1161.19	1161.38
1163.15	1162.96	1162.37	413+00.00	1162.37	1162.96	1163.15
1164.99	1164.80	1164.16	414+00.00	1164.16	1164.75	1164.94
1166.60	1166.41	1165.82	415+00.00	1165.82	1166.61	1166.80
1168.62	1168.43	1167.84	416+00.00	1167.84	1168.44	1168.63
1170.33	1170.14	1169.55	417+00.00	1169.55	1170.18	1170.37
1172.17	1171.98	1171.38	418+00.00	1171.38	1171.97	1172.16
1173.98	1173.79	1173.18	419+00.00	1173.18	1173.77	1173.96
1175.72	1175.53	1174.91	420+00.00	1174.91	1175.50	1175.69
1177.51	1177.32	1176.73	421+00.00	1176.73	1177.33	1177.52
1179.33	1179.14	1178.55	422+00.00	1178.55	1179.18	1179.37
1181.13	1180.94	1180.35	423+00.00	1180.35	1180.94	1181.13
1182.91	1182.72	1182.13	424+00.00	1182.13	1182.78	1182.97
1184.70	1184.51	1183.92	425+00.00	1183.92	1184.62	1184.81
1186.60	1186.41	1185.76	426+00.00	1185.76	1186.35	1186.54
1188.43	1188.24	1187.54	427+00.00	1187.54	1188.13	1188.32
1190.09	1189.90	1189.31	428+00.00	1189.31	1189.91	1190.10
1191.86	1191.67	1191.08	429+00.00	1191.08	1191.76	1191.95
1193.81	1193.62	1193.01	430+00.00	1193.01	1193.60	1193.79
1195.51	1195.32	1194.69	431+00.00	1194.69	1195.28	1195.47
1197.28	1197.09	1196.50	432+00.00	1196.50	1197.14	1197.33
1199.20	1199.01	1198.38	433+00.00	1198.38	1198.97	1199.16
1201.04	1200.85	1200.22	434+00.00	1200.22	1200.81	1201.00
1202.85	1202.66	1201.79	435+00.00	1201.79	1202.38	1202.57
1204.71	1204.52	1203.69	436+00.00	1203.69	1204.28	1204.47
1206.52	1206.33	1205.56	437+00.00	1205.56	1206.15	1206.34
1208.28	1208.09	1207.41	438+00.00	1207.41	1208.00	1208.19
1210.00	1209.81	1209.22	439+00.00	1209.22	1209.87	1210.06
1211.84	1211.65	1211.06	440+00.00	1211.06	1211.65	1211.84
1213.70	1213.51	1212.87	441+00.00	1212.87	1213.46	1213.65
1215.43	1215.24	1214.65	442+00.00	1214.65	1215.26	1215.45
1217.24	1217.05	1216.41	443+00.00	1216.41	1217.00	1217.19
1219.05	1218.86	1218.26	444+00.00	1218.26	1218.85	1219.04
1220.84	1220.65	1219.91	445+00.00	1219.91	1220.50	1220.69

EXISTING PAVEMENT EDGE 28' LT.	PROPOSED PAVEMENT EDGE 16' LT.	PROPOSED SHOULDER EDGE 1.75' LT.	STATION LOCATION	PROPOSED SHOULDER EDGE 1.75' RT.	PROPOSED PAVEMENT EDGE 16' RT.	EXISTING PAVEMENT EDGE 28' RT.
1222.51	1222.32	1221.65	446+00.00	1221.65	1222.24	1222.43
1224.15	1223.96	1223.23	447+00.00	1223.23	1223.82	1224.01
1225.42	1225.23	1224.50	448+00.00	1224.50	1225.09	1225.28
1226.54	1226.35	1225.61	449+00.00	1225.61	1226.20	1226.39
1227.42	1227.23	1226.64	450+00.00	1226.64	1227.26	1227.45
1228.19	1228.00	1227.36	451+00.00	1227.36	1227.95	1228.14
1228.85	1228.66	1228.07	452+00.00	1228.07	1228.70	1228.89
1229.26	1229.07	1228.48	453+00.00	1228.48	1229.10	1229.29
1229.50	1229.31	1228.72	454+00.00	1228.72	1229.31	1229.50
1229.56	1229.37	1228.69	455+00.00	1228.69	1229.28	1229.47
1229.43	1229.24	1228.65	456+00.00	1228.65	1229.27	1229.46
1229.11	1228.92	1228.22	457+00.00	1228.22	1228.81	1229.06
1228.50	1228.31	1227.64	458+00.00	1227.64	1228.23	1228.42
1227.72	1227.53	1226.94	459+00.00	1226.94	1227.56	1227.75
1226.95	1226.76	1226.14	460+00.00	1226.14	1226.73	1226.92
1226.13	1225.94	1225.31	461+00.00	1225.31	1225.90	1226.09
1225.36	1225.17	1224.58	462+00.00	1224.58	1225.19	1225.38
1224.41	1224.22	1223.63	463+00.00	1223.63	1224.33	1224.52
1223.69	1223.50	1222.91	464+00.00	1222.91	1223.53	1223.72
1222.85	1222.66	1222.07	465+00.00	1222.07	1222.71	1222.90
1222.07	1221.88	1221.29	466+00.00	1221.29	1222.01	1222.20
1221.24	1221.05	1220.41	467+00.00	1220.41	1221.00	1221.19
1220.56	1220.37	1219.78	468+00.00	1219.78	1220.42	1220.61
1219.65	1219.46	1218.87	469+00.00	1218.87	1219.66	1219.85
1219.02	1218.83	1218.24	470+00.00	1218.24	1218.87	1219.06
1218.19	1218.00	1217.34	471+00.00	1217.34	1217.93	1218.12
1217.48	1217.29	1216.70	472+00.00	1216.70	1217.32	1217.51
1216.72	1216.53	1215.94	473+00.00	1215.94	1216.54	1216.73
1215.88	1215.69	1215.10	474+00.00	1215.10	1215.74	1215.93
1215.11	1214.92	1214.31	475+00.00	1214.31	1214.90	1215.09
1214.57	1214.38	1213.78	476+00.00	1213.78	1214.37	1214.56
1214.39	1214.20	1213.55	477+00.00	1213.55	1214.14	1214.33
1214.53	1214.34	1213.69	478+00.00	1213.69	1214.28	1214.47
1215.11	1214.92	1214.13	479+00.00	1214.13	1214.72	1214.91
1216.01	1215.82	1215.20	480+00.00	1215.20	1215.79	1215.98
1217.30	1217.11	1216.49	481+00.00	1216.49	1217.08	1217.27
1218.76	1218.57	1217.98	482+00.00	1217.98	1218.59	1218.78
1220.20	1220.01	1219.42	483+00.00	1219.42	1220.07	1220.26
1221.76	1221.57	1220.98	484+00.00	1220.98	1221.58	1221.77
1223.23	1223.04	1222.42	485+00.00	1222.42	1223.01	1223.20

EXISTING PAVEMENT EDGE 28' LT.	PROPOSED PAVEMENT EDGE 16' LT.	PROPOSED SHOULDER EDGE 1.75' LT.	STATION LOCATION	PROPOSED SHOULDER EDGE 1.75' RT.	PROPOSED PAVEMENT EDGE 16' RT.	EXISTING PAVEMENT EDGE 28' RT.
1224.68	1224.49	1223.90	486+00.00	1223.90	1224.64	1224.83
1226.20	1226.01	1225.42	487+00.00	1225.42	1226.11	1226.30
1227.67	1227.48	1226.89	488+00.00	1226.89	1227.57	1227.76
1229.12	1228.93	1228.34	489+00.00	1228.34	1228.94	1229.13
1230.71	1230.52	1229.93	490+00.00	1229.93	1230.60	1230.79
1232.28	1232.09	1231.50	491+00.00	1231.50	1232.15	1232.34
1233.76	1233.57	1232.98	492+00.00	1232.98	1233.62	1233.81
1235.28	1235.09	1234.50	493+00.00	1234.50	1235.19	1235.38
1236.75	1236.56	1235.97	494+00.00	1235.97	1236.60	1236.79
1238.09	1237.90	1237.31	495+00.00	1237.31	1238.02	1238.21
1238.98	1238.89	1238.30	495+61.81	1238.23	1238.82	1239.01
1239.53	1239.46	1238.87	496+00.00	1238.73	1239.32	1239.51
1240.10	1240.00	1239.41	496+50.00	1239.23	1239.82	1240.01
1240.73	1240.66	1240.07	497+00.00	1239.72	1240.31	1240.50
1241.30	1241.40	1240.81	497+50.00	1240.16	1240.75	1240.94
1241.69	1241.84	1241.25	498+00.00	1240.51	1241.10	1241.29
1242.07	1242.26	1241.55	498+36.81	1240.80	1241.39	1241.58
1242.46	1242.65	1242.05	499+00.00	1241.30	1241.89	1242.08
1243.02	1243.21	1242.56	500+00.00	1241.81	1242.40	1242.59
1243.35	1243.54	1242.95	501+00.00	1242.21	1242.80	1242.99
1243.65	1243.84	1243.10	502+00.00	1242.35	1242.94	1243.13
1243.65	1243.84	1243.12	503+00.00	1242.37	1242.96	1243.15
1243.54	1243.73	1242.95	504+00.00	1242.20	1242.79	1242.98
1243.21	1243.40	1242.59	505+00.00	1241.84	1242.43	1242.62
1243.78	1242.97	1242.09	506+00.00	1241.34	1241.93	1242.12
1242.08	1242.27	1241.55	506+81.64	1240.80	1241.39	1241.58
1241.91	1242.07	1241.43	507+00.00	1240.68	1241.27	1241.46
1241.40	1241.50	1240.91	507+50.00	1240.18	1240.77	1240.96
1240.89	1240.88	1240.29	508+00.00	1239.72	1240.31	1240.50
1240.30	1240.20	1239.61	508+50.00	1239.27	1239.86	1240.05
1239.73	1239.66	1239.07	509+00.00	1238.69	1239.28	1239.47
1238.91	1238.72	1238.13	509+56.64	1237.99	1238.58	1238.77
1238.42	1238.23	1237.46	510+00.00	1237.46	1238.05	1238.24
1237.03	1236.84	1236.06	511+00.00	1236.06	1236.65	1236.84
1235.39	1235.20	1234.50	512+00.00	1234.50	1235.09	1235.28
1233.65	1233.46	1232.79	513+00.00	1232.79	1233.38	1233.57
1231.68	1231.49	1230.83	514+00.00	1230.83	1231.42	1231.61
1229.74	1229.55	1228.96	515+00.00	1228.96	1229.56	1229.75
1227.73	1227.54	1226.90	516+00.00	1226.90	1227.49	1227.68
1225.60	1225.41	1224.82	517+00.00	1224.82	1225.55	1225.74
1223.71	1223.52	1222.93	518+00.00	1222.93	1223.56	1223.75

TRANSITION

FULL SUPERELEVATION

TRANSITION

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

PAVEMENT AND SHOULDER ELEVATION TABLE

CT Consultants, Inc.
Engineers ~Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: TJS	IN CHARGE: JEA	SCALE:	

CONTRACT 77-96-05 SHEET 7 OF 196

779605H5.DWG

PAVEMENT AND SHOULDER ELEVATION TABLE

EXISTING PAVEMENT EDGE 28' LT.	PROPOSED PAVEMENT EDGE 16' LT.	PROPOSED SHOULDER EDGE 1.75' LT.	STATION LOCATION	PROPOSED SHOULDER EDGE 1.75' RT.	PROPOSED PAVEMENT EDGE 16' RT.	EXISTING PAVEMENT EDGE 28' RT.
1221.65	1221.46	1220.87	519+00.00	1220.87	1221.48	1221.67
1219.56	1219.37	1218.78	520+00.00	1218.78	1219.39	1219.58
1217.51	1217.32	1216.73	521+00.00	1216.73	1217.37	1217.56
1215.54	1215.35	1214.76	522+00.00	1214.76	1215.41	1215.60
1213.57	1213.38	1212.79	523+00.00	1212.79	1213.46	1213.65
1211.53	1211.34	1210.75	524+00.00	1210.75	1211.47	1211.66
1209.54	1209.35	1208.76	525+00.00	1208.76	1209.50	1209.69
1207.62	1207.43	1206.84	526+00.00	1206.84	1207.52	1207.71
1205.68	1205.49	1204.89	527+00.00	1204.89	1205.48	1205.67
1203.62	1203.43	1202.84	528+00.00	1202.84	1203.50	1203.69
1201.57	1201.38	1200.79	529+00.00	1200.79	1201.52	1201.71
1199.66	1199.47	1198.88	530+00.00	1198.88	1199.52	1199.71
1197.69	1197.50	1196.91	531+00.00	1196.91	1197.55	1197.74
1195.69	1195.50	1194.91	532+00.00	1194.91	1195.51	1195.70
1193.71	1193.52	1192.93	533+00.00	1192.93	1193.53	1193.72
1191.70	1191.51	1190.88	534+00.00	1190.88	1191.47	1191.66
1189.85	1189.66	1189.01	535+00.00	1189.01	1189.60	1189.79
1188.07	1187.88	1187.19	536+00.00	1187.19	1187.78	1187.97
1187.10	1186.91	1186.18	537+00.00	1186.18	1186.77	1186.96
1186.64	1186.45	1185.74	538+00.00	1185.74	1186.33	1186.52
1185.44	1185.25	1185.03	539+00.00	1185.03	1185.79	1185.98
1185.84	1185.65	1184.97	540+00.00	1184.97	1185.60	1185.79
1185.54	1185.35	1184.91	541+00.00	1184.91	1185.47	1185.66
1185.98	1185.79	1184.85	542+00.00	1184.85	1185.77	1185.96
1185.99	1185.80	1184.87	543+00.00	1184.87	1185.85	1186.04
1185.67	1185.48	1185.05	544+00.00	1185.05	1185.91	1186.10
1185.75	1185.56	1185.23	545+00.00	1185.23	1185.72	1185.91
1186.18	1185.99	1185.40	546+00.00	1185.40	1186.00	1186.19
1186.15	1185.96	1185.37	547+00.00	1185.37	1186.07	1186.26
1186.11	1185.92	1185.33	548+00.00	1185.33	1186.07	1186.26
1186.04	1185.85	1185.26	549+00.00	1185.26	1185.98	1186.17
1186.17	1185.98	1185.39	550+00.00	1185.39	1186.14	1186.33
1186.24	1186.05	1185.46	551+00.00	1185.46	1186.21	1186.40
1186.36	1186.17	1185.58	552+00.00	1185.58	1186.21	1186.40
1186.22	1186.03	1185.44	553+00.00	1185.44	1186.14	1186.33
1186.12	1185.93	1185.38	554+00.00	1185.38	1186.33	1186.52
1186.42	1186.23	1185.33	555+00.00	1185.33	1186.32	1186.51
1186.05	1185.86	1185.32	556+00.00	1185.32	1186.08	1186.27
1186.49	1186.30	1185.71	557+00.00	1185.71	1186.48	1186.67
1186.71	1186.52	1185.93	558+00.00	1185.93	1186.63	1186.82

EXISTING PAVEMENT EDGE 28' LT.	PROPOSED PAVEMENT EDGE 16' LT.	PROPOSED SHOULDER EDGE 1.75' LT.	STATION LOCATION	PROPOSED SHOULDER EDGE 1.75' RT.	PROPOSED PAVEMENT EDGE 16' RT.	EXISTING PAVEMENT EDGE 28' RT.
1186.93	1186.74	1186.13	559+00.00	1186.13	1186.79	1186.98
1187.44	1187.25	1186.66	560+00.00	1186.66	1187.36	1187.55
1188.01	1187.82	1187.23	561+00.00	1187.23	1188.05	1188.24
1188.72	1188.53	1187.94	562+00.00	1187.94	1188.65	1188.84
1189.21	1189.02	1188.43	563+00.00	1188.43	1189.08	1189.27
1189.91	1189.72	1189.13	564+00.00	1189.13	1189.81	1190.00
1190.33	1190.14	1189.55	565+00.00	1189.55	1190.24	1190.43
1191.05	1190.86	1190.27	566+00.00	1190.27	1191.00	1191.19
1191.63	1191.44	1190.85	567+00.00	1190.85	1191.56	1191.75
1192.15	1191.96	1191.37	568+00.00	1191.37	1192.14	1192.33
1192.59	1192.40	1191.82	569+00.00	1191.82	1192.71	1192.90
1193.41	1193.22	1192.63	570+00.00	1192.63	1193.34	1193.53
1193.96	1193.77	1193.18	571+00.00	1193.18	1193.84	1194.03
1194.50	1194.31	1193.72	572+00.00	1193.72	1194.37	1194.56
1194.97	1194.78	1194.19	573+00.00	1194.19	1194.91	1195.10
1195.63	1195.44	1194.85	574+00.00	1194.85	1195.56	1195.75
1196.26	1196.07	1195.48	575+00.00	1195.48	1196.16	1196.35
1196.74	1196.55	1195.96	576+00.00	1195.96	1196.71	1196.90
1197.27	1197.08	1196.49	577+00.00	1196.49	1197.27	1197.46
1197.68	1197.49	1196.90	578+00.00	1196.90	1197.51	1197.70
1198.54	1198.35	1197.76	579+00.00	1197.76	1198.47	1198.66
1198.91	1198.72	1198.13	580+00.00	1198.13	1198.98	1199.17
1199.45	1199.26	1198.72	581+00.00	1198.72	1199.61	1199.80
1200.26	1200.07	1199.48	582+00.00	1199.48	1200.15	1200.34
1200.68	1200.49	1219.90	583+00.00	1219.90	1200.75	1200.94
1201.40	1201.21	1200.62	584+00.00	1200.62	1201.29	1201.48
1201.91	1201.72	1201.13	585+00.00	1201.13	1201.87	1202.06
1202.49	1202.30	1201.71	586+00.00	1201.71	1202.39	1202.58
1202.91	1202.72	1202.13	587+00.00	1202.13	1202.95	1203.14
1203.29	1203.10	1202.51	588+00.00	1202.51	1203.29	1203.48
1204.13	1203.94	1203.35	589+00.00	1203.35	1204.10	1204.29
1204.80	1204.61	1203.94	590+00.00	1203.94	1204.53	1204.72
1205.19	1205.00	1204.41	591+00.00	1204.41	1205.29	1205.48
1205.68	1205.49	1204.90	592+00.00	1204.90	1205.78	1205.97
1206.38	1206.19	1205.60	593+00.00	1205.60	1206.28	1206.47
1207.03	1206.84	1206.25	594+00.00	1206.25	1206.95	1207.14
1207.46	127.27	1206.64	595+00.00	1206.64	1207.23	1207.42
1208.21	1208.02	1207.43	596+00.00	1207.43	1208.11	1208.30
1208.79	1208.60	1208.01	597+00.00	1208.01	1208.73	1208.92
1209.47	1209.28	1208.69	598+00.00	1208.69	1209.28	1209.47

EXISTING PAVEMENT EDGE 28' LT.	PROPOSED PAVEMENT EDGE 16' LT.	PROPOSED SHOULDER EDGE 1.75' LT.	STATION LOCATION	PROPOSED SHOULDER EDGE 1.75' RT.	PROPOSED PAVEMENT EDGE 16' RT.	EXISTING PAVEMENT EDGE 28' RT.
1210.00	1209.81	1209.22	599+00.00	1209.22	1209.84	1210.03
1210.50	1210.31	1209.72	600+00.00	1209.72	1210.37	1210.56
1211.07	1210.88	1210.29	601+00.00	1210.29	1210.98	1211.17
1211.67	1211.48	1210.89	602+00.00	1210.89	1211.53	1211.72
1212.12	1211.93	1211.34	603+00.00	1211.34	1212.13	1212.32
1212.73	1212.54	1211.95	604+00.00	1211.95	1212.71	1212.90
1213.12	1212.93	1212.34	605+00.00	1212.34	1213.24	1213.43
1213.94	1213.75	1213.16	606+00.00	1213.16	1213.85	1214.04
1214.51	1214.32	1213.73	607+00.00	1213.73	1214.44	1214.63
1215.05	1214.86	1214.27	608+00.00	1214.27	1215.00	1215.19
1215.55	1215.36	1214.77	609+00.00	1214.77	1215.48	1215.67
1216.27	1216.08	1215.49	610+00.00	1215.49	1216.15	1216.34
1216.79	1216.60	1216.01	611+00.00	1216.01	1216.69	1216.88
1217.40	1217.21	1216.62	612+00.00	1216.62	1217.21	1217.40
1217.90	1217.71	1217.12	613+00.00	1217.12	1217.89	1218.08
1218.55	1218.36	1217.77	614+00.00	1217.77	1218.44	1218.63
1219.19	1219.00	1218.41	615+00.00	1218.41	1219.05	1219.24
1219.73	1219.54	1218.95	616+00.00	1218.95	1219.57	1219.76
1220.29	1220.10	1219.51	617+00.00	1219.51	1220.13	1220.32
1220.78	1220.59	1220.00	618+00.00	1220.00	1220.70	1220.89
1221.23	1221.04	1220.45	619+00.00	1220.45	1221.20	1221.39
1221.85	1221.66	1221.07	620+00.00	1221.07	1221.87	1222.06
1222.44	1222.25	1221.66	621+00.00	1221.66	1222.48	1222.67
1223.10	1222.91	1222.32	622+00.00	1222.32	1223.03	1223.22
1223.67	1223.48	1222.85	623+00.00	1222.85	1223.44	1223.63
1223.95	1223.76	1223.17	624+00.00	1223.17	1223.80	1223.99
1224.15	1223.96	1223.37	625+00.00	1223.37	1223.96	1224.15
1224.18	1223.99	1223.37	626+00.00	1223.37	1223.96	1224.15
1223.96	1223.77	1223.14	627+00.00	1223.14	1223.73	1223.92
1223.59	1223.40	1222.81	628+00.00	1222.81	1223.40	1223.59
1223.18	1222.99	1222.26	629+00.00	1222.26	1222.85	1223.04
1222.49	1222.30	1221.66	630+00.00	1221.66	1222.25	1222.44
1221.70	1221.51	1220.77	631+00.00	1220.77	1221.36	1221.55
1220.53	1220.34	1219.75	632+00.00	1219.75	1220.39	1220.58
1219.56	1219.37	1218.57	633+00.00	1218.57	1219.16	1219.35
1218.50	1218.31	1217.71	634+00.00	1217.71	1218.30	1218.49
1217.40	1217.21	1216.61	635+00.00	1216.61	1217.20	1217.39
1216.26	1216.07	1215.48	636+00.00	1215.48	1216.12	1216.31
1215.24	1215.05	1214.46	637+00.00	1214.46	1215.07	1215.26
1214.05	1213.86	1213.27	638+00.00	1213.27	1213.97	1214.16

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

PAVEMENT AND SHOULDER ELEVATION TABLE

CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95
DRAWN: TJS	IN CHARGE: JEA	SCALE:

CONTRACT 77-96-05 SHEET 8 OF 196

779605H6.DWG

PAVEMENT AND SHOULDER ELEVATION TABLE

	EXISTING PAVEMENT EDGE 28' LT.	PROPOSED PAVEMENT EDGE 16' LT.	PROPOSED SHOULDER EDGE 1.75' LT.	STATION LOCATION	PROPOSED SHOULDER EDGE 1.75' RT.	PROPOSED PAVEMENT EDGE 16' RT.	EXISTING PAVEMENT EDGE 28' RT.
	1212.96	1212.77	1212.18	639+00.00	1212.18	1212.82	1213.01
	1211.99	1211.80	1211.15	640+00.00	1211.15	1211.74	1211.93
	1210.92	1210.73	1210.06	641+00.00	1210.06	1210.65	1210.84
	1209.78	1209.59	1209.00	642+00.00	1209.00	1209.59	1209.78
	1208.70	1208.51	1207.88	643+00.00	1207.88	1208.47	1208.66
	1207.63	1207.44	1206.76	644+00.00	1206.76	1207.35	1207.54
	1206.53	1206.34	1205.75	645+00.00	1205.75	1206.36	1206.55
	1205.47	1205.28	1204.69	646+00.00	1204.69	1205.29	1205.48
	1204.19	1204.00	1203.41	647+00.00	1203.41	1204.15	1204.34
	1203.27	1203.08	1202.37	648+00.00	1202.37	1202.96	1203.15
	1202.28	1202.09	1201.37	649+00.00	1201.37	1201.96	1202.15
	1201.15	1200.96	1200.07	650+00.00	1200.07	1200.67	1200.86
	1200.11	1199.92	1199.19	651+00.00	1199.19	1199.78	1199.97
	1199.02	1198.83	1198.19	652+00.00	1198.19	1198.78	1198.97
TRANSITION	1198.42	1198.23	1197.64	652+52.25	1197.61	1198.20	1198.40
	1197.87	1197.68	1197.09	653+00.00	1197.38	1197.97	1198.01
	1197.42	1197.23	1196.64	653+50.00	1196.83	1197.42	1197.40
	1196.91	1196.72	1196.13	654+00.00	1196.67	1197.26	1197.08
	1196.74	1196.55	1195.96	654+50.00	1196.21	1196.80	1196.70
	1195.82	1195.63	1195.04	655+00.00	1195.79	1196.40	1196.20
	1195.53	1195.34	1194.75	655+27.25	1195.47	1196.06	1195.87
	1194.76	1194.57	1193.98	656+00.00	1194.73	1195.33	1195.14
	1193.63	1193.44	1192.85	657+00.00	1193.60	1194.27	1194.08
	1192.51	1192.32	1191.73	658+00.00	1192.48	1193.15	1192.96
FULL SUPERELEVATION	1191.51	1191.32	1190.73	659+00.00	1191.48	1192.14	1191.95
	1190.41	1190.22	1189.63	660+00.00	1190.38	1191.03	1190.84
	1189.31	1189.12	1188.53	661+00.00	1189.28	1189.90	1189.71
	1188.20	1188.01	1187.42	662+00.00	1188.17	1188.82	1188.63
	1187.10	1186.91	1186.32	663+00.00	1187.07	1187.77	1187.58
	1186.06	1185.87	1185.28	664+00.00	1186.03	1186.64	1186.45
	1184.97	1184.78	1184.19	665+00.00	1184.94	1185.53	1185.34
	1183.90	1183.71	1183.12	666+00.00	1183.87	1184.47	1184.28
	1183.75	1183.56	1182.97	666+24.92	1183.60	1184.19	1184.00
	1183.28	1183.09	1182.50	666+50.00	1183.21	1183.80	1183.70
	1182.64	1182.45	1181.86	667+00.00	1182.61	1183.24	1183.02
	1182.24	1182.05	1181.46	667+50.00	1181.69	1182.28	1182.29
	1181.62	1181.43	1180.84	668+00.00	1180.91	1181.50	1181.56
	1181.10	1180.91	1180.32	668+50.00	1180.51	1181.10	1181.20
TRANSITION	1180.57	1180.38	1179.79	668+99.92	1179.83	1180.42	1180.61
	1180.57	1180.38	1179.79	669+00.00	1179.79	1180.42	1180.61
	1179.26	1179.07	1178.42	670+00.00	1178.42	1179.01	1179.20

	EXISTING PAVEMENT EDGE 28' LT.	PROPOSED PAVEMENT EDGE 16' LT.	PROPOSED SHOULDER EDGE 1.75' LT.	STATION LOCATION	PROPOSED SHOULDER EDGE 1.75' RT.	PROPOSED PAVEMENT EDGE 16' RT.	EXISTING PAVEMENT EDGE 28' RT.
	1178.26	1178.07	1177.48	671+00.00	1177.48	1178.18	1178.37
	1177.22	1177.03	1176.44	672+00.00	1176.44	1177.03	1177.22
	1176.16	1175.97	1175.38	673+00.00	1175.38	1175.97	1176.16
	1175.06	1174.87	1174.28	674+00.00	1174.28	1174.93	1175.12
	1174.14	1173.95	1173.31	675+00.00	1173.31	1173.90	1174.09
	1173.27	1173.08	1172.36	676+00.00	1172.36	1172.95	1173.14
	1172.68	1172.49	1171.84	677+00.00	1171.84	1172.43	1172.62
	1172.50	1172.31	1171.62	678+00.00	1171.62	1172.21	1172.40
	1172.60	1172.41	1171.81	679+00.00	1171.81	1172.40	1172.59
	1173.03	1172.84	1172.25	680+00.00	1172.25	1172.87	1173.06
	1173.42	1173.23	1172.62	681+00.00	1172.62	1173.21	1173.40
	1173.73	1173.54	1172.94	682+00.00	1172.94	1173.53	1173.72
	1174.16	1173.97	1173.38	683+00.00	1173.38	1174.00	1174.19
	1174.58	1174.39	1173.79	684+00.00	1173.79	1174.38	1174.57
	1174.96	1174.77	1174.18	685+00.00	1174.18	1174.77	1174.96
	1175.28	1175.09	1174.50	686+00.00	1174.50	1175.10	1174.29
	1175.62	1175.43	1174.84	687+00.00	1174.84	1175.50	1175.69
	1176.10	1175.91	1175.29	688+00.00	1175.29	1175.88	1176.07
	1176.44	1176.25	1175.66	689+00.00	1175.66	1176.35	1176.54
	1176.75	1176.56	1175.97	690+00.00	1175.97	1176.69	1176.88
	1177.13	1176.94	1176.35	691+00.00	1176.35	1177.00	1177.19
	1177.59	1177.40	1176.81	692+00.00	1176.81	1177.45	1177.64
	1178.04	1177.85	1177.25	693+00.00	1177.25	1177.84	1178.03
	1178.39	1178.20	1177.61	694+00.00	1177.61	1178.24	1178.43
	1178.70	1178.51	1177.92	695+00.00	1177.92	1178.58	1178.77
	1179.15	1178.96	1178.37	696+00.00	1178.37	1179.00	1179.19
	1179.50	1179.31	1178.72	697+00.00	1178.72	1179.34	1179.53
	1179.85	1179.66	1179.07	698+00.00	1179.07	1179.73	1179.92
TRANSITION	1180.31	1180.13	1179.54	698+98.32	1179.53	1180.12	1180.31
	1180.32	1180.14	1179.55	699+00.00	1179.54	1180.13	1180.32
	1180.64	1180.53	1179.94	699+50.00	1179.78	1180.37	1180.56
	1180.95	1180.90	1180.31	700+00.00	1180.01	1180.60	1180.79
	1181.22	1181.24	1180.65	700+50.00	1180.19	1180.78	1180.97
	1181.48	1181.56	1180.97	701+00.00	1180.37	1180.96	1181.15
	1181.71	1181.92	1181.32	701+50.00	1180.57	1181.16	1181.35
	1181.81	1182.00	1181.39	701+73.32	1180.64	1181.23	1181.42
	1181.93	1182.12	1181.46	702+00.00	1180.71	1181.30	1181.49
	1182.32	1182.51	1181.84	703+00.00	1181.09	1181.68	1181.87
	1182.72	1182.91	1182.16	704+00.00	1181.41	1182.00	1182.19
FULL SUPERELEVATION	1182.76	1182.95	1182.24	705+00.00	1181.49	1182.08	1182.27

	EXISTING PAVEMENT EDGE 28' LT.	PROPOSED PAVEMENT EDGE 16' LT.	PROPOSED SHOULDER EDGE 1.75' LT.	STATION LOCATION	PROPOSED SHOULDER EDGE 1.75' RT.	PROPOSED PAVEMENT EDGE 16' RT.	EXISTING PAVEMENT EDGE 28' RT.

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

PAVEMENT AND SHOULDER ELEVATION TABLE

CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: TJS	IN CHARGE: JEA	SCALE:	

CONTRACT 77-96-05 SHEET 9 OF 196

779605H7.DWG

BEGIN WORK
STA. 384+90.00
MILEPOST 193.00

BEGIN PROJECT
STA. 405+00.00
MILEPOST 193.38

CONTRACT
77-96-05

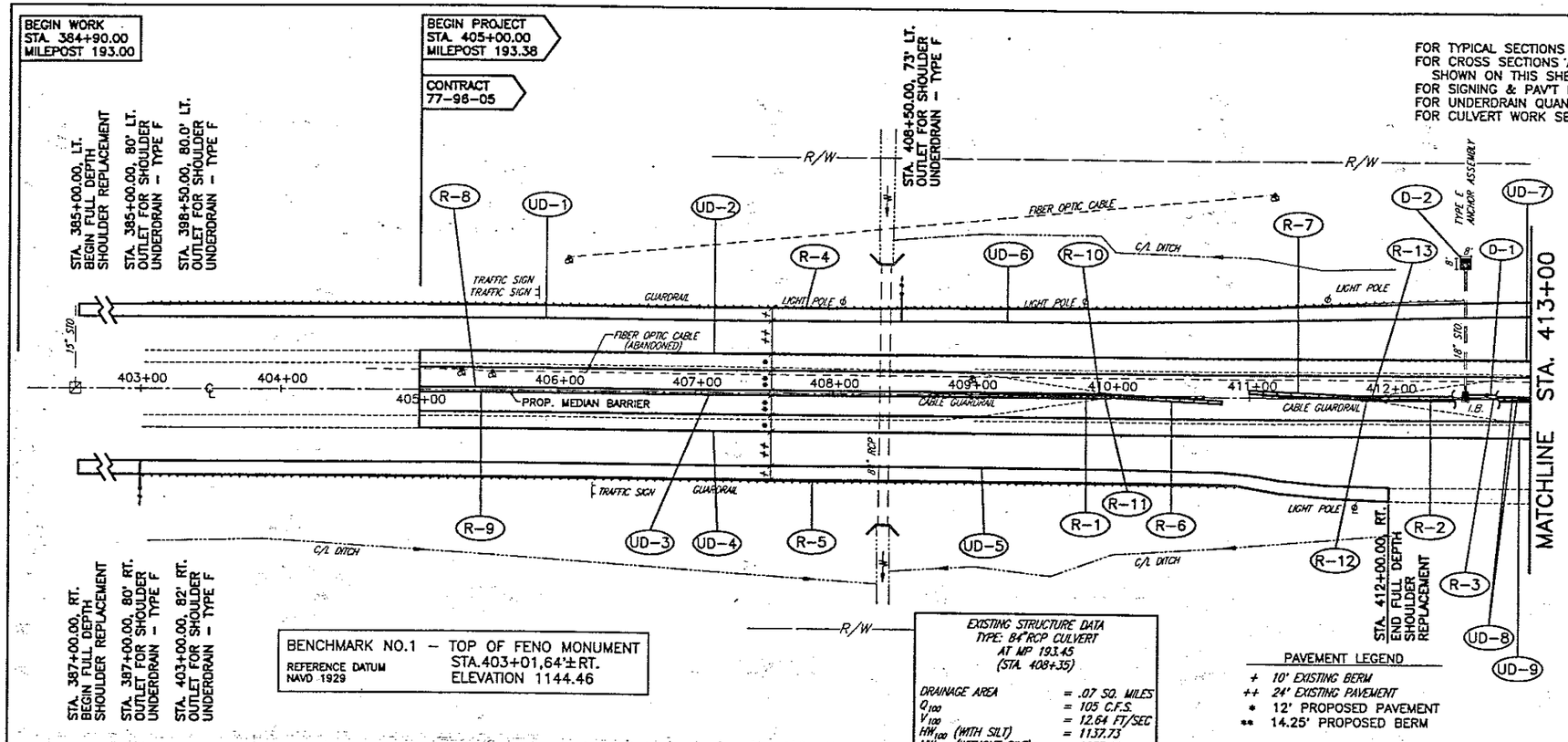
STA. 385+00.00, LT.
BEGIN FULL DEPTH
SHOULDER REPLACEMENT

STA. 385+00.00, 80' LT.
OUTLET FOR SHOULDER
UNDERDRAIN – TYPE F

STA. 398+50.00, 80.0' LT.
OUTLET FOR SHOULDER
UNDERDRAIN – TYPE F

STA. 408+50.00, 73' LT.
OUTLET FOR SHOULDER
UNDERDRAIN – TYPE F

FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82–161
FOR SIGNING & PAV'T MARKING SEE SHEETS 171–196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25–29
FOR CULVERT WORK SEE SHEETS 162–167



STA. 387+00.00, RT.
BEGIN FULL DEPTH
SHOULDER REPLACEMENT

STA. 387+00.00, 80' RT.
OUTLET FOR SHOULDER
UNDERDRAIN – TYPE F

STA. 403+00.00, 82' RT.
OUTLET FOR SHOULDER
UNDERDRAIN – TYPE F

STA. 412+00.00, RT.
END FULL DEPTH
SHOULDER
REPLACEMENT

BENCHMARK NO.1 – TOP OF FENO MONUMENT
REFERENCE DATUM NAVD 1929
STA.403+01,64'± RT.
ELEVATION 1144.46

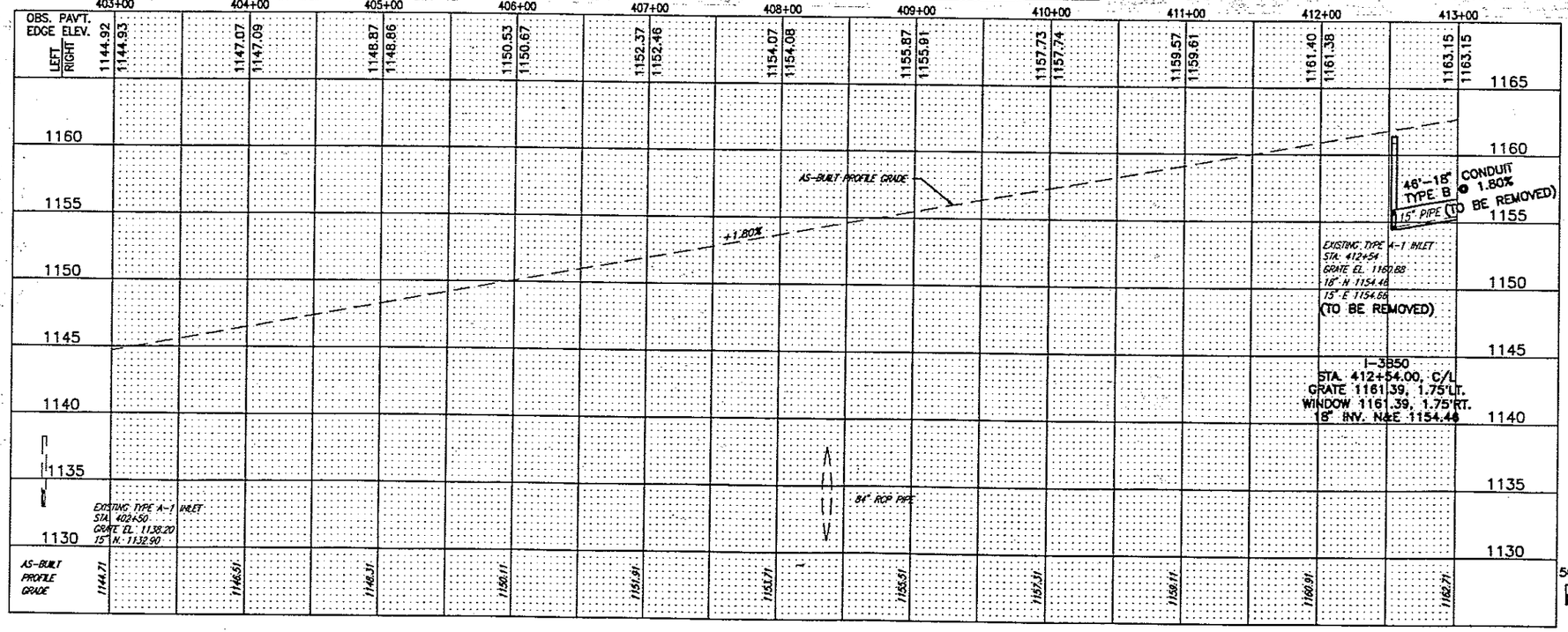
EXISTING STRUCTURE DATA
TYPE: 84" RCP CULVERT
AT MP 193.45
(STA. 408+35)

DRAINAGE AREA	= .07 SQ. MILES
Q_{100}	= 105 C.F.S.
V_{100}	= 12.64 FT/SEC
HW_{100} (WITH SILT)	= 1137.73
HW_{100} (WITHOUT SILT)	= 1135.44

PAVEMENT LEGEND
\+ 10' EXISTING BERM
++ 24' EXISTING PAVEMENT
* 12' PROPOSED PAVEMENT
** 14.25' PROPOSED BERM

ROADWAY		202	202	202	202	606	622	625	625	625
		PIPE REMOVED (24" & UNDER)	GUARDRAIL REMOVED	GUARDRAIL REMOVED, FOR REUSE	ANCHOR ASSEMBLY, REMOVED FOR STORAGE	GUARDRAIL REBUILT, TYPE 5	PORTABLE CONCRETE BARRIER, 50', A.P.P.	MEDIAN JUNCTION BOX, TYPE I	4" CONDUIT, 713.04	TRENCH
REF.	LOCATION	LF.	LF.	LF.	EA.	LF.	LF.	EA.	LF.	LF.
R-1	STA. 408+70.00 TO STA. 410+70.00, C/L		200							
R-2	STA. 411+10.00 TO STA. 412+90.00, C/L		190							
R-3	STA. 412+54.00 TO STA. 413+00.00, C/L	46								
R-4	STA. 385+00.00 TO STA. 412+50.00, 62'LT.			2750	1	2750				
R-5	STA. 387+00.00 TO STA. 410+90.00, 62'RT.			2390		2390				
R-6	STA. 410+00.00 TO STA. 410+80.00, C/L						80			
R-7	STA. 411+00.00 TO STA. 411+80.00, C/L						80			
R-8	STA. 405+40.00, LT.							1		
R-9	STA. 405+44.00, RT.							1		
R-10	STA. 409+92.00 TO STA. 411+88.00, LT.							1	206	206
R-11	STA. 409+95.00 TO STA. 411+84.00, RT.							1	198	198
R-12	STA. 411+84.00, RT.							1		
R-13	STA. 411+88.00, LT.							1		
	TOTALS	46	390	5140	1	5140	160	6	404	404

BENCHMARK NO.2 – TOP OF FENO MONUMENT
REFERENCE DATUM NAVD 1929
STA.412+03,69'± LT.
ELEVATION 1160.57



DRAINAGE		601		603		604
		ROCK CHANNEL PROTECTION, TYPE C WITH FILTER		18" CONDUIT, TYPE B 706.02		INLET, No.3850
REF.	LOCATION	C.Y.		LF.		EA.
D–1	STA. 412+54.00 TO STA. 413+00.00, C/L			52		1
D–2	STA. 412+54.00, 94.0' LT. TO 102.0' LT.	3.6				
	TOTALS	3.6		52		1

50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION
PLAN AND PROFILE
STA.403+00 TO STA.413+00

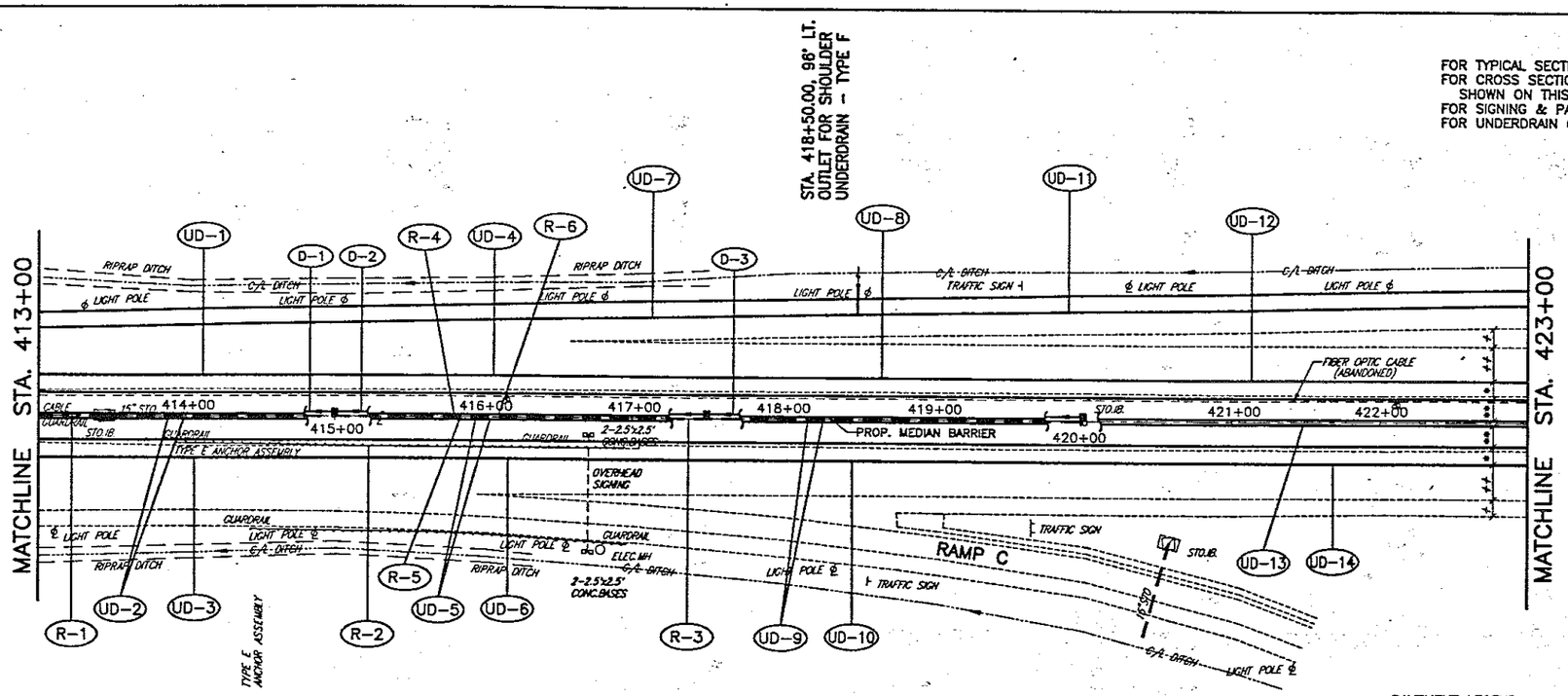
CT Consultants, Inc.
Engineers • Architects • Planners
Willoughby • Munster • Columbus • North Canton • Youngstown

DESIGNED: WDB	CHECKED: DJW	DATE: 12–01–95	
DRAWN: RLB	IN CHARGE: JEA	SCALE: 1"=50'	

CONTRACT 77–96–05 SHEET 51 OF 196

7796O511.DWG

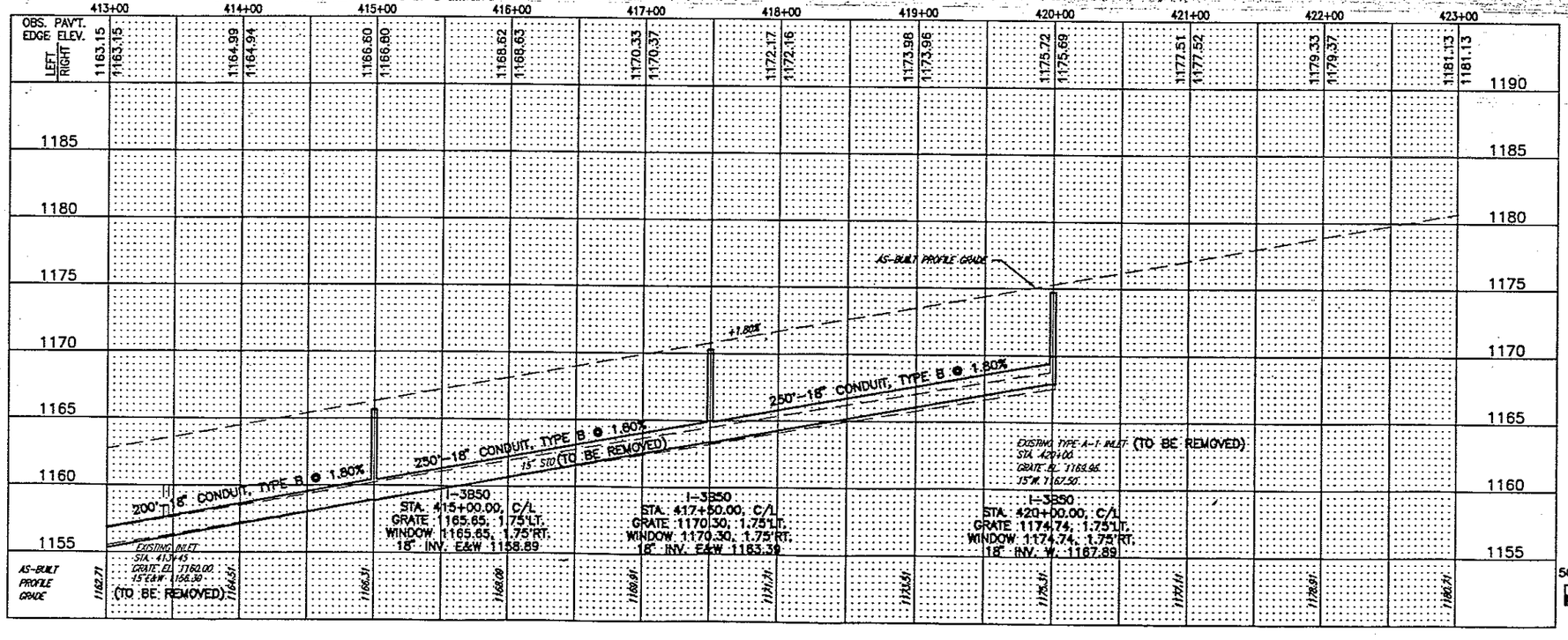
FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82–161
FOR SIGNING & PAVT MARKING SEE SHEETS 171–196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25–29



DRAINAGE		603		604		
		18" CONDUIT, TYPE B 706.02		INLET, No.3850		
REF.	LOCATION	L.F.		EA.		
D-1	STA. 413+00.00 TO STA. 415+00.00, C/L	200		1		
D-2	STA. 415+00.00 TO STA. 417+50.00, C/L	250		1		
D-3	STA. 417+50.00 TO STA. 420+00.00, C/L	250		1		
	TOTALS	700		3		

BENCHMARK NO.3 – TOP OF FENO MONUMENT
REFERENCE DATUM NAVD 1929
STA.421+02,65'± RT.
ELEVATION 1176.78

PAVEMENT LEGEND
+ 10' EXISTING BERM
++ 24' EXISTING PAVEMENT
• 12' PROPOSED PAVEMENT
•• 14.25' PROPOSED BERM



ROADWAY		202	202	202	202	625	625
		PIPE REMOVED (24" & UNDER)	GUARDRAIL REMOVED	ANCHOR ASSEMBLY REMOVED FOR STORAGE	INLET REMOVED	MEDIAN JUNCTION BOX, TYPE 1	MEDIAN JUNCTION BOX, TYPE 2
REF.	LOCATION	L.F.	L.F.	EA.	EA.	EA.	EA.
R-1	STA. 413+00.00 TO STA. 413+45.00, C/L	45					
R-2	STA. 413+93.00 TO STA. 416+95.00, C/L		302	1			
R-3	STA. 413+00.00 TO STA. 420+00.00, C/L	700			1		
R-4	STA. 415+80.00, LT.					1	
R-5	STA. 415+84.00, RT.					1	
R-6	STA. 416+10.00, LT.						1
	TOTALS	745	302	1	1	2	1

SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION
PLAN AND PROFILE
STA.413+00 TO STA.423+00

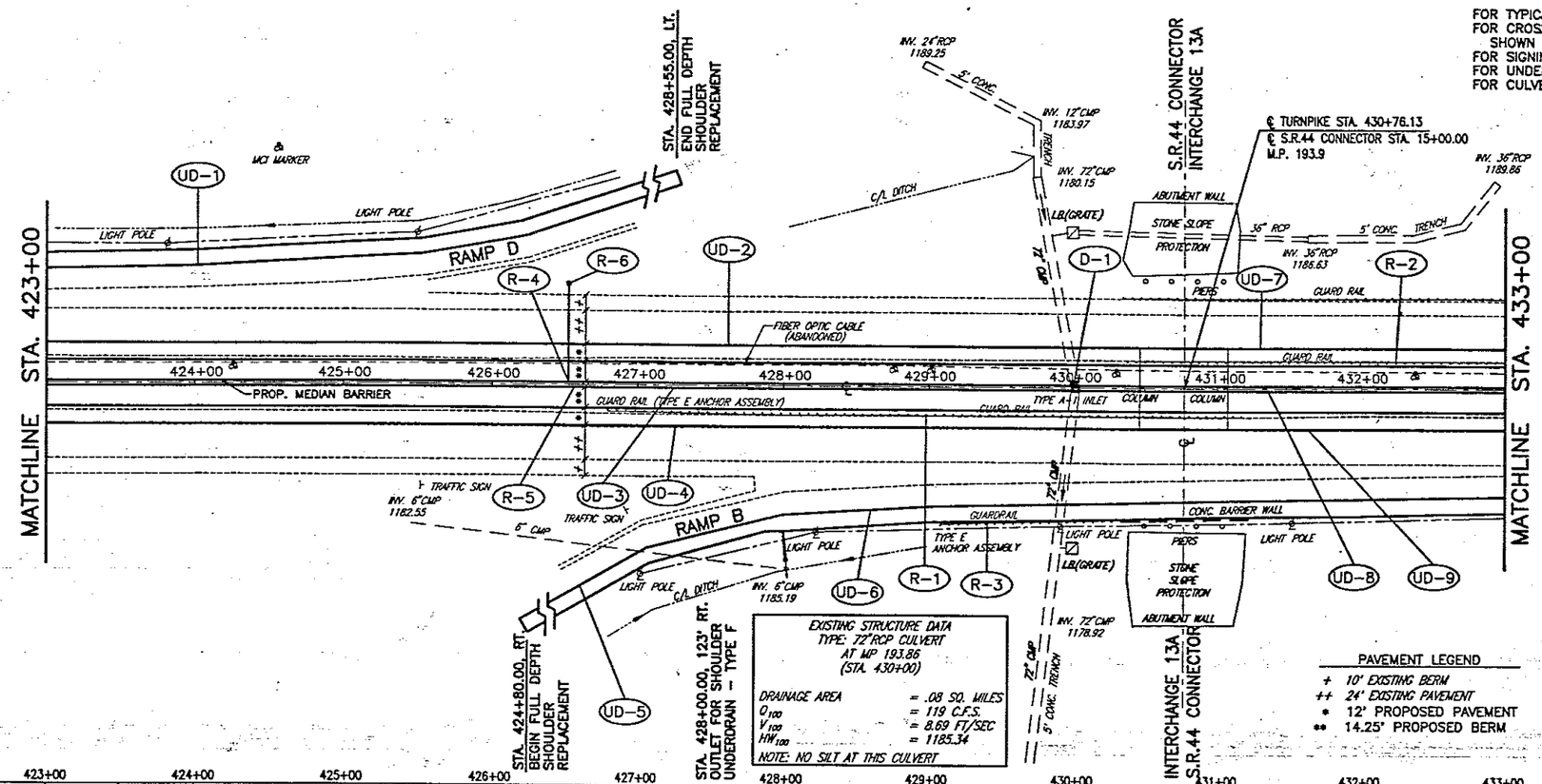
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: RLB	IN CHARGE: JEA	SCALE: 1"=50'	

CONTRACT 77-96-05 SHEET 52 OF 196

77960512.DWG

FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82–161
FOR SIGNING & PAVT MARKING SEE SHEETS 171–196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25–29
FOR CULVERT WORK SEE SHEETS 162–167

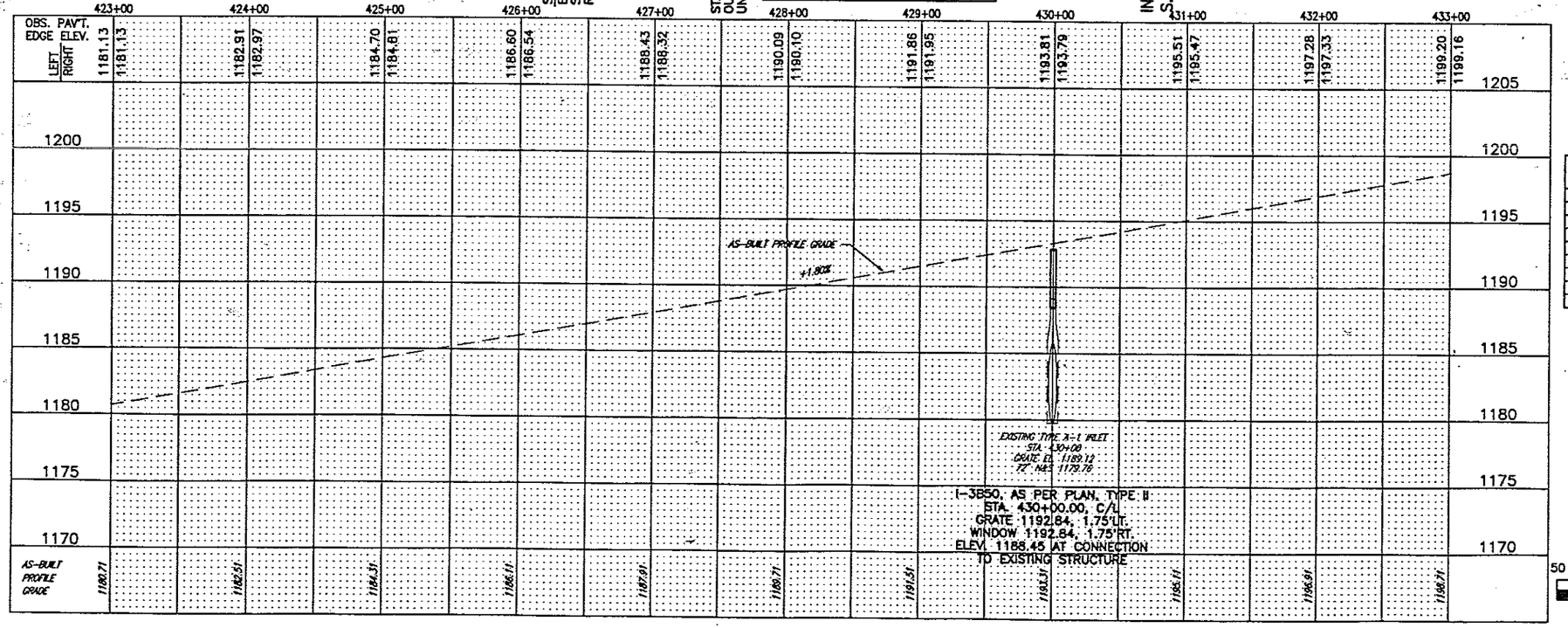


EXISTING STRUCTURE DATA
TYPE: 72"RCP CULVERT AT MP 193.86 (STA. 430+00)

DRAINAGE AREA	= .08 SQ. MILES
Q_{100}	= 119 C.F.S.
V_{100}	= 8.69 FT/SEC
HW_{100}	= 1185.34

NOTE: NO SILT AT THIS CULVERT

PAVEMENT LEGEND
\+ 10' EXISTING BERM
++ 24' EXISTING PAVEMENT
• 12' PROPOSED PAVEMENT
•• 14.25' PROPOSED BERM



50 25 0 50 100
SCALE: 1" = 50 FT

DRAINAGE			604
			INLET, No.3850, AS PER PLAN, TYPE II
REF.	LOCATION	EA.	
D-1	STA. 430+00.00 , C/L	1	
TOTALS		1	

BENCHMARK NO.4 – TOP OF FENO MONUMENT
STA.430+03.62'±LT.
ELEVATION 1193.24
REFERENCE DATUM NAVD 1929

ROADWAY			202	202	202	606	625	625	625	625
			GUARDRAIL REMOVED	GUARDRAIL REMOVED, FOR REUSE	ANCHOR ASSEMBLY REMOVED FOR STORAGE	GUARDRAIL REBUILT, TYPE 5	MEDIAN JUNCTION BOX, TYPE 1	MEDIAN JUNCTION BOX, TYPE 2	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, 4"	PULL BOX, 713.08, 24"
REF.	LOCATION		LF.	LF.	EA.	LF.	EA.	EA.	LF.	EA.
R-1	STA. 426+80.00 TO STA. 431+17.00, 19' RT.		437		1					
R-2	STA. 430+35.00 TO STA. 433+00.00, 19' LT.		265							
R-3	STA. 429+08.00 TO STA. 430+35.00, 93' RT.			127		127				
R-4	STA. 426+52.00, LT.							1		
R-5	STA. 426+56.00, RT.						1			
R-6	STA. 426+52.00, 70' LT.								70	1
TOTALS			702	127	1	127	1	1	70	1

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION
PLAN AND PROFILE
STA.423+00 TO STA.433+00

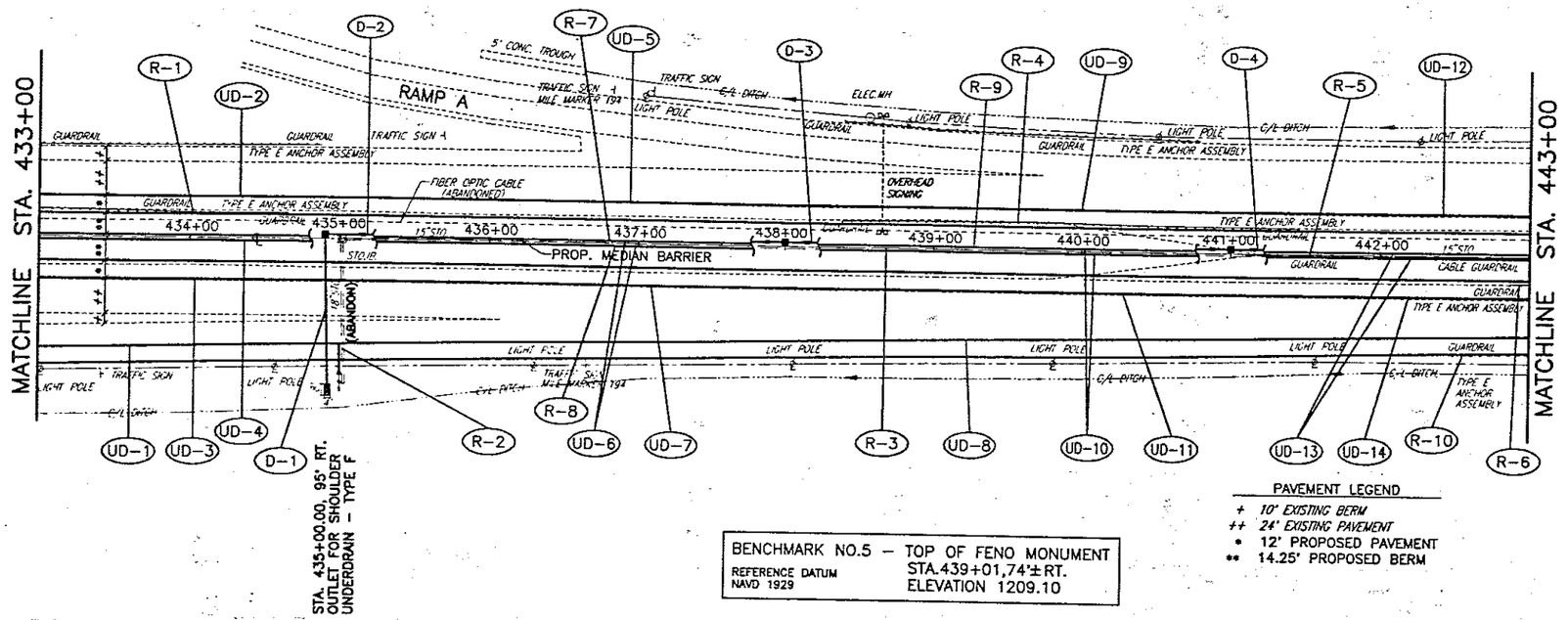
CT Consultants, Inc.
Engineers • Architects • Planners
Willoughby • Akron • Columbus • North Canton • Youngstown

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: RLB	IN CHARGE: JEA	SCALE: 1"=50'	

CONTRACT 77-96-05 SHEET 53 OF 196

77960513.DWG

FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82–161
FOR SIGNING & PAV'T MARKING SEE SHEETS 171–196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25–29



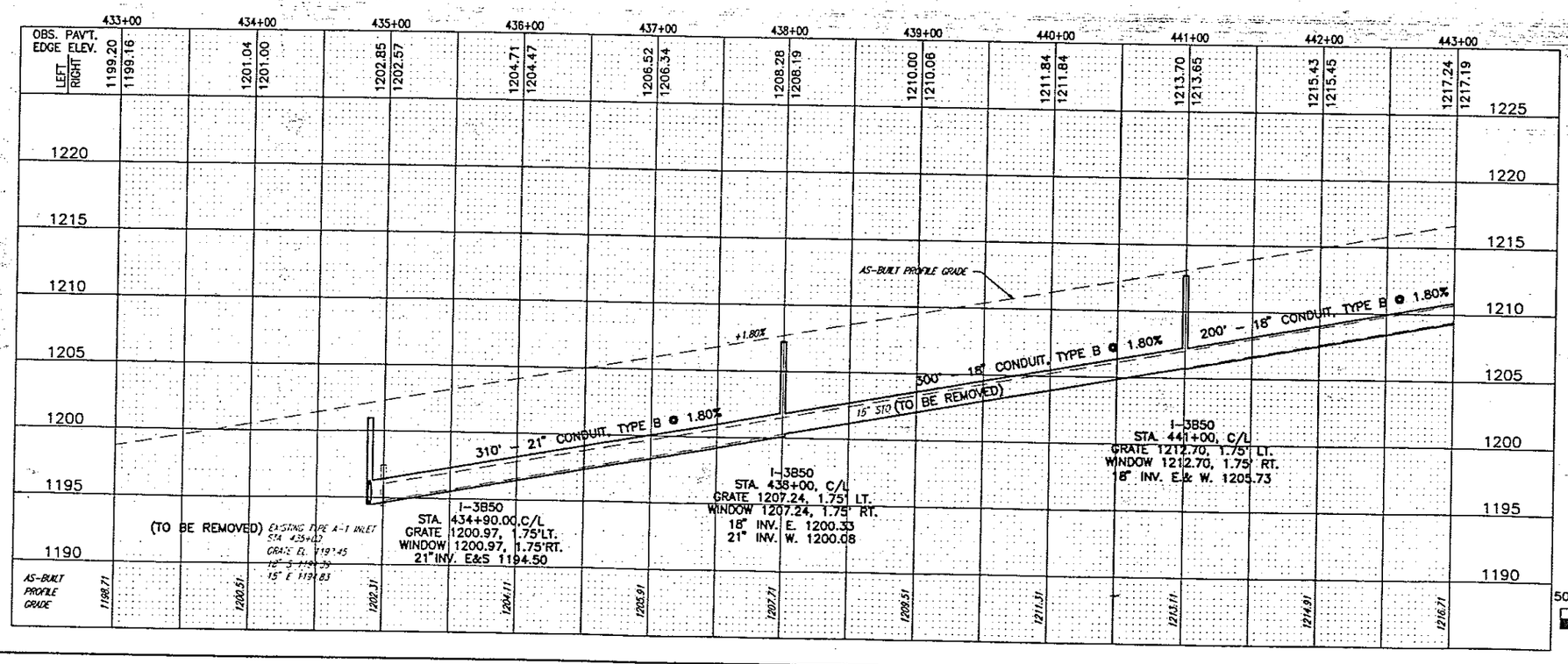
BENCHMARK NO.5 – TOP OF FENO MONUMENT
REFERENCE DATUM NAVD 1929
STA.439+01.74'± RT.
ELEVATION 1209.10

PAVEMENT LEGEND
\+ 10' EXISTING BERM
++ 24' EXISTING PAVEMENT
• 12' PROPOSED PAVEMENT
•• 14.25' PROPOSED BERM

N

ROADWAY		202	202	202	202	202	606	625	625	SPEC.
		PIPE REMOVED (24" & UNDER)	GUARDRAIL REMOVED	INLET REMOVED	GUARDRAIL REMOVED, FOR REUSE	ANCHOR ASSEMBLY, REMOVED FOR STORAGE	GUARDRAIL REBUILT, TYPE 5	MEDIAN JUNCTION BOX, TYPE I	MEDIAN JUNCTION BOX, TYPE II	FILL AND PLUG EXISTING CONDUIT
REF.	LOCATION	L.F.	L.F.	EA.	L.F.	EA.	L.F.	EA.	EA.	L.F.
R-1	STA. 433+00.00 TO STA. 434+65.00, 18' LT.		165			1				
R-2	STA. 435+00.00, C/L TO STA. 435+00.00, 106' RT.	8								98
R-3	STA. 435+00.00 TO STA. 443+00.00, C/L	800		1						
R-4	STA. 438+38.00 TO STA. 441+45.00, 20' LT.		307			1				
R-5	STA. 441+20.00 TO STA. 442+95.00, C/L		175							
R-6	STA. 442+85.00 TO STA. 443+00.00, 19' RT.		15			1				
R-7	STA. 436+80.00, LT.							1		
R-8	STA. 436+84.00, RT.							1		
R-9	STA. 439+27.00, LT.								1	
R-10	STA. 442+50.00 TO STA. 443+00.00, 64' RT.				50		50			
	TOTALS	808	662	1	50	3	50	2	1	98

DRAINAGE		601	602	603	603	603	604
		ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	CONCRETE MASONRY	18" CONDUIT, TYPE B 706.02	21" CONDUIT, TYPE B 706.02	21" CONDUIT, BORED OR JACKED, TYPE B, 706.02	INLET, No.3850
REF.	LOCATION	C.Y.	C.Y.	L.F.	L.F.	L.F.	EA.
D-1	STA. 434+90.00, C/L TO STA. 434+90.00, 106' RT.	1.8	0.37			106	1
D-2	STA. 434+90.00 TO STA. 438+00.00, C/L				310		1
D-3	STA. 438+00.00 TO STA. 441+00.00, C/L			300			1
D-4	STA. 441+00.00 TO STA. 443+00.00, C/L			200			
	TOTALS	1.8	0.37	500	310	106	3



50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION
PLAN AND PROFILE
STA.433+00 TO STA.443+00

CT Consultants, Inc.
Engineers • Architects • Planners
Willoughby • Akron • Columbus • North Canton • Youngstown

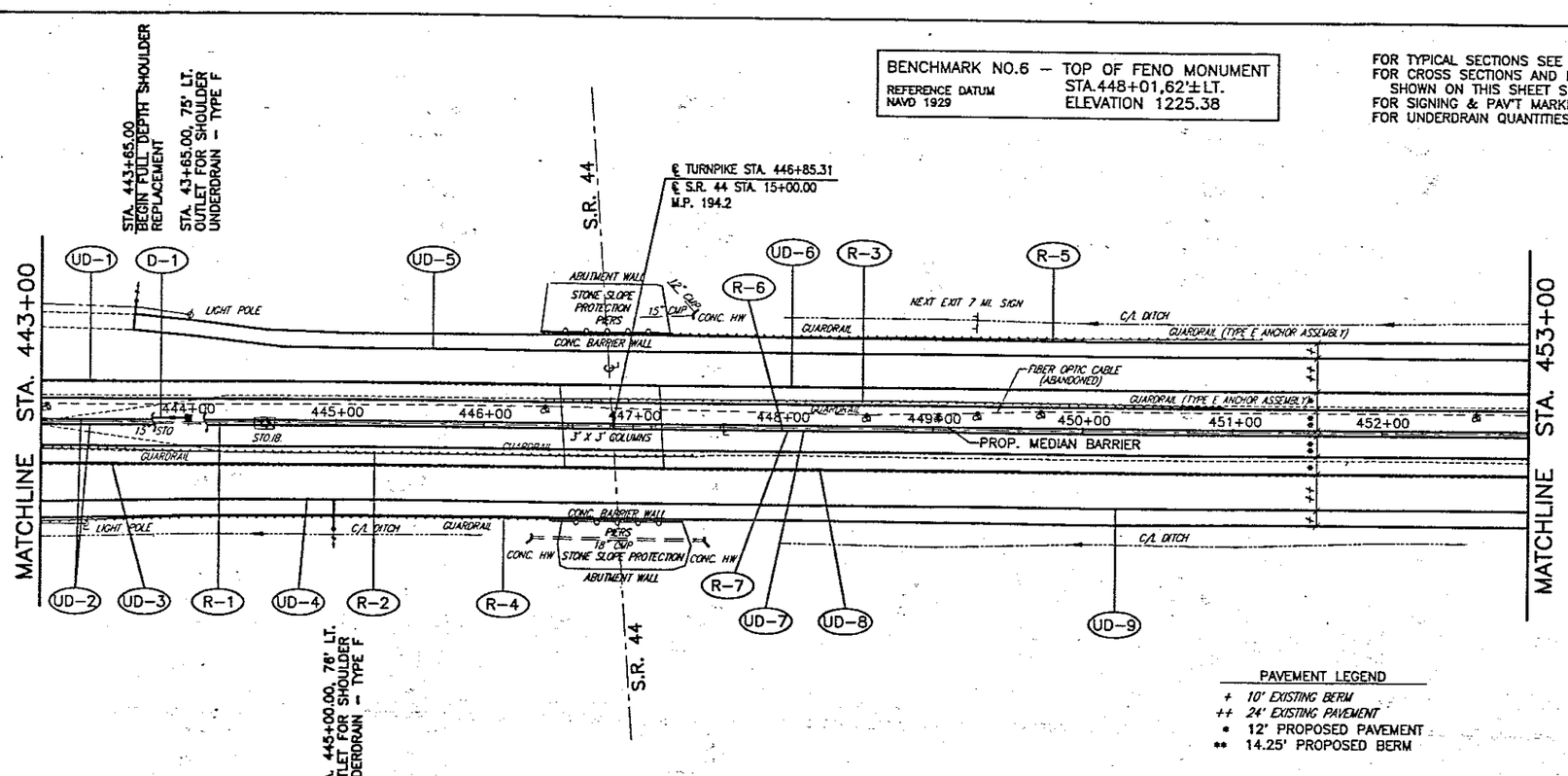
DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95
DRAWN: RLB	IN CHARGE: JEA	SCALE: 1"=50'

CONTRACT 77-96-05 SHEET 54 OF 196

77960514.DWG

BENCHMARK NO.6 – TOP OF FENO MONUMENT	
REFERENCE DATUM NAVD 1929	STA.448+01.62±LT. ELEVATION 1225.38

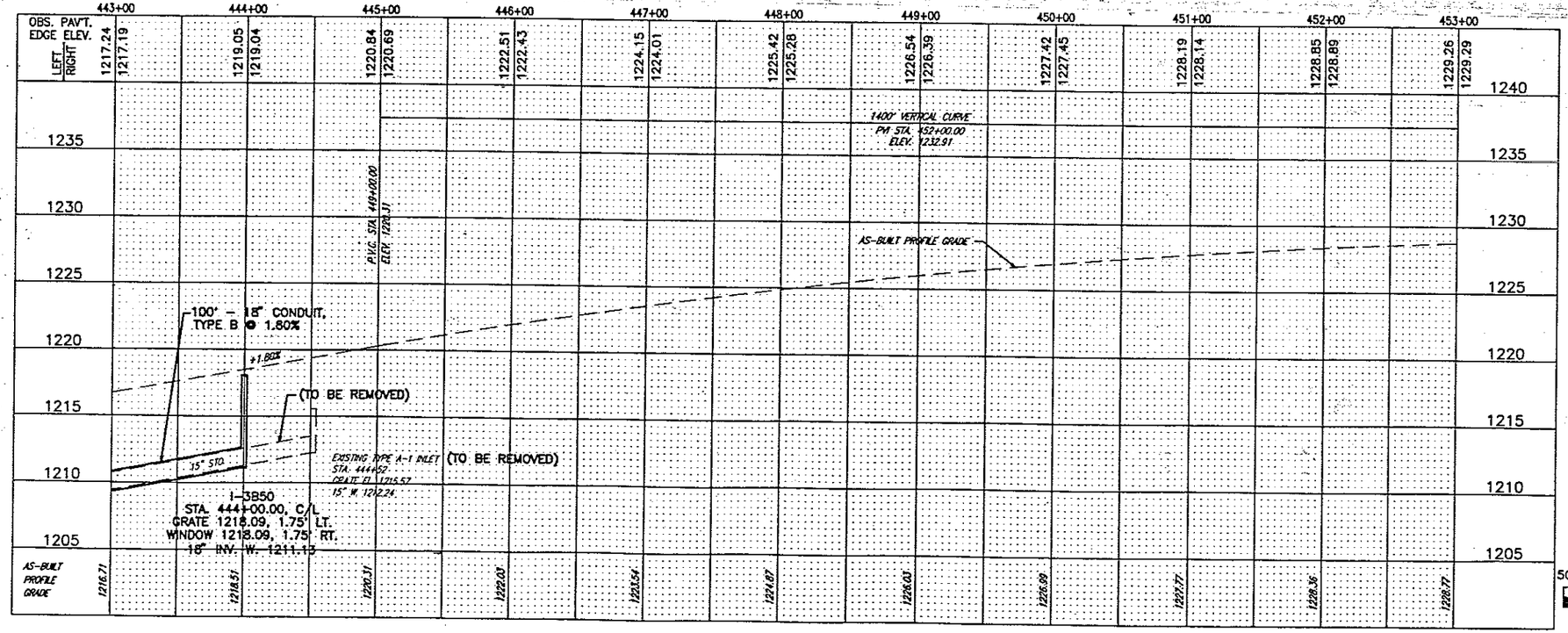
FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82–161
FOR SIGNING & PAV'T MARKING SEE SHEETS 171–196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25–29



N

PAVEMENT LEGEND	
+	10' EXISTING BERM
++	24' EXISTING PAVEMENT
*	12' PROPOSED PAVEMENT
**	14.25' PROPOSED BERM

DRAINAGE		603		604		
		18" CONDUIT, TYPE B 706.02		INLET, No.3850		
REF.	LOCATION	L.F.		EA.		
D-1	STA. 443+00.00 TO STA. 444+00.00, C/L	100		1		
	TOTALS	100		1		



ROADWAY		202	202	202	202	202	606	625
		PIPE REMOVED (24" & UNDER)	GUARDRAIL REMOVED	GUARDRAIL REMOVED, FOR REUSE	ANCHOR ASSEMBLY, REMOVED FOR STORAGE	INLET REMOVED	GUARDRAIL REBUILT, TYPE 5	MEDIAN JUNCTION BOX, TYPE I
REF.	LOCATION	LF.	LF.	LF.	EA.	EA.	LF.	EA.
R-1	STA. 443+00.00 TO STA. 444+52.00, C/L	152				1		
R-2	STA. 443+00.00 TO STA. 447+40.00, 20'RT.		440					
R-3	STA. 446+40.00 TO STA. 450+95.00, 18'LT.		445		1			
R-4	STA. 443+00.00 TO STA. 446+45.00, 62'RT.			345			345	
R-5	STA. 447+25.00 TO STA. 451+20.00, 62'LT.			395			395	
R-6	STA. 448+00.00, LT.							1
R-7	STA. 448+04.00, RT.							1
	TOTALS	152	885	740	1	1	740	2

50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

PLAN AND PROFILE
STA.443+00 TO STA.453+00

CT Consultants, Inc.
Engineers • Architects • Planners

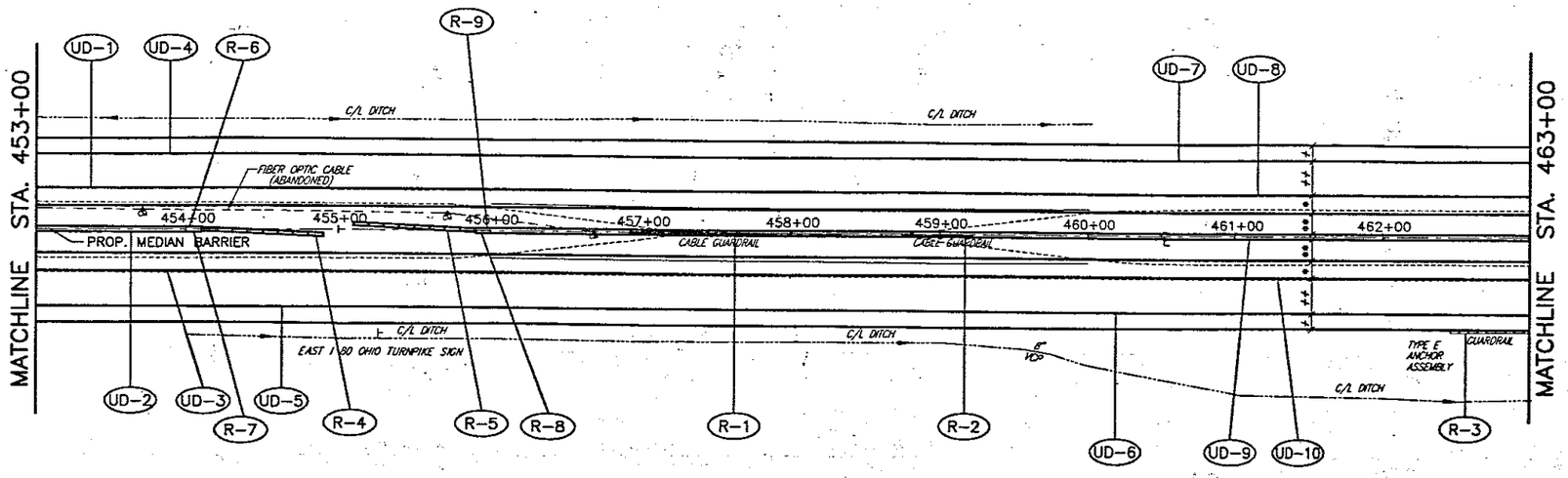
DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95
DRAWN: RLB	IN CHARGE: JEA	SCALE: 1"=50'

CONTRACT 77-96-05 SHEET 55 OF 196

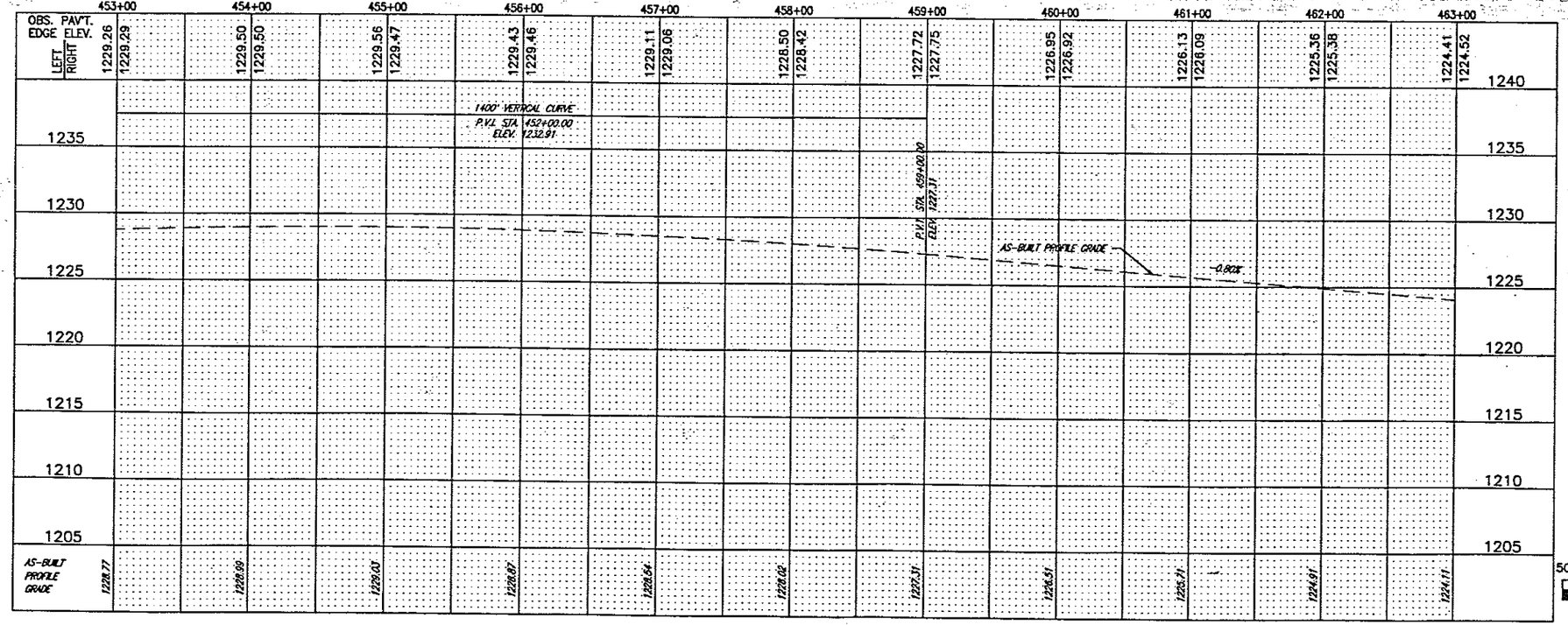
77960515.DWG

FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82–161
FOR SIGNING & PAV'T MARKING SEE SHEETS 171–196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25–29

BENCHMARK NO.7 – TOP OF FENO MONUMENT
REFERENCE DATUM NAVD 1929
STA.456+99.64'± RT.
ELEVATION 1228.27



PAVEMENT LEGEND
\+ 10' EXISTING BERM
++ 24' EXISTING PAVEMENT
* 12' PROPOSED PAVEMENT
** 14.25' PROPOSED BERM



ROADWAY		202 GUARDRAIL REMOVED	202 GUARDRAIL REMOVED, FOR REUSE	606 GUARDRAIL REBUILT, TYPE 5	622 PORTABLE CONCRETE BARRIER, 50", A.P.P.	625 MEDIAN JUNCTION BOX, TYPE I	625 CONDUIT, 4", 713.04,	625 TRENCH
REF.	LOCATION	LF.	LF.	LF.	LF.	EA.	LF.	LF.
R-1	STA. 456+90.00 TO STA. 458+35.00, C/L	145						
R-2	STA. 458+75.00 TO STA. 459+22.00, C/L	47						
R-3	STA. 462+45.00 TO STA. 463+00.00, 62'RT.		55	55				
R-4	STA. 454+10.00 TO STA. 454+90.00, C/L				80			
R-5	STA. 455+10.00 TO STA. 455+90.00, C/L				80			
R-6	STA. 454+02.00, LT.					1	206	206
R-7	STA. 454+06.00, RT.					1	198	198
R-8	STA. 455+94.00, RT.					1		
R-9	STA. 455+98.00, LT.					1		
	TOTALS	192	55	55	160	4	404	404

50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION
PLAN AND PROFILE
STA.453+00 TO STA.463+00

CT Consultants, Inc.
Engineers • Architects • Planners

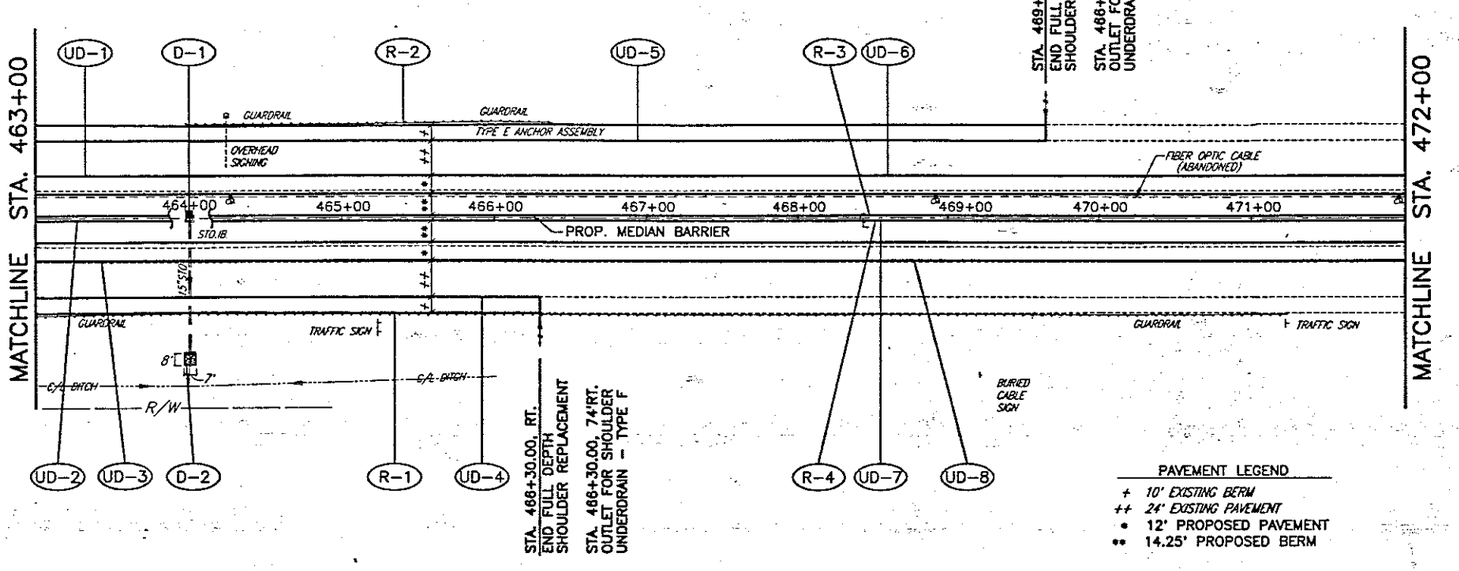
DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: RLB	IN CHARGE: JEA	SCALE: 1"=50'	

CONTRACT 77-96-05 SHEET 56 OF 196

77960516.DWG

BENCHMARK NO.8 – TOP OF FENO MONUMENT
REFERENCE DATUM NAVD 1929
STA.466+02,62'± LT.
ELEVATION 1221.25

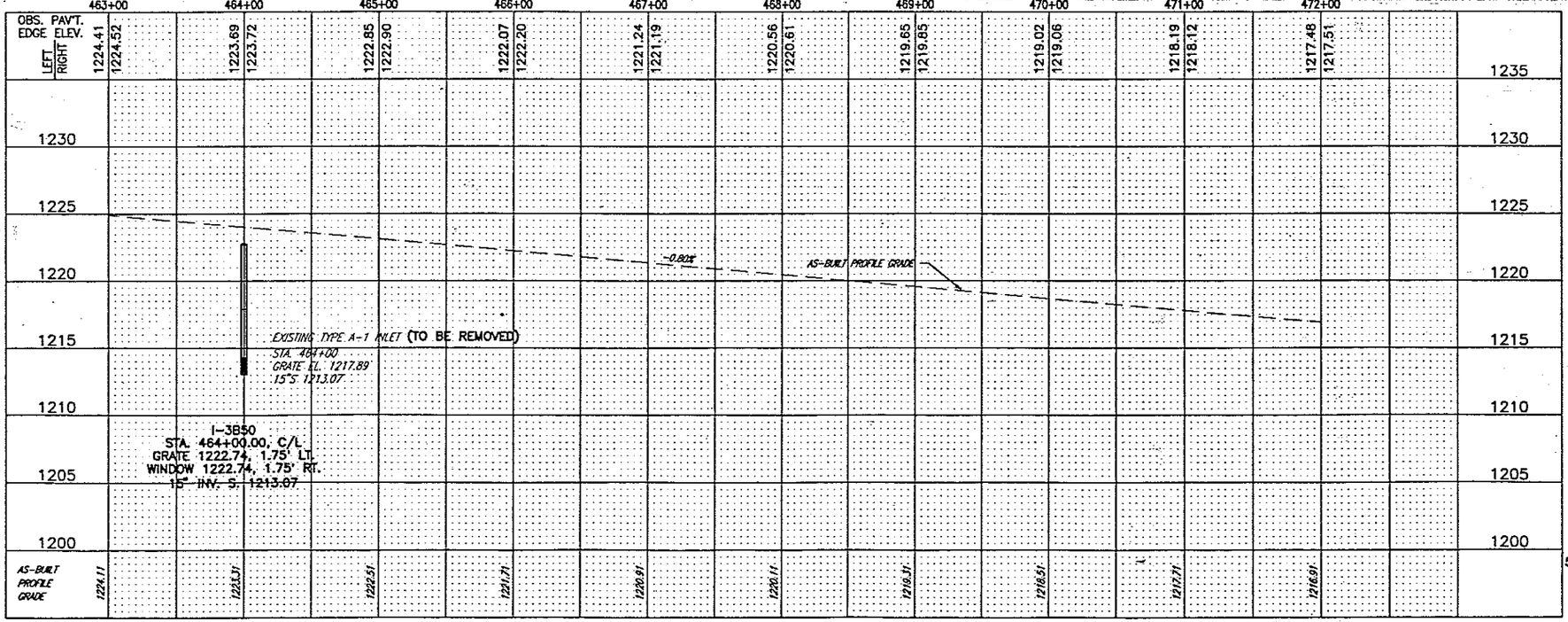
FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82–161
FOR SIGNING & PAV'T MARKING SEE SHEETS 171–196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25–29



PAVEMENT LEGEND
+ 10' EXISTING BERM
++ 24' EXISTING PAVEMENT
• 12' PROPOSED PAVEMENT
•• 14.25' PROPOSED BERM

DRAINAGE		601		603		604			
		ROCK CHANNEL PROTECTION TYPE C WITH FILTER		15" CONDUIT, TYPE B 706.02		INLET, No.3850			
REF.	LOCATION	C.Y.		L.F.		EA.			
D-1	STA. 464+00.00, C/L			6		1			
D-2	STA. 464+00.00, 88'RT. TO 96'RT.	3.1							
	TOTALS	3.1		6		1			

ROADWAY		202		606	625
		GUARDRAIL REMOVED, FOR REUSE		GUARDRAIL REBUILT, TYPE 5	MEDIAN JUNCTION BOX, TYPE 1
REF.	LOCATION	L.F.		L.F.	EA.
R-1	STA. 464+00.00 TO STA. 466+40.00, 62'LT.	240		240	
R-2	STA. 463+00.00 TO STA. 466+30.00, 62'RT.	330		330	
R-3	STA. 468+48.00, LT.				1
R-4	STA. 468+52.00, RT.				1
	TOTALS	570		570	2



50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION
PLAN AND PROFILE
STA.463+00 TO STA.472+00

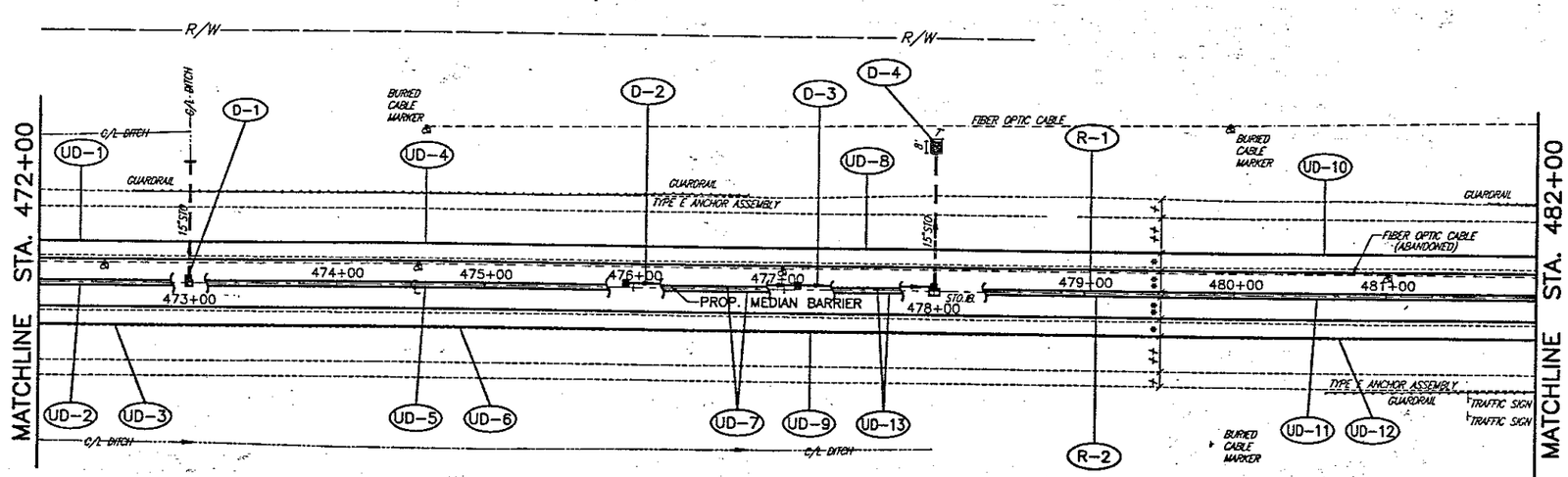
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95
DRAWN: RLB	IN CHARGE: JEA	SCALE: 1"=50'

CONTRACT 77-96-05 SHEET 57 OF 196

77960517.DWG

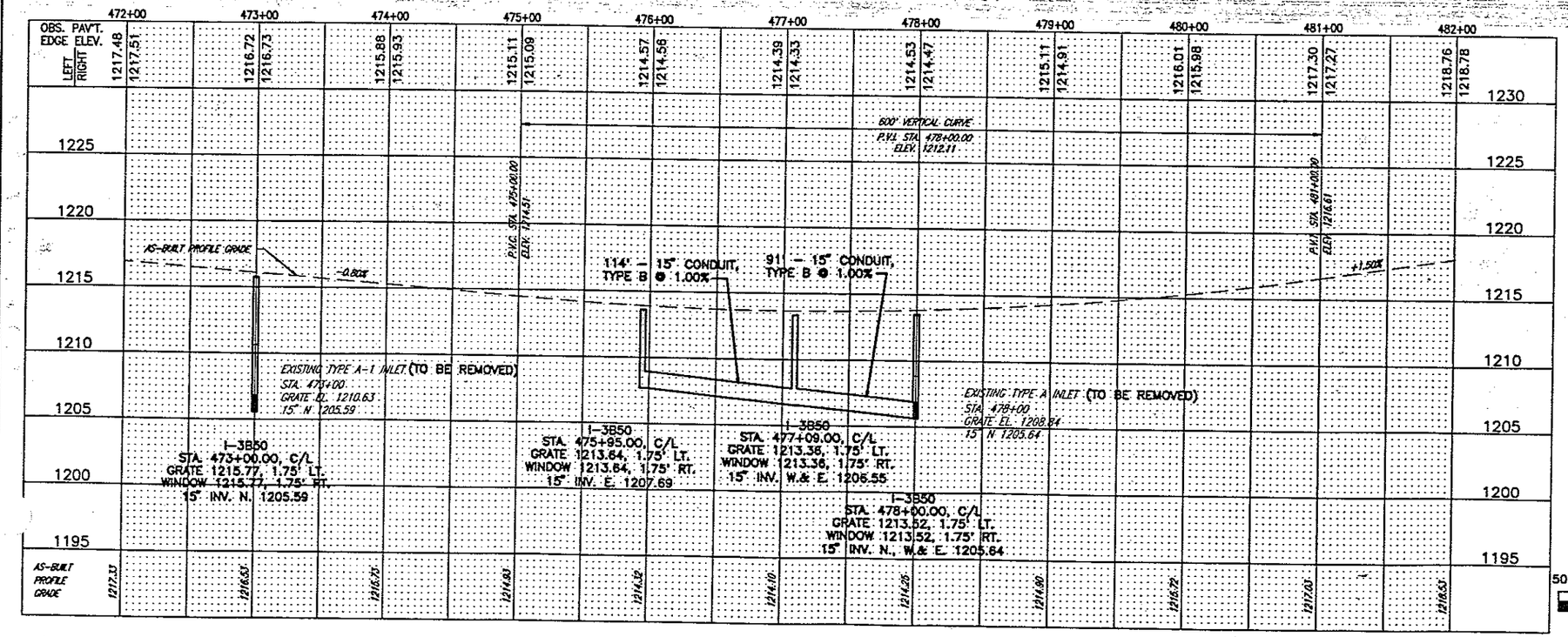
FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82–161
FOR SIGNING & PAV'T MARKING SEE SHEETS 171–196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25–29



DRAINAGE		603		604		601		
		15" CONDUIT, TYPE B 706.02		INLET, No.3850		ROCK CHANNEL PROTECTION TYPE C WITH FILTER		
REF.	LOCATION	L.F.		EA.		C.Y.		
D-1	STA. 473+00.00, C/L	6		1				
D-2	STA. 475+95.00 TO STA. 477+09.00, C/L	114		1				
D-3	STA. 477+09.00 TO STA. 478+00.00, C/L	97		2				
D-4	STA. 478+00.00, LT.					3.1		
	TOTALS	217		4		3.1		

PAVEMENT LEGEND
+ 10' EXISTING BERM
++ 24' EXISTING PAVEMENT
• 12' PROPOSED PAVEMENT
•• 14.25' PROPOSED BERM

BENCHMARK NO.9 – TOP OF FENO MONUMENT
REFERENCE DATUM NAVD 1929
STA.475+02.64± RT.
ELEVATION 1214.49



ROADWAY		625			
		MEDIAN JUNCTION BOX, TYPE 1			
REF.	LOCATION	EA.			
R-1	STA. 479+04.00, LT.	1			
R-2	STA. 479+08.00, RT.	1			
	TOTALS	2			

50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION
PLAN AND PROFILE
STA.472+00 TO STA.482+00

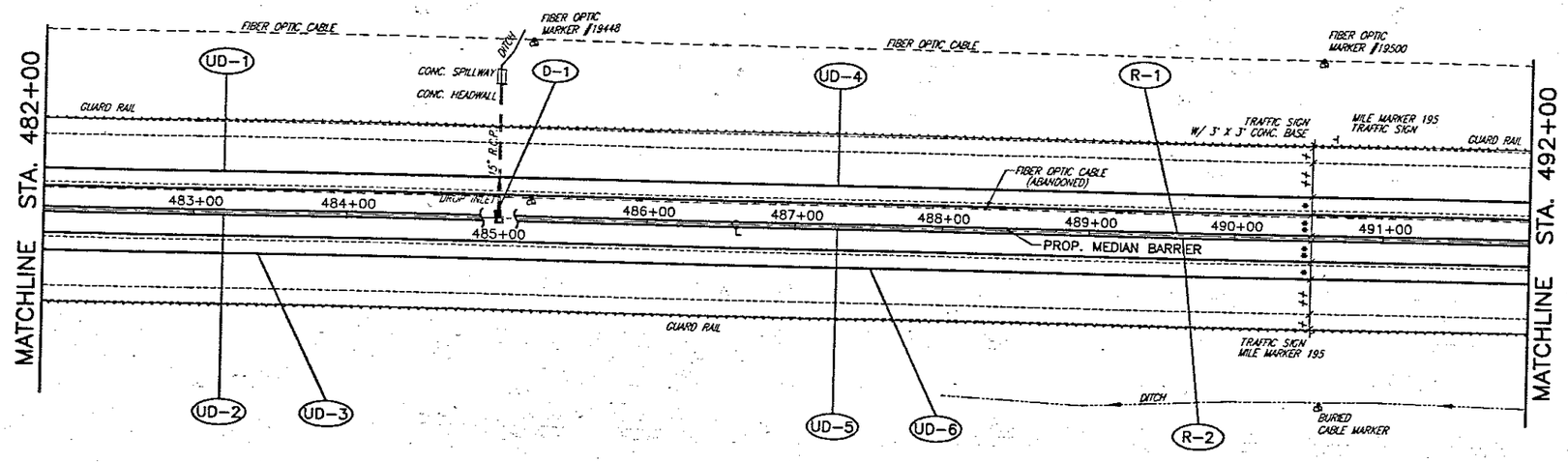
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: RLB	IN CHARGE: JEA	SCALE: 1"=50'	

CONTRACT 77-96-05 SHEET 58 OF 196

77960518.DWG

FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82–161
FOR SIGNING & PAV'T MARKING SEE SHEETS 171–196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25–29

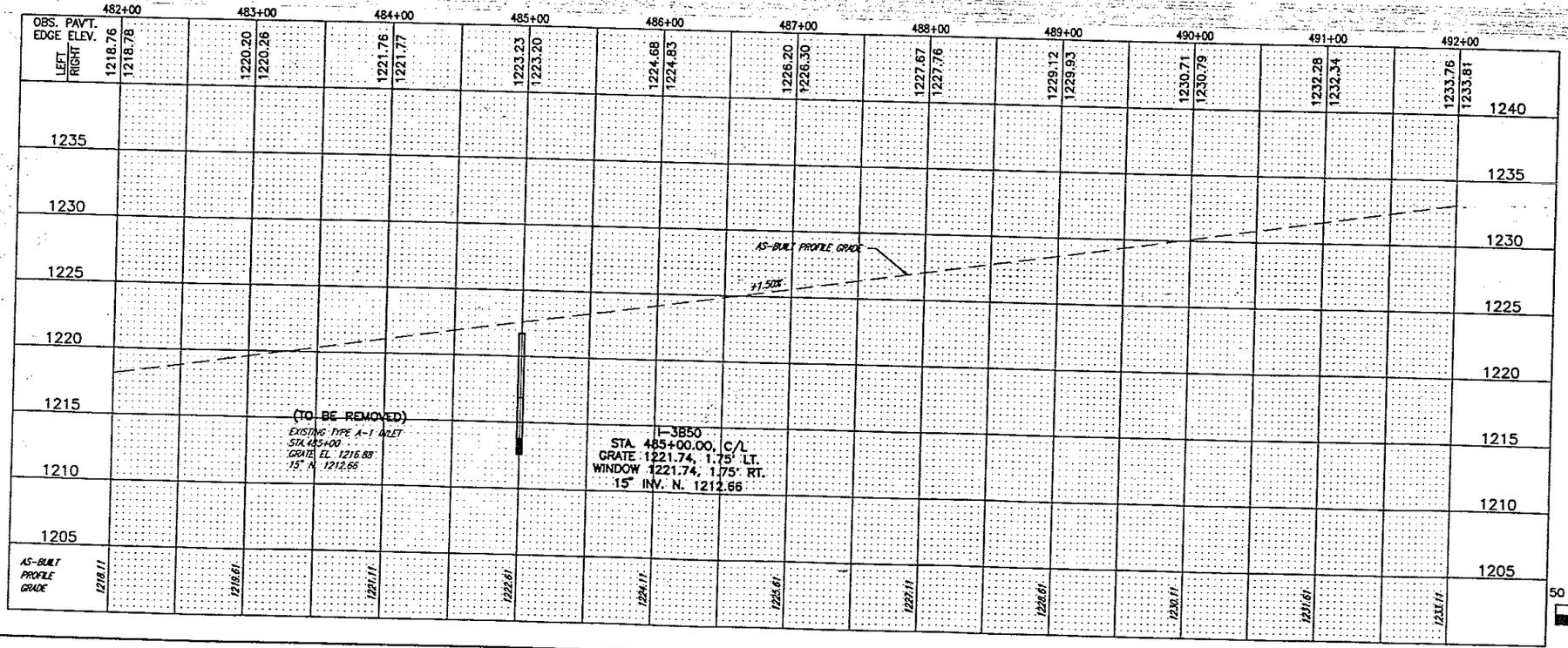


BENCHMARK NO.10 – TOP OF FENO MONUMENT
REFERENCE DATUM NAVD 1929
STA.484+01.63'± LT.
ELEVATION 1220.92

PAVEMENT LEGEND
\+ 10' EXISTING BERM
++ 24' EXISTING PAVEMENT
* 12' PROPOSED PAVEMENT
** 14.25' PROPOSED BERM

DRAINAGE							
REF.	LOCATION	603 15" CONDUIT, TYPE B 706.02 LF.		604 INLET, No.3850 EA.			
D-1	STA. 485+00.00, C/L	6		1			
	TOTALS	6		1			

ROADWAY							
REF.	LOCATION	625 MEDIAN JUNCTION BOX, TYPE 1 EA.					
R-1	STA. 489+60.00, LT.	1					
R-2	STA. 489+64.00, RT.	1					
	TOTALS	2					



50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION
PLAN AND PROFILE
STA.482+00 TO STA.492+00

CT Consultants, Inc.
Engineers • Architects • Planners

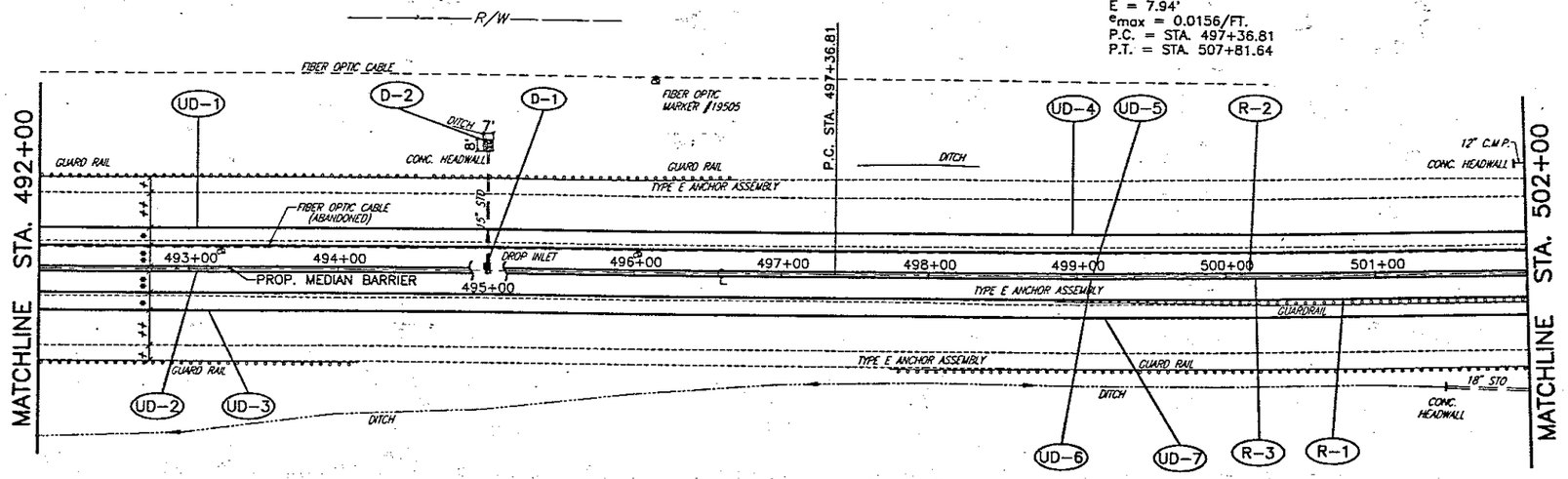
DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: RLB	IN CHARGE: JEA	SCALE: 1"=50'	

CONTRACT 77-96-05 SHEET 59 OF 196

779605I9.DWG

℄ CURVE DATA
P.I. STA. 502+59.39
Δ = 03°28'58" LT.
D_c = 00°20'00"
R = 17,188.73'
T = 522.58'
L = 1,044.83'
E = 7.94'
e_{max} = 0.0156/FT.
P.C. = STA. 497+36.81
P.T. = STA. 507+81.64

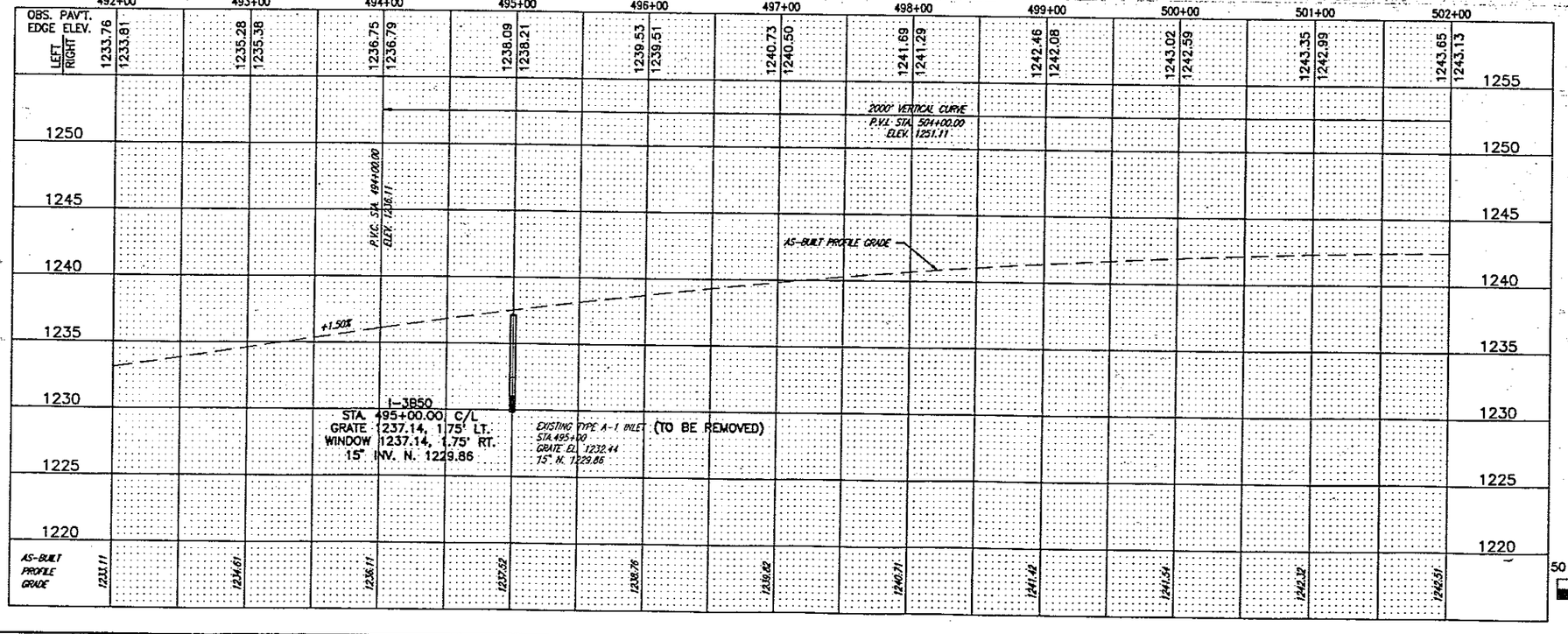
FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82-161
FOR SIGNING & PAV'T MARKING SEE SHEETS 171-196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25-29



DRAINAGE		601		603		604		
		ROCK CHANNEL PROTECTION TYPE C WITH FILTER		15" CONDUIT, TYPE B 706.02		INLET, No.3850		
REF.	LOCATION	C.Y.		L.F.		EA.		
D-1	STA. 495+00.00, C/L			6		1		
D-2	STA. 495+00.00, 80' LT. TO 88' LT.	3.1						
	TOTALS	3.1		6		1		

BENCHMARK NO.11 – TOP OF FENO MONUMENT
STA.492+99.63'± RT.
ELEVATION 1234.39
REFERENCE DATUM NAVD 1929

PAVEMENT LEGEND
\+ 10' EXISTING BERM
++ 24' EXISTING PAVEMENT
• 12' PROPOSED PAVEMENT
•• 14.25' PROPOSED BERM



ROADWAY		202	202		625
		GUARDRAIL REMOVED	ANCHOR ASSEMBLY, REMOVED FOR STORAGE		MEDIAN JUNCTION BOX, TYPE I
REF.	LOCATION	L.F.	EA.		EA.
R-1	STA. 498+85.00 TO STA. 502+00.00, 20' LT.	315	1		
R-2	STA. 500+16.00, LT.				1
R-3	STA. 500+20.00, RT.				1
	TOTALS	315	1		2

50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION
PLAN AND PROFILE
STA.492+00 TO STA.502+00
CT Consultants, Inc.
Engineers • Architects • Planners
Willoughby • Akron • Columbus • North Canton • Youngstown

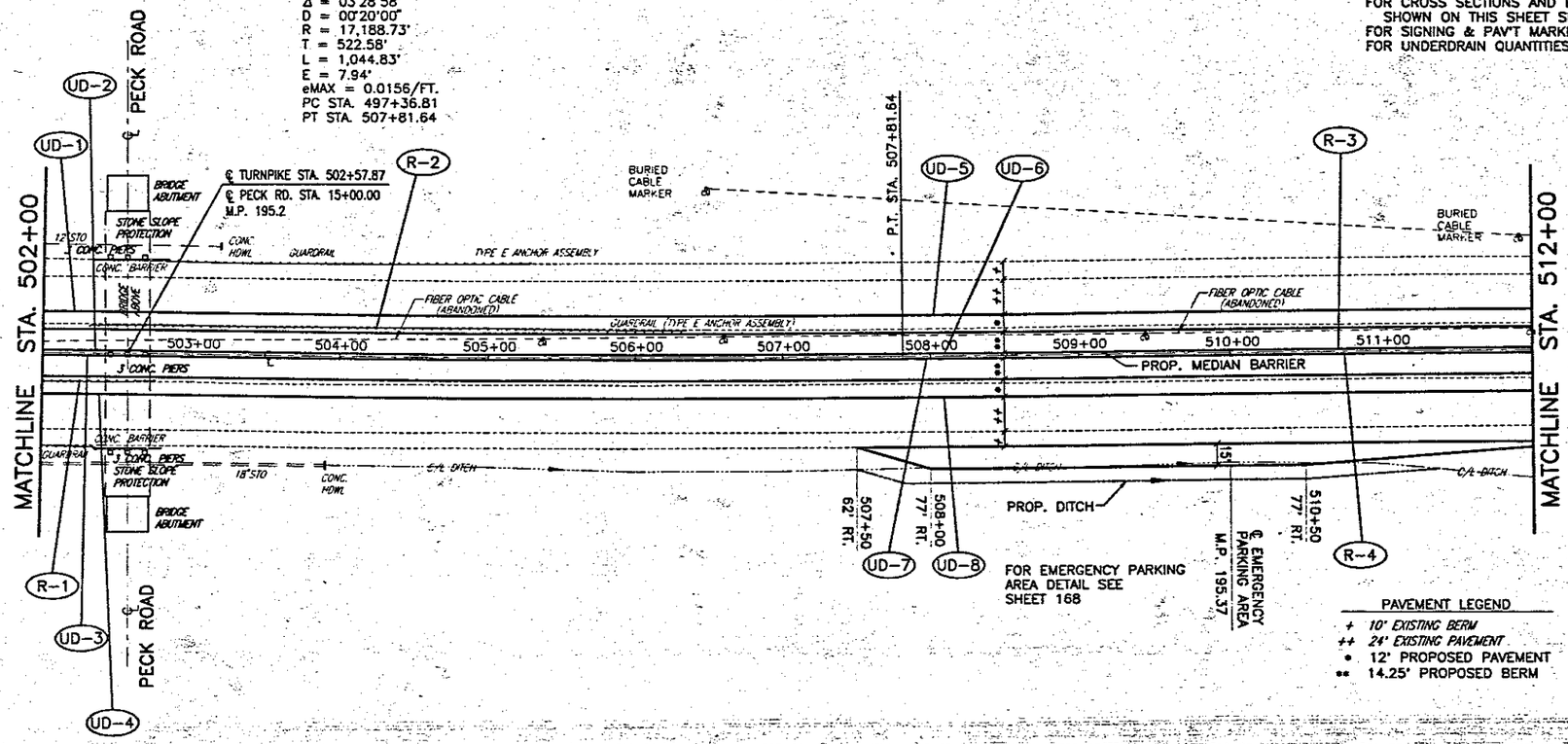
DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: RLB	IN CHARGE: JEA	SCALE: 1"=50'	

CONTRACT 77-95-05 SHEET 60 OF 196

77960520.DWG

℄ CURVE DATA
PI STA. 502+59.39
Δ = 03°28'58"
D = 00°20'00"
R = 17,188.73'
T = 522.58'
L = 1,044.83'
E = 7.94'
eMAX = 0.0156/FT.
PC STA. 497+36.81
PT STA. 507+81.64

FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82-161
FOR SIGNING & PAV'T MARKING SEE SHEETS 171-196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25-29



PAVEMENT LEGEND
+ 10' EXISTING BERM
++ 24' EXISTING PAVEMENT
• 12' PROPOSED PAVEMENT
•• 14.25' PROPOSED BERM

BENCHMARK NO.12 – TOP OF FENO MONUMENT
REFERENCE DATUM NAVD 1929
STA.502+00,63'±LT.
ELEVATION 1242.65

BENCHMARK NO.13 – TOP OF FENO MONUMENT
REFERENCE DATUM NAVD 1929
STA.511+01,63'±RT.
ELEVATION 1236.18

OBS. PAV'T. EDGE ELEV.	502+00	503+00	504+00	505+00	506+00	507+00	508+00	509+00	510+00	511+00	512+00	
LEFT	1243.65	1243.65	1243.54	1243.21	1242.78	1241.91	1240.89	1239.73	1238.42	1237.03	1235.39	
RIGHT	1243.13	1243.15	1242.98	1242.62	1242.12	1241.46	1240.50	1239.47	1238.24	1236.84	1235.28	
						2000' VERTICAL CURVE						1255
						P.V.I. STA. 504+00.00 ELEV. 1251.11						1250
												1245
						AS-BUILT PROFILE GRADE						1240
												1235
												1230
												1225
												1220
AS-BUILT PROFILE GRADE	1242.51	1242.52	1242.36	1242.02	1241.54	1240.82	1239.96	1238.92	1237.71	1236.32	1234.76	

ROADWAY		202 GUARDRAIL REMOVED	202 ANCHOR ASSEMBLY, REMOVED FOR STORAGE	625 MEDIAN JUNCTION BOX, TYPE I	
REF.	LOCATION	LF.	EA.	EA.	
R-1	STA. 502+00.00 TO STA. 502+75.00, 19' RT.	75			
R-2	STA. 502+30.00 TO STA. 506+35.00, 19' LT.	405	1		
R-3	STA. 510+72.00, LT.			1	
R-4	STA. 510+76.00, RT.			1	
TOTALS		480	1	2	

50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION
PLAN AND PROFILE
STA.502+00 TO STA.512+00

CT Consultants, Inc.
Engineers • Architects • Planners
Willoughby • Akron • Columbus • North Canton • Youngstown

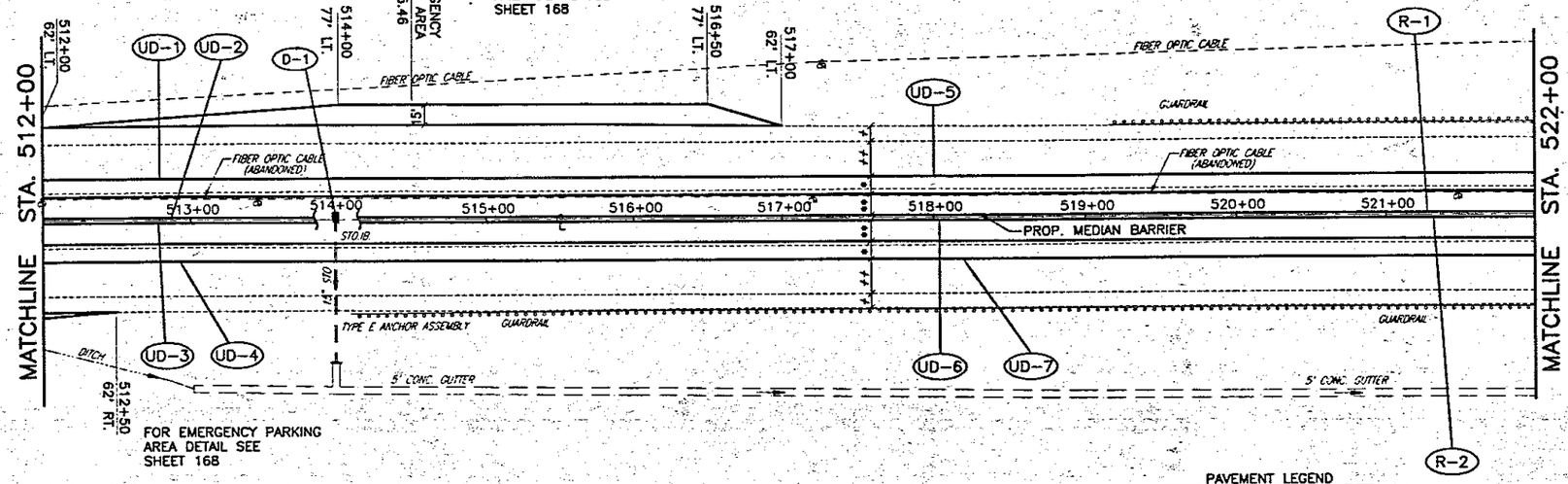
DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-9
DRAWN: RLB	IN CHARGE: JEA	SCALE: 1"=50'

CONTRACT 77-96-05 SHEET 61 OF 196

77960521.DWG

BENCHMARK NO.14 – TOP OF FENO MONUMENT
STA.520+00,63'± LT.
REFERENCE DATUM NAVD 1929 : ELEVATION 1218.90

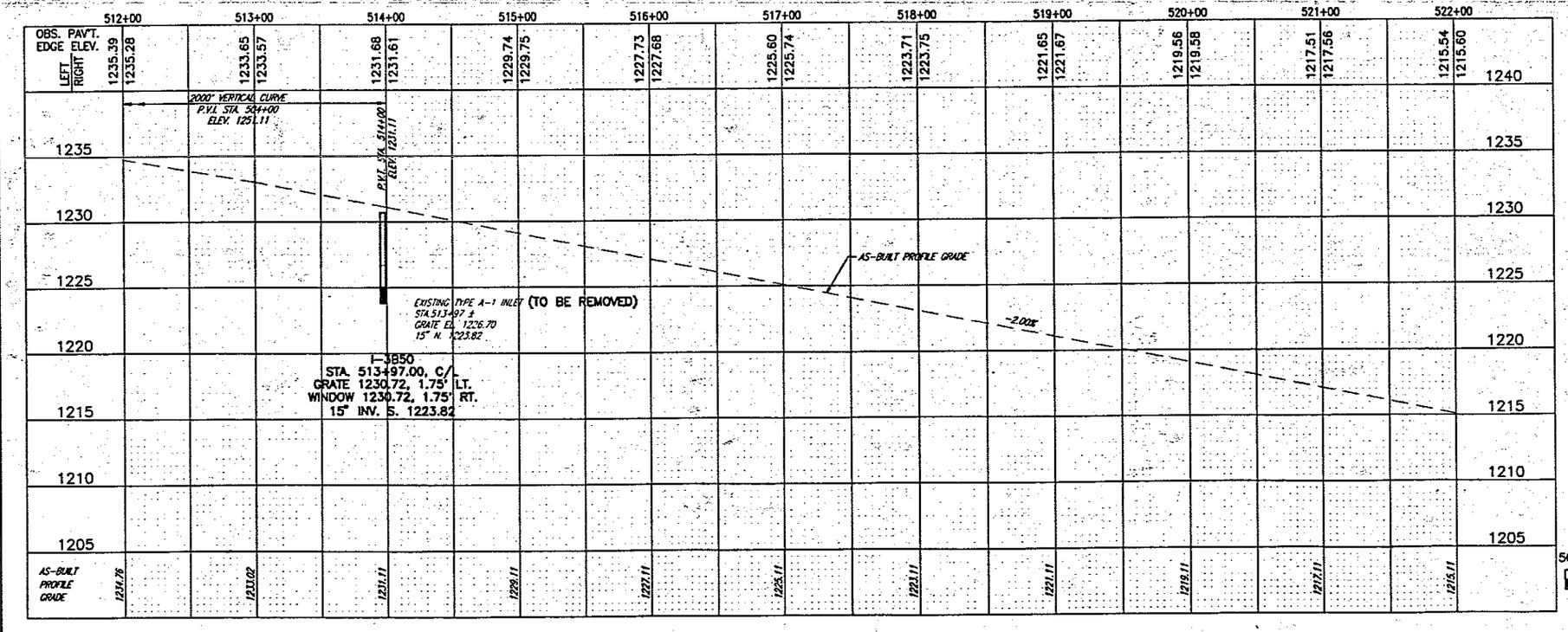
FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82–161
FOR SIGNING & PAV'T MARKING SEE SHEETS 171–196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25–29



PAVEMENT LEGEND
+ 10" EXISTING BERM
++ 24" EXISTING PAVEMENT
• 12' PROPOSED PAVEMENT
•• 14.25' PROPOSED BERM

DRAINAGE		603		604		
		15" CONDUIT, TYPE B 706.02		INLET, No.3850		
REF.	LOCATION	L.F.		EA.		
D-1	STA. 513+97.00, C/L	6		1		
	TOTALS	6		1		

ROADWAY		625			
		MEDIAN JUNCTION BOX, TYPE I			
REF.	LOCATION	EA.			
R-1	STA. 521+28.00, LT.	1			
R-2	STA. 521+32.00, RT.	1			
	TOTALS	2			



50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION
PLAN AND PROFILE
STA.512+00 TO STA.522+00

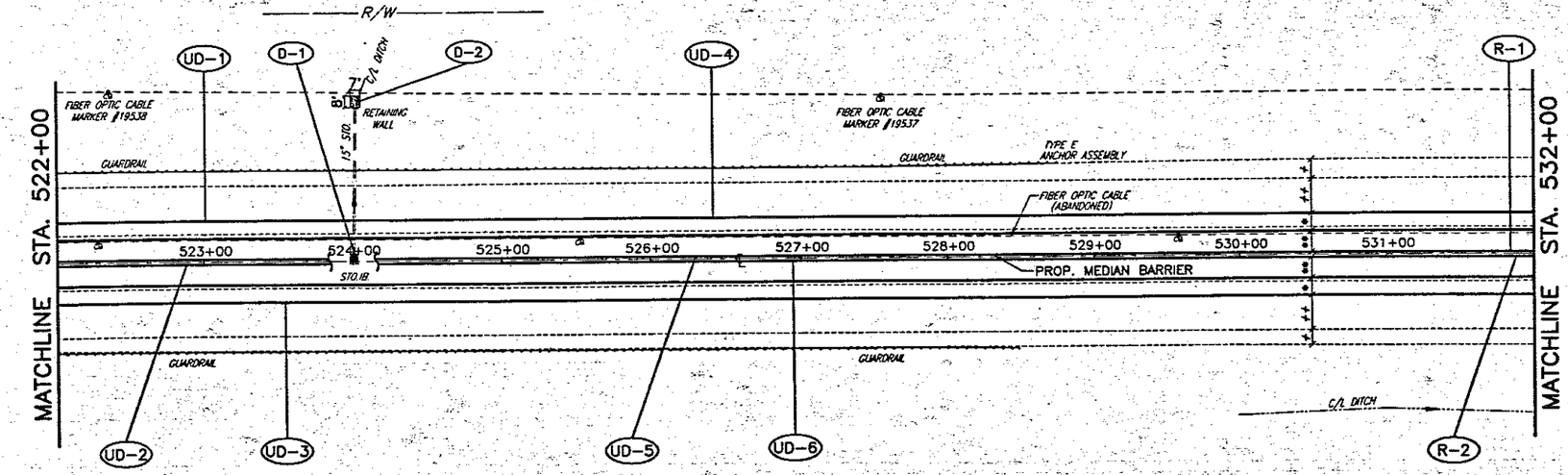
CT-Consultants, Inc.
Engineers • Architects • Planners
Willoughby • Mentor • Columbus • North Canton • Youngstown

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95
DRAWN: RLB	IN CHARGE: JEA	SCALE: 1"=50'

CONTRACT 77-96-05 SHEET 62 OF 196

77960522.DWG

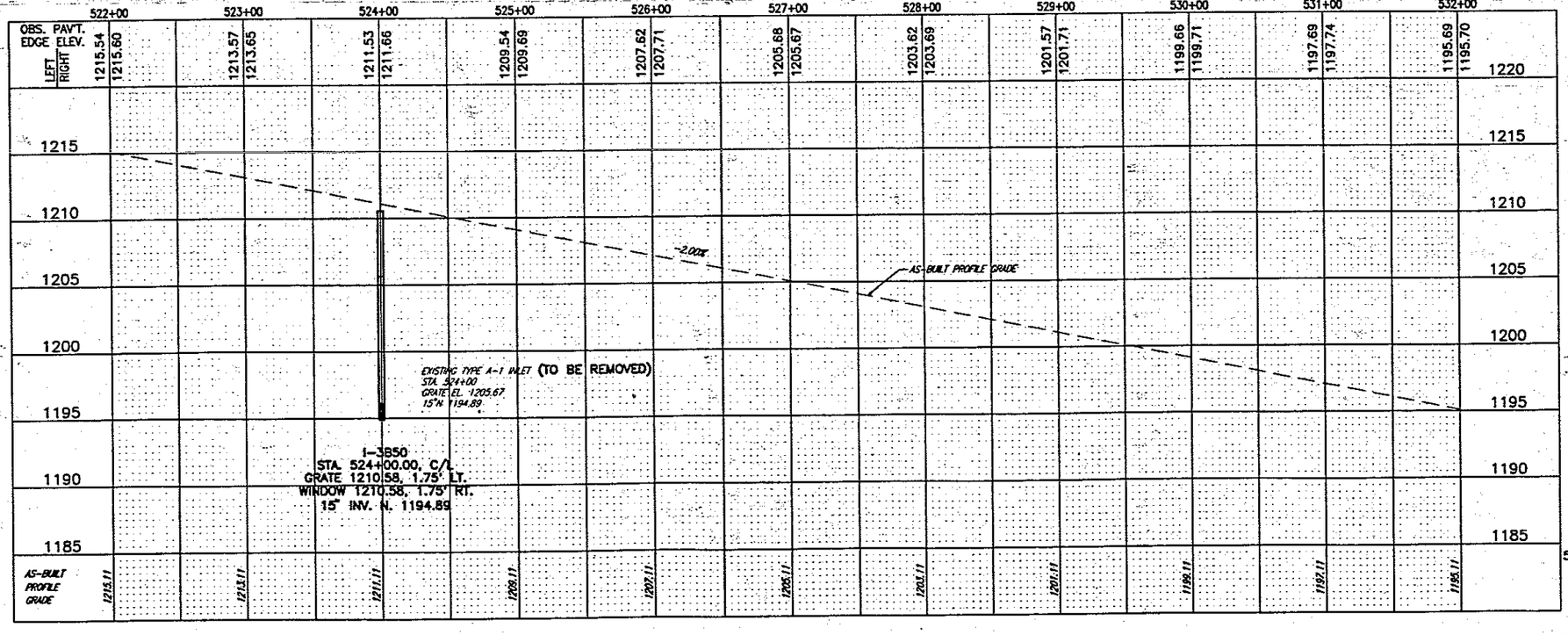
FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82–161
FOR SIGNING & PAVT MARKING SEE SHEETS 171–196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25–29



DRAINAGE AND EROSION CONTROL		601	603	604		
		ROCK CHANNEL PROTECTION TYPE C WITH FILTER	15" CONDUIT, TYPE B 706.02	INLET, No.3850		
REF.	LOCATION	C.Y.	LF.	EA.		
D-1	STA. 524+00.00, C/L		6	1		
D-2	STA. 524+00.00, 105' LT. TO 113' LT.	3.1				
	TOTALS	3.1	6	3		

PAVEMENT LEGEND
+ 10' EXISTING BERM
++ 24' EXISTING PAVEMENT
• 12' PROPOSED PAVEMENT
•• 14.25' PROPOSED BERM

BENCHMARK NO.15 – TOP OF FENO MONUMENT
STA.529+01,63'± RT.
ELEVATION 1201.03
REFERENCE DATUM NAVD 1929



ROADWAY		625
		MEDIAN JUNCTION BOX, TYPE 1
REF.	LOCATION	EACH
R-1	STA. 531+84.00, LT.	1
R-2	STA. 531+88.00, RT.	1
	TOTALS	2

50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DATE

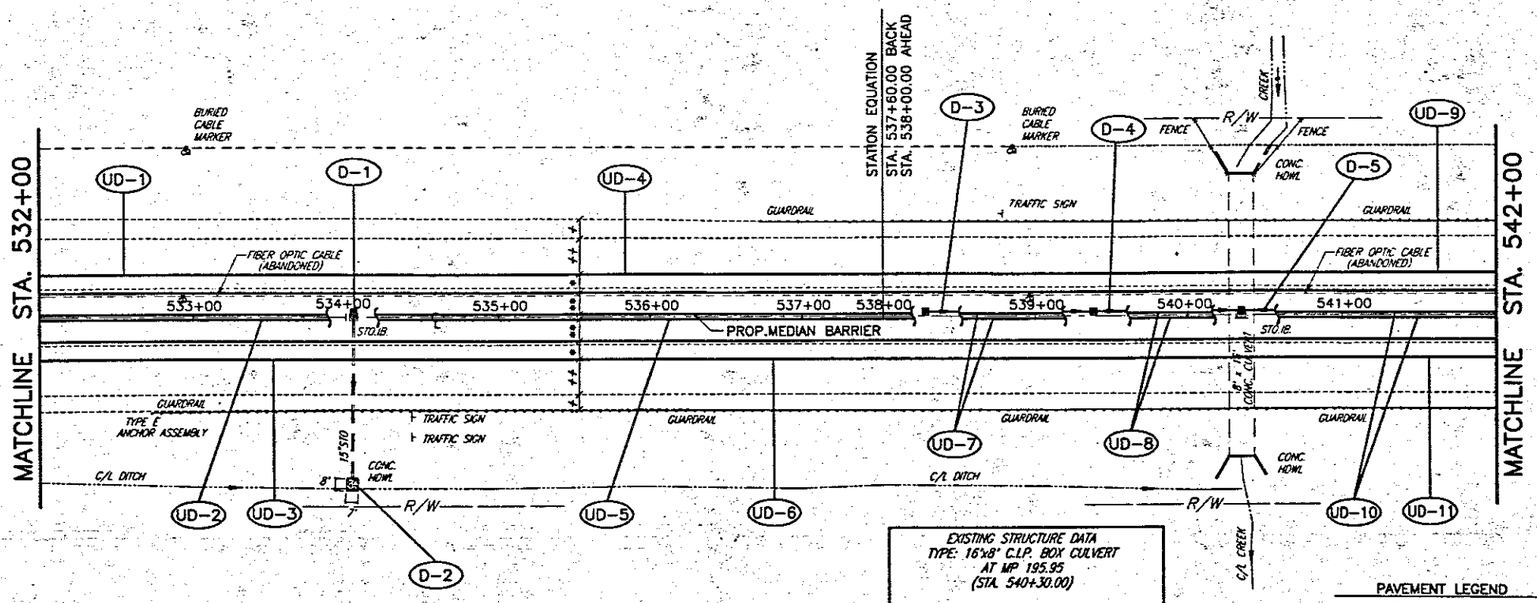
OHIO TURNPIKE COMMISSION
PLAN AND PROFILE
STA.522+00 TO STA.532+00

CT Consultants, Inc.
Engineers • Architects • Planners
Willoughby • Akron • Columbus • North Canton • Youngstown

DESIGNED: W.D.B.	CHECKED: D.J.W.	DATE: 12-01-95	
DRAWN: R.L.B.	IN CHARGE: J.E.A.	SCALE: 1"=50'	

CONTRACT 77-96-05 SHEET 63 OF 196

77960523.DWG



FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82-161
FOR SIGNING & PAV'T MARKING SEE SHEETS 171-196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25-29
FOR CULVERT WORK SEE SHEETS 162-167

N

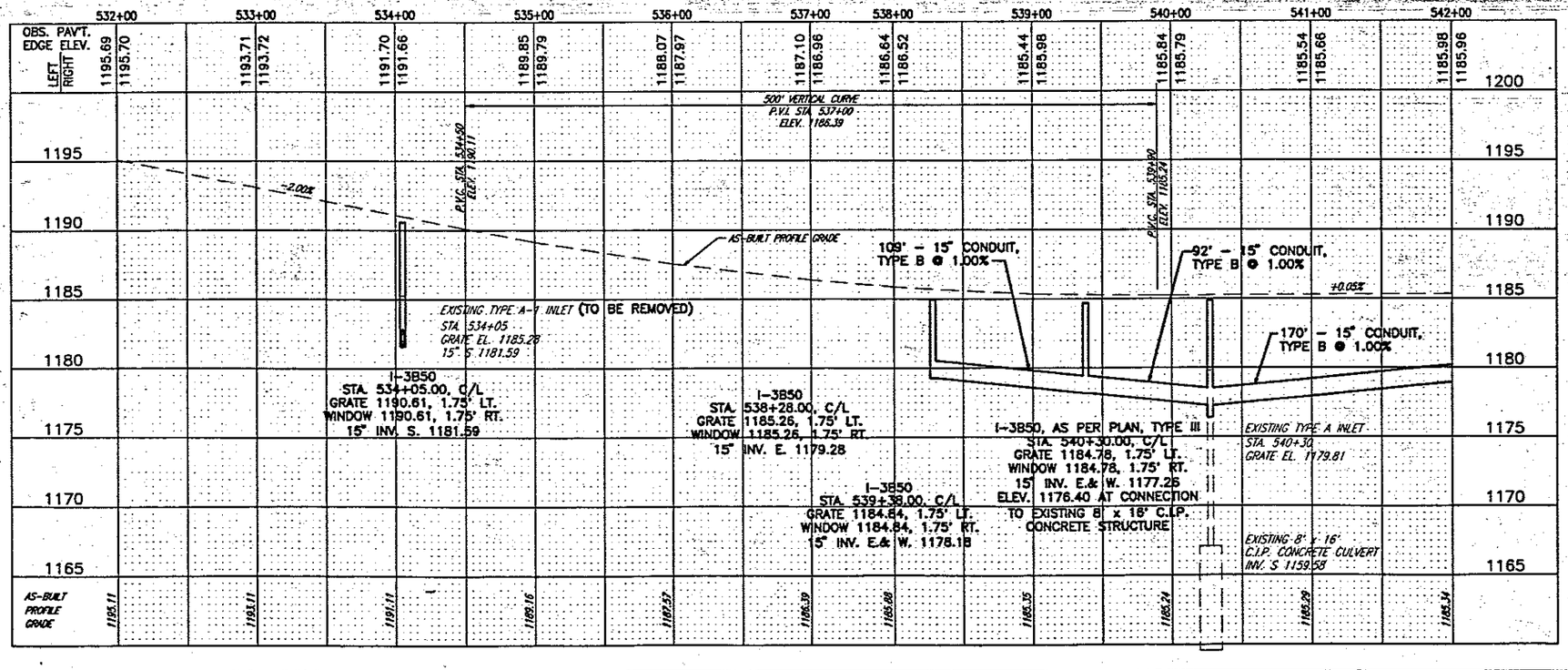
DRAINAGE		601	603	604	604		
		ROCK CHANNEL PROTECTION TYPE C WITH FILTER	15" CONDUIT, TYPE B 706.02	INLET, No.3B50	INLET, No.3B50, AS PER PLAN, TYPE III		
REF.	LOCATION	C.Y.	L.F.	EA.	EA.		
D-1	STA. 534+05.00, C/L		6	1			
D-2	STA. 534+05.00, 106' RT. TO 114' RT.	3.1					
D-3	STA. 538+28.00 TO STA. 539+38.00, C/L		109	1			
D-4	STA. 539+38.00 TO STA. 540+30.00, C/L		92	1			
D-5	STA. 540+30.00 TO STA. 542+00.00, C/L		170		1		
	TOTALS	3.1	377	3	1		

EXISTING STRUCTURE DATA
TYPE: 16'x8' C.I.P. BOX CULVERT
AT MP 195.95
(STA. 540+30.00)

DRAINAGE AREA	= 1.49 SQ. MILES
Q_{100}	= 774 C.F.S.
V_{100}	= 7.39 FT/SEC
HW_{100} (WITH SILT)	= 1168.96
HW_{100} (WITHOUT SILT)	= 1167.63

BENCHMARK NO.16 – TOP OF FENO MONUMENT
REFERENCE DATUM NAVD 1929
STA.537+58,63'±LT.
ELEVATION 1185.85

PAVEMENT LEGEND
+ 10' EXISTING BERM
++ 24' EXISTING PAVEMENT
• 12' PROPOSED PAVEMENT
•• 14.25' PROPOSED BERM



50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

PLAN AND PROFILE
STA.532+00 TO STA.542+00

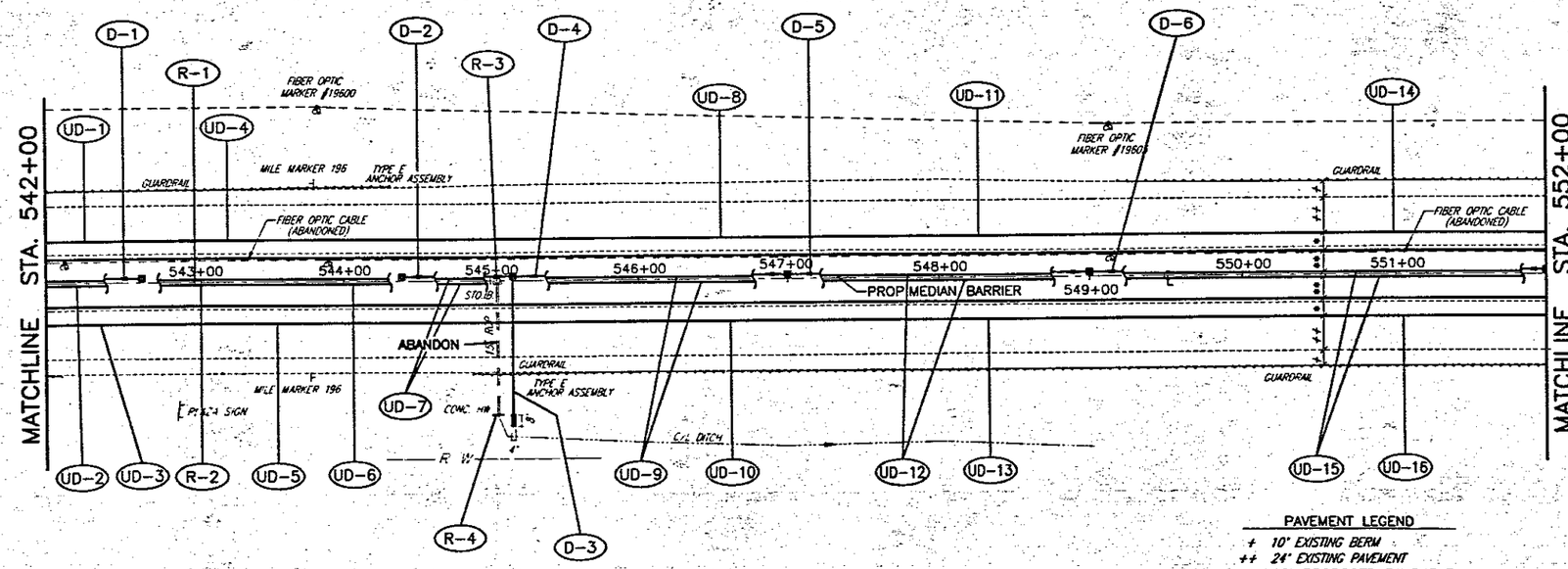
CT Consultants, Inc.
Engineers • Architects • Planners
Willoughby • Akron • Columbus • North Canton • Pittsburgh

DESIGNED: W.D.B.	CHECKED: D.J.W.	DATE: 12-01-95	
DRAWN: R.L.B.	IN CHARGE: J.E.A.	SCALE: 1"=50'	

CONTRACT 77-96-05 SHEET 64 OF 196

77960524.DWG

FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82–161
FOR SIGNING & PAV'T MARKING SEE SHEETS 171–196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25–29

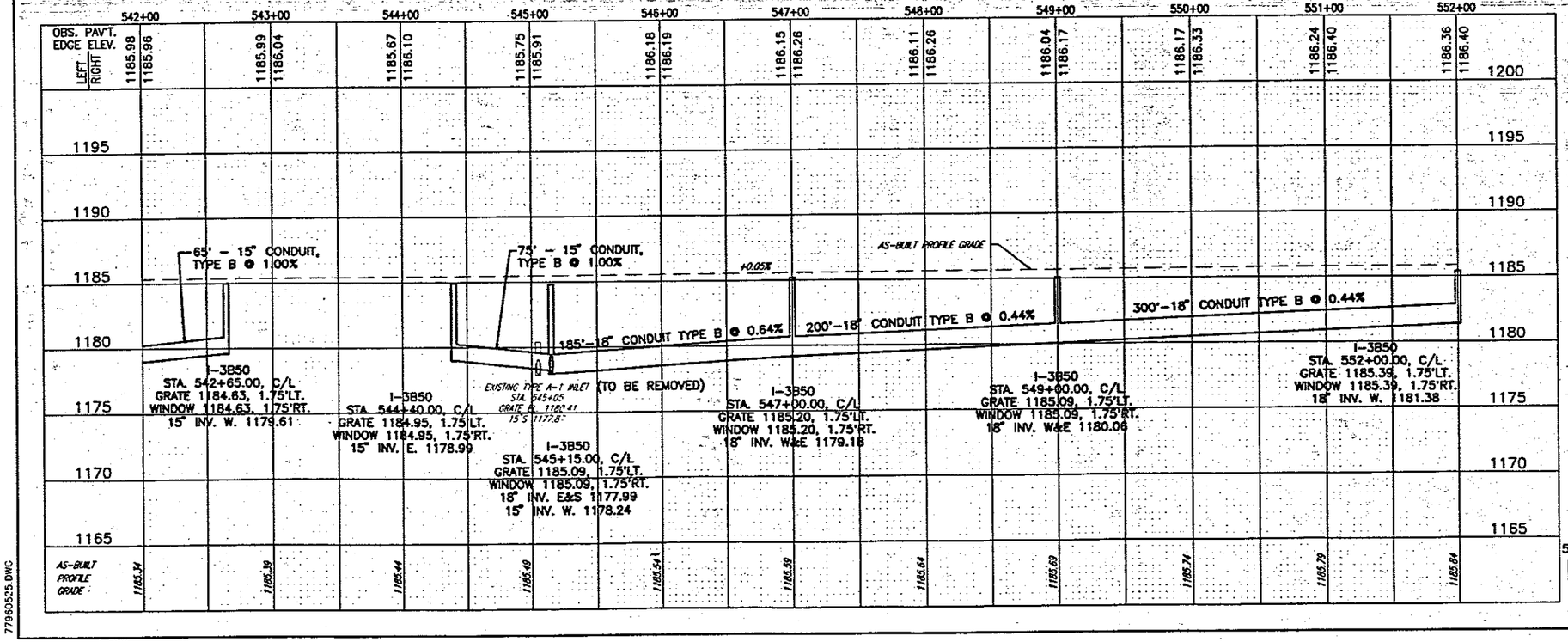


N

DRAINAGE		601	602		603	603	603		604
		ROCK CHANNEL PROTECTION TYPE C WITH FILTER	CONCRETE MASONRY		15" CONDUIT, TYPE B 706.02	18" CONDUIT, TYPE B 706.02	18" CONDUIT, BORED OR JACKED, TYPE B, 706.02		INLET, No.3850
REF.	LOCATION	C.Y.	C.Y.		L.F.	L.F.	L.F.		EA.
D-1	STA. 542+00.00 TO STA. 542+65.00, C/L				65				1
D-2	STA. 544+40.00 TO STA. 545+15.00, C/L				75				1
D-3	STA. 545+15.00, C/L TO 91' RT.	1.8	.31				91		1
D-4	STA. 545+15.00 TO STA. 547+00.00, C/L					185			1
D-5	STA. 547+00.00 TO STA. 549+00.00, C/L					200			1
D-6	STA. 549+00.00 TO STA. 552+00.00, C/L					300			1
	TOTALS	1.8	.31		140	685	91		6

PAVEMENT LEGEND
+ 10' EXISTING BERM
++ 24' EXISTING PAVEMENT
• 12' PROPOSED PAVEMENT
•• 14.25' PROPOSED BERM

BENCHMARK NO.17 – TOP OF FENO MONUMENT
STA.547+04,63'± RT.
ELEVATION 1185.18
REFERENCE DATUM NAVD 1929



ROADWAY		202	202		SPEC.		625
		INLET REMOVED	PIPE REMOVED 24" AND UNDER		FILL AND PLUG EXISTING CONDUIT		MEDIAN JUNCTION BOX, TYPE 1
REF.	LOCATION	EA.	L.F.		L.F.		EACH
R-1	STA. 543+00.00, LT.						1
R-2	STA. 543+04.00, RT.						1
R-3	STA. 545+05.00, C/L	1					
R-4	STA. 545+05.00, C/L TO 91' RT.		8		83		
	TOTALS	1	8		83		2

50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION
PLAN AND PROFILE
STA.542+00 TO STA.552+00

CT Consultants, Inc.
Engineers • Architects • Planners
Willoughby • Akron • Columbus • North Canton • Youngstown

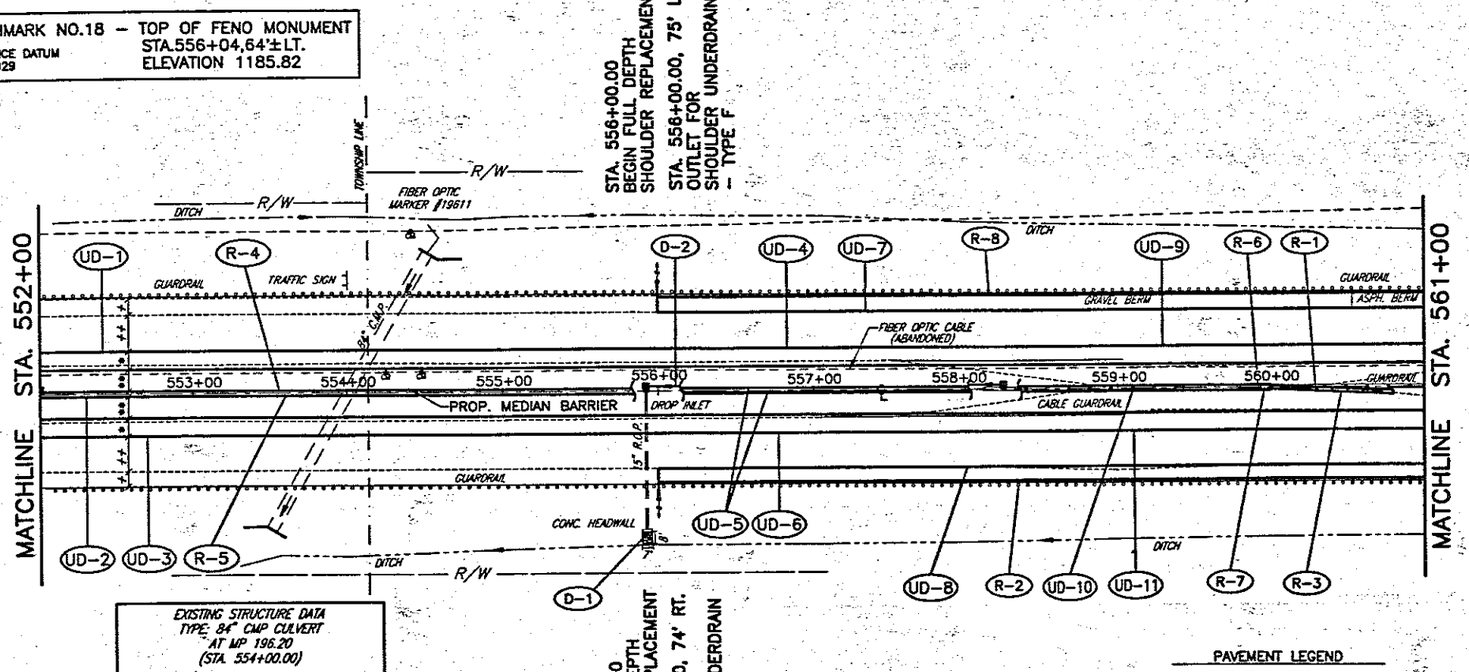
DESIGNED: W.D.B.	CHECKED: D.J.W.	DATE: 12-01-9
DRAWN: R.L.B.	IN CHARGE: J.E.A.	SCALE: 1"=50'

CONTRACT 77-96-05 SHEET 65 OF 196

77960525.DWG

BENCHMARK NO.18 – TOP OF FENO MONUMENT
REFERENCE DATUM NAVD 1929
STA.556+04.64'± LT.
ELEVATION 1185.82

FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82–161
FOR SIGNING & PAV'T MARKING SEE SHEETS 171–196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25–29

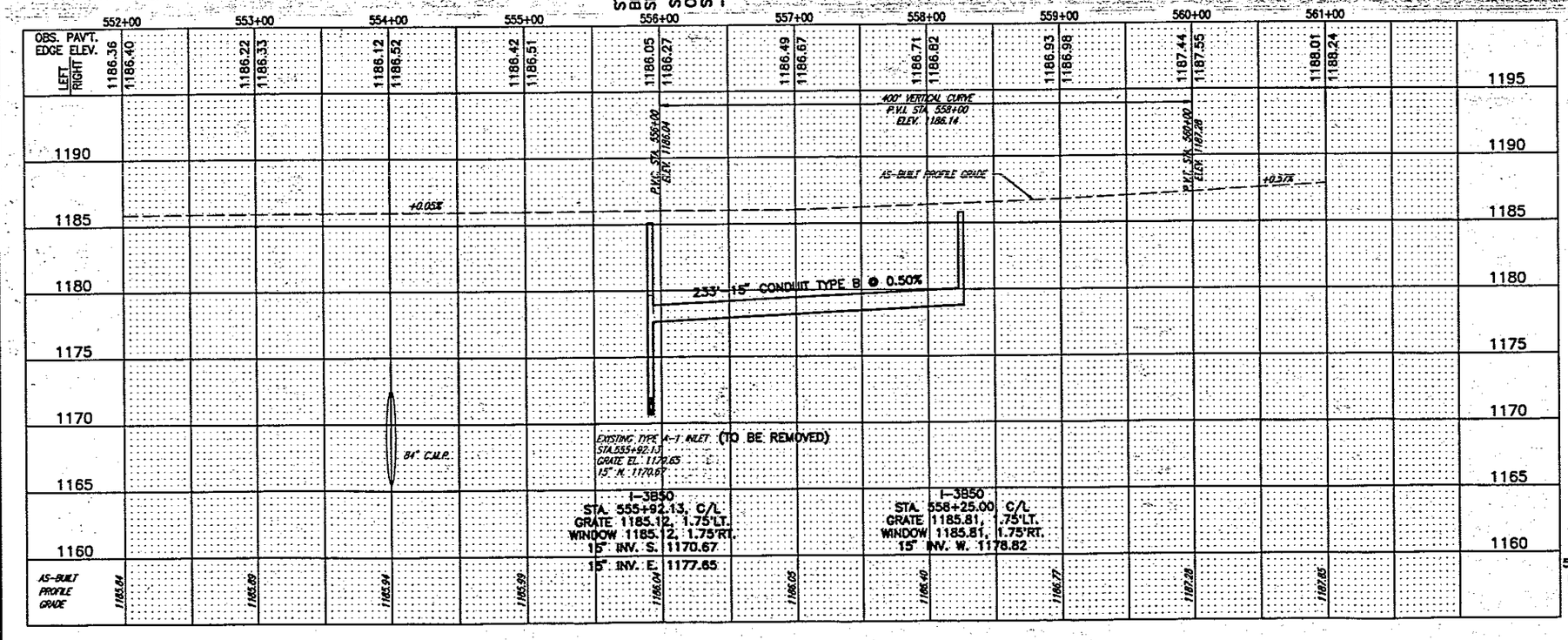


EXISTING STRUCTURE DATA TYPE: 84" CMP CULVERT AT MP 196.20 (STA. 554+00.00)	
DRAINAGE AREA	= .13 SQ. MILES
Q_{100}	= 143 C.F.S.
V_{100}	= 8.54 FT/SEC
HW_{100} (WITH SILT)	= 1173.77
HW_{100} (WITHOUT SILT)	= 1171.82

PAVEMENT LEGEND
+ 10" EXISTING BERM
++ 24" EXISTING PAVEMENT
• 12" PROPOSED PAVEMENT
•• 14.25" PROPOSED BERM

DRAINAGE AND EROSION CONTROL		601	603	604			
		ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	15" CONDUIT, TYPE B 706.02	INLET, No.3850			
REF.	LOCATION	C.Y.	L.F.	EA.			
D-1	STA. 555+92.13, 92' RT. TO 100' RT.	3.1					
D-2	STA. 555+92.13, TO STA. 558+25.00, C/L		239	2			
	TOTALS	3.1	239	2			

ROADWAY		202	202	606	622	625	625	625
		GUARDRAIL REMOVED	GUARDRAIL REMOVED, FOR REUSE	GUARDRAIL REBUILT, TYPE 5	PORTABLE CONCRETE BARRIER, 50', A.P.P.	MEDIAN JUNCTION BOX, TYPE I	4" CONDUIT, 713.04	TRENCH
REF.	LOCATION	L.F.	L.F.	L.F.	L.F.	EACH	L.F.	L.F.
R-1	STA. 558+11.00 TO STA. 561+00.00, C/L	289						
R-2	STA. 556+00.00 TO STA. 561+00.00, 62' RT.		500	500				
R-3	STA. 560+00.00 TO STA. 560+80.00, C/L				80	-		
R-4	STA. 553+56.00, LT.					1		
R-5	STA. 553+60.00, RT.					1		
R-6	STA. 559+92.00 TO STA. 561+88.00, LT.					1	206	206
R-7	STA. 559+96.00 TO STA. 561+84.00, RT.					1	198	198
R-8	STA. 556+00.00 TO STA. 561+00.00, 62' LT.		500	500				
	TOTALS	289	1000	1000	80	4	404	404



50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

PLAN AND PROFILE
STA.552+00 TO STA.561+00

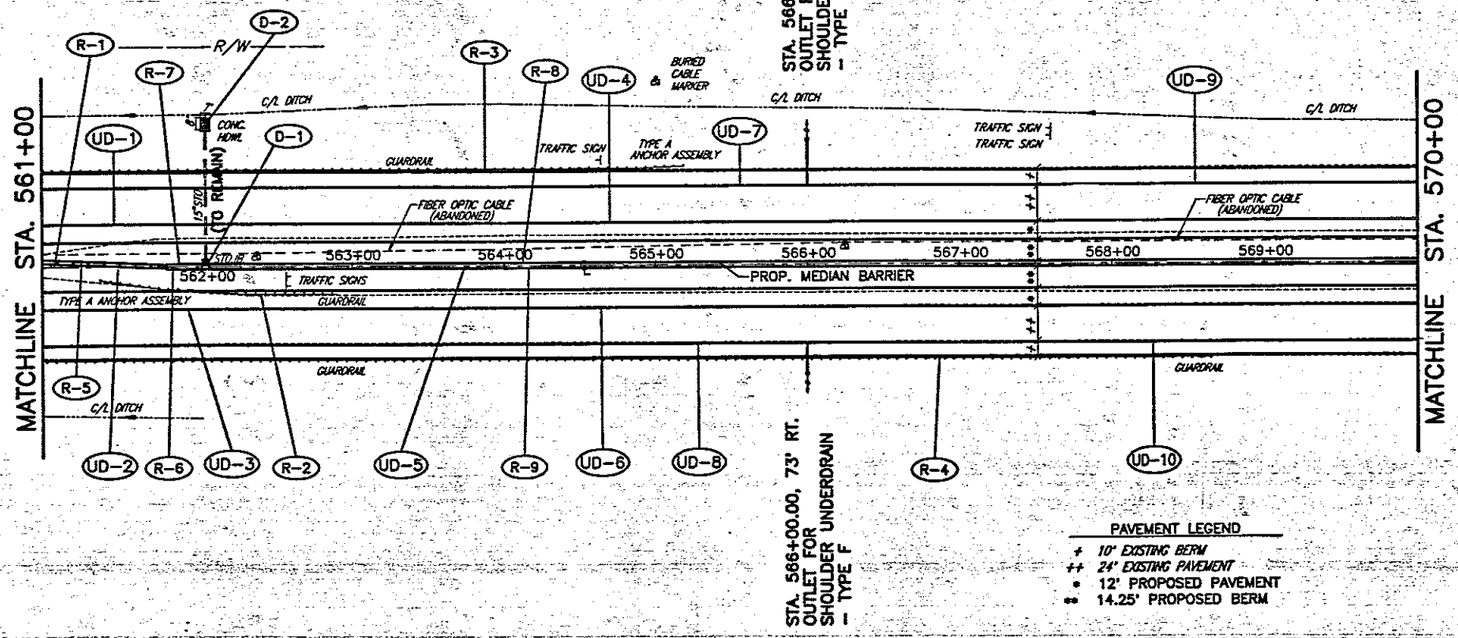
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: W.D.B.	CHECKED: D.J.W.	DATE: 12–01–95
DRAWN: R.L.B.	IN CHARGE: J.E.A.	SCALE: 1"=50'

CONTRACT 77–96–05 SHEET 66 OF 196

77960528.DWG

BENCHMARK NO.19 – TOP OF FENO MONUMENT
REFERENCE DATUM NAVD 1929
STA.565+03,63'± RT.
ELEVATION 1189.43



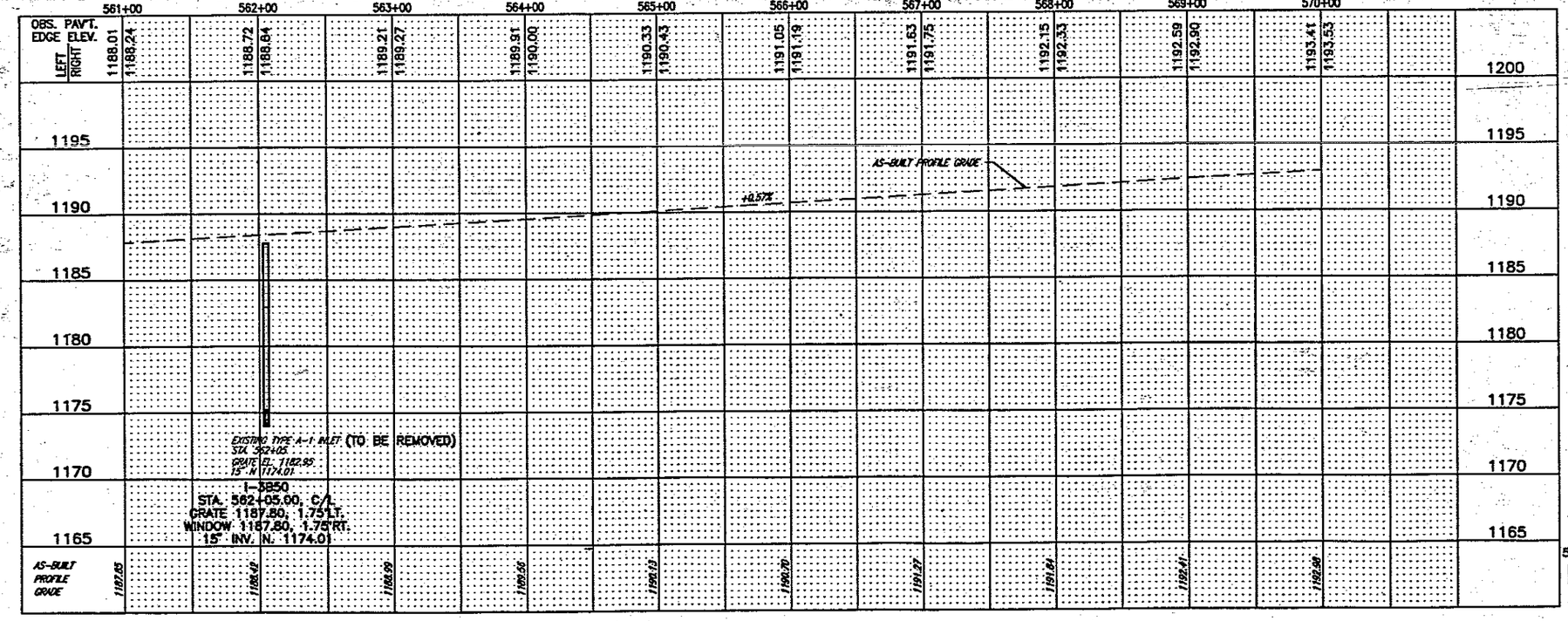
PAVEMENT LEGEND
+ 10' EXISTING BERM
++ 24' EXISTING PAVEMENT
• 12' PROPOSED PAVEMENT
•• 14.25' PROPOSED BERM

N

FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82–161
FOR SIGNING & PAV'T MARKING SEE SHEETS 171–196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25–29

DRAINAGE AND EROSION CONTROL		601	603	604		
		ROCK CHANNEL PROTECTION TYPE C WITH FILTER	15" CONDUIT, TYPE B 706.02	INLET, No.3850		
REF.	LOCATION	C.Y.	L.F.	EA.		
D-1	STA. 562+05.00, C/L		6	1		
D-2	STA. 562+05.00, 90' LT. TO 98' LT.	3.1				
	TOTALS	3.1	6	1		

ROADWAY		202	202	606	622	625
		GUARDRAIL REMOVED	GUARDRAIL REMOVED, FOR REUSE	GUARDRAIL REBUILT, TYPE 5	PORTABLE CONCRETE BARRIER, 50" A.P.P.	MEDIAN JUNCTION BOX, TYPE I
REF.	LOCATION	L.F.	L.F.	L.F.	L.F.	EACH
R-1	STA. 561+00.00 TO STA. 561+33.00, C/L	33				
R-2	STA.561+37.00, 7' RT. TO STA.562+90.00, 18' RT.	153				
R-3	STA.561+00.00 TO STA.565+20.00, 62' LT.		420	420		
R-4	STA.561+00.00 TO STA.568+65.00, 62' RT.		765	765		
R-5	STA.561+00.00 TO STA.561+80.00, C/L				80	
R-6	STA. 561+84.00, RT.					1
R-7	STA. 561+88.00, LT.					1
R-8	STA. 564+12.00, LT.					1
R-9	STA. 564+16.00, RT.					1
	TOTALS	186	1185	1185	80	4

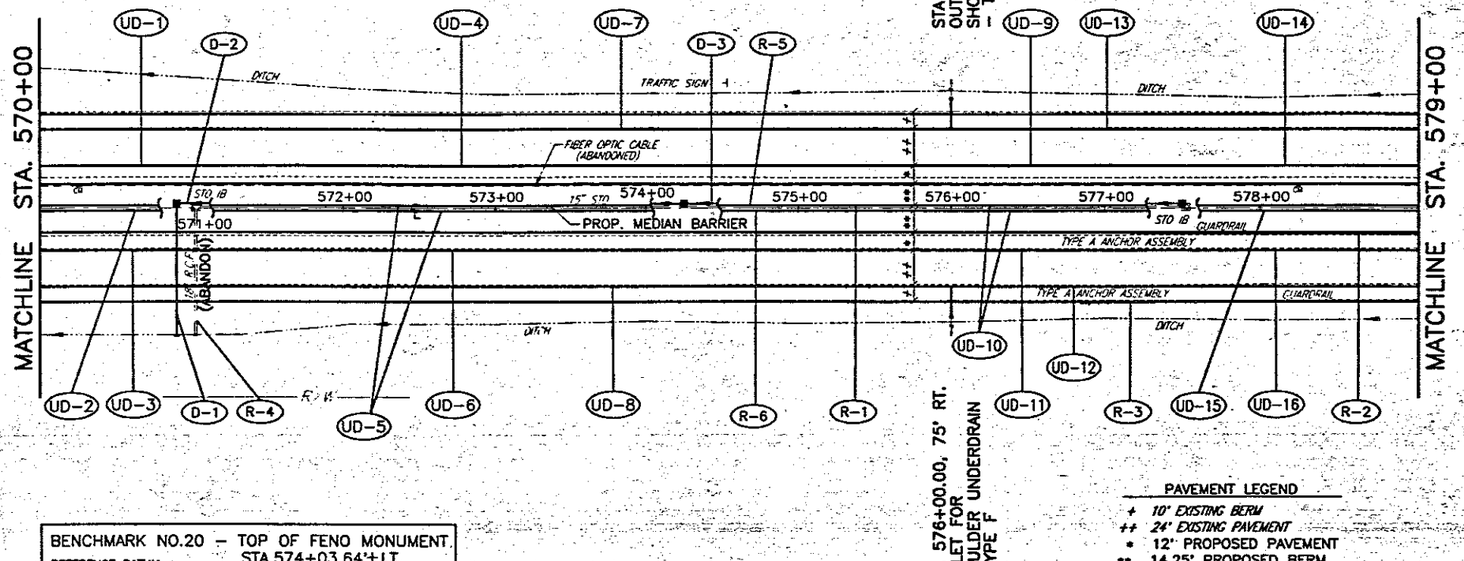


50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION
PLAN AND PROFILE
STA.561+00 TO STA.570+00
CT Consultants, Inc.
Engineers • Architects • Planners
DESIGNED: W.D.B. | CHECKED: D.J.W. | DATE: 12-01-95
DRAWN: R.L.B. | IN CHARGE: J.E.A. | SCALE: 1"=50'
CONTRACT 77-96-05 SHEET 67 OF 196

77960527.DWG



FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82–161
FOR SIGNING & PAV'T MARKING SEE SHEETS 171–196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25–29

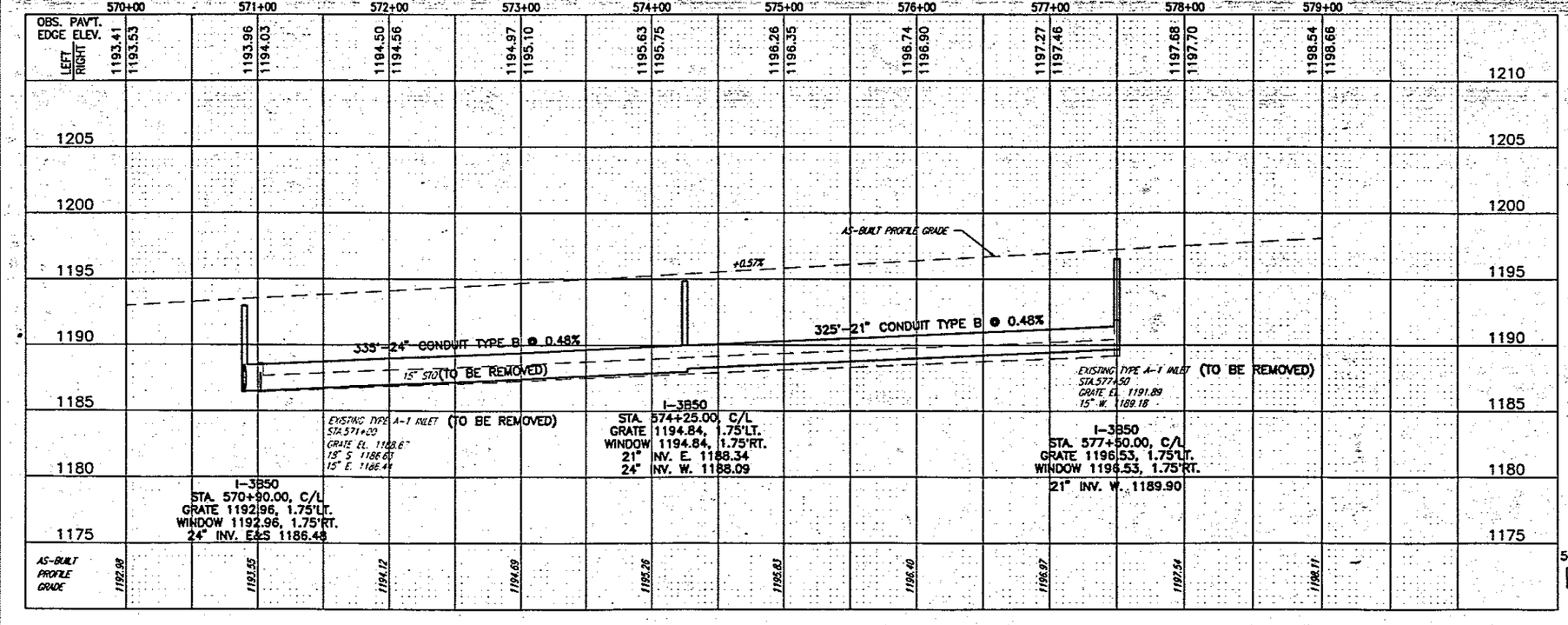
N

DRAINAGE AND EROSION CONTROL		602		603	603		604		
		CONCRETE MASONRY		24" CONDUIT, TYPE B 706.02	24" CONDUIT, BORED OR JACKED, TYPE B, 706.02		INLET, No.3850		
REF.	LOCATION	C.Y.		L.F.	L.F.		EA.		
D-1	STA. 570+90.00, C/L TO 85' RT.	0.43			85		1		
D-2	STA. 570+90.00 TO STA. 574+25.00, C/L			335			1		
D-3	STA. 574+25.00 TO STA. 577+50.00, C/L			325			1		
	TOTALS	0.43		660	85		3		

PAVEMENT LEGEND
+ 10" EXISTING BERM
++ 24" EXISTING PAVEMENT
* 12" PROPOSED PAVEMENT
** 14.25" PROPOSED BERM

BENCHMARK NO.20 – TOP OF FENO MONUMENT.
REFERENCE DATUM NAVD 1929
STA.574+03.64'± LT.
ELEVATION 1195.08

ROADWAY		202	202	202	202	SPEC.	606	625
		PIPE REMOVED (24" & UNDER)	GUARDRAIL REMOVED	GUARDRAIL REMOVED, FOR REUSE	INLET REMOVED	FILL AND PLUG EXISTING CONDUIT	GUARDRAIL REBUILT, TYPE 5	MEDIAN JUNCTION BOX, TYPE I
REF.	LOCATION	LF.	LF.	LF.	EACH	LF.	LF.	EACH
R-1	STA. 571+02.44 TO STA. 577+50.00, C/L	648			2			
R-2	STA. 577+00.00 TO STA. 579+00.00, 17' RT.		200					
R-3	STA. 576+83.00 TO STA. 579+00.00, 52' RT.			217			217	
R-4	STA. 571+00.00, C/L TO 85' RT.	8				77		
R-5	STA. 574+68.00, LT.							1
R-6	STA. 574+72.00, RT.							1
	TOTALS	656	200	217	2	77	217	2



50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

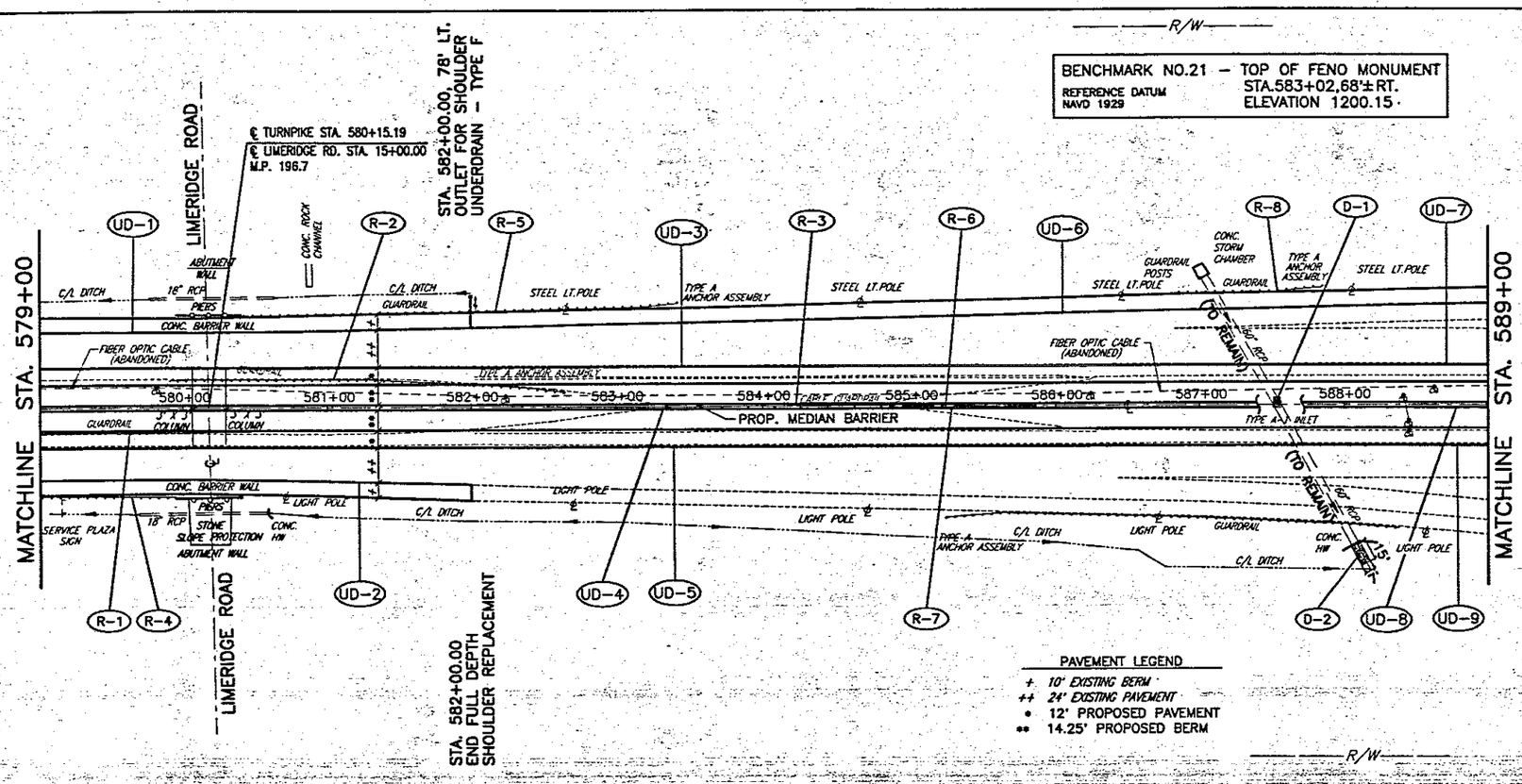
PLAN AND PROFILE
STA.570+00 TO STA.579+00

CT Consultants, Inc.
Engineers • Architects • Planners
Willoughby • Boston • Columbus • North Canton • Youngstown

DESIGNED: W.D.B.	CHECKED: D.J.W.	DATE: 12-01-95
DRAWN: R.L.B.	IN CHARGE: J.E.A.	SCALE: 1"=50'

CONTRACT 77-96-05 SHEET 68 OF 196

77960528.DWG



PAVEMENT LEGEND

+ 10' EXISTING BERM
++ 24' EXISTING PAVEMENT
• 12' PROPOSED PAVEMENT
•• 14.25' PROPOSED BERM

FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82–161
FOR SIGNING & PAVT MARKING SEE SHEETS 171–196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25–29
FOR CULVERT WORK SEE SHEETS 162–167

N

DRAINAGE AND EROSION CONTROL

REF.	LOCATION	601 ROCK CHANNEL PROTECTION TYPE C WITH FILTER C.Y.		604 INLET, No.3850 AS PER PLAN, TYPE II EA.		
D-1	STA. 587+50.00, C/L			1		
D-2	STA. 588+07.00 97' RT. TO STA. 588+15.00, 110' RT.	9.7				
	TOTALS	9.7		1		

ROADWAY

REF.	LOCATION	202 GUARDRAIL REMOVED L.F.	202 GUARDRAIL REMOVED, FOR REUSE L.F.	606 GUARDRAIL REBUILT, TYPE 5 L.F.	625 MEDIAN JUNCTION BOX, TYPE I EACH
R-1	STA. 579+00.00 TO STA. 580+48.00, 18' RT.	148			
R-2	STA.579+90.00, 19' LT. TO STA.582+65.00, 9' LT.	275			
R-3	STA. 582+63.00 TO STA. 585+85.00, C/L	322			
R-4	STA. 579+00.00 TO STA. 579+95.00, 62' RT.		95	95	
R-5	STA. 580+40.00, 62' LT. TO STA. 583+42.00, 73' LT.		302	302	
R-6	STA. 585+24.00, LT.				1
R-7	STA. 585+28.00, RT.				1
R-8	STA. 586+80.00 TO STA. 587+82.00, 80'LT.		102	102	
	TOTALS	745	499	499	2

OBS. PAV'T. EDGE ELEV.	579+00	580+00	581+00	582+00	583+00	584+00	585+00	586+00	587+00	588+00	589+00	
LEFT	1198.54	1198.91	1199.45	1200.26	1200.68	1201.40	1201.91	1202.49	1202.91	1203.29	1204.13	
RIGHT	1198.66	1199.17	1199.80	1200.34	1200.94	1201.48	1202.06	1202.58	1203.14	1203.48	1204.29	
1210												1210
1205												1205
1200						+0.57%	AS-BUILT PROFILE GRADE					1200
1195								I-3B50, AS PER PLAN, TYPE II STA. 587+50.00, C/L GRATE 1202.15, 1.75' LT. WINDOW 1202.15, 1.75' RT. ELEV. 1196.85 AT CONNECTION TO EXISTING STRUCTURE				1195
1190								EX. 60" INV. NW & SE 1191.00	EXISTING TYPE A-1 INLET STA. 587+50 GRATE EL. 1197.52 60" NW 1191.14 60" SE 1191.20			1190
1185												1185
1180												1180
1175												1175
AS-BUILT PROFILE GRADE	1198.11	1198.68	1199.25	1199.82	1200.39	1200.96	1201.53	1202.10	1202.67	1203.24	1203.81	

50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

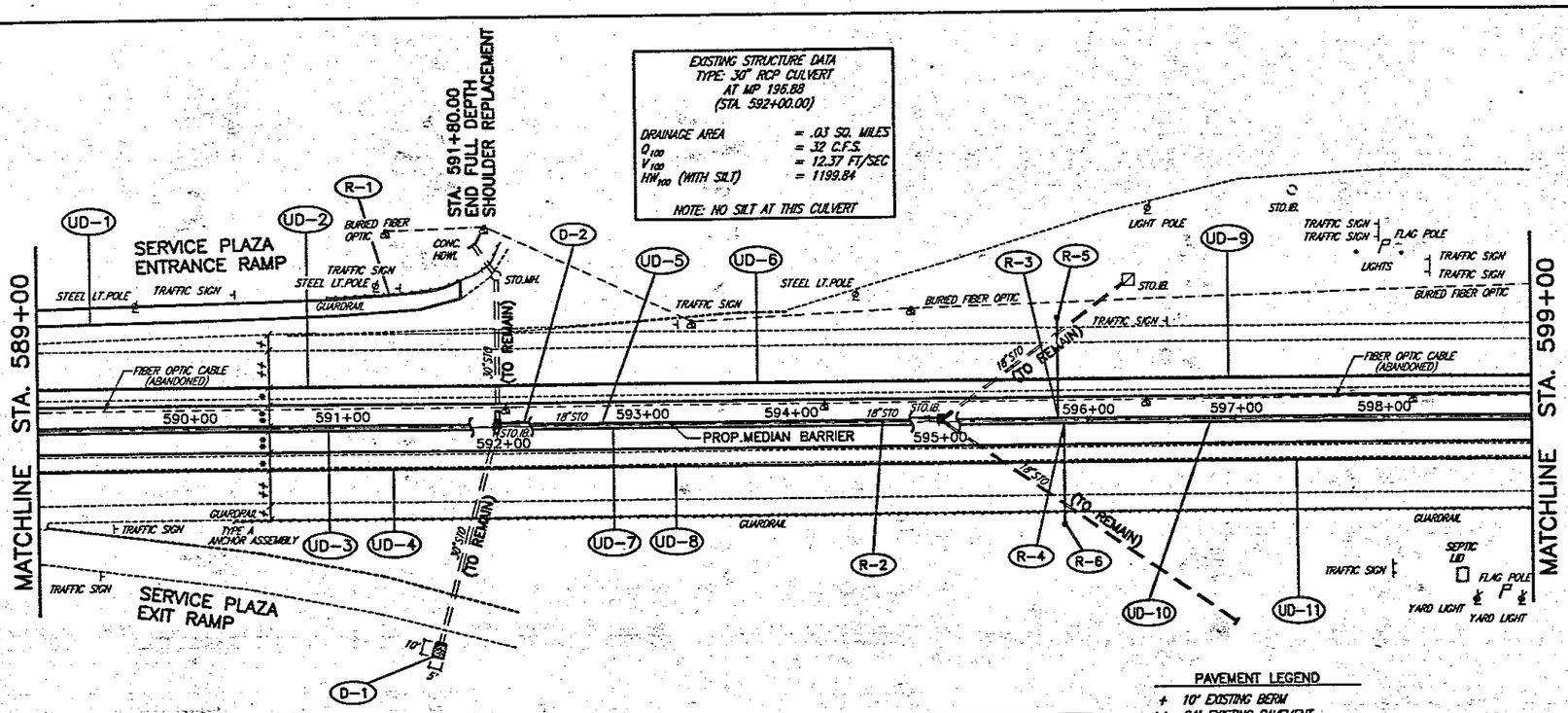
PLAN AND PROFILE
STA.579+00 TO STA.589+00

CT Consultants, Inc.
Engineers • Architects • Planners
Willoughby • Boston • Columbus • North Canton • Pennsylvania

DESIGNED: W.D.B.	CHECKED: D.J.W.	DATE: 12-01-95
DRAWN: R.L.B.	IN CHARGE: J.E.A.	SCALE: 1"=50'

CONTRACT 77-96-05 SHEET 69 OF 196

77960529.DWG



FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82–161
FOR SIGNING & PAVT MARKING SEE SHEETS 171–196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25–29

N

BENCHMARK NO.22 – TOP OF FENO MONUMENT
STA.592+02.64'± LT.
ELEVATION 1205.12
REFERENCE DATUM NAVD 1929

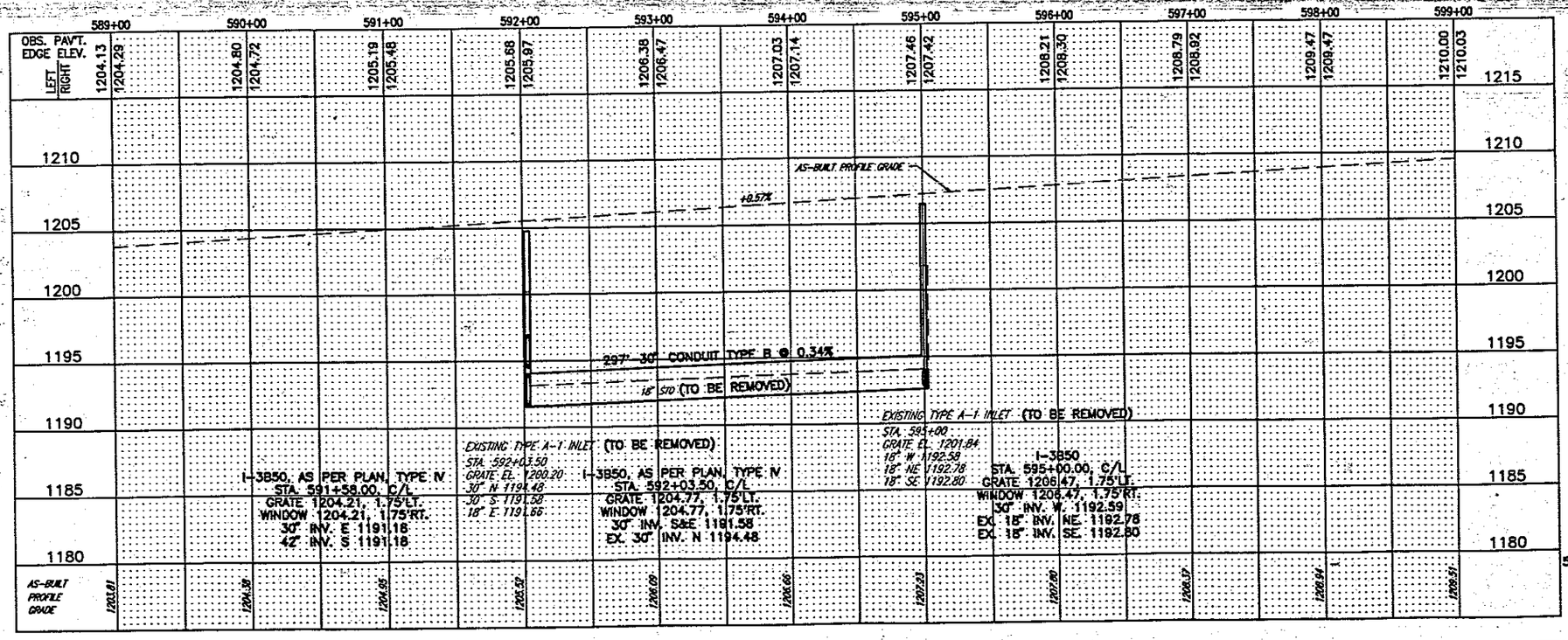
PAVEMENT LEGEND
+ 10' EXISTING BERM
++ 24' EXISTING PAVEMENT
• 12' PROPOSED PAVEMENT
•• 14.25' PROPOSED BERM

DRAINAGE AND EROSION CONTROL

REF.	LOCATION	601 ROCK CHANNEL PROTECTION TYPE B WITH FILTER C.Y.		603 18" CONDUIT, TYPE B 706.02 L.F.	603 30" CONDUIT, TYPE B 706.02 L.F.		604 INLET, No.3B50 EA.	604 INLET, No. 3B50 AS PER PLAN, TYPE IV L.F.	
D-1	STA. 591+58.00, 147' RT.	4.6							
D-2	STA. 592+03.50 TO STA. 595+00.00, C/L			12	309		1	1	
	TOTALS	4.6		12	309		1	1	

ROADWAY

REF.	LOCATION	202 PIPE REMOVED 24" AND UNDER L.F.	202 GUARDRAIL REMOVED, FOR REUSE L.F.		606 GUARDRAIL REBUILT, TYPE 5 L.F.	625 PULL BOX, 713.08, 24" EA.	625 MEDIAN JUNCTION BOX, TYPE 2 EA.	625 CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, 4" L.F.
R-1	STA.590+92.00, 88' LT. TO STA.591+80.00, 98' LT.		88		88			
R-2	STA. 592+03.50 TO STA. 595+00.00, C/L	297						
R-3	STA. 595+80.00, LT.						1	
R-4	STA. 595+84.00, RT.						1	
R-5	STA. 595+80.00, 70' LT.					1		70
R-6	STA. 595+84.00, 70' RT.					1		70
	TOTALS	297	88		88	2	2	140



50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DATE

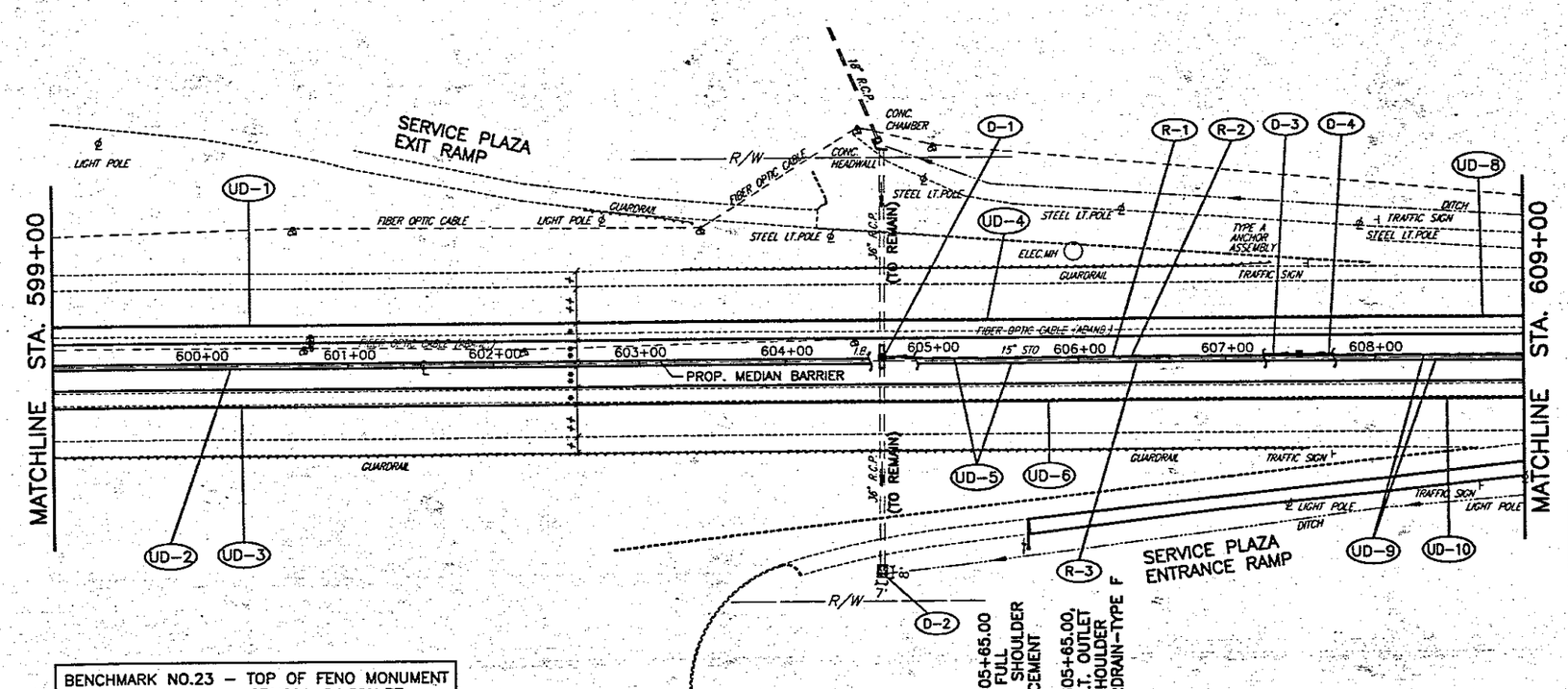
OHIO TURNPIKE COMMISSION
PLAN AND PROFILE
STA.589+00 TO STA.599+00

CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: W.D.B. | CHECKED: D.J.W. | DATE: 12-01-9
DRAWN: R.L.B. | IN CHARGE: J.E.A. | SCALE: 1"=50'

CONTRACT 77-96-05 SHEET 70 OF 196

77960530.DWG

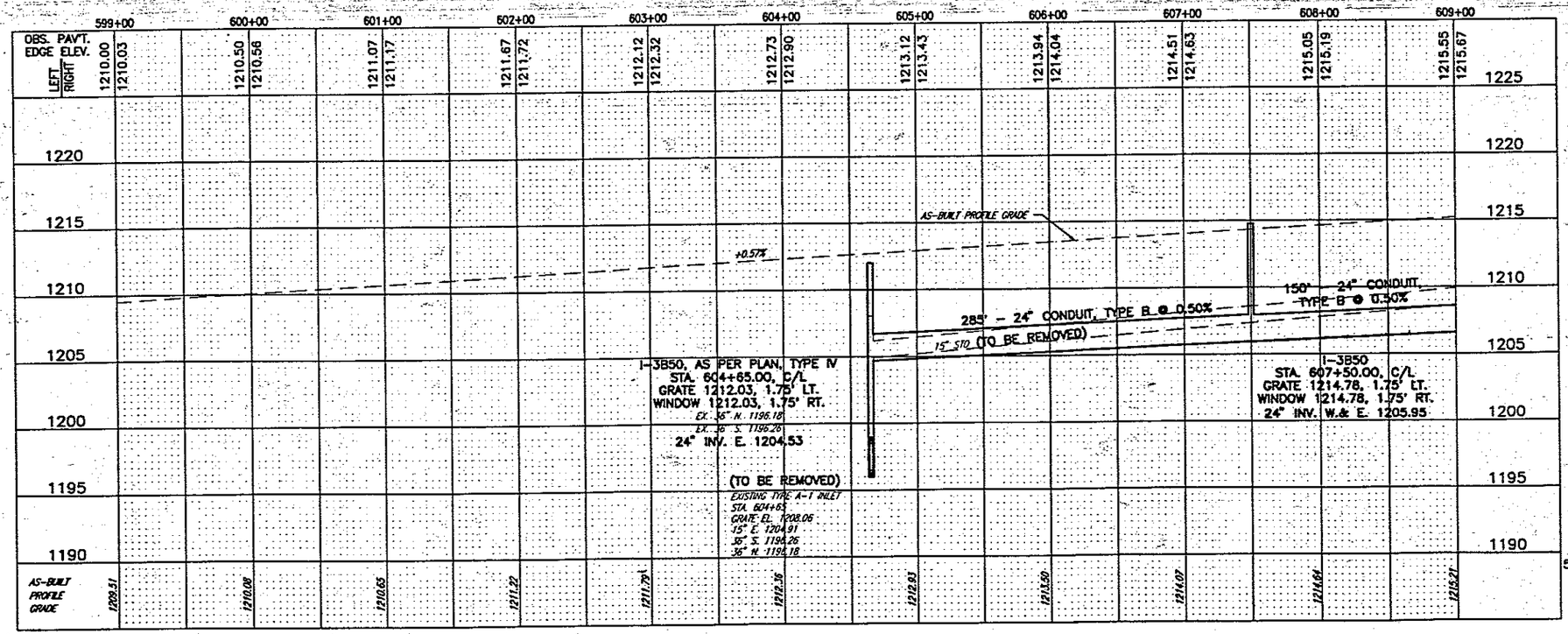


FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82–161
FOR SIGNING & PAVT MARKING SEE SHEETS 171–196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25–29

BENCHMARK NO.23 – TOP OF FENO MONUMENT
REFERENCE DATUM NAVD 1929
STA.601+04,62'± RT.
ELEVATION 1210.50

DRAINAGE AND EROSION CONTROL		601	603	603			604	604	
		ROCK CHANNEL PROTECTION TYPE B WITH FILTER	24" CONDUIT, TYPE B 706.02	36" CONDUIT, TYPE B 706.02			INLET, No.3850	INLET, No. 3850 AS PER PLAN, TYPE IV	
REF.	LOCATION	C.Y.	L.F.	L.F.			EA.	L.F.	
D-1	STA. 604+65.00, C/L			12				1	
D-2	STA. 604+65.00, 141' RT.	5.2							
D-3	STA. 604+65.00 TO STA. 607+50.00, C/L		285				1		
D-4	STA. 607+50.00 TO STA. 609+00.00, C/L		150						
	TOTALS	5.2	435	12			1	1	

ROADWAY		202	625			
		PIPE REMOVED 24" AND UNDER	MEDIAN JUNCTION BOX, TYPE I			
REF.	LOCATION	L.F.	EACH			
R-1	STA. 604+65.00 TO STA. 609+00.00, C/L	435				
R-2	STA. 606+36.00, LT.		1			
R-3	STA. 606+40.00, RT.		1			
	TOTALS	435	2			



50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DA

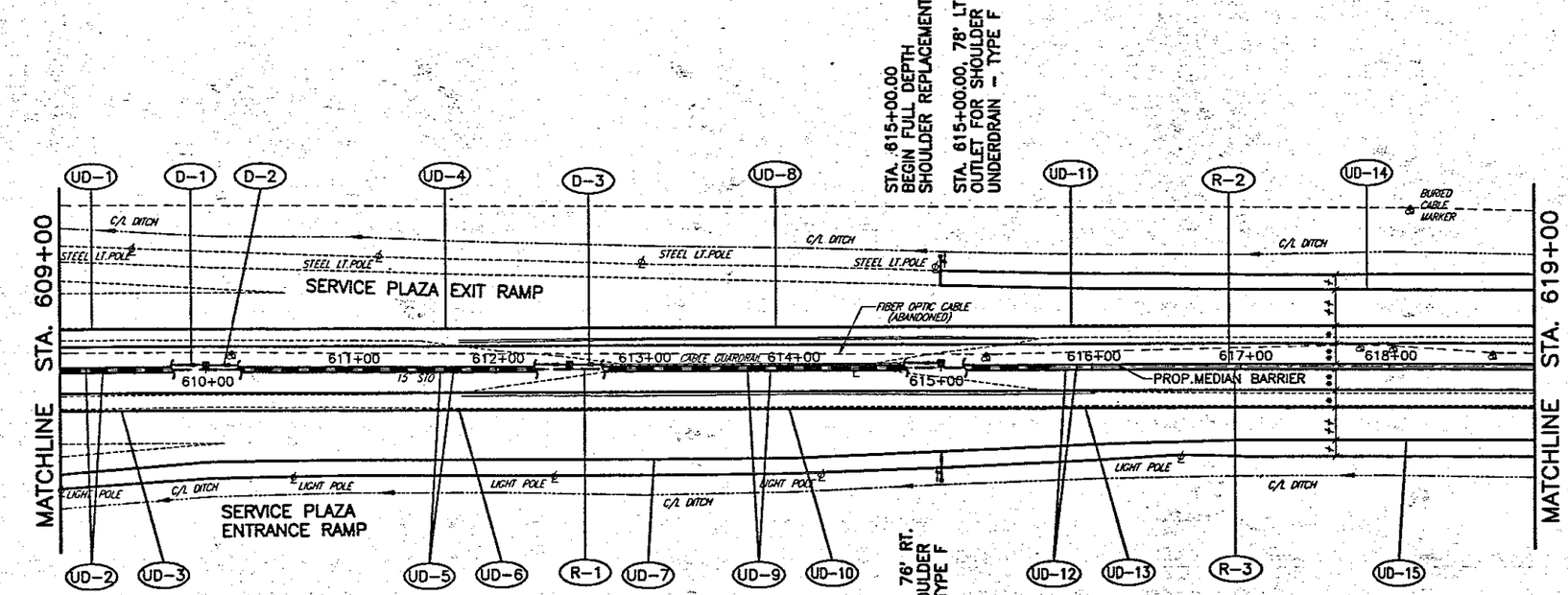
OHIO TURNPIKE COMMISSION
PLAN AND PROFILE
STA.599+00 TO STA.609+00

CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: W.D.B.	CHECKED: D.J.W.	DATE: 12-01-
DRAWN: R.L.B.	IN CHARGE: J.E.A.	SCALE: 1"=50'

CONTRACT 77-96-05 SHEET 71 OF 19

77960531.DWG



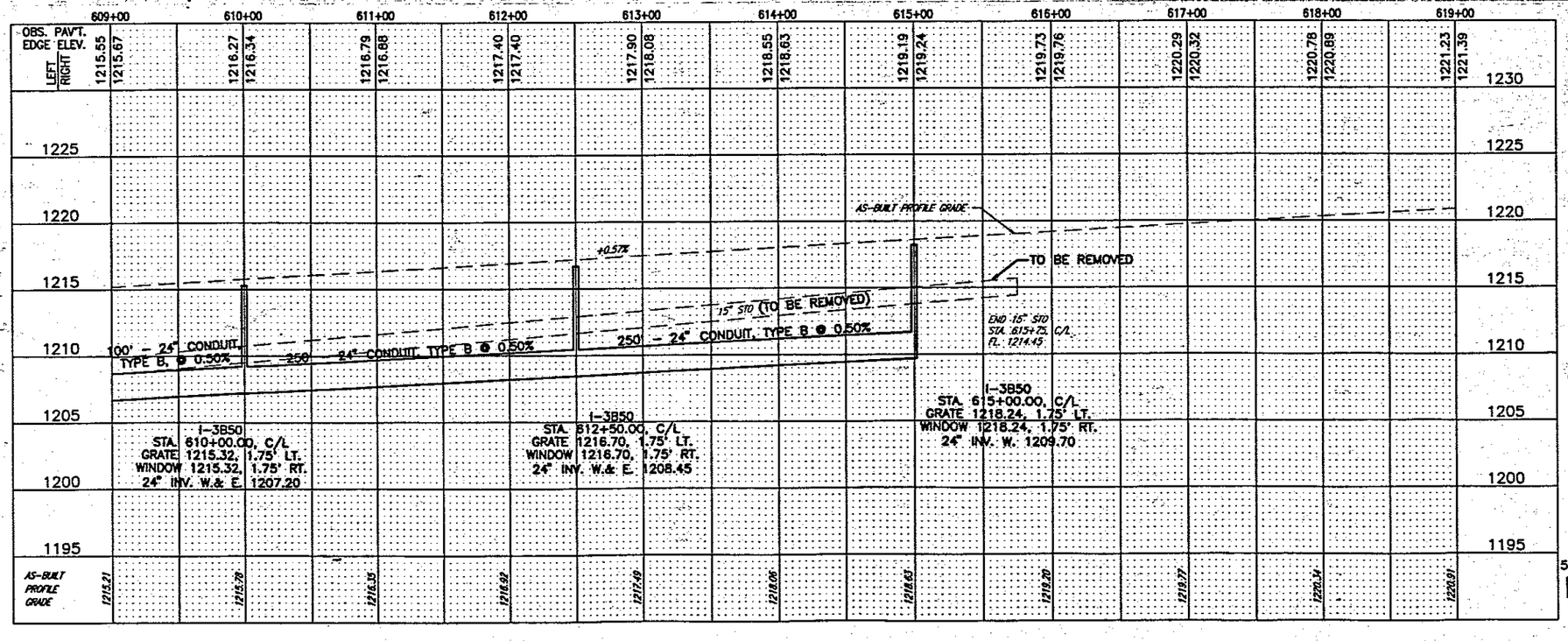
N

FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82-161
FOR SIGNING & PAV'T MARKING SEE SHEETS 171-196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25-29

DRAINAGE		603		604	
		24" CONDUIT, TYPE B 706.02		INLET, No.3850	
REF.	LOCATION	LF.		EA.	
D-1	STA. 609+00.00 TO STA. 610+00.00, C/L	100		1	
D-2	STA. 610+00.00 TO STA. 612+50.00, C/L	250		1	
D-3	STA. 612+50.00 TO STA. 615+00.00, C/L	250		1	
	TOTALS	600		3	

PAVEMENT LEGEND
+ 10' EXISTING BERM
++ 24' EXISTING PAVEMENT
• 12' PROPOSED PAVEMENT
•• 14.25' PROPOSED BERM

BENCHMARK NO.24 – TOP OF FENO MONUMENT
STA.610+02,82'± LT.
ELEVATION 1215.22
REFERENCE DATUM NAVD 1929



ROADWAY		202		625	
		PIPE REMOVED (24" & UNDER)		MEDIAN JUNCTION BOX, TYPE 1	
REF.	LOCATION	LF.		EACH	
R-1	STA. 609+00.00 TO STA. 615+75.00, C/L	675			
R-2	STA. 616+92.00, LT			1	
R-3	STA. 616+96.00, RT			1	
	TOTALS	675		2	

50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

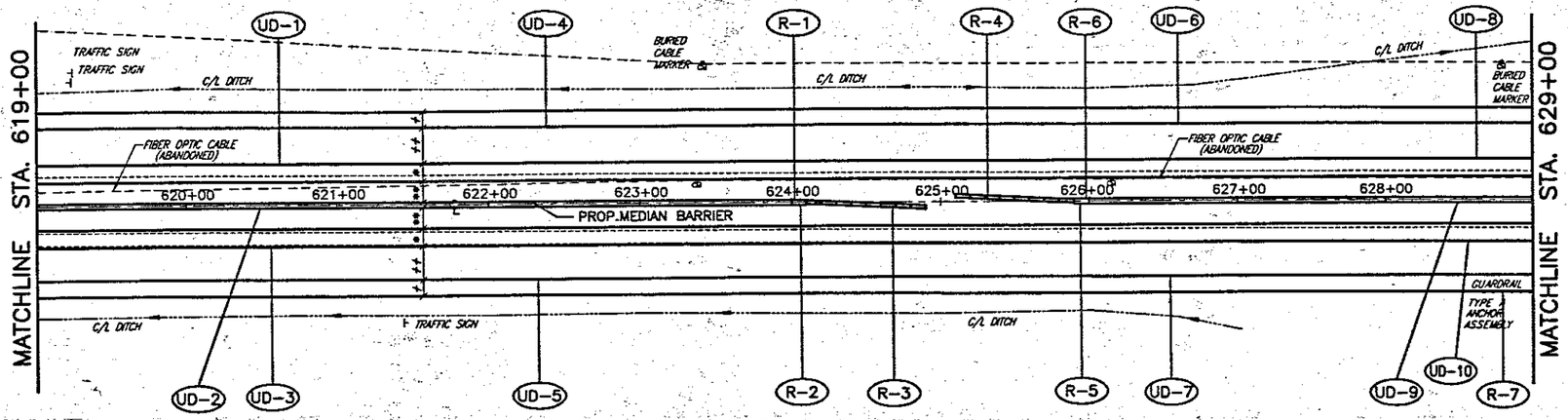
PLAN AND PROFILE
STA.609+00 TO STA.619+00

CT Consultants, Inc.
Engineers • Architects • Planners
Willoughby • Medina • Columbus • North Canton • Youngstown

DESIGNED: W.D.B.	CHECKED: D.J.W.	DATE: 12-01-95
DRAWN: R.L.B.	IN CHARGE: J.E.A.	SCALE: 1"=50'

CONTRACT 77-96-05 SHEET 72 OF 196

77960532.DWG

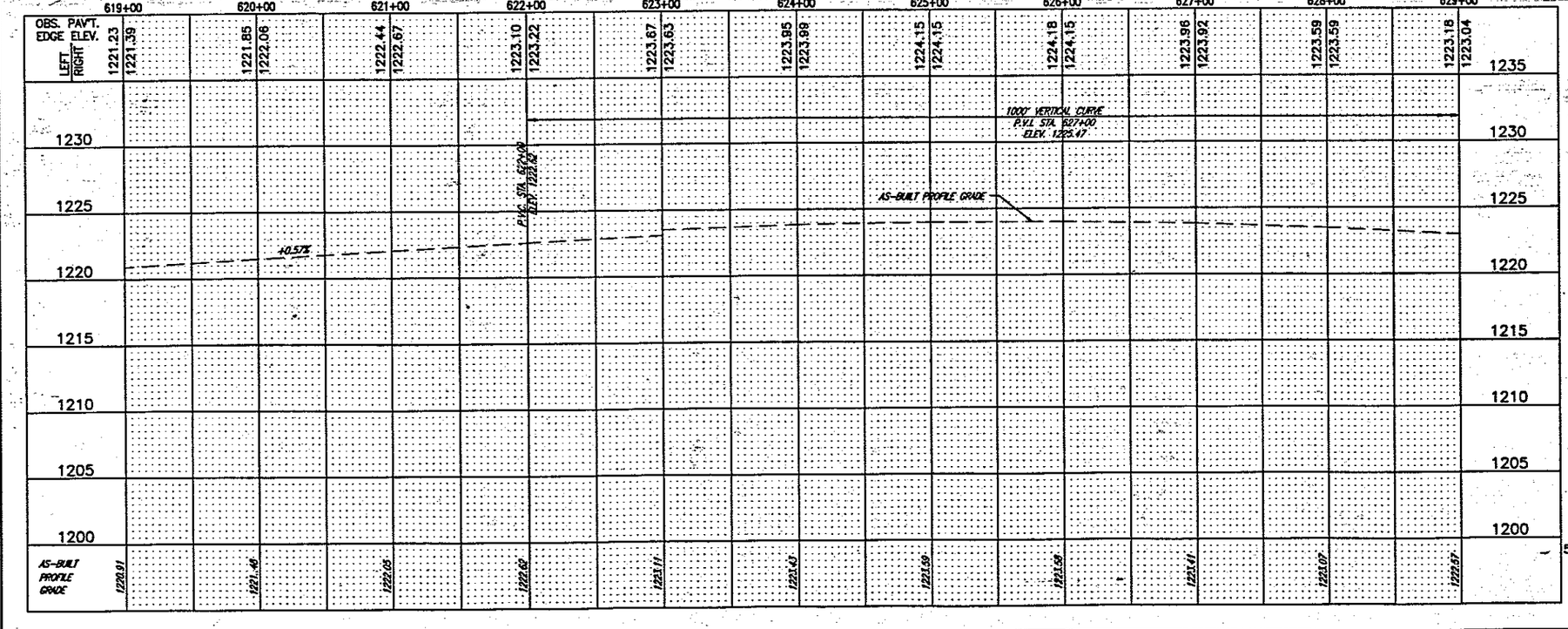


FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82-161
FOR SIGNING & PAV'T MARKING SEE SHEETS 171-196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25-29

PAVEMENT LEGEND
+ 10' EXISTING BERM
++ 24' EXISTING PAVEMENT
• 12' PROPOSED PAVEMENT
•• 14.25' PROPOSED BERM

ROADWAY		202 GUARDRAIL REMOVED FOR REUSE	202 GUARDRAIL REBUILT TYPE 5	622 PORTABLE CONCRETE BARRIER, 50', A.P.P.	625 MEDIAN JUNCTION BOX, TYPE 1	625 4" CONDUIT, 713.04	625 TRENCH
REF.	LOCATION	L.F.	L.F.	L.F.	EACH	L.F.	L.F.
R-1	STA. 624+02.00, LT. TO STA. 625+98.00, LT.				1	206	206
R-2	STA. 624+06.00 RT. TO STA. 625+94.00, RT.				1	198	198
R-3	STA. 624+10.00 TO STA. 624+90.00, C/L			80			
R-4	STA. 625+10.00 TO STA. 625+90.00, C/L			80			
R-5	STA. 625+94.00, RT.				1		
R-6	STA. 625+98.00, LT.				1		
R-7	STA. 628+65.00 TO STA. 629+00.00, 62' RT.	35	35				
	TOTALS	35	35	160	4	404	404

BENCHMARK NO.26 – TOP OF FENO MONUMENT
REFERENCE DATUM NAVD 1929
STA.628+02.63'± LT.
ELEVATION 1222.95

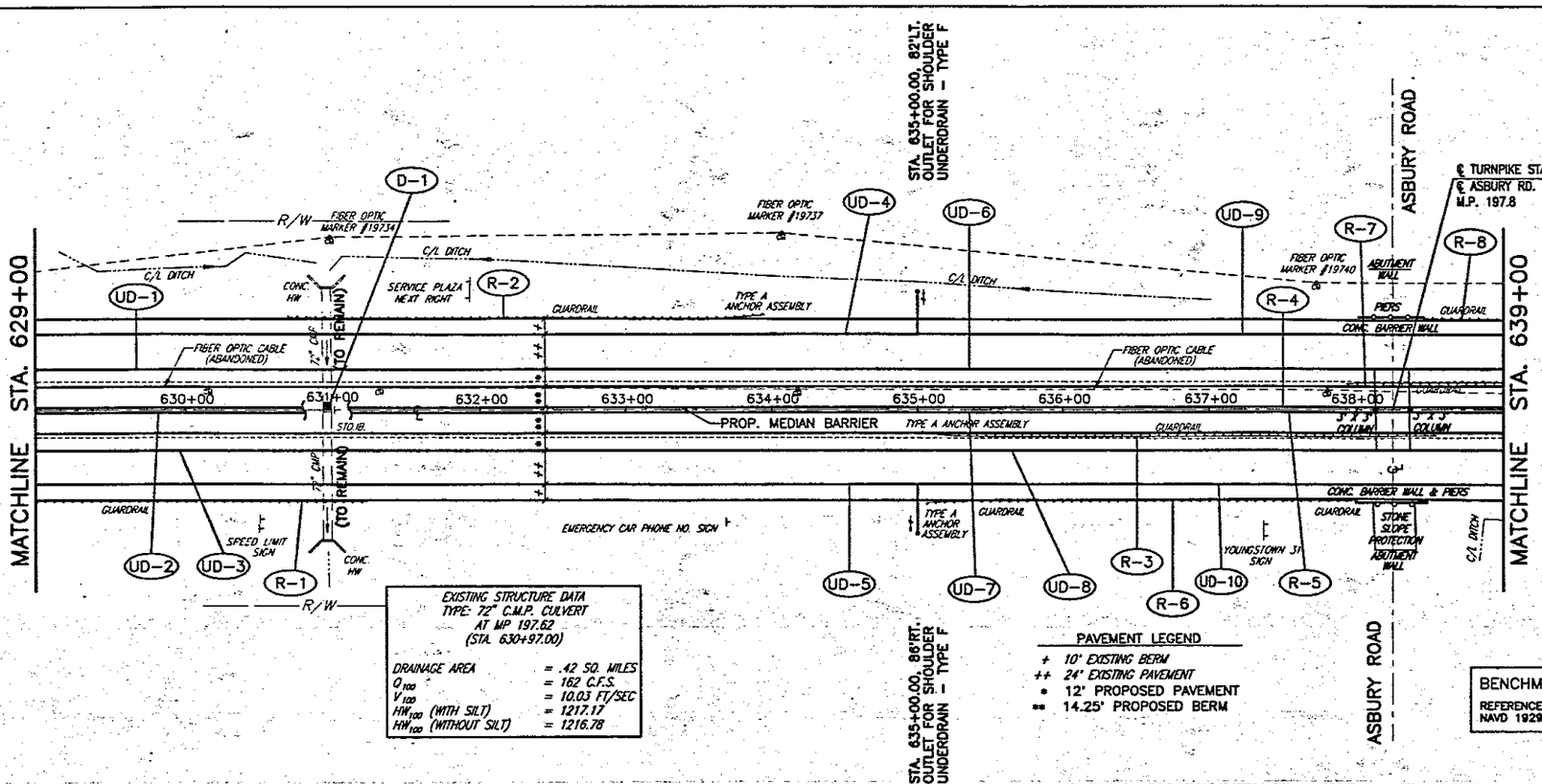


50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DAT

OHIO TURNPIKE COMMISSION
PLAN AND PROFILE
STA.619+00 TO STA.629+00
CT Consultants, Inc.
Engineers • Architects • Planners
DESIGNED: W.D.B. | CHECKED: D.J.W. | DATE: 12-01-9
DRAWN: R.L.B. | IN CHARGE: J.E.A. | SCALE: 1"=50'
CONTRACT 77-96-05 SHEET 73 OF 19

77960533.DWG



EXISTING STRUCTURE DATA
TYPE: 72" C.M.P. CULVERT
AT MP 197.62
(STA. 630+97.00)

DRAINAGE AREA	= .42 SQ. MILES
Q_{100}	= 162 C.F.S.
V_{100}	= 10.03 FT/SEC
HW_{100} (WITH SILT)	= 1217.17
HW_{100} (WITHOUT SILT)	= 1216.78

PAVEMENT LEGEND
\+ 10' EXISTING BERM
++ 24' EXISTING PAVEMENT
* 12' PROPOSED PAVEMENT
** 14.25' PROPOSED BERM

FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82-161
FOR SIGNING & PAVT MARKING SEE SHEETS 171-196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25-29
FOR CULVERT WORK SEE SHEETS 162-167

DRAINAGE						
			604			
			INLET, No.3B50, AS PER PLAN, TYPE III			
REF.	LOCATION	EA.				
D-1	STA. 630+97.00, C/L	1				
	TOTALS	1				

BENCHMARK NO.27 – TOP OF FENO MONUMENT
STA.637+03.63'±RT.
ELEVATION 1214.61
REFERENCE DATUM NAVD 1929

ROADWAY								
				202	202	606	625	
				GUARDRAIL REMOVED	GUARDRAIL REMOVED, FOR REUSE	GUARDRAIL REBUILT, TYPE 5	MEDIAN JUNCTION BOX, TYPE I	
REF.	LOCATION			LF.	LF.	LF.	EA.	
R-1	STA. 629+00.00 TO STA. 631+23.00, 62'RT.				223	223		
R-2	STA. 630+68.00 TO STA. 633+95.00, 62'LT.				327	327		
R-3	STA. 635+02.00 TO STA. 638+55.00, 18'RT.			353				
R-4	STA. 637+50.00, LT.						1	
R-5	STA. 637+54.00, RT.						1	
R-6	STA. 635+10.00 TO STA. 638+00.00, 62'RT.				290	290		
R-7	STA. 637+90.00 TO STA. 639+00.00, 19'LT.			110				
R-8	STA. 638+50.00 TO STA. 639+00.00, 62'LT.				50	50		
	TOTALS			463	890	890	2	

OBS. PAVT. EDGE ELEV.	629+00	630+00	631+00	632+00	633+00	634+00	635+00	636+00	637+00	638+00	639+00	
LEFT	1223.18	1222.49	1221.70	1220.53	1219.56	1218.50	1217.40	1216.28	1215.24	1214.05	1212.96	
RIGHT	1223.04	1222.44	1221.55	1220.58	1219.35	1218.49	1217.39	1216.31	1215.26	1214.16	1213.01	
1230												1230
1225		1000' VERTICAL CURVE P.V.I. STA. 627+00 ELEV. 1239.47		P.V.I. STA. 632+00 ELEV. 1220.07								1225
1220												1220
1215						AS-BUILT PROFILE GRADE	-1.00%					1215
1210			EXISTING TYPE A-1 INLET STA. 631+97 GRATE EL. 1216.24 72"N 1209.31 72"S 1209.59									1210
1205			I-3B50, AS PER PLAN, TYPE III STA. 630+97, C/L GRATE 1219.58, 1.75' LT. WINDOW 1219.58, 1.75' RT. INV. 1215.57 AT CONNECTION TO EXISTING STRUCTURE EX. 72" INV. 1209.55 N.& S.									1205
1200												1200
1195												1195
AS-BUILT PROFILE GRADE	1222.57	1221.80	1221.07	1220.07	1218.99	1217.91	1216.83	1215.75	1214.67	1213.59	1212.51	

50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

PLAN AND PROFILE
STA.629+00 TO STA.639+00

CT Consultants, Inc.
Engineers • Architects • Planners

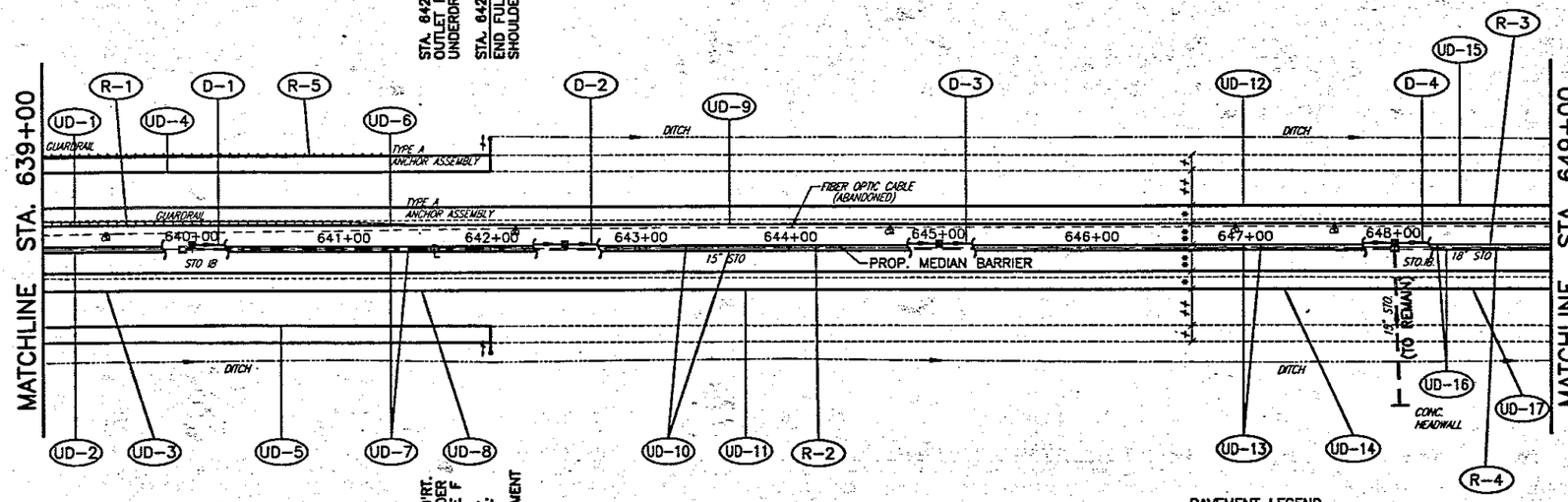
DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: RLB	IN CHARGE: JEA	SCALE: 1"=50'	

CONTRACT 77-96-05 SHEET 74 OF 196

7796053A.DWG

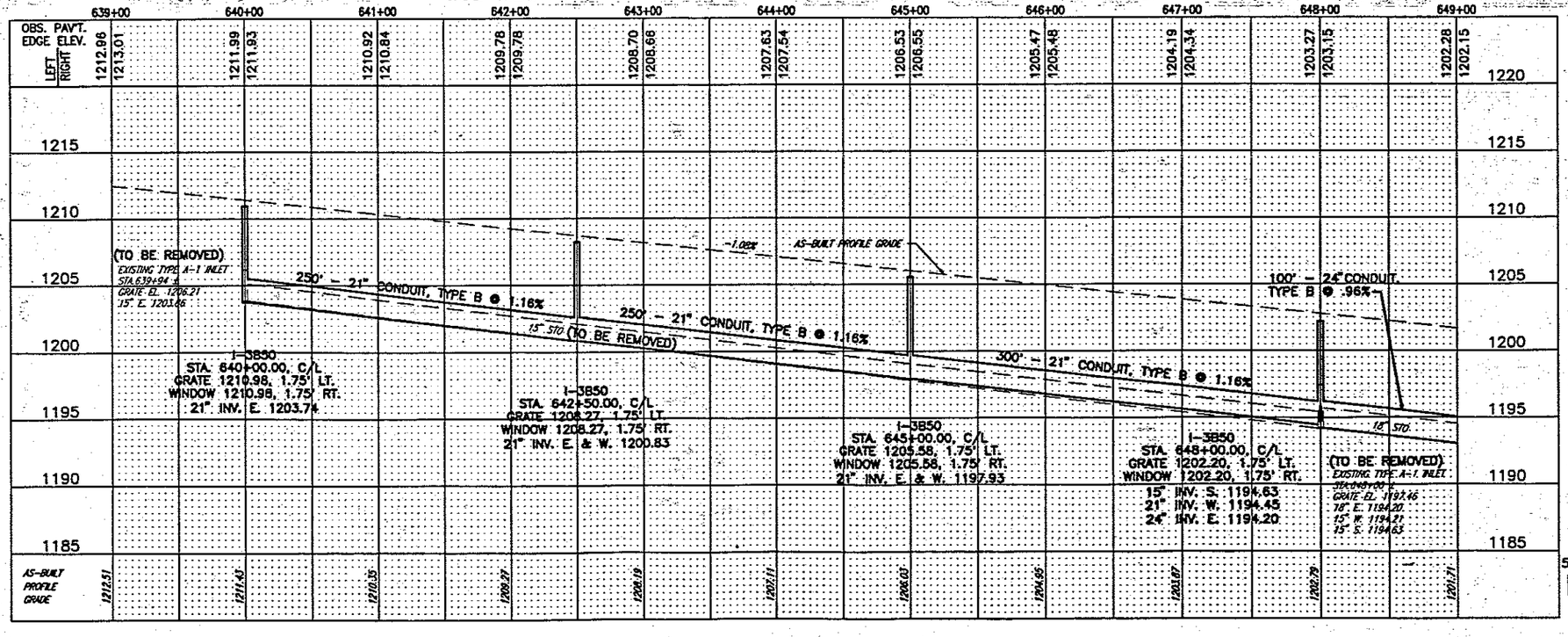
BENCHMARK NO.28 – TOP OF FENO MONUMENT
REFERENCE DATUM NAVD 1929
STA.646+02.63± LT.
ELEVATION 1204.75

FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82–161
FOR SIGNING & PAV'T MARKING SEE SHEETS 171–196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25–29



PAVEMENT LEGEND
+ 10' EXISTING BERM
++ 24' EXISTING PAVEMENT
• 12" PROPOSED PAVEMENT
•• 14.25' PROPOSED BERM

DRAINAGE		603	603	603		604			
		15" CONDUIT, TYPE B 706.02	21" CONDUIT, TYPE B 706.02	24" CONDUIT, TYPE B 706.02		INLET, No.3850			
REF.	LOCATION	LF.	LF.	LF.		EA.			
D-1	STA. 640+00.00 TO STA. 642+50.00, C/L		250			1			
D-2	STA. 642+50.00 TO STA. 645+00.00, C/L		250			1			
D-3	STA. 645+00.00 TO STA. 648+00.00, C/L		300			1			
D-4	STA. 648+00.00 TO STA. 649+00.00, C/L	6		100		1			
TOTALS		6	800	100		4			



ROADWAY		202	202	202	202	202	625
		PIPE REMOVED (24" & UNDER)	GUARDRAIL REMOVED FOR REUSE	GUARDRAIL REBUILT TYPE 5	GUARDRAIL REMOVED	INLET REMOVED	MEDIAN JUNCTION BOX, TYPE I
REF.	LOCATION	LF.	LF.	LF.	LF.	LF.	EA.
R-1	STA. 639+00.00 TO STA. 641+45.00, 19' LT.				245		
R-2	STA. 639+94.00 TO STA. 649+00.00, C/L	906				1	
R-3	STA. 648+60.00, LT.						1
R-4	STA. 648+64.00, RT.						1
R-5	STA. 639+00.00 TO STA. 641+45.00, 62'LT.		245	245			
TOTALS		906	245	245	245	1	2

50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

PLAN AND PROFILE
STA.639+00 TO STA.649+00

CT Consultants, Inc.
Engineers • Architects • Planners
Willoughby • Akron • Columbus • North Canton • Youngstown

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95
DRAWN: RLB	IN CHARGE: JEA	SCALE: 1"=50'

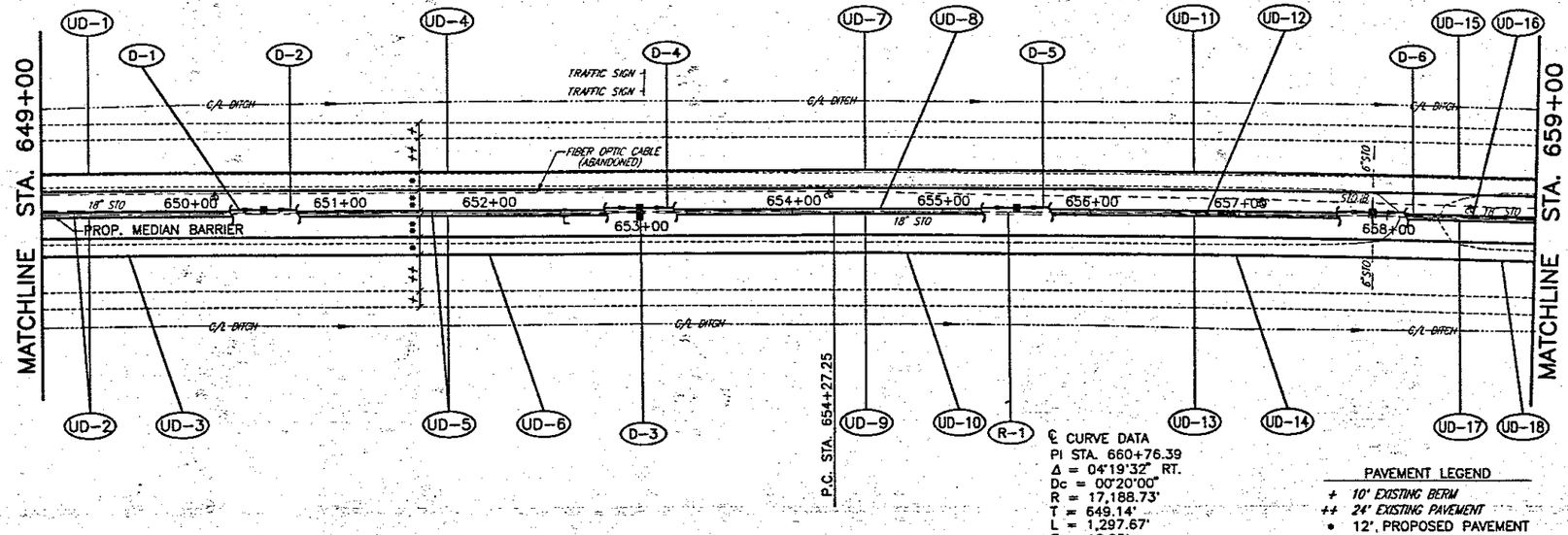
CONTRACT 77-96-05 SHEET 75 OF 196

77960535.DWG

BENCHMARK NO.29 – TOP OF FENO MONUMENT
STA.655+03,65'± RT.
REFERENCE DATUM NAVD 1929
ELEVATION 1195.21

FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82–161
FOR SIGNING & PAVT MARKING SEE SHEETS 171–196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25–29

N

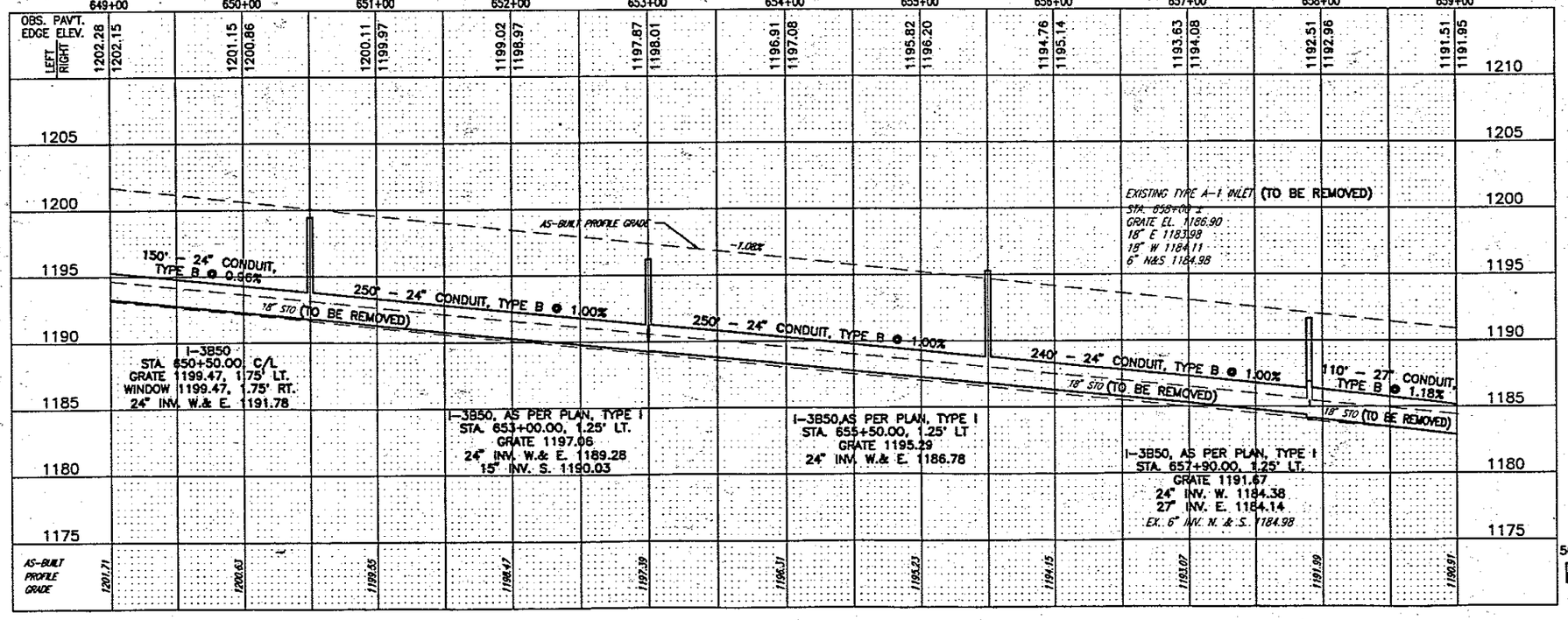


℄ CURVE DATA
PI STA. 660+76.39
Δ = 04°19'32" RT.
Dc = 00°20'00"
R = 17,188.73'
T = 649.14'
L = 1,297.67'
E = 12.25'
eMAX = 0.0156/FT.
PC STA. 654+27.25
PT STA. 667+24.92

PAVEMENT LEGEND
\+ 10' EXISTING BERM
++ 24' EXISTING PAVEMENT
• 12', PROPOSED PAVEMENT
•• 14.25' PROPOSED BERM

DRAINAGE AND EROSION CONTROL		603	603	603	603		604	604	
		6" CONDUIT, TYPE B	15" CONDUIT, TYPE B 706.02	24" CONDUIT, TYPE B 706.02	27" CONDUIT, TYPE B 706.02		INLET, No.3850	INLET No. 3850, AS PER PLAN, TYPE I	
REF.	LOCATION	LF.	LF.	LF.	LF.		EA.	LF.	
D-1	STA. 649+00.00 TO STA. 650+50.00, C/L			150					
D-2	STA. 650+50.00, C/L TO STA. 653+00.00, 1.75' LT.			250			1		
D-3	STA. 653+00.00, 1.25' RT. TO STA. 653+00.00, 1.25' LT.		5					1	
D-4	STA. 653+00.00 TO STA. 655+50.00, 1.25' LT.			250				1	
D-5	STA. 655+50.00 TO STA. 657+90.00, 1.25' LT.			240				1	
D-6	STA. 657+90.00, TO STA. 659+00.00, 1.25' LT.	12			110			1	
	TOTALS	12	5	890	110		1	4	

ROADWAY		202
		PIPE REMOVED (24" & UNDER)
REF.	LOCATION	LF.
R-1	STA. 649+00.00 TO STA. 659+00.00, C/L	1000
	TOTALS	1000



50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DAT

OHIO TURNPIKE COMMISSION
PLAN AND PROFILE
STA.649+00 TO STA.659+00

CT Consultants, Inc.
Engineers • Architects • Planners
Willoughby • Akron • Columbus • North Canton • Pennsylvania

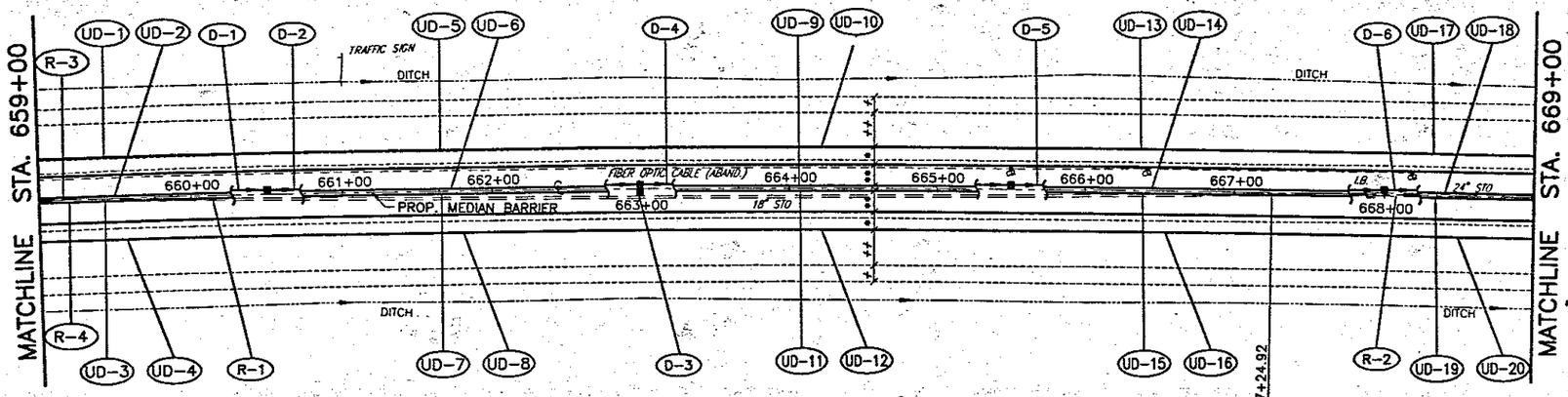
DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-9
DRAWN: RLB	IN CHARGE: JEA	SCALE: 1"=50'

CONTRACT 77-96-05 SHEET 76 OF 19

779605J6.DWG

BENCHMARK NO.30 – TOP OF FENO MONUMENT
STA.664+01,63'± LT.
ELEVATION 1186.51
REFERENCE DATUM NAVD 1929

FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82–161
FOR SIGNING & PAVT MARKING SEE SHEETS 171–196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25–29



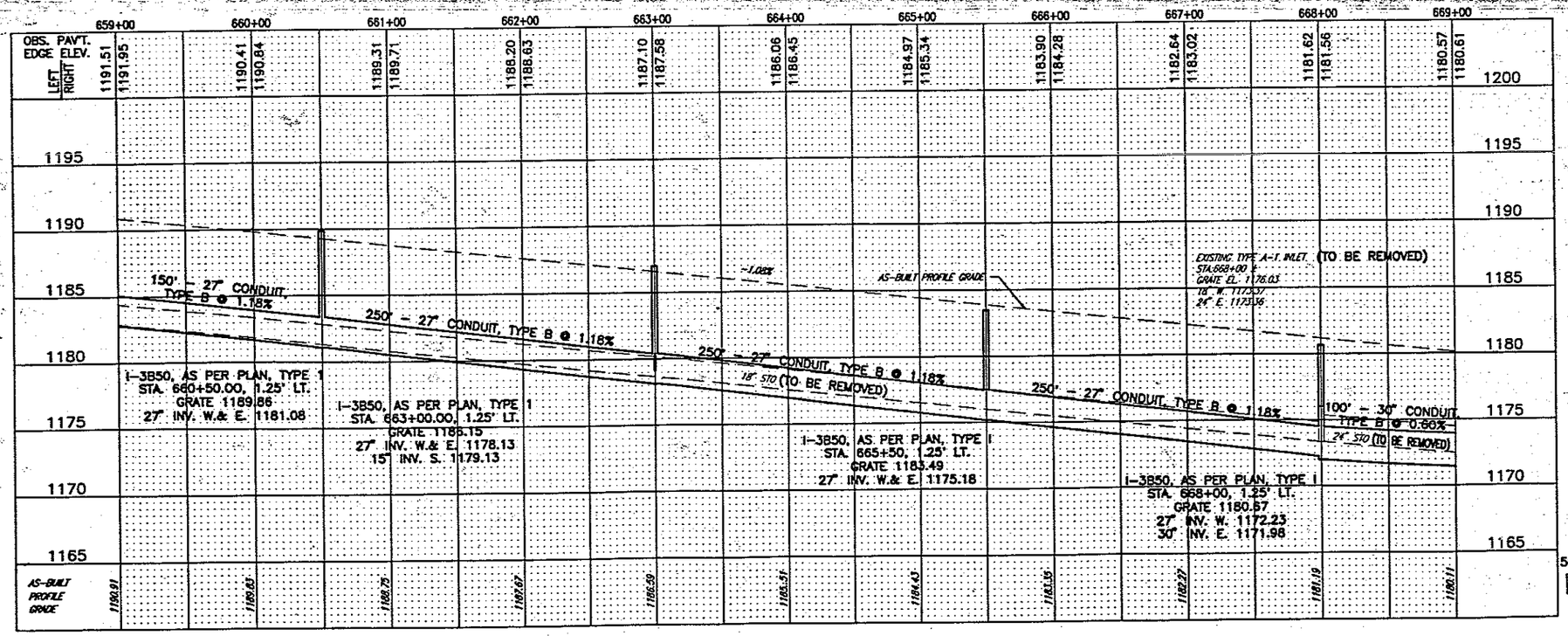
℄ CURVE DATA
PI STA. 660+76.39
Δ = 04°19'32"
D = 00°20'00"
R = 17,188.73'
T = 649.14'
L = 1,297.67'
E = 12.25'
MAX = 0.0156/FT.
PC STA. 654+27.25
PT STA. 667+24.92

P.T. STA. 667+24.92

PAVEMENT LEGEND
\+ 10' EXISTING BERM
++ 24' EXISTING PAVEMENT
* 12' PROPOSED PAVEMENT
** 14.25' PROPOSED BERM

DRAINAGE AND EROSION CONTROL

REF.	LOCATION	15" CONDUIT, TYPE B 706.02 LF.	27" CONDUIT, TYPE B 706.02 LF.	30" CONDUIT, TYPE B 706.02 LF.			604 INLET No. 3850 AS PER PLAN, TYPE I EA.		
D-1	STA. 659+00.00 TO STA. 660+50.00, 1.25' LT.		150						
D-2	STA. 660+50.00 TO STA. 663+00.00, 1.25' LT.		250				1		
D-3	STA. 663+00.00, 1.25' LT. TO 1.25' RT.	5					1		
D-4	STA. 663+00.00 TO STA. 665+50.00, 1.25' LT.		250				1		
D-5	STA. 665+50.00 TO STA. 668+00.00, 1.25' LT.		250				1		
D-6	STA. 668+00.00, TO STA. 669+00.00, 1.25' LT.			100			1		
	TOTALS	5	900	100			5		



ROADWAY

REF.	LOCATION	PIPE REMOVED (24" & UNDER) LF.		INLET REMOVED EA.	MEDIAN JUNCTION BOX, TYPE I EA.
		202		202	625
R-1	STA. 659+00.00 TO STA. 660+00.00, C/L	100			
R-2	STA. 667+00.00 TO STA. 669+00.00, C/L	200		1	
R-3	STA. 659+16.00, LT.				1
R-4	STA. 659+20.00, RT.				1
	TOTALS	300		1	2

50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION
PLAN AND PROFILE
STA.659+00 TO STA.669+00

CT Consultants, Inc.
Engineers • Architects • Planners

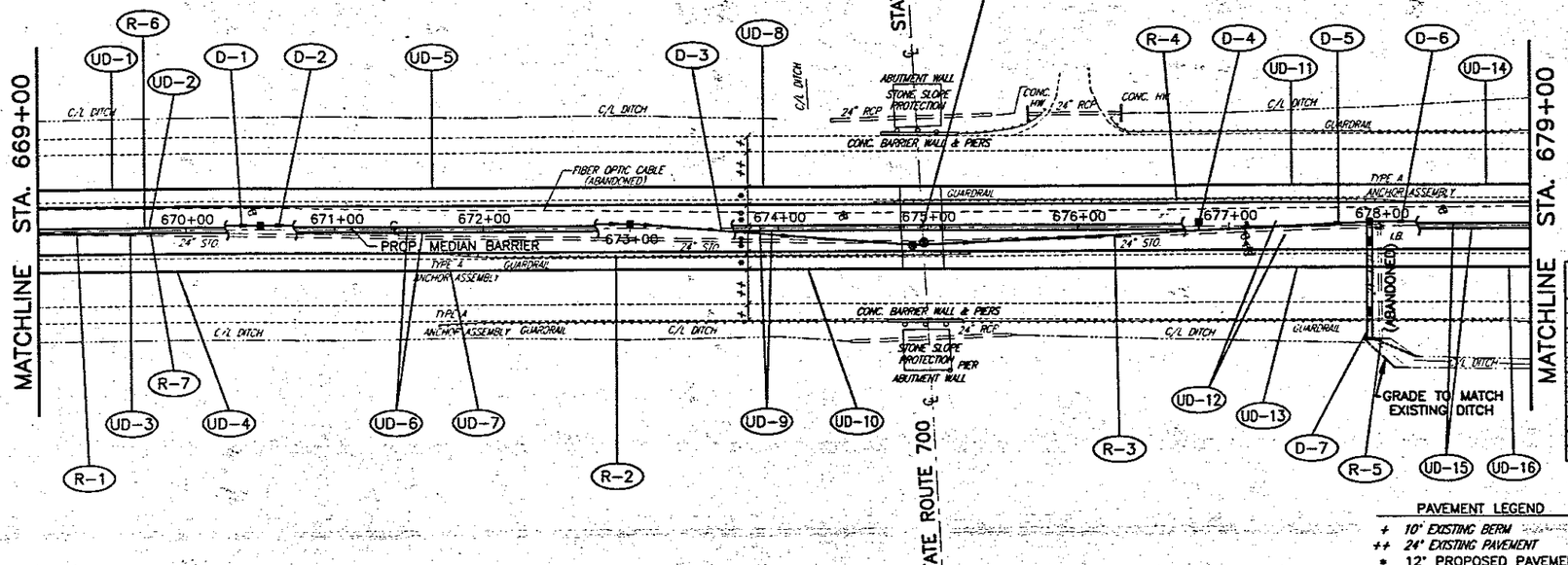
DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: RLB	IN CHARGE: JEA	SCALE: 1"=50'	

CONTRACT 77-96-05 SHEET 77 OF 196

77960537.DWG

BENCHMARK NO.31 – TOP OF FENO MONUMENT
REFERENCE DATUM NAVD 1929
STA.673+02,63'± RT.
ELEVATION 1175.47

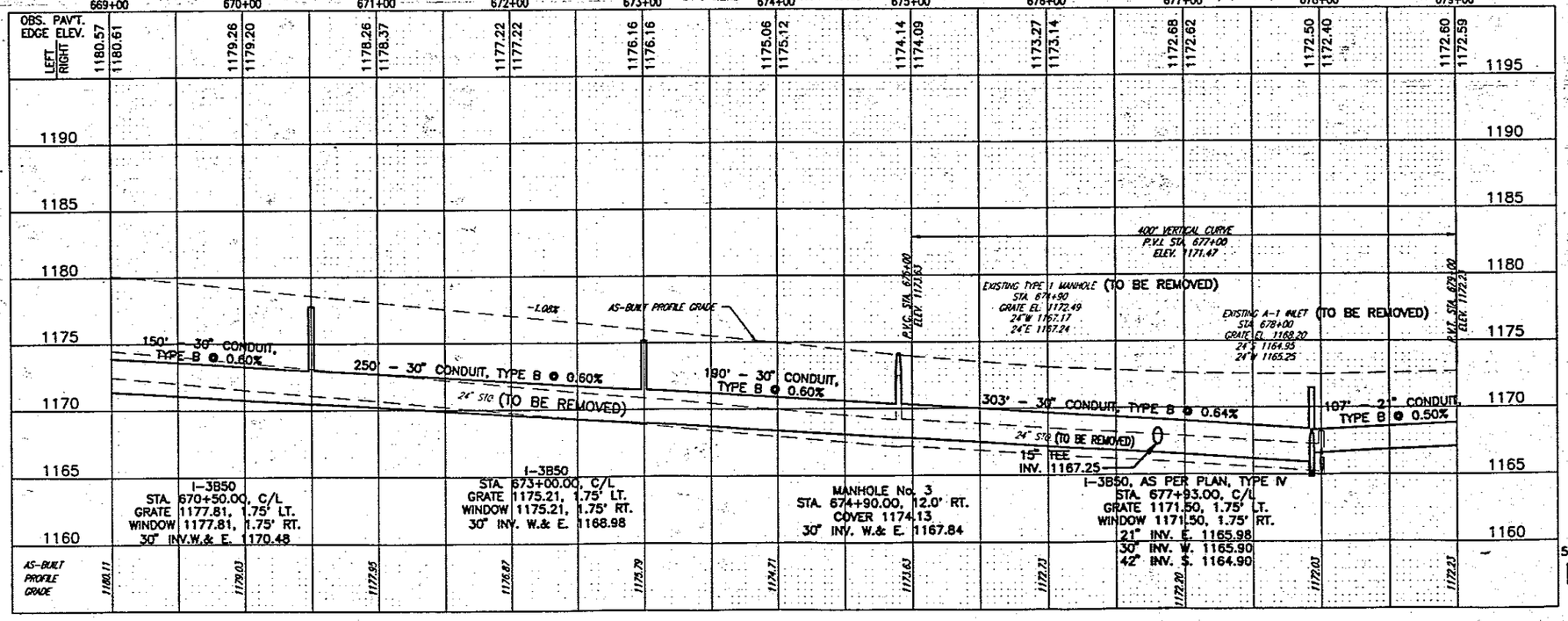
FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82–161
FOR SIGNING & PAV'T MARKING SEE SHEETS 171–196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25–29



PAVEMENT LEGEND
+ 10" EXISTING BERM
++ 24" EXISTING PAVEMENT
• 12" PROPOSED PAVEMENT
•• 14.25" PROPOSED BERM

DRAINAGE		602	603	603	603	603		604	604	604	
		CONCRETE MASONRY	15" CONDUIT, TYPE B 706.02	21" CONDUIT, TYPE B 706.02	30" CONDUIT, TYPE B 706.02	42" CONDUIT, JACKED, BORED OR TYPE B, 706.02		INLET, No.3850	INLET, No.3850 AS PER PLAN, TYPE IV	MANHOLE, No.3	30"x15"x30" TEE
REF.	LOCATION	C.Y.	LF.	LF.	LF.	LF.		EA.	EA.	EA.	EA.
D-1	STA. 669+00.00 TO STA. 670+50.00, C/L				150						
D-2	STA. 670+50.00 TO STA. 673+00.00, C/L				250			1			
D-3	STA. 673+00.00, C/L TO STA. 674+90.00, 12' RT.				190			1			
D-4	STA. 676+80.00, C/L TO STA. 676+80.00, 5' RT.		5					1			1
D-5	STA. 674+90.00, 12' RT. TO STA. 677+93.00, C/L				303					1	
D-6	STA. 677+93.00 TO STA. 679+00.00, C/L			107							
D-7	STA. 677+93.00, C/L TO 76' RT.	.84				76			1		
	TOTALS	.84	5	107	893	76		3	1	1	1

ROADWAY		202	202	202	SPEC.	625
		PIPE REMOVED (24" & UNDER)	GUARDRAIL REMOVED	MANHOLE REMOVED	FILL AND PLUG EXISTING CONDUIT	MEDIAN JUNCTION BOX, TYPE I
REF.	LOCATION	LF.	LF.	LF.	LF.	EA.
R-1	STA. 669+00.00 TO STA. 670+60.00, C/L	160				
R-2	STA. 671+75.00 TO STA. 675+30.00, 19' RT.		355			
R-3	STA. 674+00.00 TO STA. 678+00.00, RT.	400		1		
R-4	STA. 674+65.00 TO STA. 678+15.00, 19' LT.		350			
R-5	STA. 678+00.00, C/L TO 76' RT.	8			68	
R-6	STA. 669+72.00, LT.					1
R-7	STA. 669+76.00, RT.					1
	TOTALS	560	705	1	68	2



50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION
PLAN AND PROFILE
STA.669+00 TO STA.679+00

CT Consultants, Inc.
Engineers • Architects • Planners
Willoughby • Boston • Columbus • North Canton • Youngstown

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: RLB	IN CHARGE: JEA	SCALE: 1"=50'	

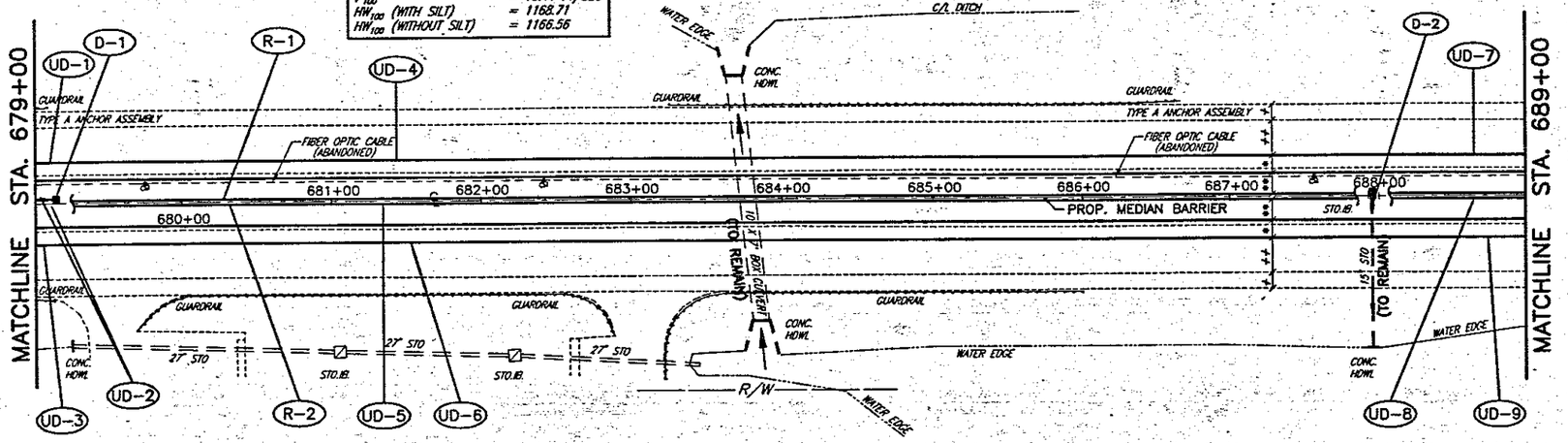
CONTRACT 77-96-05 SHEET 78 OF 196

7796053B.DWG

FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82–161
FOR SIGNING & PAV'T MARKING SEE SHEETS 171–196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25–29
FOR CULVERT WORK SEE SHEETS 162–167

EXISTING STRUCTURE DATA
TYPE: 10' x 7' C.I.P. BOX CULVERT
AT MP 198.62
(STA. 683+79.00)

DRAINAGE AREA	= .66 SQ. MILES
Q_{100}	= 408 C.F.S.
V_{100}	= 10.44 FT/SEC
HW_{100} (WITH SILT)	= 1168.71
HW_{100} (WITHOUT SILT)	= 1166.56

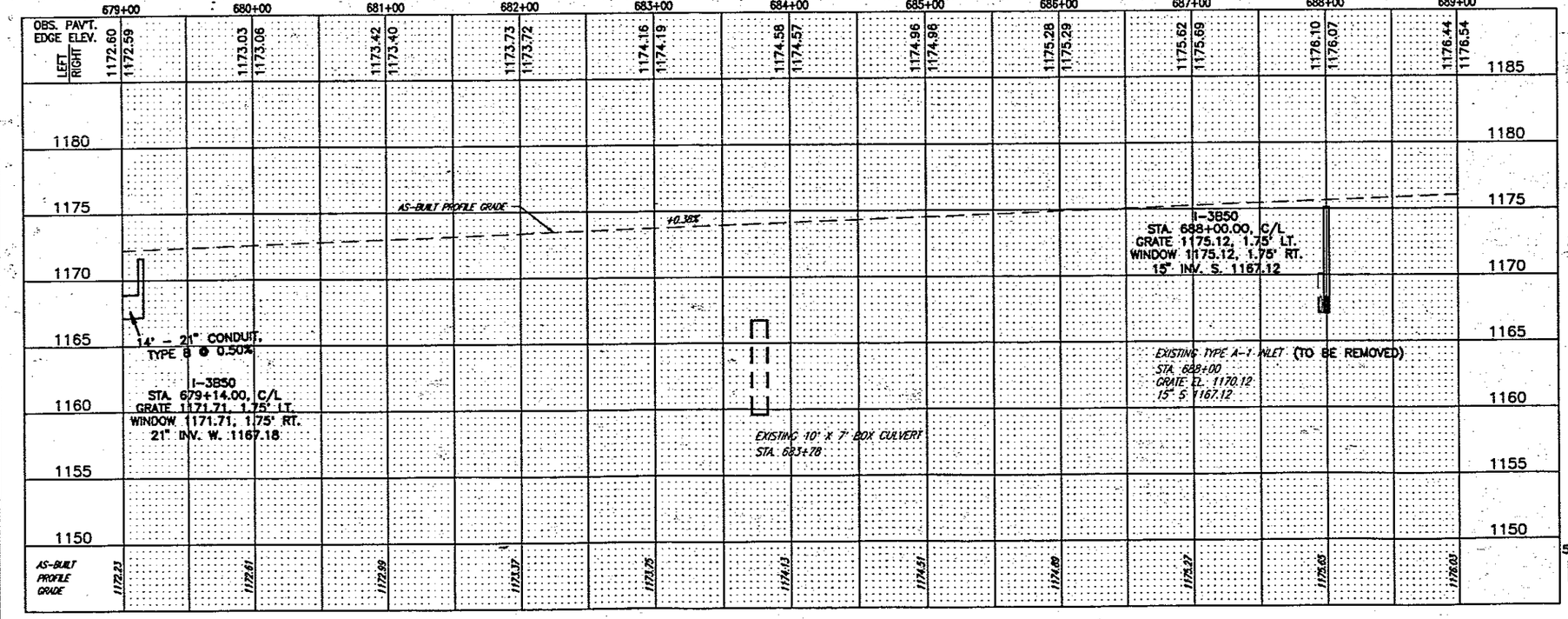


DRAINAGE		603	603		604		
		15" CONDUIT, TYPE B 706.02	21" CONDUIT, TYPE B 706.02		INLET, No.3850		
REF.	LOCATION	LF.	LF.		EA.		
D-1	STA. 679+00.00 TO STA. 679+14.00, C/L		14		1		
D-2	STA. 688+00.00, C/L	6			1		
	TOTALS	6	14		2		

ROADWAY		625			
		MEDIAN JUNCTION BOX, TYPE I			
REF.	LOCATION	EA.			
R-1	STA. 680+28.00, LT.	1			
R-2	STA. 680+32.00, RT.	1			
	TOTALS	2			

BENCHMARK NO.32 – TOP OF FENO MONUMENT
STA.682+02,63'± LT.
ELEVATION 1173.22
REFERENCE DATUM NAVD 1929

PAVEMENT LEGEND
+ 10' EXISTING BERM
++ 24' EXISTING PAVEMENT
• 12' PROPOSED PAVEMENT
•• 14.25' PROPOSED BERM



50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION
PLAN AND PROFILE
STA.679+00 TO STA.689+00

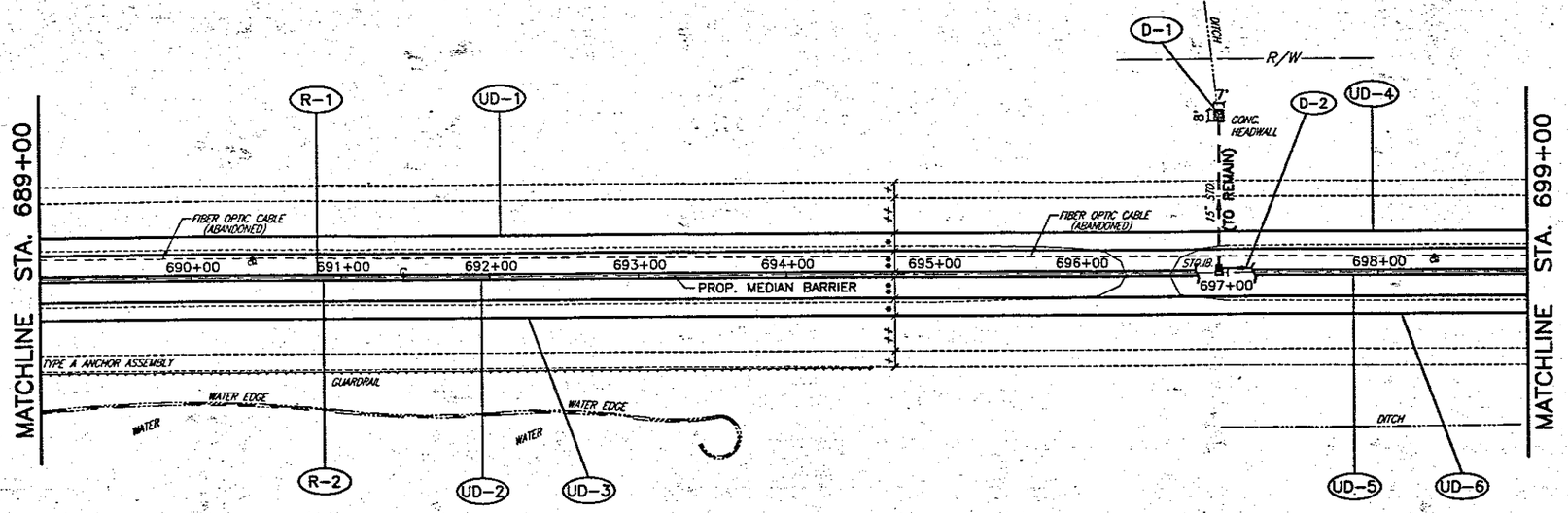
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: RLB	IN CHARGE: JEA	SCALE: 1"=50'	

CONTRACT 77-96-05 SHEET 79 OF 196

77960539.DWG

FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82–161
FOR SIGNING & PAV'T MARKING SEE SHEETS 171–196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25–29

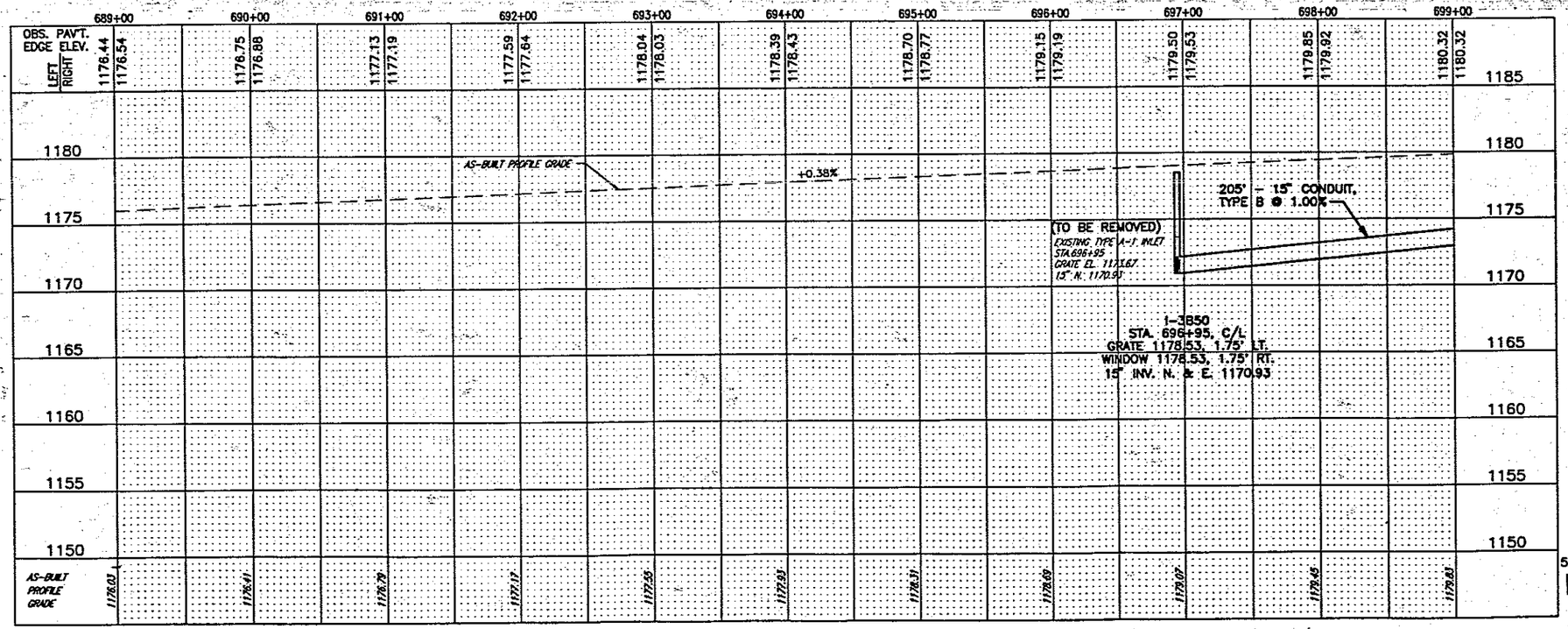


BENCHMARK NO.33 – TOP OF FENO MONUMENT
STA.691+01,64'± RT.
REFERENCE DATUM NAVD 1929
ELEVATION 1176.49

PAVEMENT LEGEND
+ 10' EXISTING BERM
++ 24' EXISTING PAVEMENT
• 12' PROPOSED PAVEMENT
•• 14.25' PROPOSED BERM

DRAINAGE		601		603		604	
		ROCK CHANNEL PROTECTION TYPE C WITH FILTER		15" CONDUIT, TYPE B 706.02		INLET, No.3850	
REF.	LOCATION	C.Y.		L.F.		EA.	
D-1	STA. 696+95.00, 105' LT. TO 113' LT.	3.1					
D-2	STA. 696+95.00 TO STA. 699+00.00, C/L			211		1	
	TOTALS	3.1		211		1	

ROADWAY		625			
		MEDIAN JUNCTION BOX, TYPE I			
REF.	LOCATION	EA.			
R-1	STA. 690+84.00, LT.	1			
R-2	STA. 690+88.00, RT.	1			
	TOTALS	2			



50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DATE

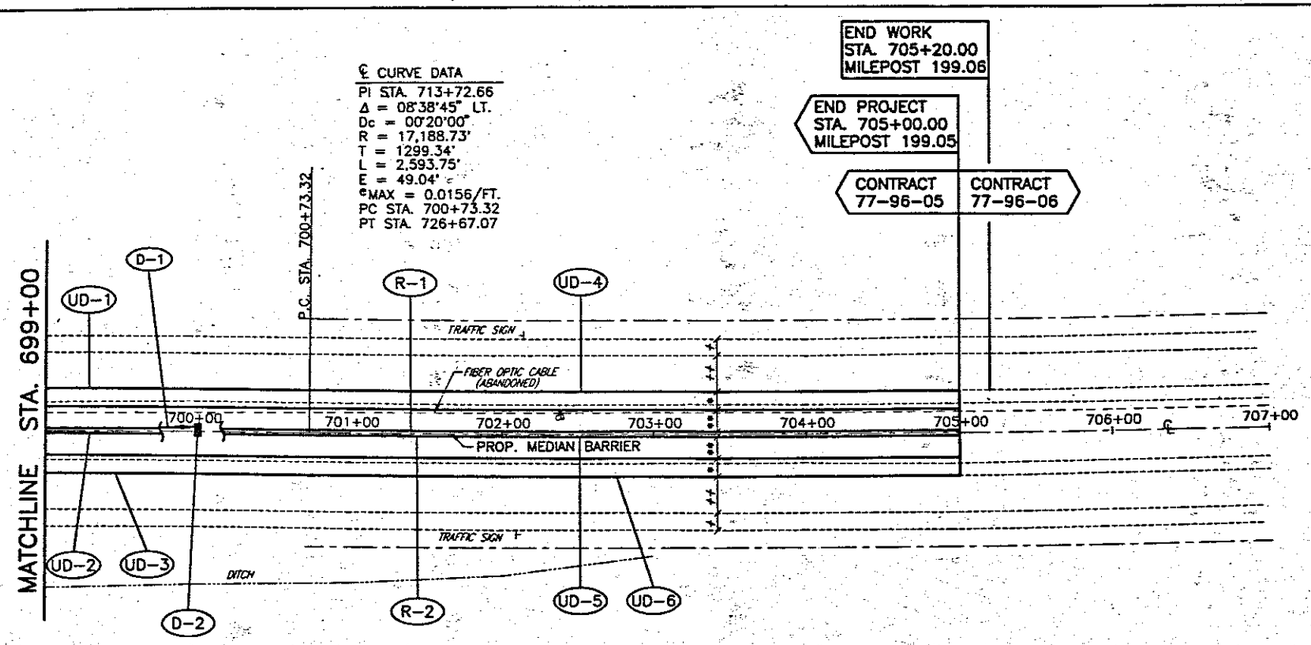
OHIO TURNPIKE COMMISSION
PLAN AND PROFILE
STA.689+00 TO STA.699+00

CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: RLB	IN CHARGE: JEA	SCALE: 1"=50'	

CONTRACT 77-96-05 SHEET 80 OF 196

71951740.DWG



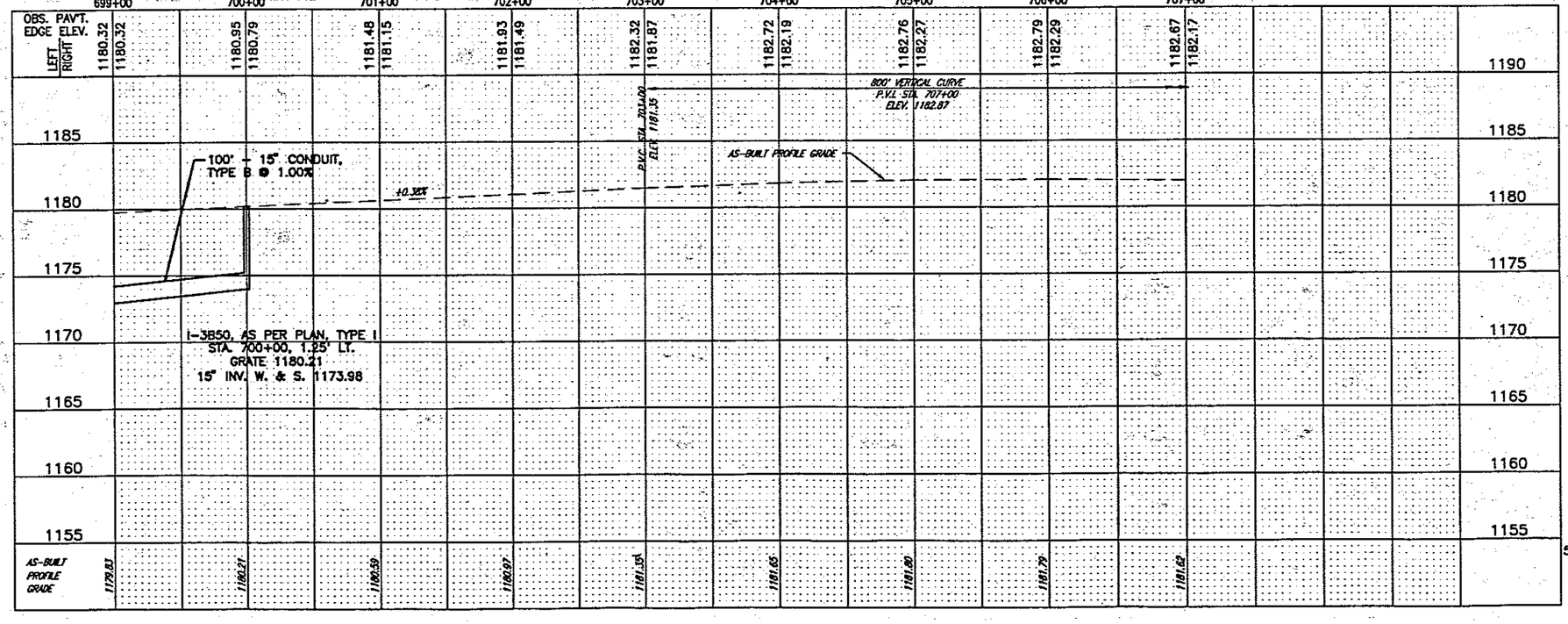
FOR TYPICAL SECTIONS SEE SHEET 6
FOR CROSS SECTIONS AND PIPE PROFILES NOT SHOWN ON THIS SHEET SEE SHEETS 82-161
FOR SIGNING & PAVT MARKING SEE SHEETS 171-196
FOR UNDERDRAIN QUANTITIES SEE SHEETS 25-29

DRAINAGE		603		604		
		15" CONDUIT, TYPE B 706.02		INLET, No.3850, AS PER PLAN, TYPE I		
REF.	LOCATION	L.F.		EA.		
D-1	STA. 699+00.00 TO STA. 700+00.00, 1.75' LT.	100		1		
D-2	STA. 700+00.00, 1.75' LT. TO STA. 700+00.00, 1.75' RT.	5		1		
	TOTALS	105		2		

BENCHMARK NO.34 – TOP OF FENO MONUMENT
REFERENCE DATUM NAVD 1929
STA.700+00,64'± LT.
ELEVATION 1180.24

BENCHMARK NO.35 – TOP OF FENO MONUMENT
REFERENCE DATUM NAVD 1929
STA.703+01,62'± RT.
ELEVATION 1182.31

PAVEMENT LEGEND
\+ 10' EXISTING BERM
++ 24' EXISTING PAVEMENT
* 12' PROPOSED PAVEMENT
** 14.25' PROPOSED BERM



ROADWAY		625				
		MEDIAN JUNCTION BOX, TYPE I				
REF.	LOCATION	EA.				
R-1	STA. 701+40.00, LT.	1				
R-2	STA. 701+44.00, RT.	1				
	TOTALS	2				

50 25 0 50 100
SCALE: 1" = 50 FT

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION
PLAN AND PROFILE
STA.699+00 TO STA.707+00

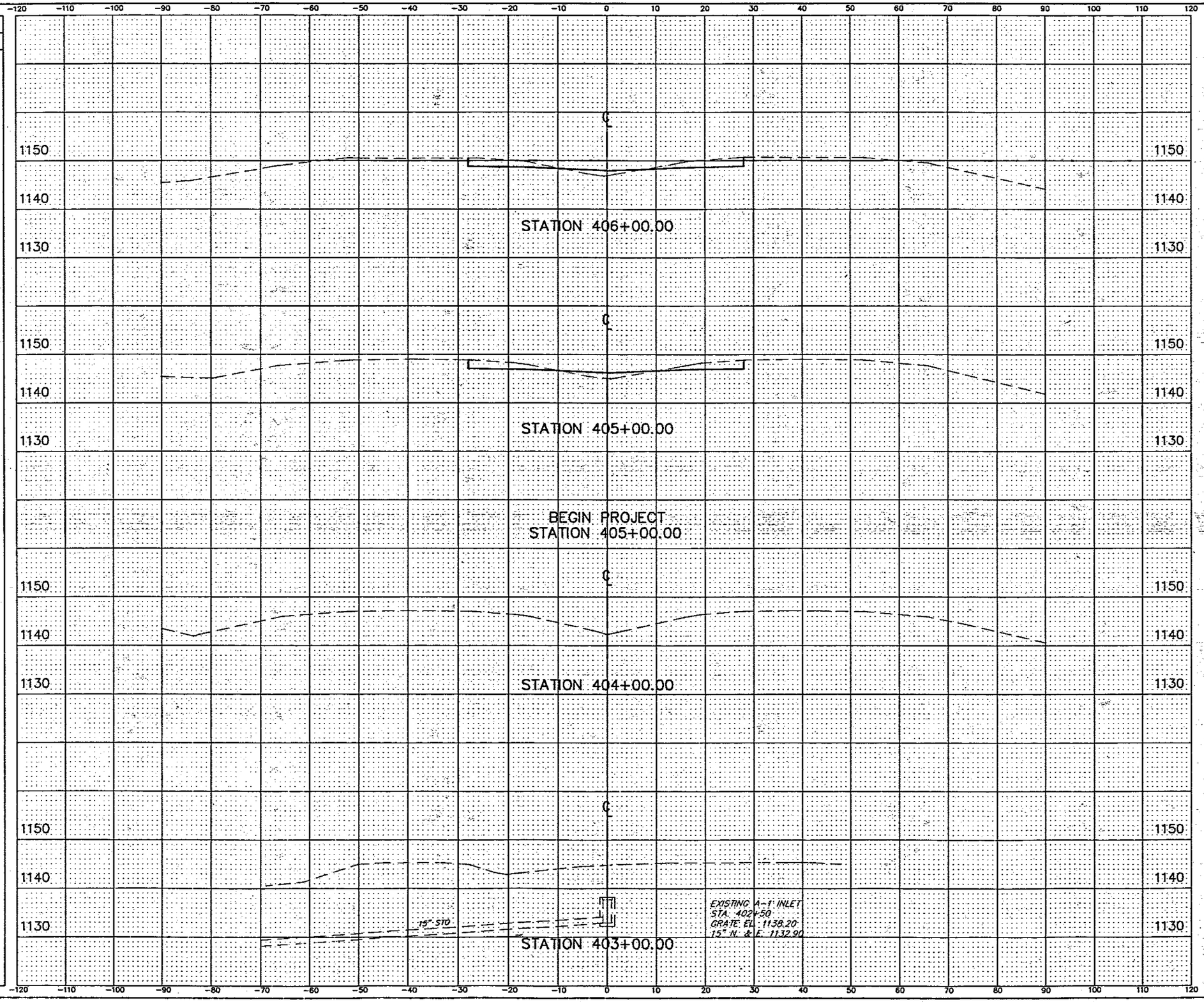
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-9	
DRAWN: RLB	IN CHARGE: JEA	SCALE: 1"=50'	

CONTRACT 77-96-05 SHEET 81 OF 196

77960541.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
46.3	10.0		
		161	43
40.4	13.3		
		75	25

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.403+00 TO STA.406+00

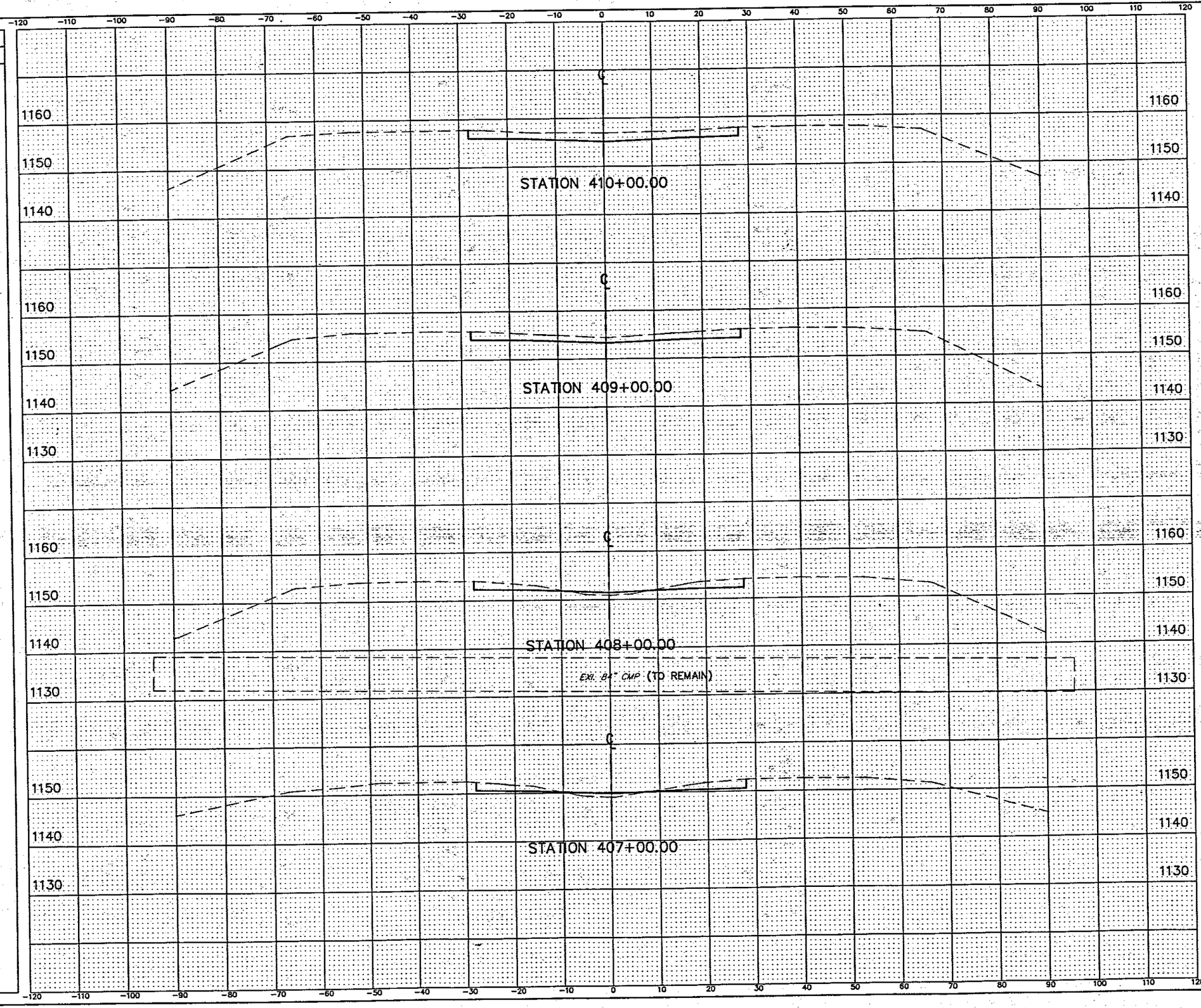
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 82 OF 196

77960542.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
89.3	0		
		308	0
76.8	0		
		221	13
42.7	7.1		
		156	30
41.4	9.0		
		163	35

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.407+00 TO STA.410+00

CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-9	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 83 OF 19

77980543.DWG

SEEDING	
END AREA	SQ. YDS.

-120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120

1170
1160
1150

℄

18" STD

STATION 414+00.00

EXISTING TYPE A-1 INLET (TO BE REMOVED)
STA. 413+45
GRATE EL. 1160.00
15" E&W 1156.30

EXISTING INLET TO BE REMOVED UNDER ITEM 604 – INLET, No. 3B50

EXISTING CONDUIT TO BE REMOVED UNDER ITEM 603 – 18" CONDUIT, TYPE B

6' – 18" CONDUIT, TYPE B

CONCRETE COLLAR AS PER MC-4

EX. 18" STD (TO REMAIN)

8' – ROCK CHANNEL PROTECTION TYPE C WITH FILTER

STATION 413+00.00

I-3B50
STA. 412+54.00, C/L
GRATE 1161.39, .75 LT.
WINDOW 1161.39, 1.75 RT.
18" INV. N. & E. 1154.46

EXISTING TYPE A-1 INLET (TO BE REMOVED)
STA. 412+54
GRATE EL. 1160.88
18" N 1154.46
15" E 1154.66

STATION 412+00.00

1140

STATION 411+00.00

77960544.DWG

END AREA		VOLUME	
CUT	FILL	CUT	FILL
42.2	13.5		
		199	25
65.0	0		
		282	0
87.2	0		
		335	0
93.9	0		
		339	0

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

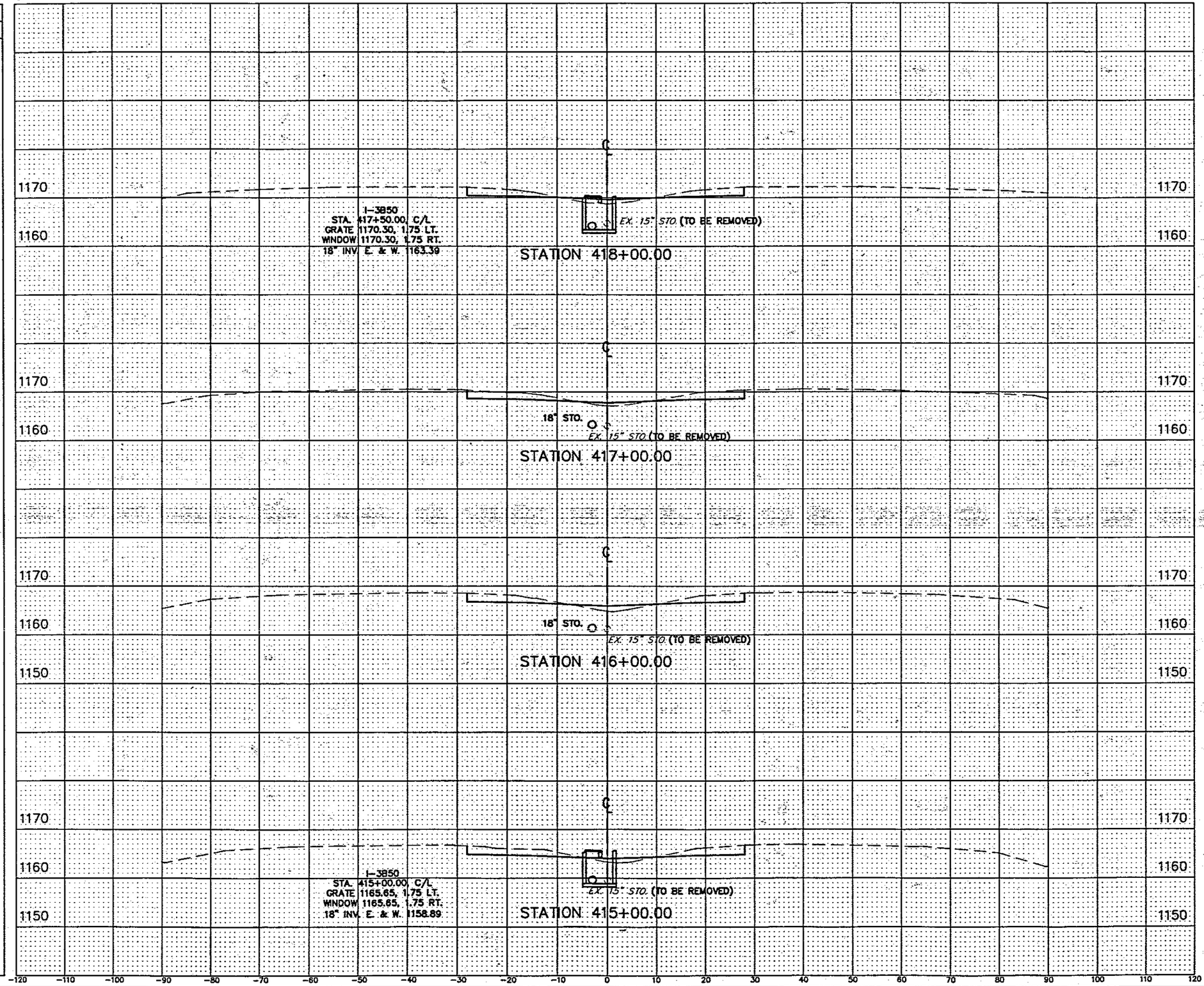
CROSS SECTIONS
STA.411+00 TO STA.414+00

CT Consultants, Inc.
Engineers • Architects • Planners
Willoughby • Akron • Columbus • North Canton • Youngstown

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'

CONTRACT 77-96-05 SHEET 84 OF 196

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
41.2	10.5		
		163	31
47.0	6.2		
		171	32
45.2	11.1		
		178	36
50.7	8.1		
		172	40

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.415+00 TO STA.418+00

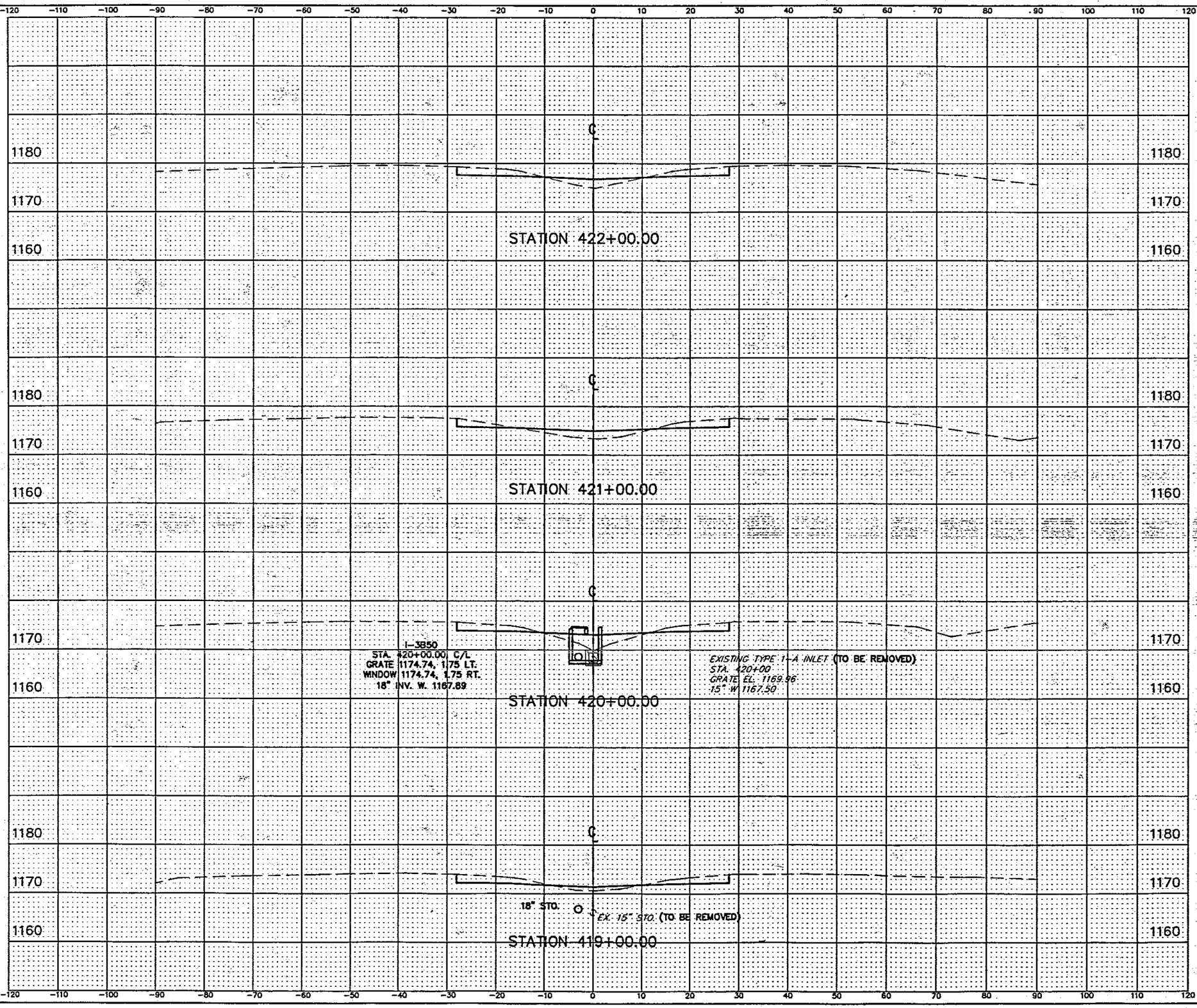
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 85 OF 196

77960545.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
42.1	19.6		
		132	91
28.9	29.2		
		126	113
38.8	31.5		
		149.5	77
42.0	9.9		
		154	38

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.419+00 TO STA.422+00

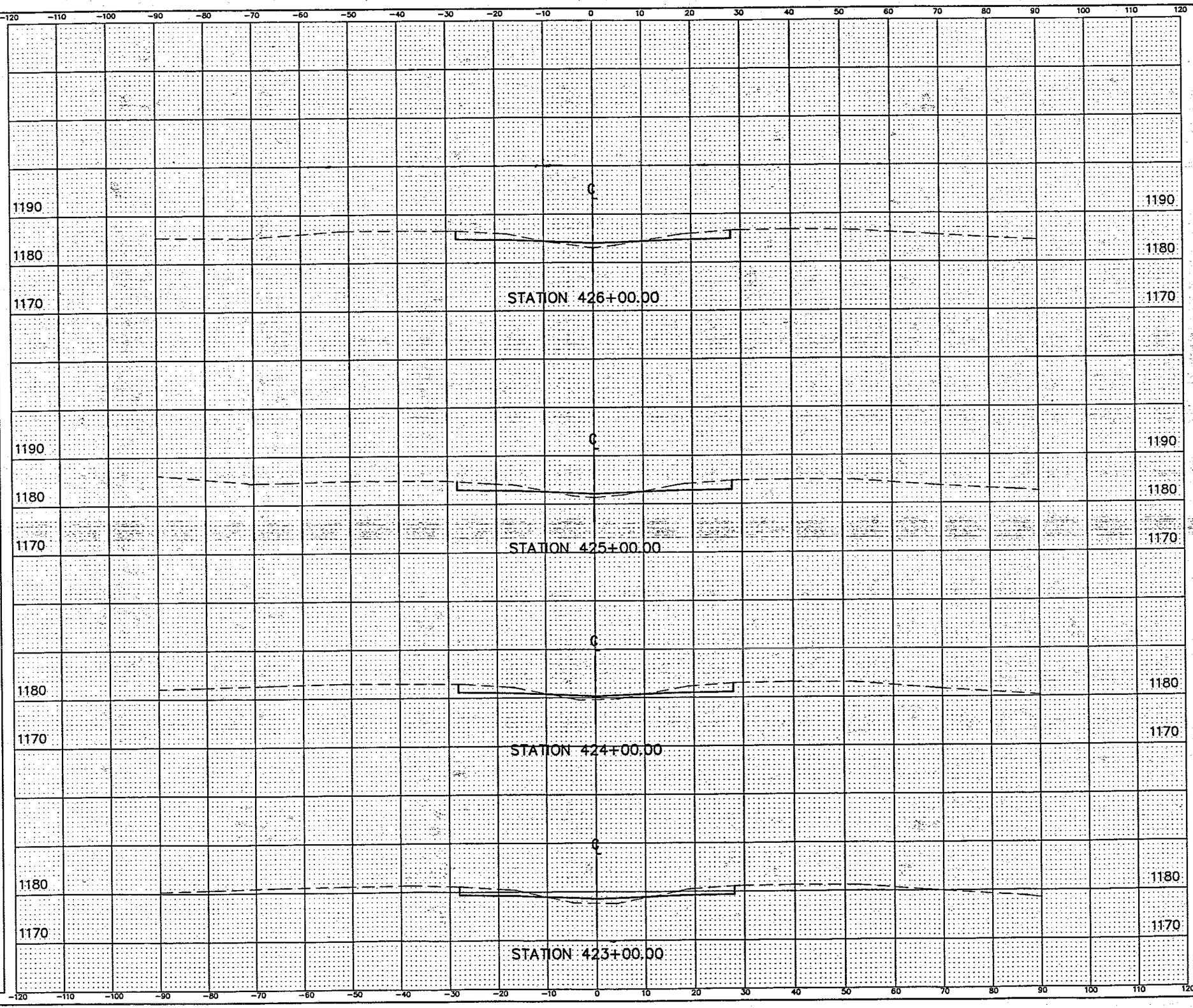
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 86 OF 196

77960548.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
40.4	9.8		
		156	35
43.7	8.8		
		158	36
41.3	10.6		
		150	48
39.4	15.2		
		151	65

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

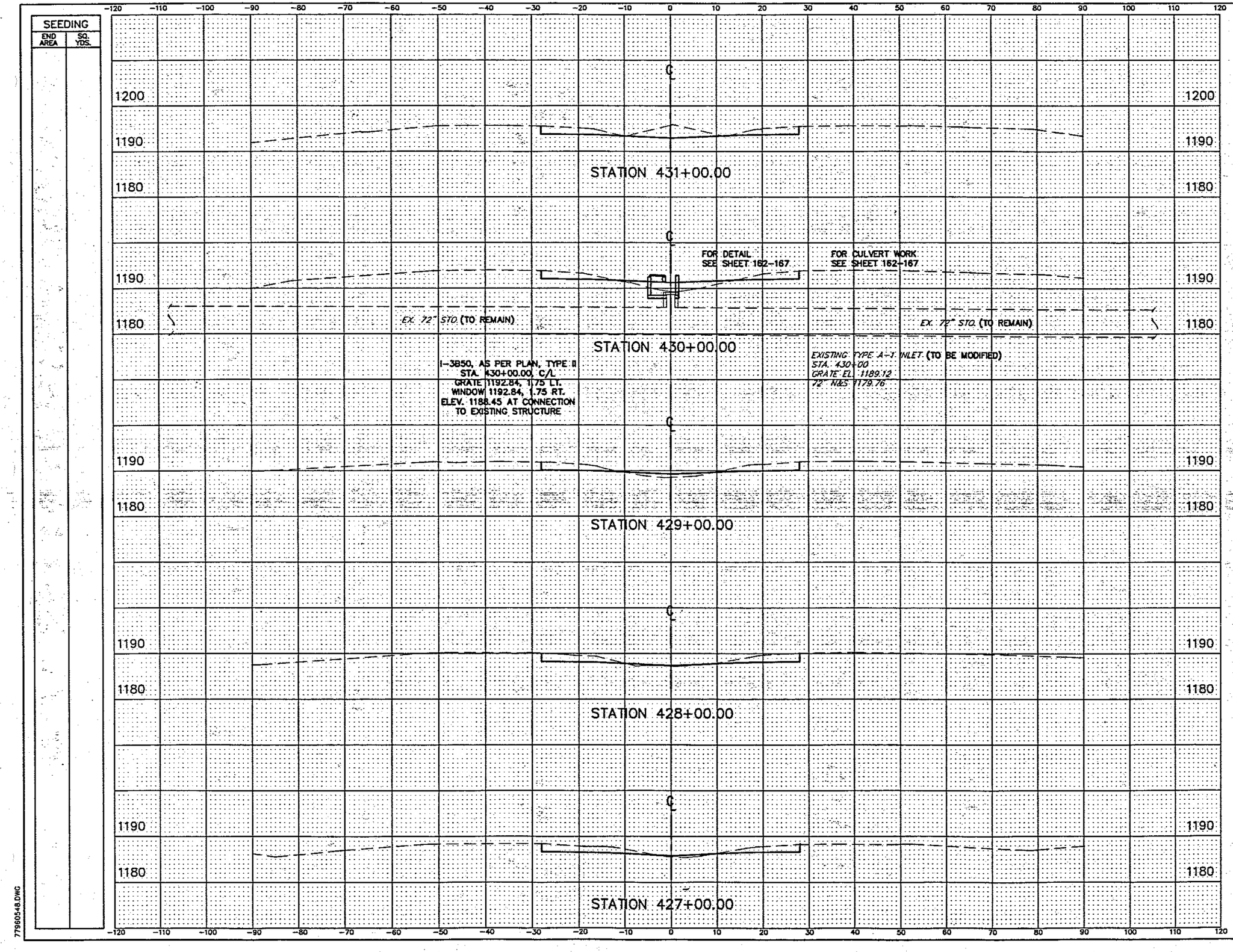
CROSS SECTIONS
STA.423+00 TO STA.426+00

CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'

CONTRACT 77-96-05 SHEET 87 OF 196

77960547.DWG



SEEDING	
END AREA	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
70.7	0		
		194	53
34.1	28.4		
		85	72
43.3	10.5		
		164	26
44.9	3.3		
		172	13
47.8	3.7		
		164	25

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

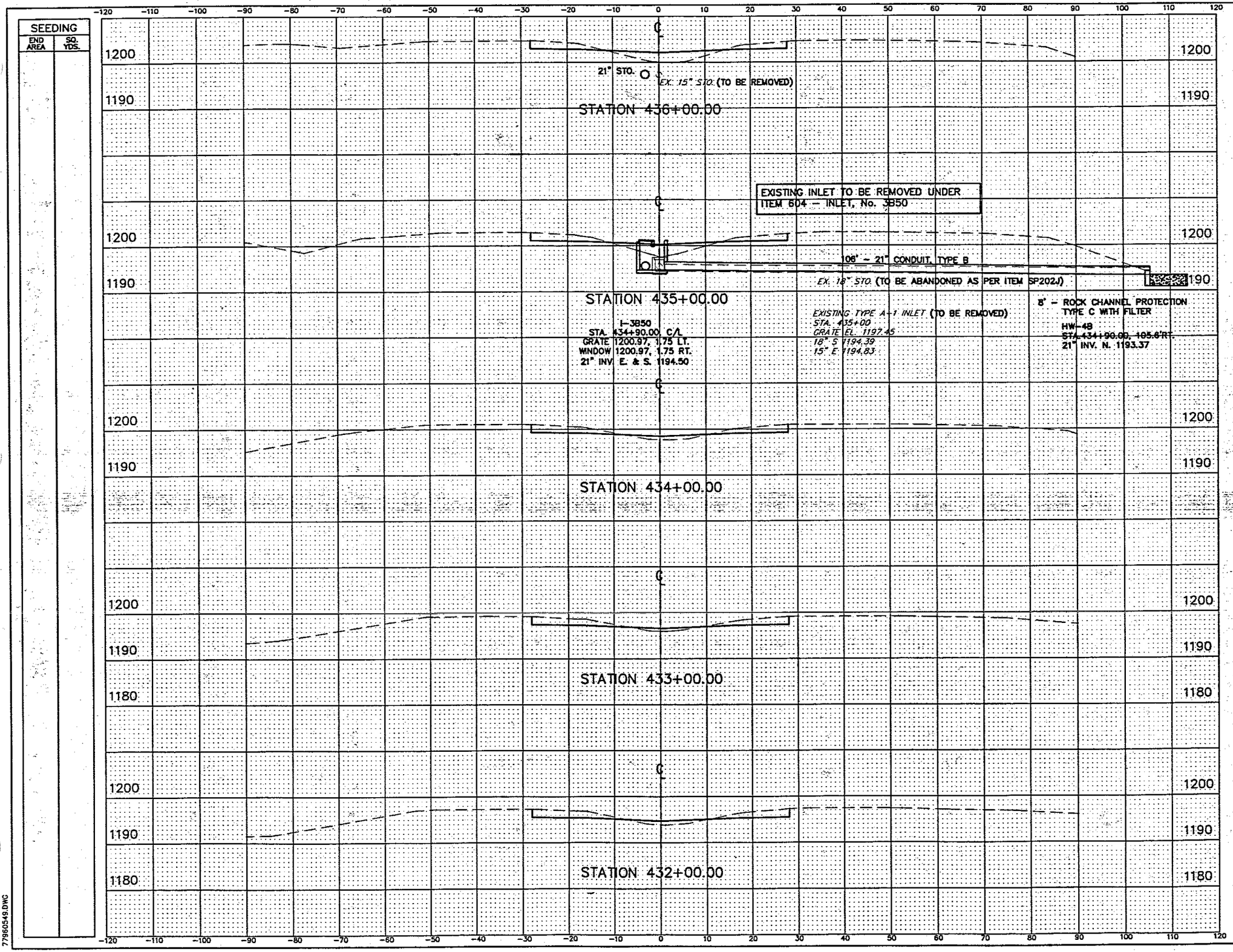
CROSS SECTIONS
STA.427+00 TO STA.431+00

CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 88 OF 196

77960548.DWG



END AREA		VOLUME	
CUT	FILL	CUT	FILL
34.1	35.8		
		131	130
36.2	34.2		
		147	83
42.9	10.2		
		162	32
44.2	7.0		
		166	32
45.4	10.3		
		215	19

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.432+00 TO STA.436+00

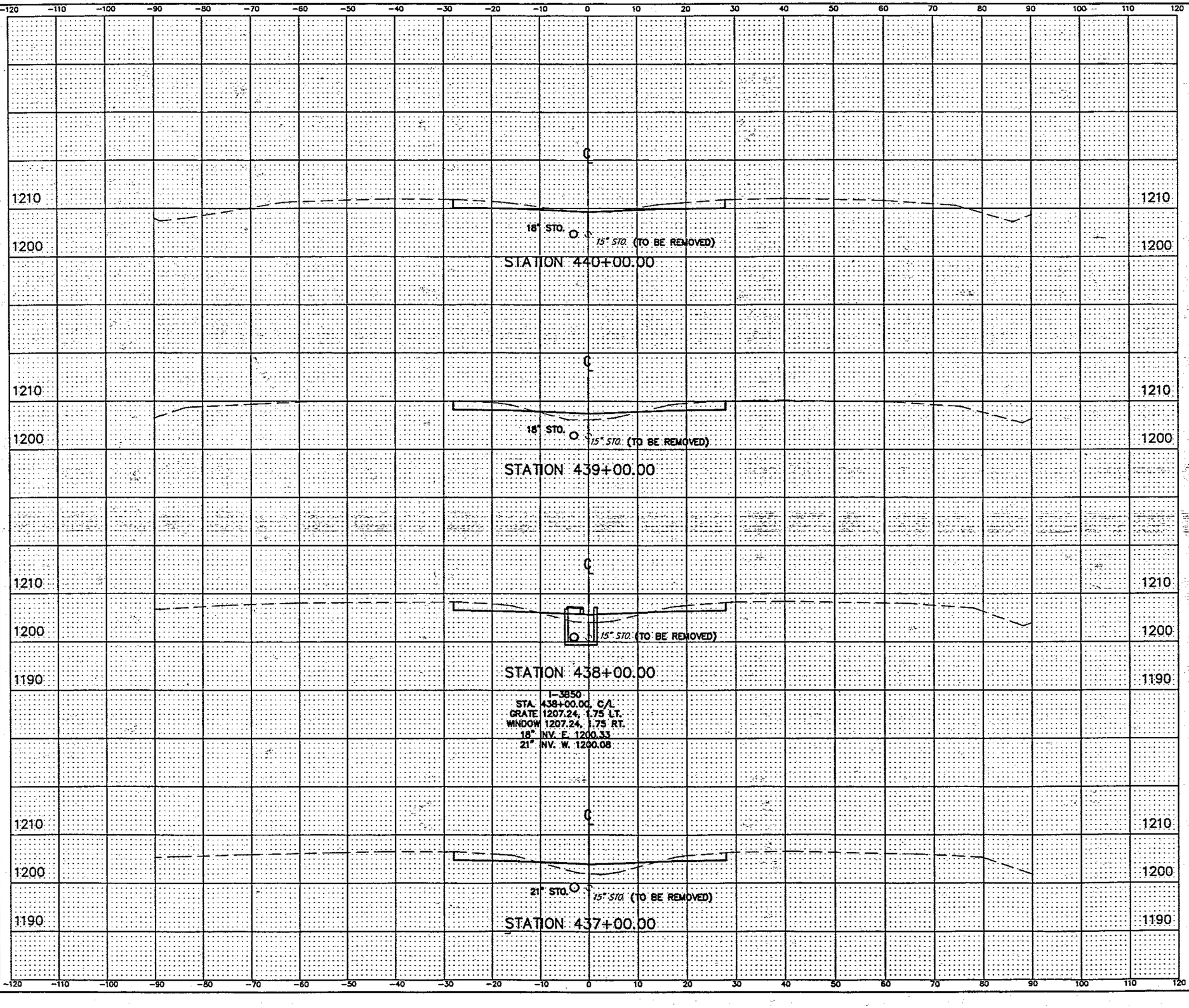
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 89 OF 196

77960549.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
48.3	0.6		
		248	38
42.8	19.5		
		151	82
38.6	24.7		
		139	104
36.4	31.5		
		131	125

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.437+00 TO STA.440+00

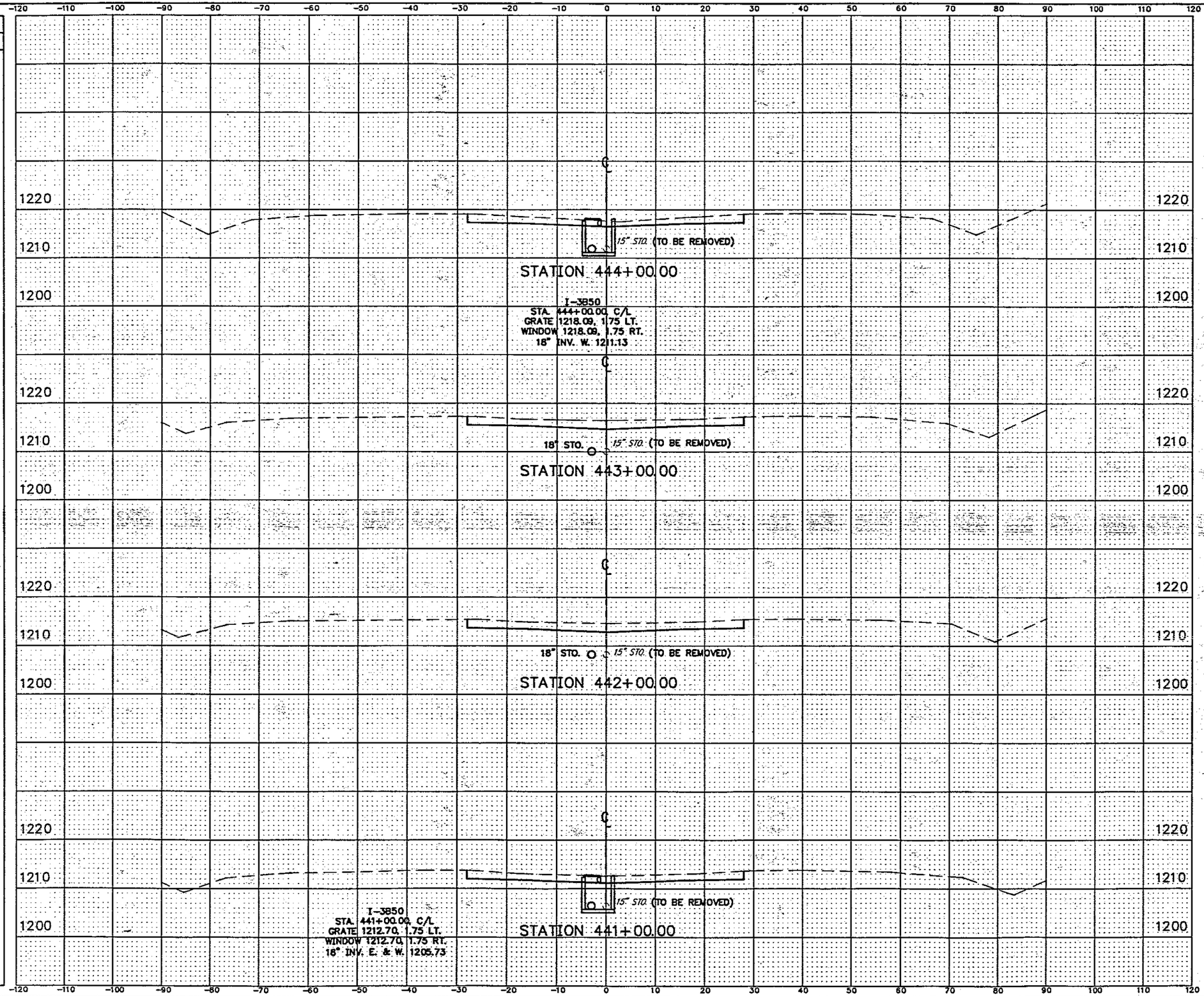
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'

CONTRACT 77-96-05 SHEET 90 OF 196

7796D550.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
75.9	0		
		303	0
87.7	0		
		327	0
89.0	0		
		314	0
80.4	0		
		239	1

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.441+00 TO STA.444+00

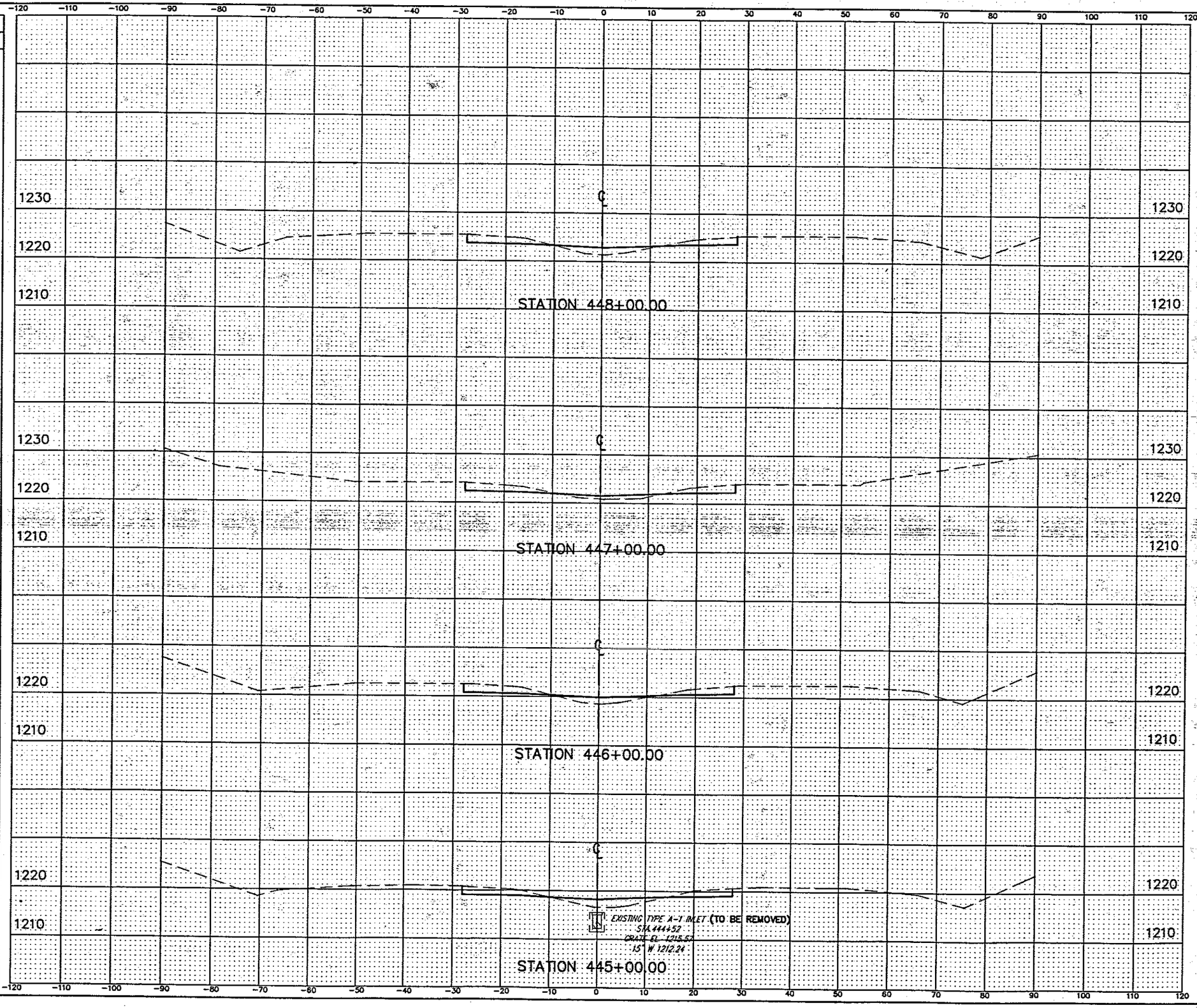
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 91 OF 196

7796051.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
36.9	20.4		
		139	61
37.8	12.1		
		143	57
39.4	18.3		
		140	82
36.1	25.5		
		208	48

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.445+00 TO STA.448+00

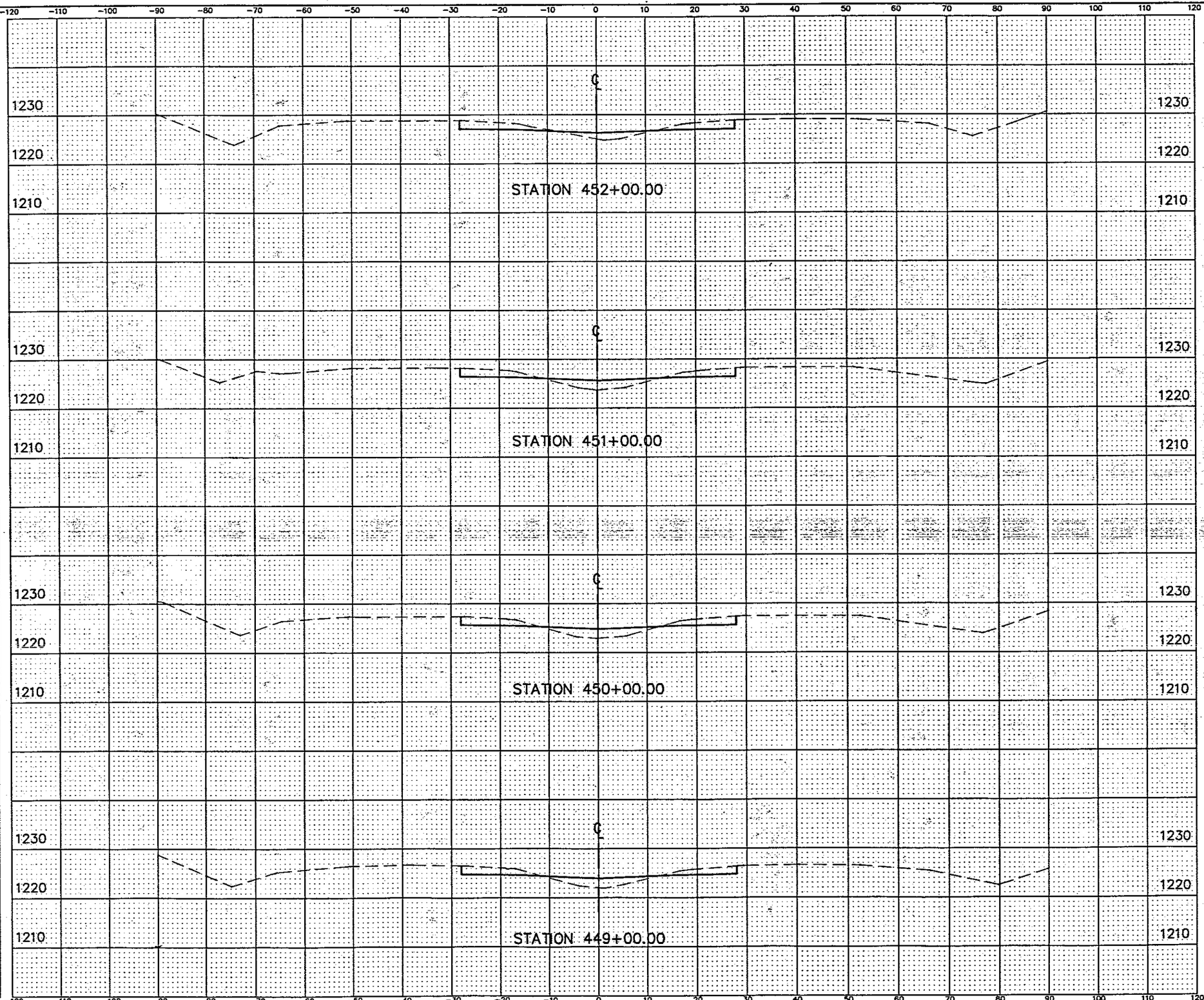
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 92 OF 196

77960552.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
41.9	16.4		
		148	83
37.9	28.5		
		142	109
38.4	30.4		
		139	108
36.5	27.9		
		136	90

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.449+00 TO STA.452+00

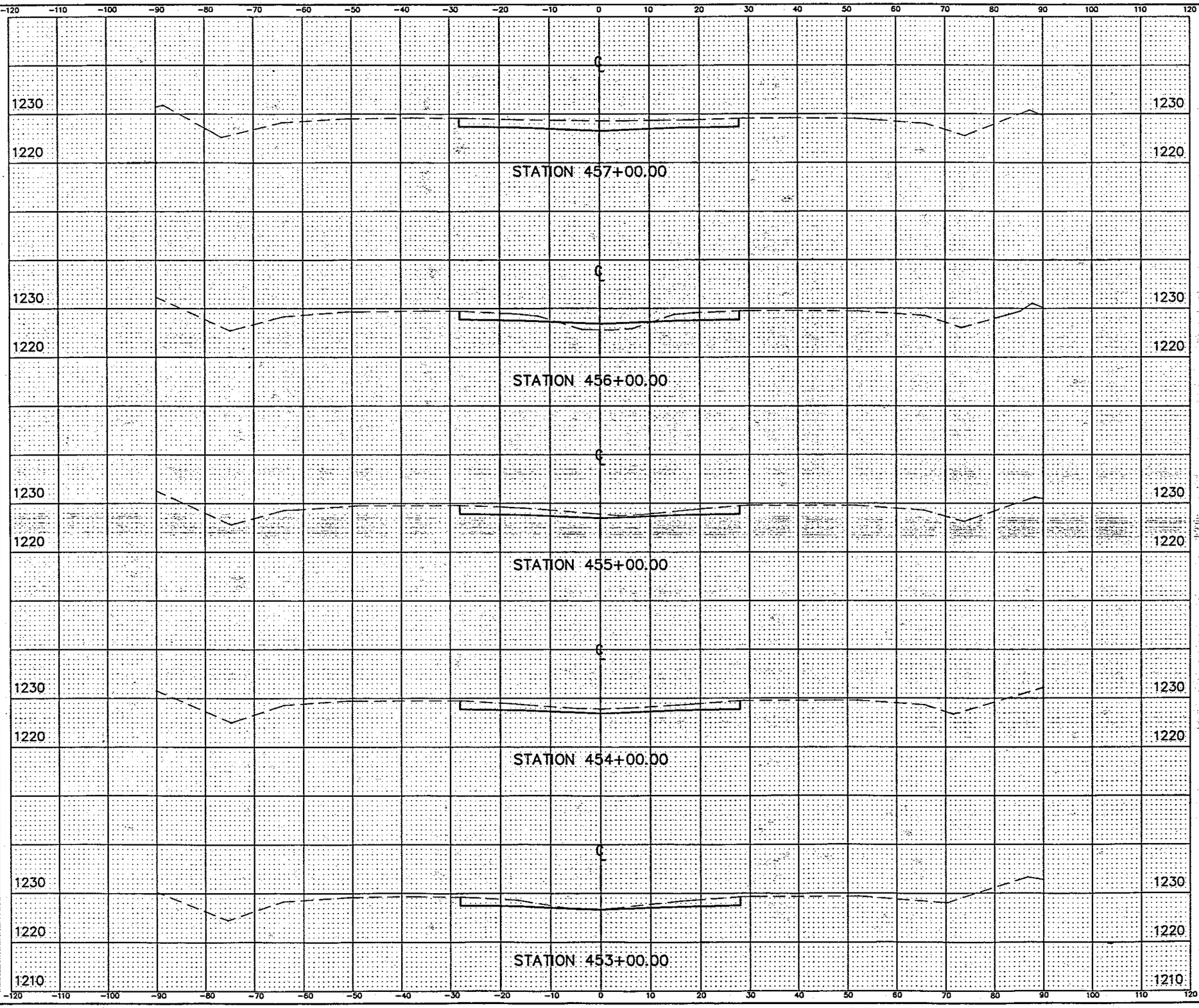
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 93 OF 196

7796055J.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
97.5	0		
		271	35
48.7	18.6		
		207	35
63.0	0		
		239	0
66.1	0		
		216	2
50.7	0.8		
		172	32

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

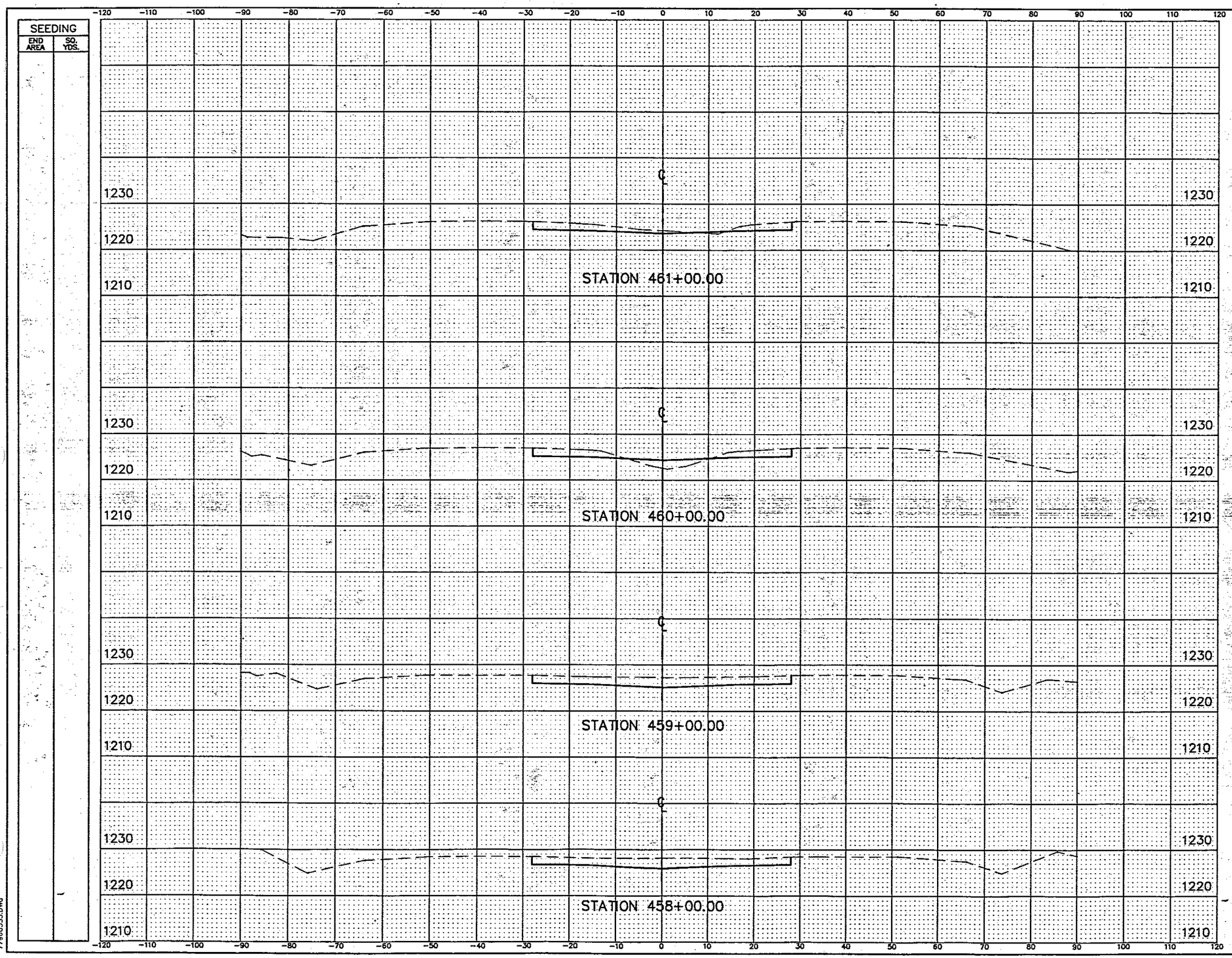
CROSS SECTIONS
STA.453+00 TO STA.457+00

CT Consultants, Inc.
Engineers • Architects • Planners
Willoughby • Akron • Columbus • North Canton • Youngstown

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 94 OF 196

77960554.DWG



END AREA		VOLUME	
CUT	FILL	CUT	FILL
54.2	1.7		
		193	41
50.1	20.3		
		281	38
101.9	0		
		374	0
100.2	0		
		366	0

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.458+00 TO STA.461+00

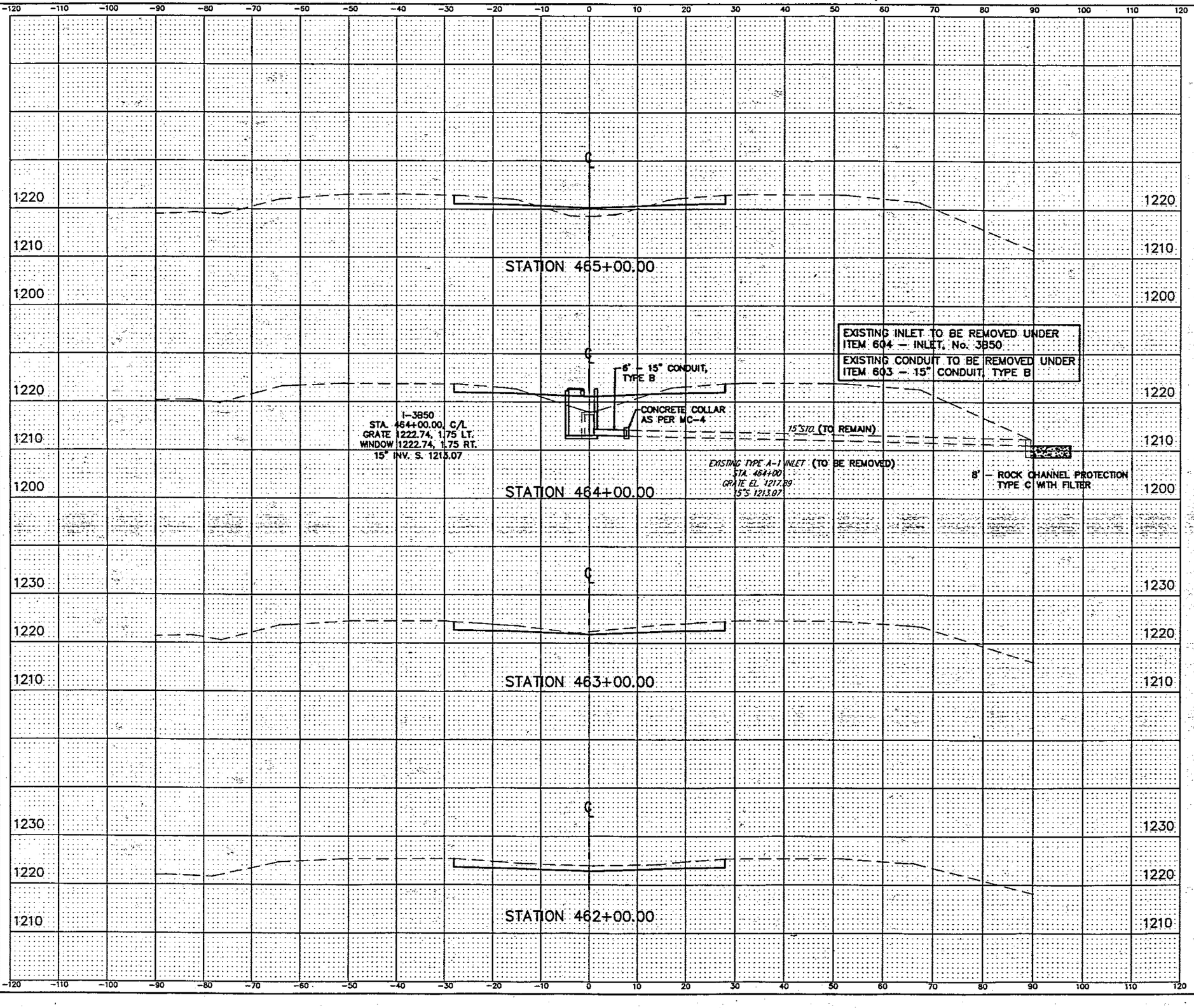
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'

CONTRACT 77-96-05 SHEET 95 OF 196

77960555.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
39.9	27.9		
		144	127
37.9	40.8		
		188	76
63.6	0		
		246	0
69.2	0		
		229	3

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.462+00 TO STA.465+00

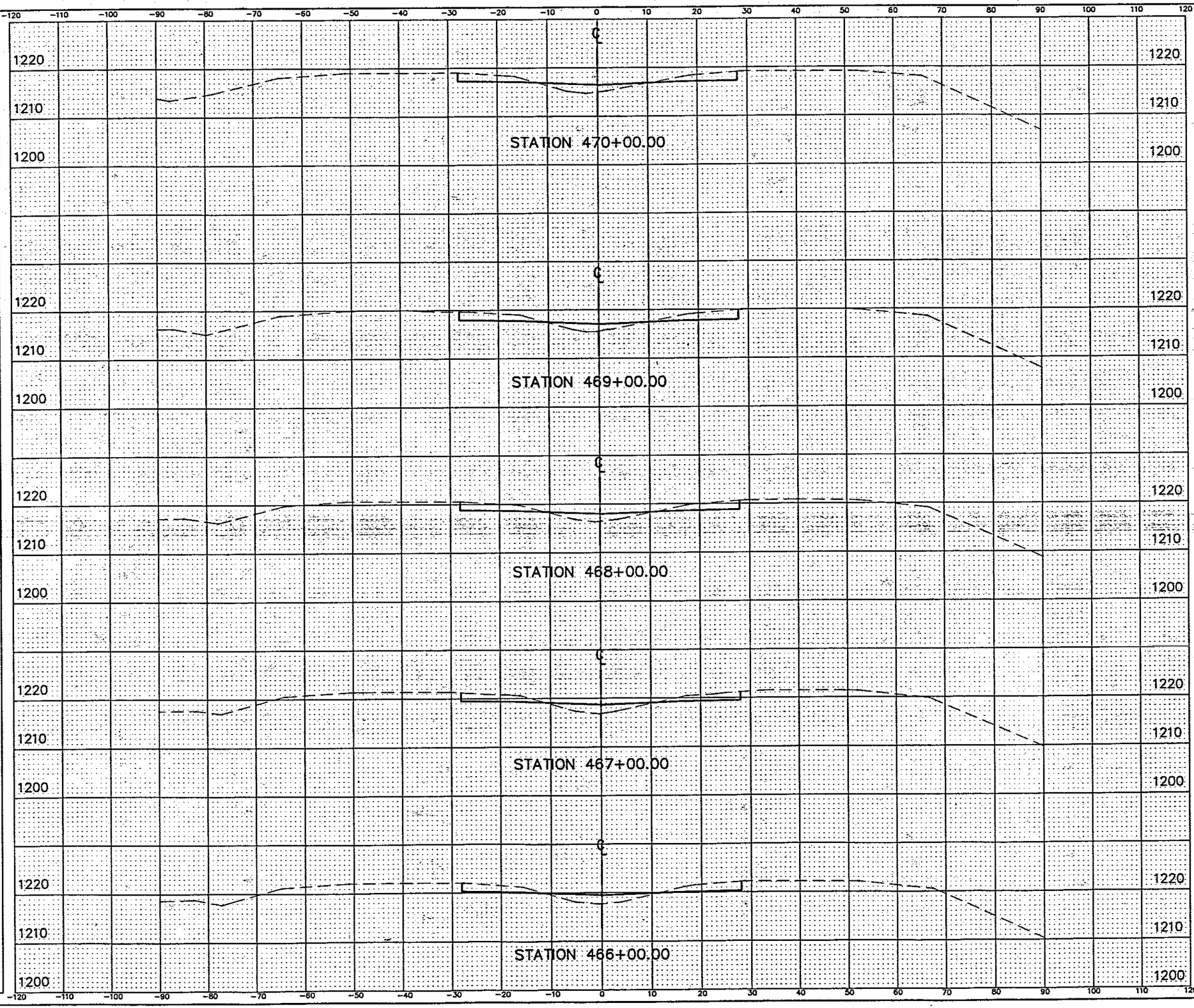
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 96 OF 196

77960556.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
39.1	22.4		
		154	77
43.9	19.3		
		155	75
40.0	20.9		
		148	82
39.8	23.3		
		150	92
41.1	26.3		
		150	101

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.466+00 TO STA.470+00

CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-9	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 97 OF 196

77960557.DWG

SEEDING	
END AREA	SQ. YDS.

-120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120

1220
1210
1200

℄

STATION 474+00.00

EXISTING INLET TO BE REMOVED UNDER ITEM 604 – INLET, No. 3850
EXISTING CONDUIT TO BE REMOVED UNDER ITEM 603 – 15" CONDUIT, TYPE B

6' – 15" CONDUIT, TYPE B @ 0.73%

CONCRETE COLLAR AS PER MC-4

EX. 15" STO. (TO REMAIN)

8' – ROCK CHANNEL PROTECTION TYPE C WITH FILTER

I-3850
STA. 473+00.00 C/L
GRATE 1215.77, 1.75 LT.
WINDOW 1215.77, 1.75 RT.
15" INV. N. 1205.59

EXISTING TYPE A-1 INLET (TO BE REMOVED)
STA. 473+00
GRATE EL. 1210.63
15" N. 1205.59

STATION 473+00.00

STATION 472+00.00

STATION 471+00.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL
44.2	7.8		
		149	96
35.9	43.9		
		133	129
35.8	25.8		
		138	93
38.5	24.3		
		144	87

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.471+00 TO STA.474+00

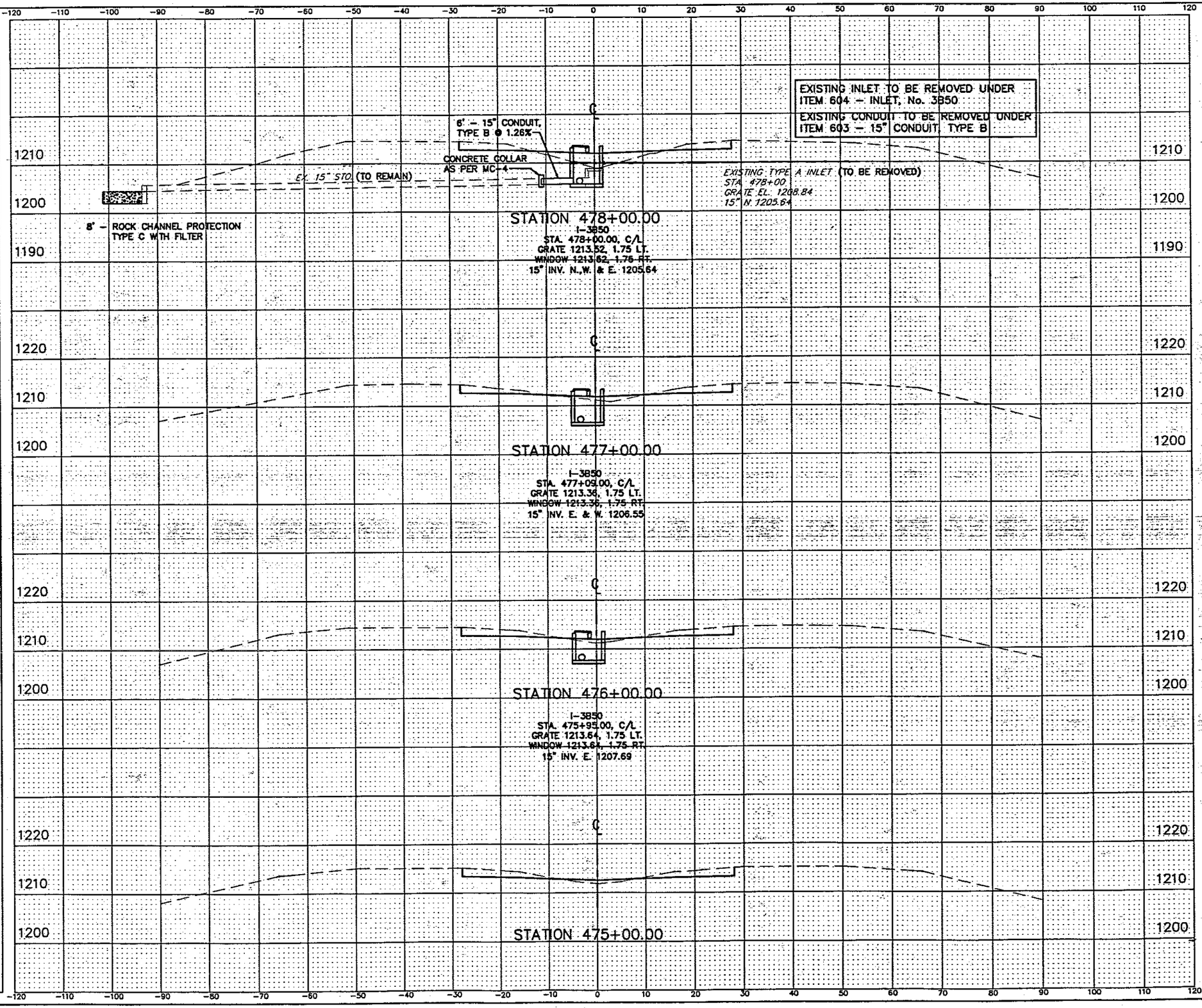
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'

CONTRACT 77-96-05 SHEET 98 OF 196

7796058.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
33.8	41.4		
		128	96
35.0	10.1		
		147	31
44.2	6.3		
		163	25
43.8	6.9		
		163	27

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.475+00 TO STA.478+00

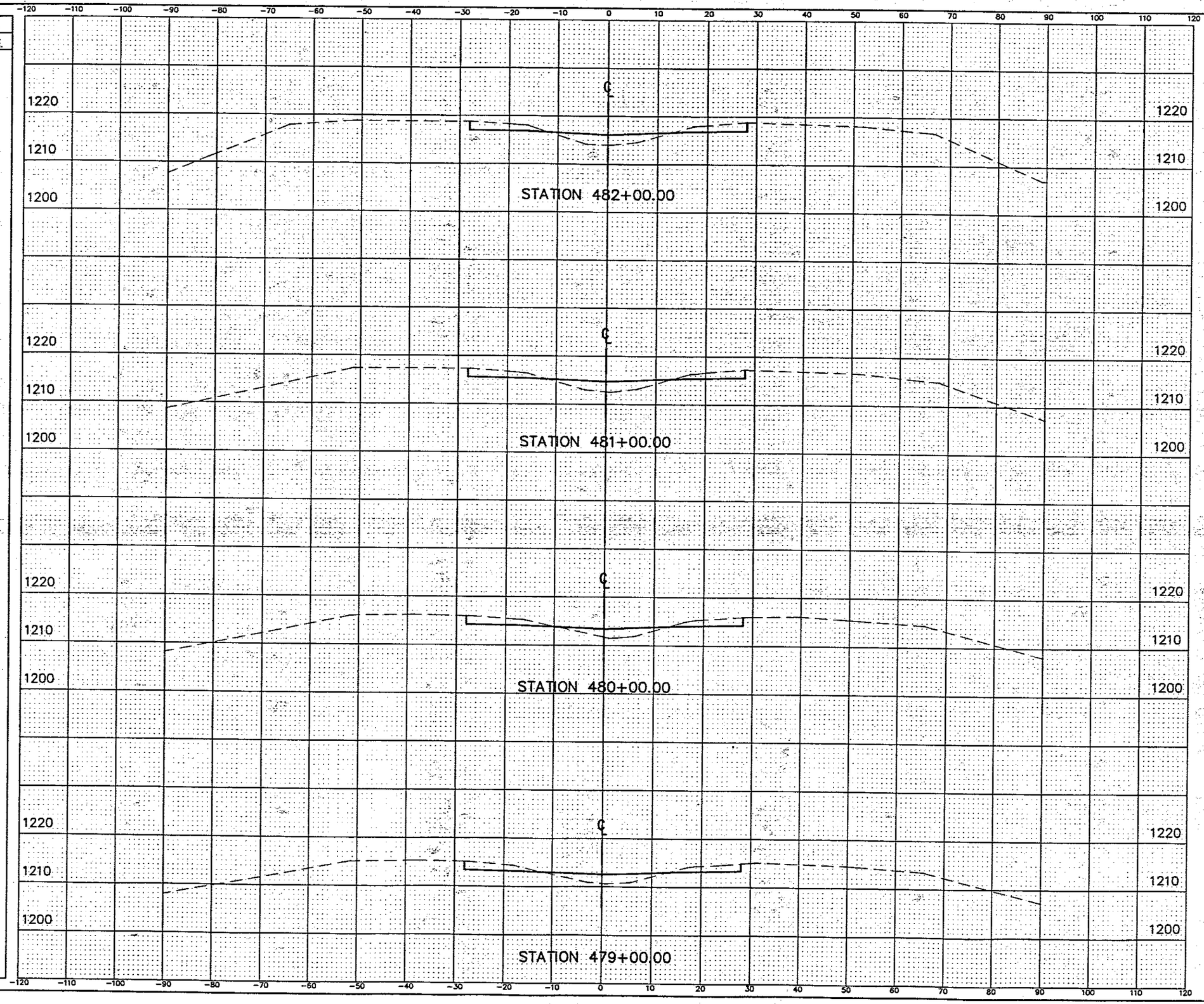
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 99 OF 196

77960559.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
39.3	35.0		
		140	129
36.2	34.5		
		141	110
39.6	24.6		
		136	102
34.0	30.4		
		126	133

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.479+00 TO STA.482+00

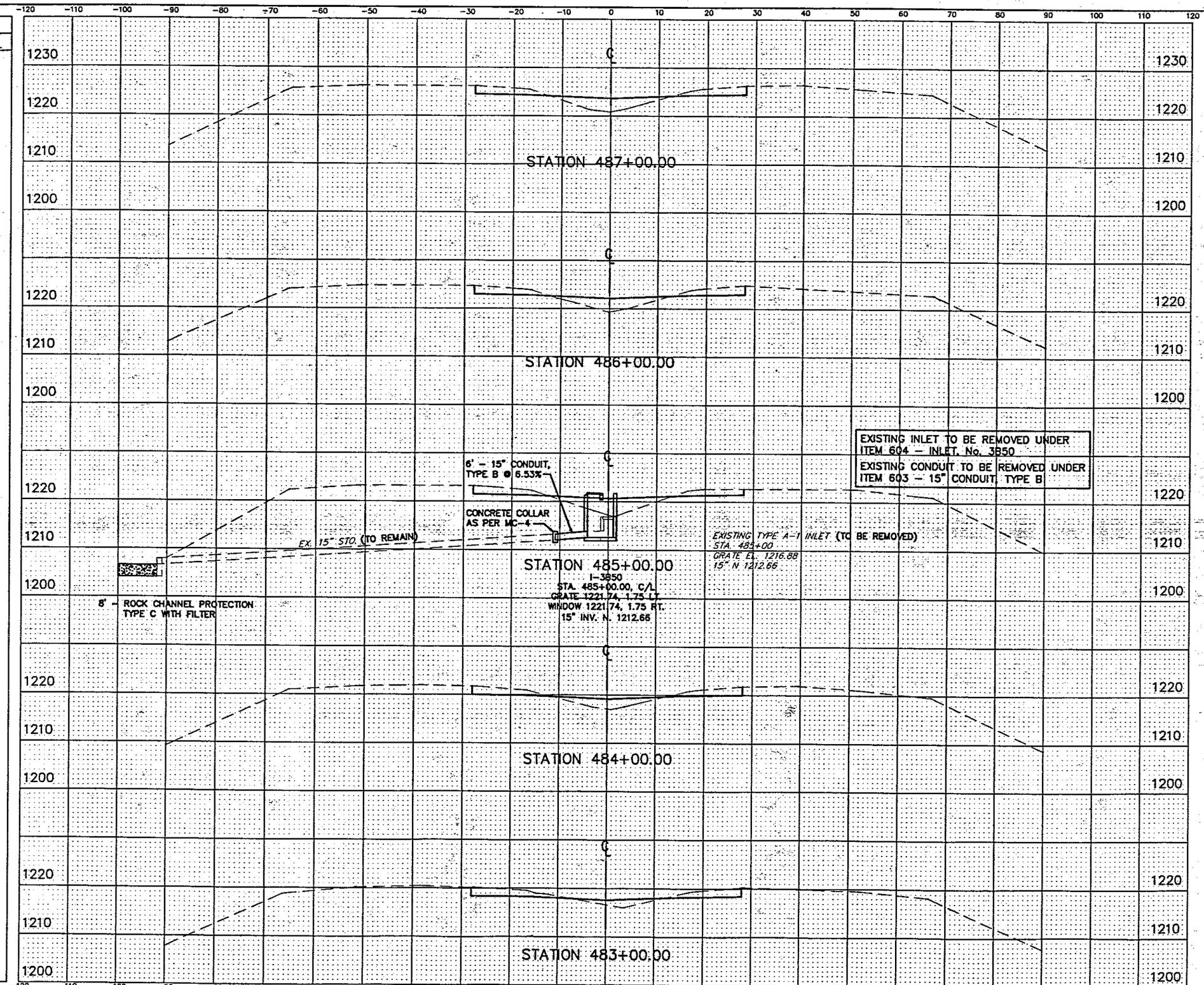
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 100 OF 196

77960560.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
37.9	40.2		
		142	142
38.9	36.5		
		137	156
35.1	47.8		
		134	140
37.4	27.6		
		147	79
42.0	15.1		
		150	93

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

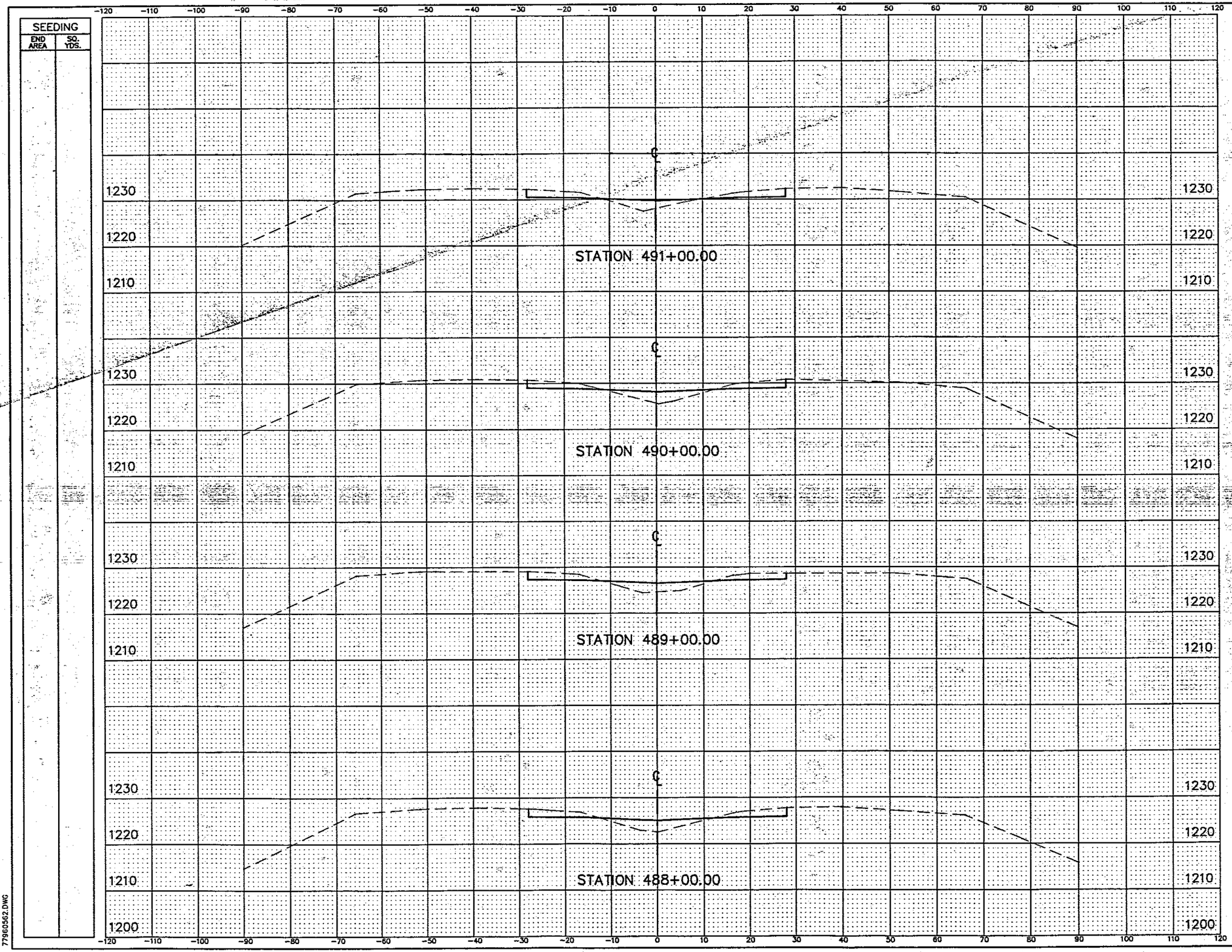
CROSS SECTIONS
STA.483+00 TO STA.487+00

CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'

CONTRACT 77-96-05 SHEET 101 OF 196

77960561.DWG



SEEDING	
END AREA	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
39.1	23.6		
		144	104
38.6	32.4		
		141	119
37.3	31.9		
		139	121
37.9	33.6		
		140	199

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.488+00 TO STA.491+00

CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 102 OF 196

77960562.DWG

SEEDING	
END AREA	SQ. YDS.

-120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120

1240
1230
1220
1210

EXISTING INLET TO BE REMOVED UNDER ITEM 604 – INLET, No. 3850
EXISTING CONDUIT TO BE REMOVED UNDER ITEM 603 – 15" CONDUIT, TYPE B

6" – 15" CONDUIT, TYPE B @ 1.68%

CONCRETE COLLAR AS PER MC-4

EX. 15" STO. (TO REMAIN)

EXISTING TYPE A-1 INLET (TO BE REMOVED)
STA. 495+00
GRATE EL. 1232.44
15" N 1229.86

8" – ROCK CHANNEL PROTECTION TYPE C WITH FILTER

STATION 495+00.00
I-3850
STA. 495+00.00, C/L
GRATE 1237.14, 1.75 LT.
WINDOW 1237.14, 1.75 RT.
15" INV. N. 1229.86

STATION 494+00.00

STATION 493+00.00

STATION 492+00.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL
38.1	38.1		
		142	140
38.3	37.1		
		141	128
37.7	32.1		
		141	120
38.2	32.7		
		143	104

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.492+00 TO STA.495+00

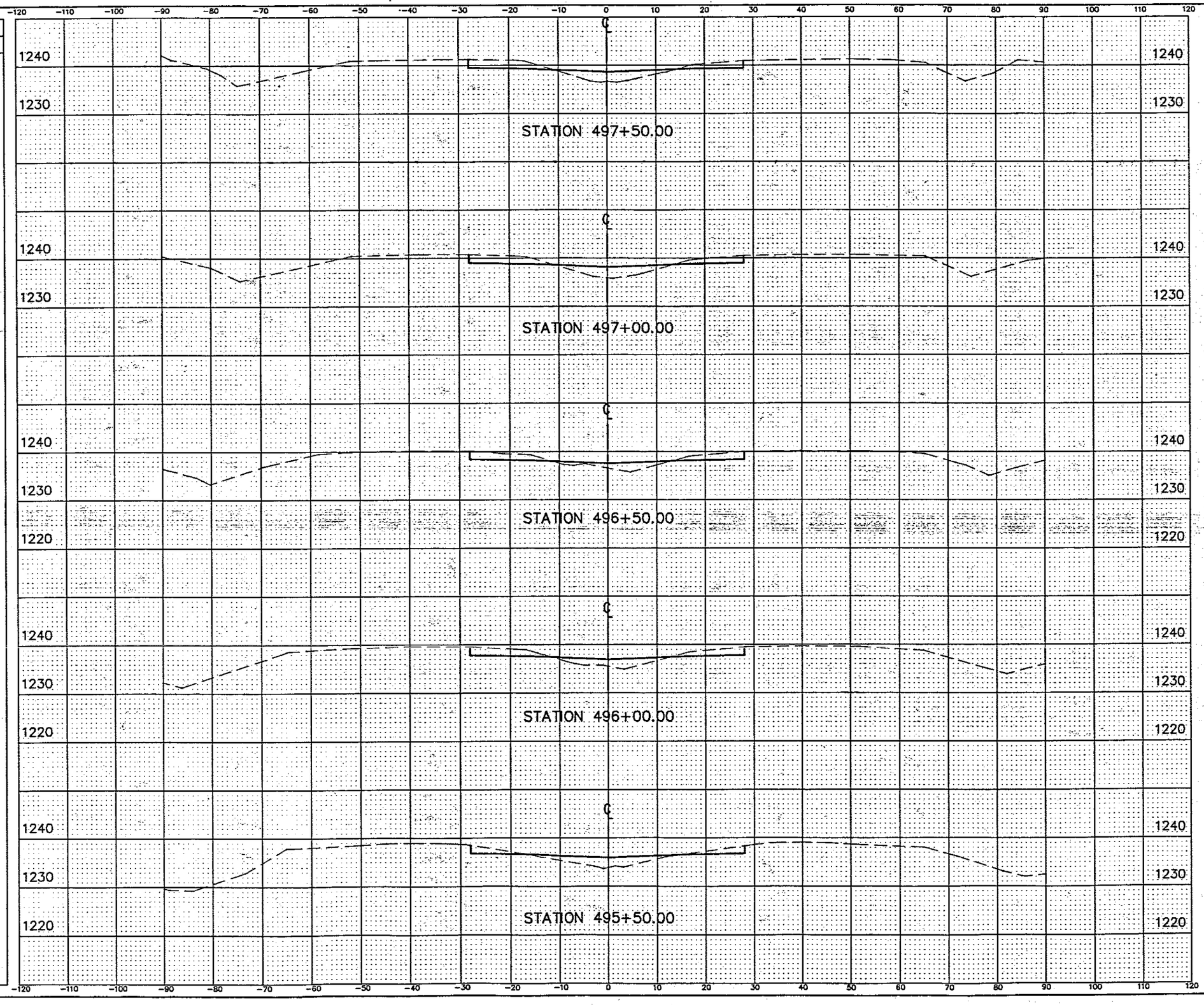
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 103 OF 196

77960563.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
37.1	33.4		
		69	63
37.5	34.4		
		67	52
34.7	21.2		
		67	46
37.8	27.8		
		54	60
19.8	36.7		
		54	70

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.495+50 TO STA.497+50

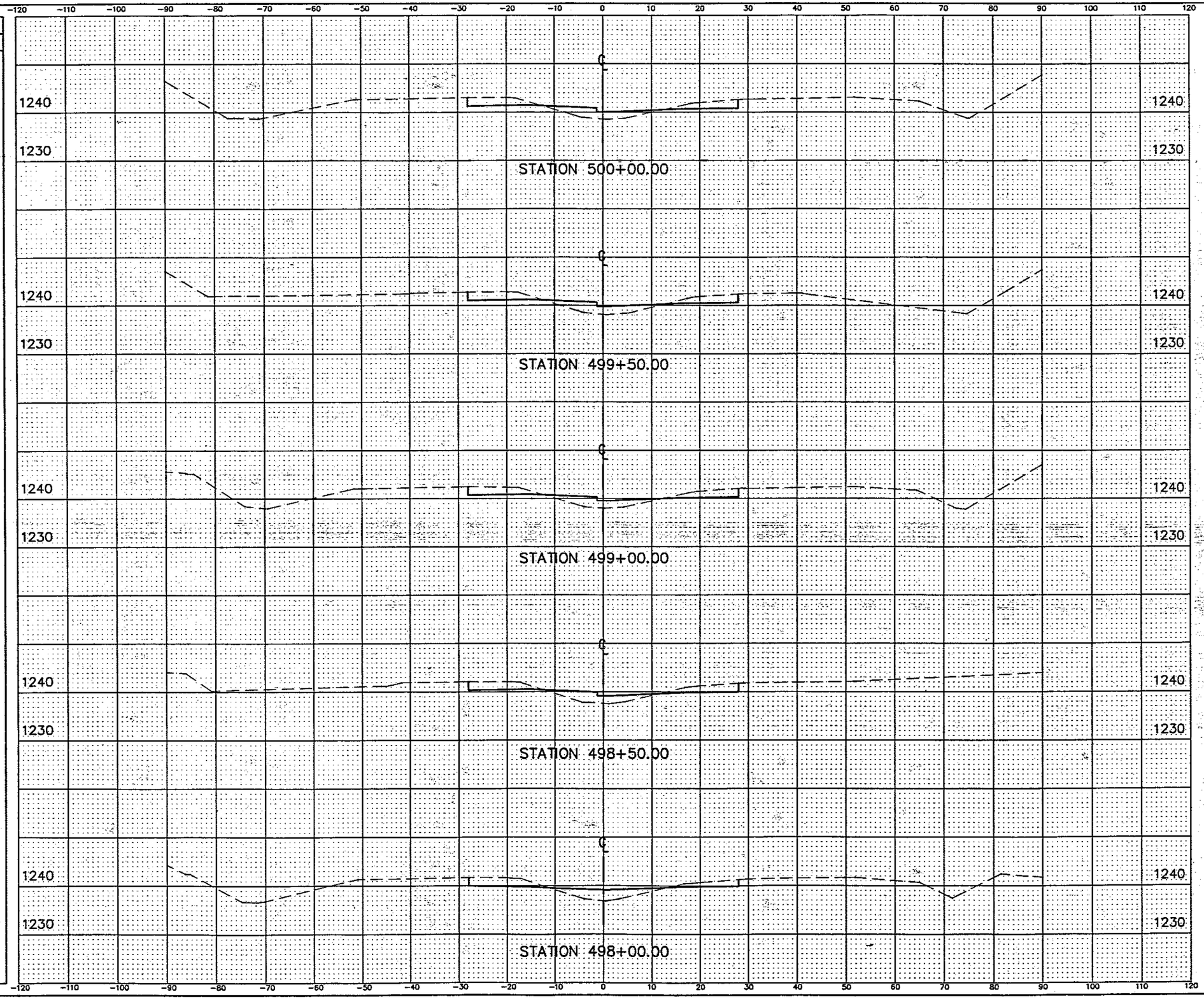
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 104 OF 196

77960564.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
37.8	29.0		
		72	57
39.2	32.2		
		72	56
37.9	28.2		
		72	53
40.1	29.0		
		72	57
37.2	31.9		
		69	61

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.498+00 TO STA.500+00

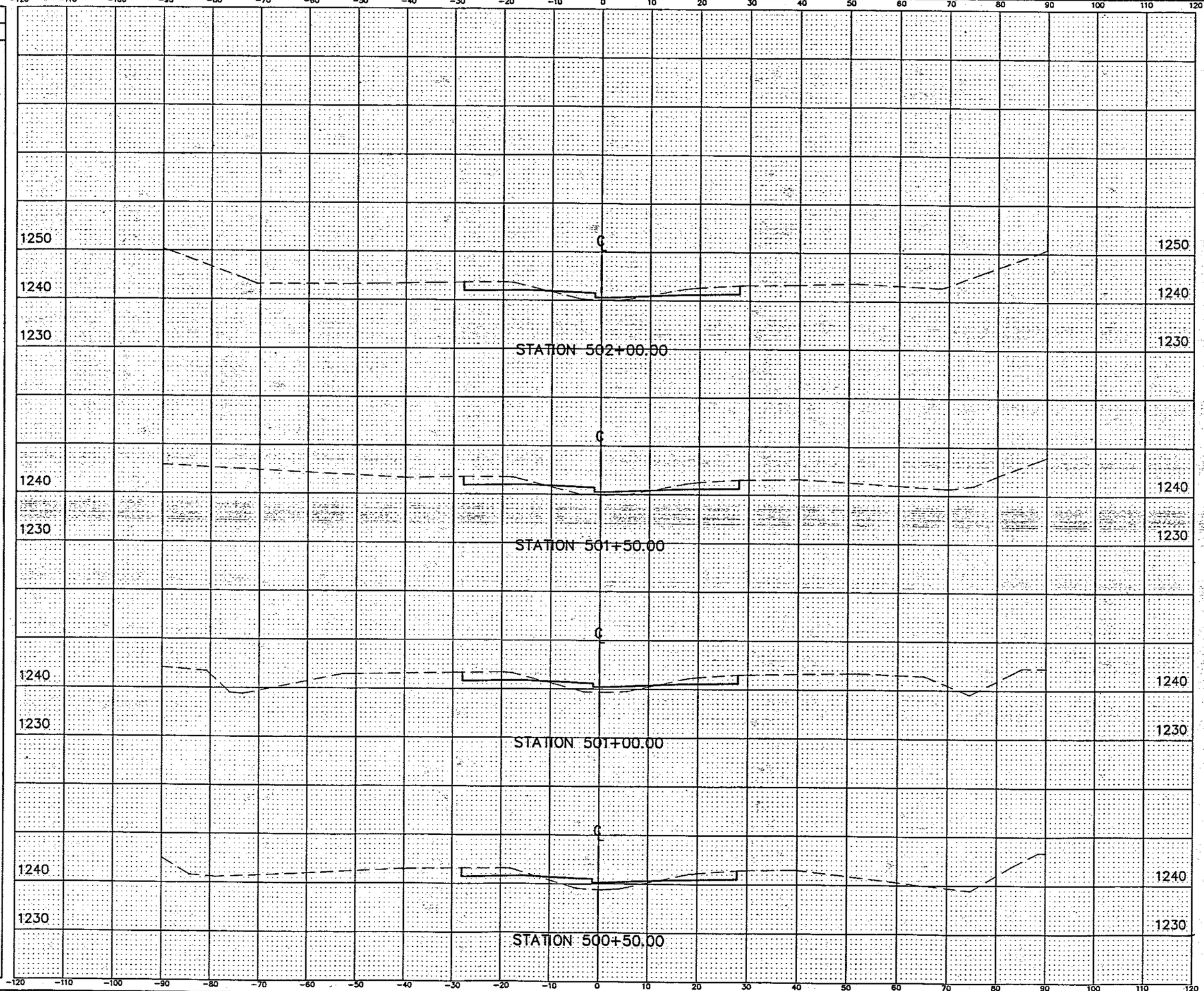
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 105 OF 196

77960565.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
43.4	12.2		
		79	26
41.2	15.8		
		76	35
40.6	21.6		
		73	46
38.4	28.3		
		71	53

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

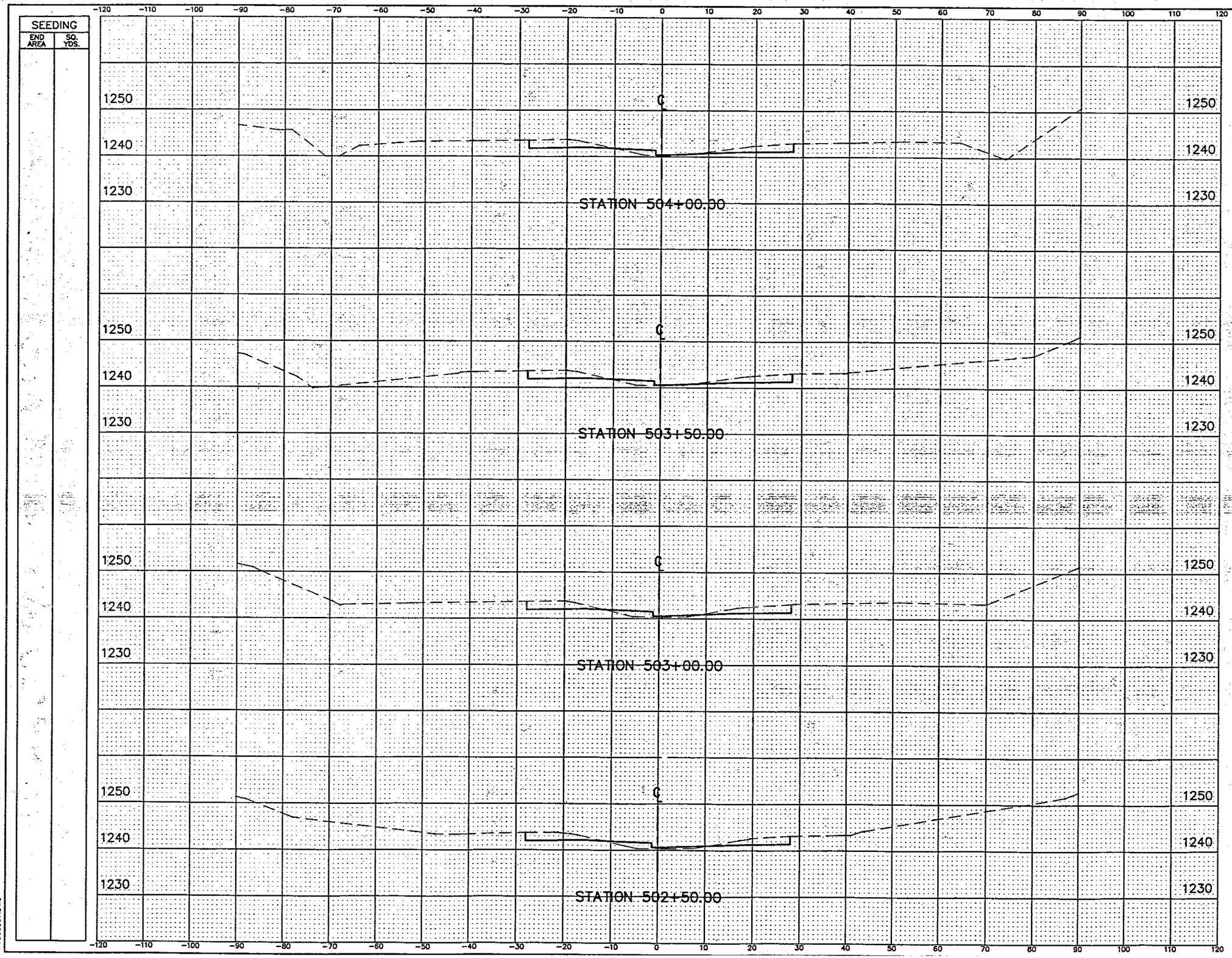
CROSS SECTIONS
STA.500+50 TO STA.502+00

CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 106 OF 196

77960566.DWG



SEEDING	
END AREA	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
43.7	7.8		
		82	15
44.2	7.6		
		80	18
42.5	11.5		
		76	22
39.6	12.1		
		77	23

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

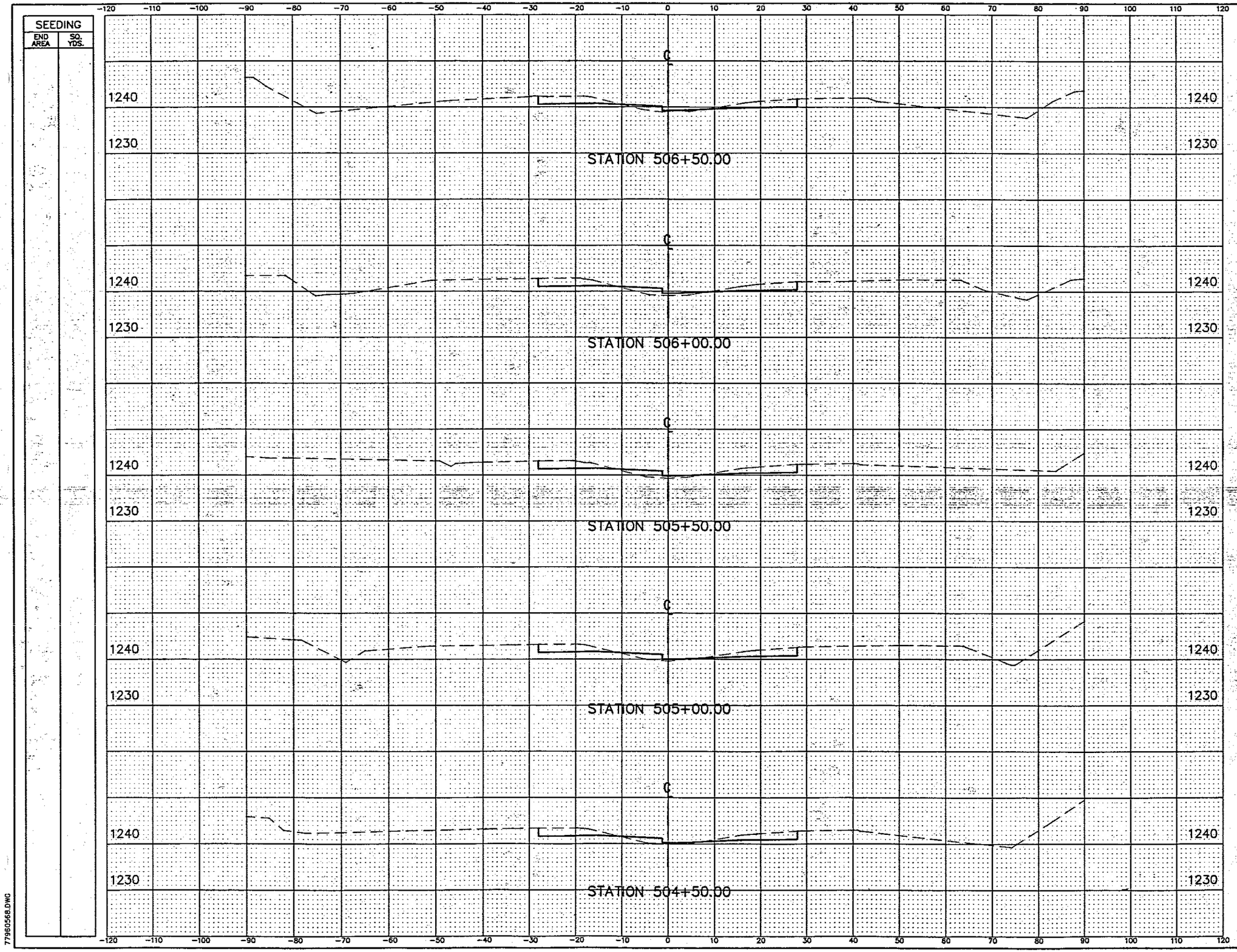
CROSS SECTIONS
STA.502+50 TO STA.504+00

CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 107 OF 196

77960567.DWG



SEEDING	
END AREA	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
43.5	8.1		
		80	20
42.9	13.3		
		80	25
42.8	13.3		
		81	21
44.1	9.3		
		82	17
44.6	9.1		
		82	16

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.504+50 TO STA.506+50

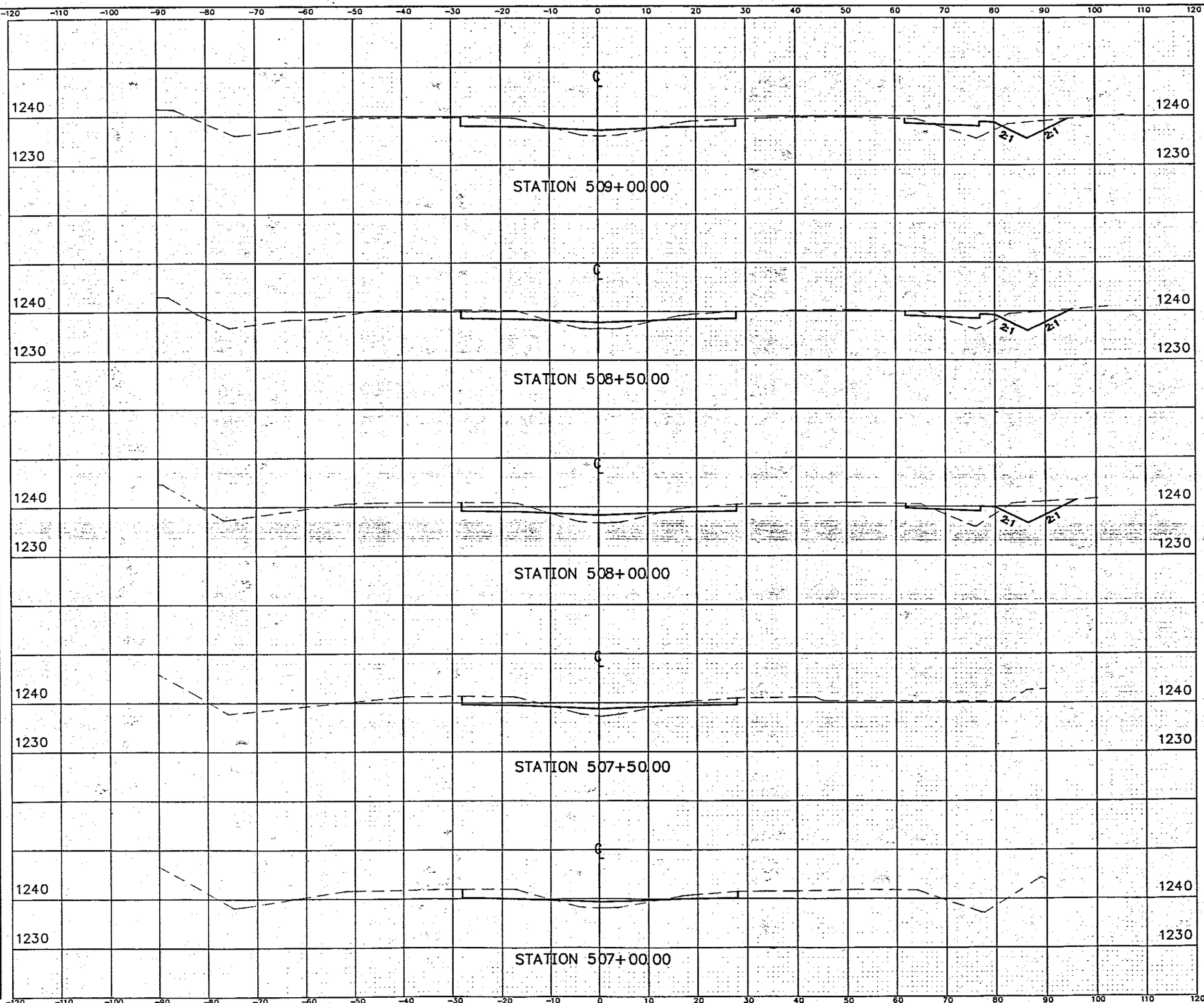
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 108 OF 196

77960568.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
68.9	36.4		
		131	69
72.5	37.5		
		139	81
77.3	49.4		
		108	64
39.4	19.2		
		74	35
40.0	18.4		
		78	25

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.507+00 TO STA.509+00

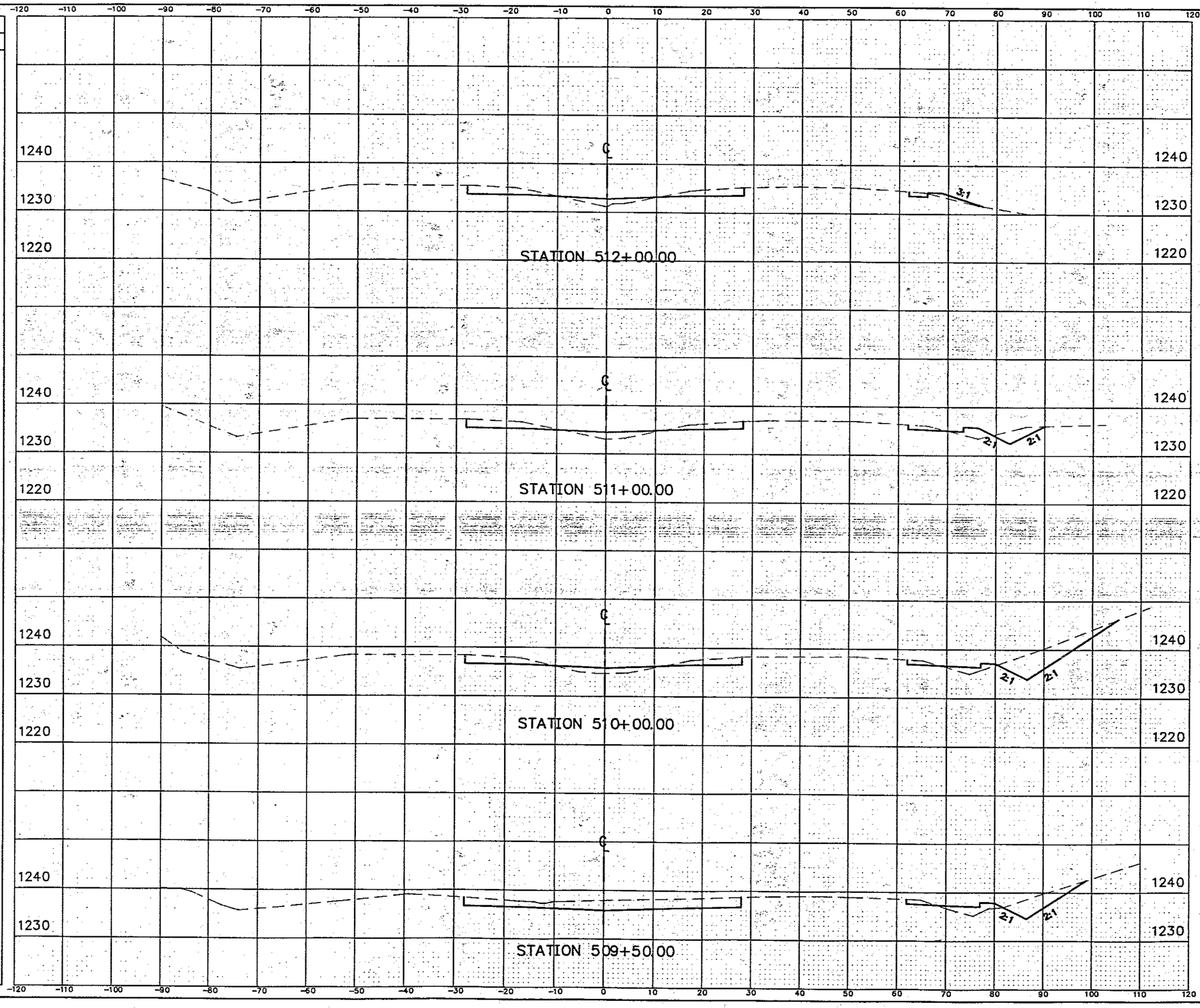
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 109 OF 196

77960569.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
45.1	20.6		
		196	88
60.4	26.8		
		308	100
105.6	26.9		
		224	39
136.3	14.7		
		190	48

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.509+50 TO STA.512+00

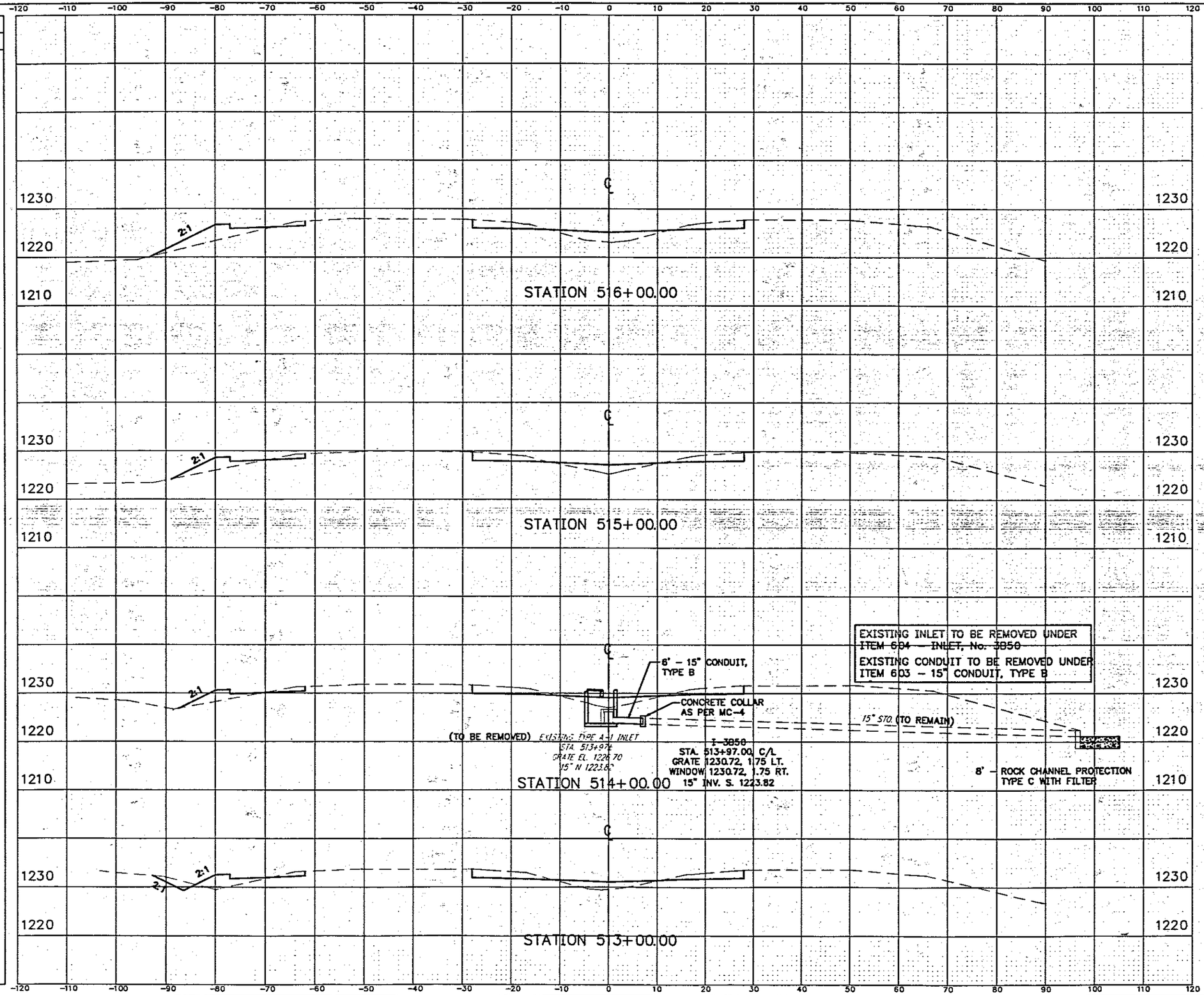
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 110 OF 196

7796057D.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
39.6	70.4		
		153	213
42.6	44.5		
		162	161
44.6	42.2		
		179	158
52.0	42.8		
		180	118

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.513+00 TO STA.516+00

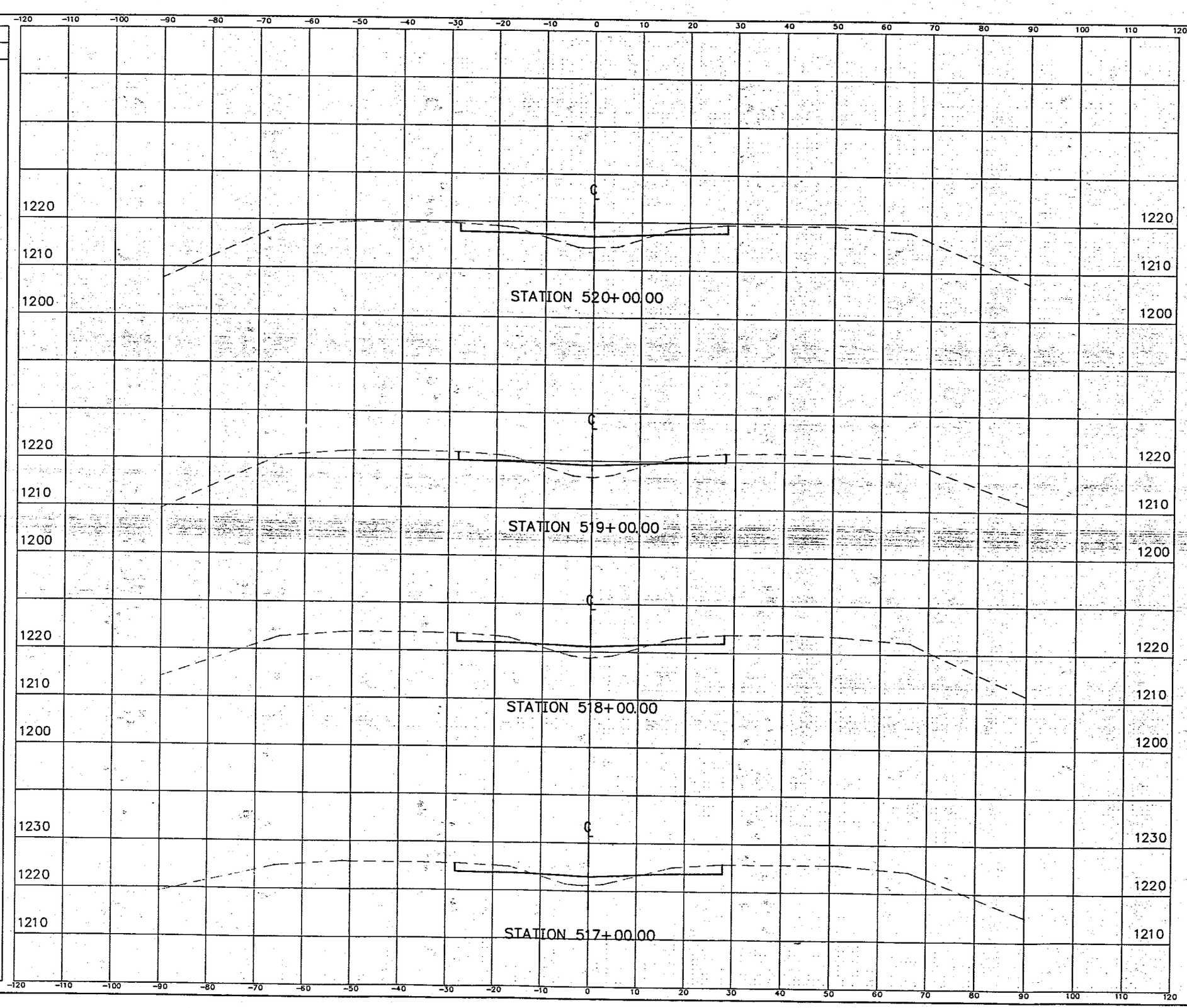
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 111 OF 196

7796CS71.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
37.2	39.3		
		138	146
37.1	39.2		
		138	141
37.5	36.6		
		148	118
42.6	26.9		
		153	181

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.517+00TO STA.520+00

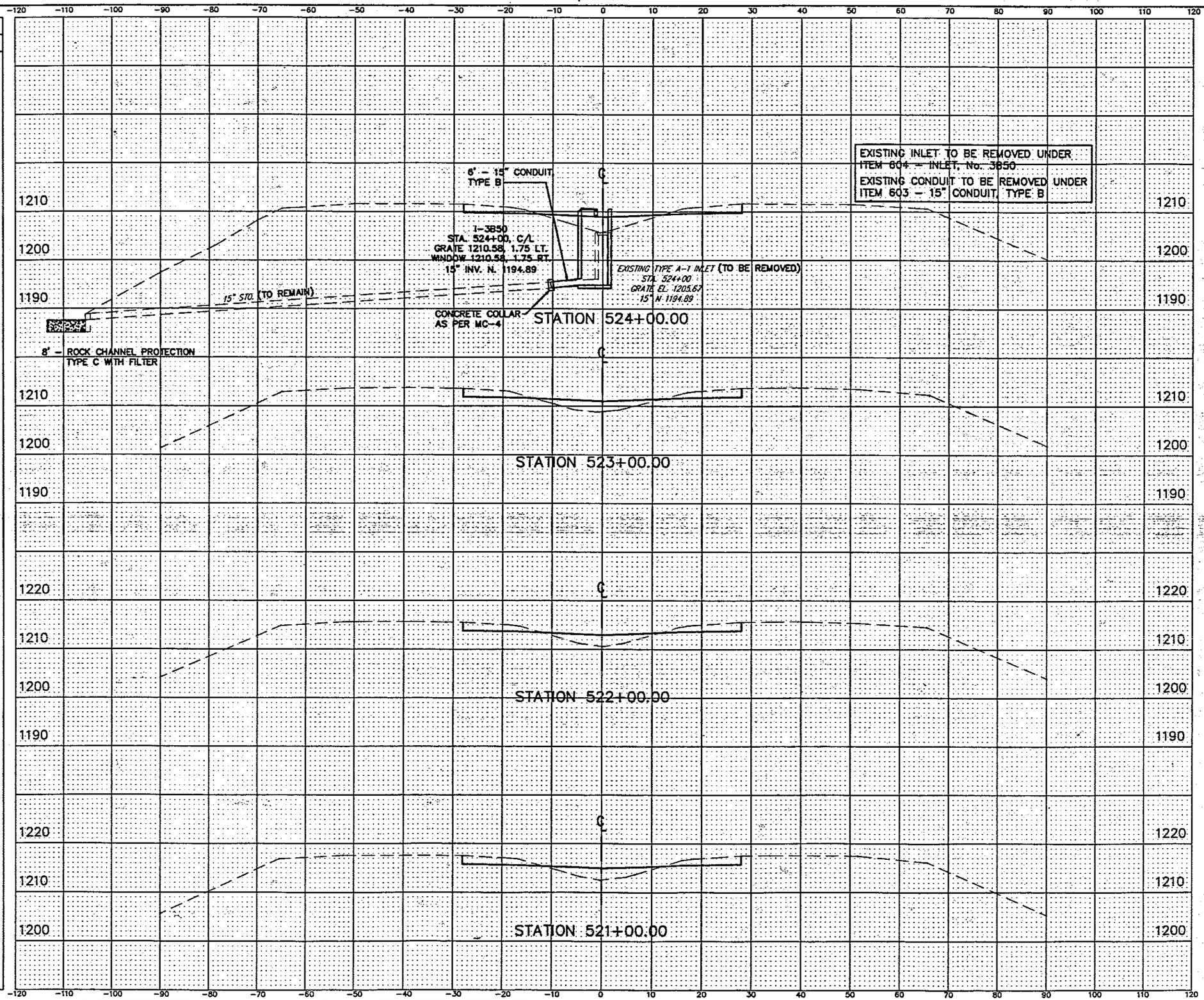
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'

CONTRACT 77-96-05 SHEET 112 OF 196

77960572.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
39.0	40.6		
		141	140
37.2	34.7		
		144	123
40.7	31.9		
		150	121
40.3	33.4		
		144	135

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.521+00 TO STA.524+00

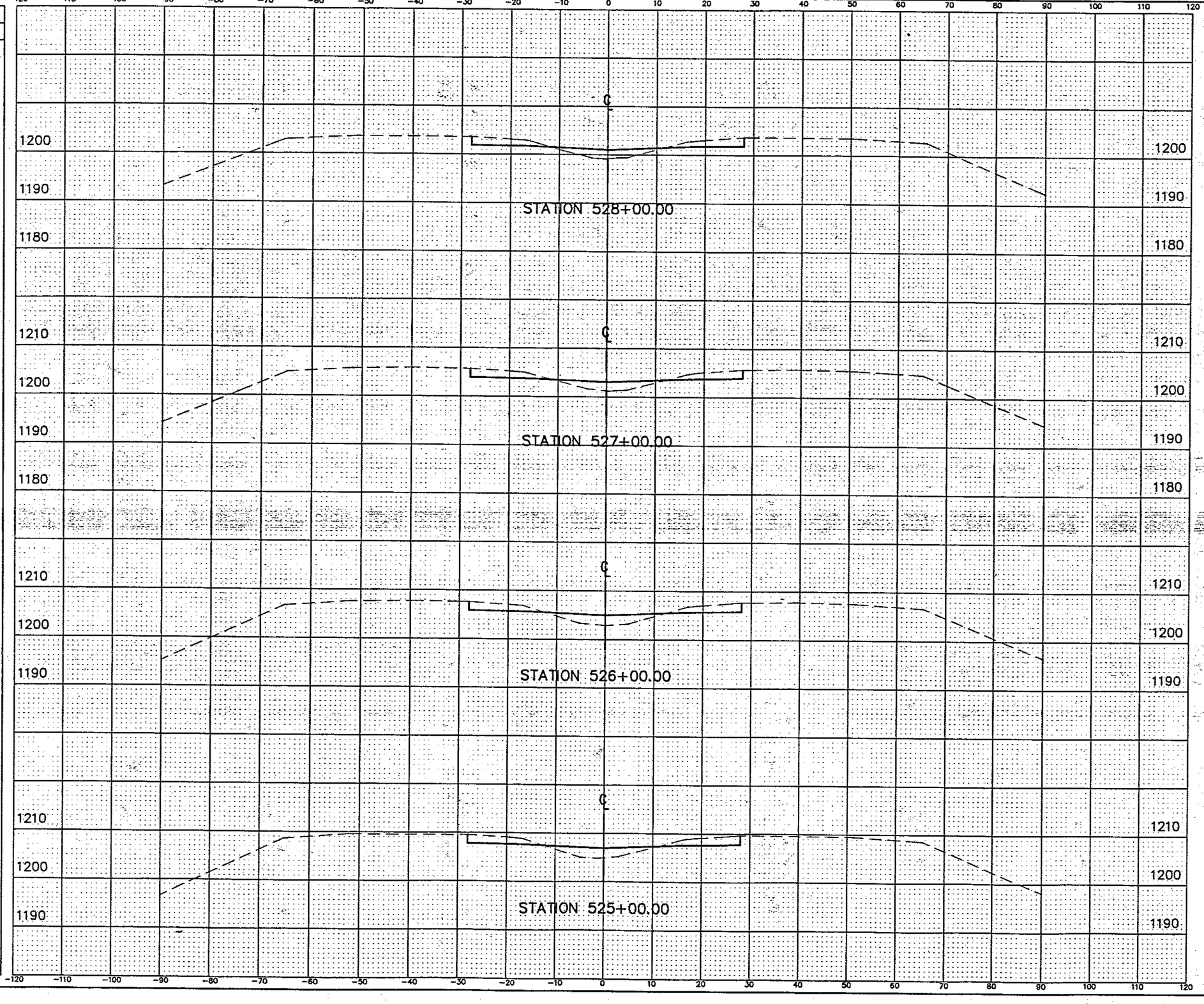
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'

CONTRACT 77-96-05 SHEET 113 OF 196

77960573.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
39.4	27.4		
		147	101
39.7	26.9		
		146	113
39.1	33.8		
		150	120
41.6	31.0		
		149	133

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.525+00 TO STA.528+00

CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

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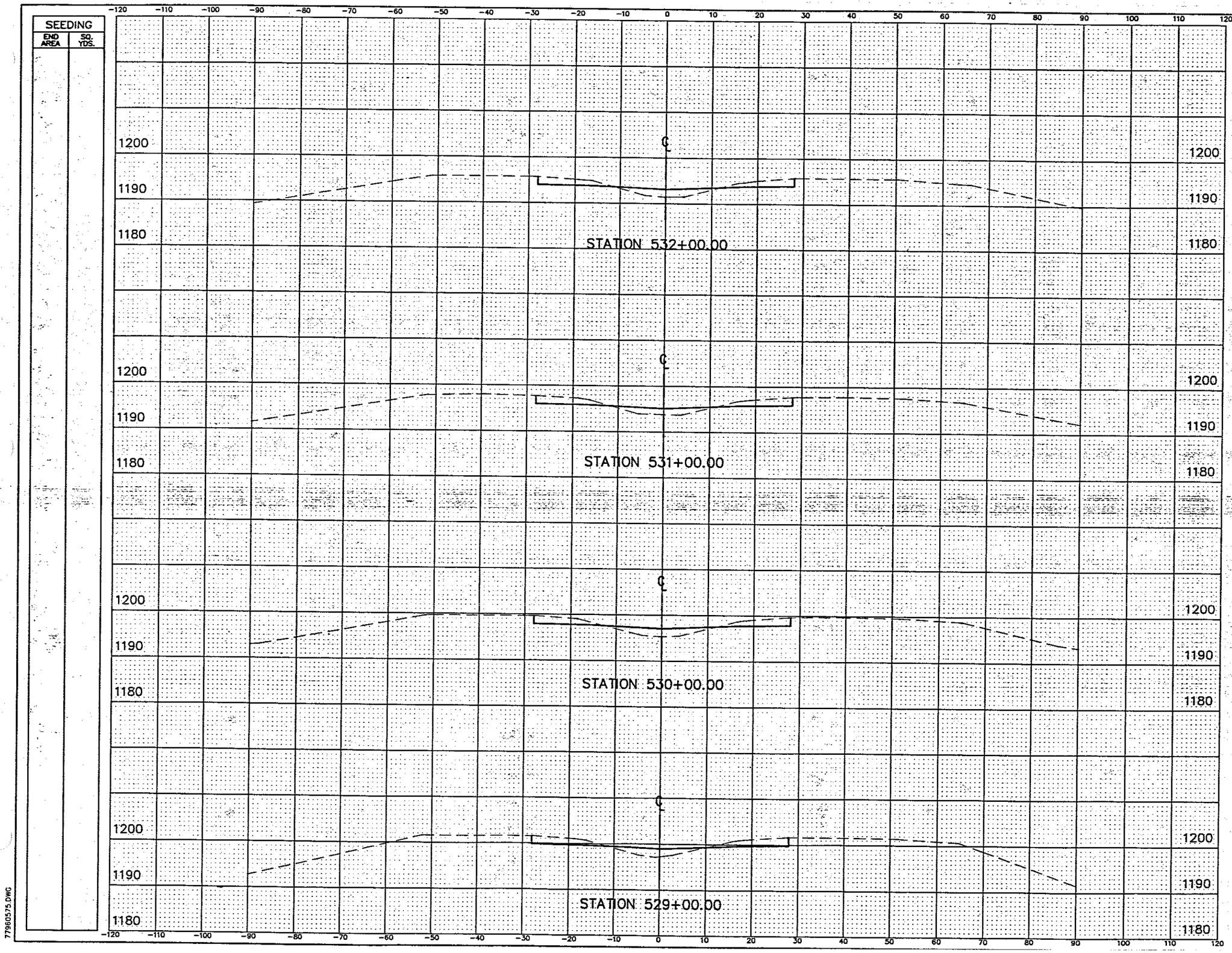
77960574.DWG



SEEDING	
END AREA	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
37.8	26.1		
		144	91
39.9	23.1		
		143	94
37.2	27.5		
		148	94
42.7	22.9		
		152	93

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.529+00 TO STA.532+00

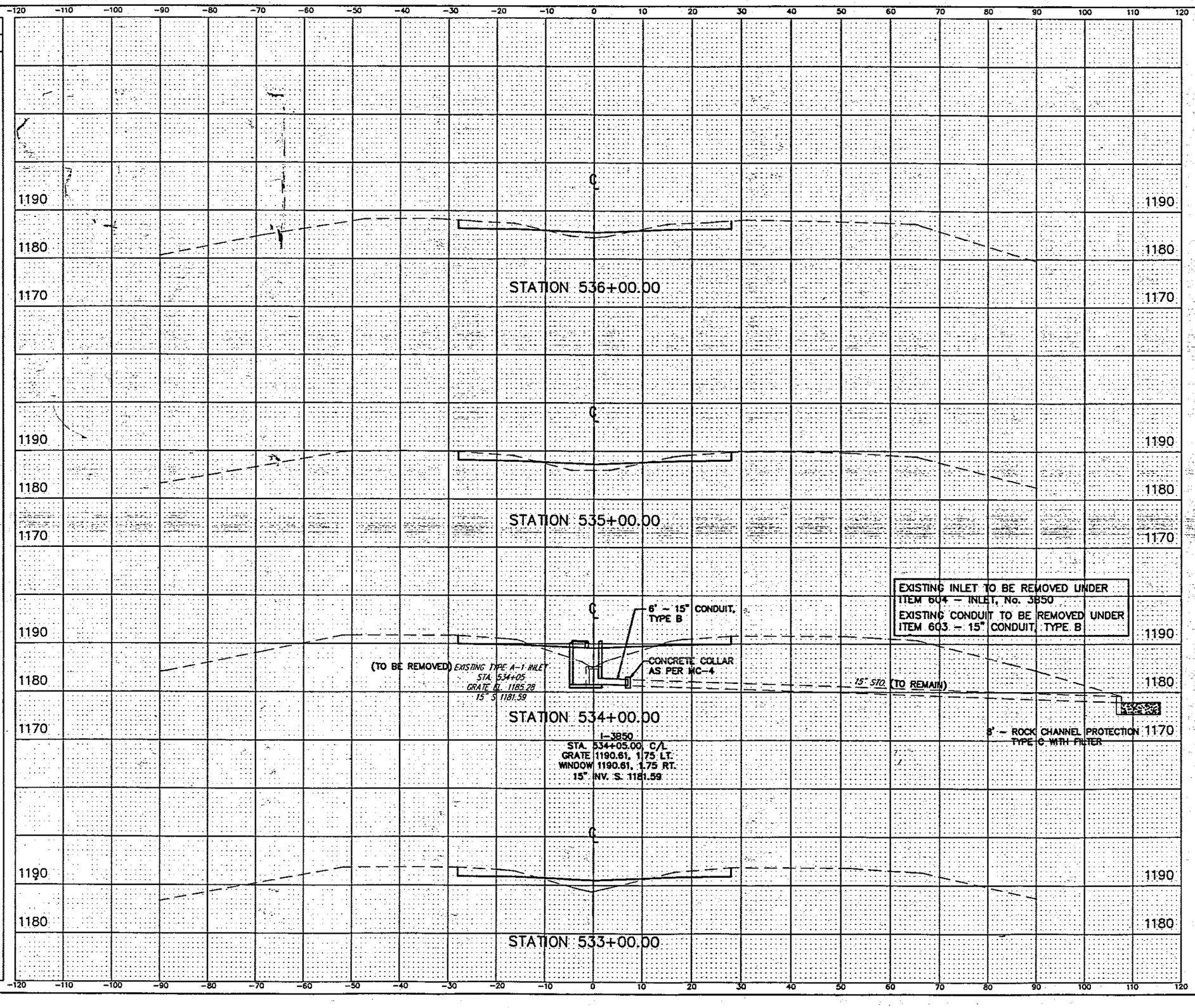
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'

CONTRACT 77-96-05 SHEET 115 OF 196

77960575.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
42.9	12.3		
		149	61
37.8	20.4		
		139	122
37.0	45.6		
		144	136
40.8	27.9		
		146	100

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.533+00 TO STA.536+00

CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

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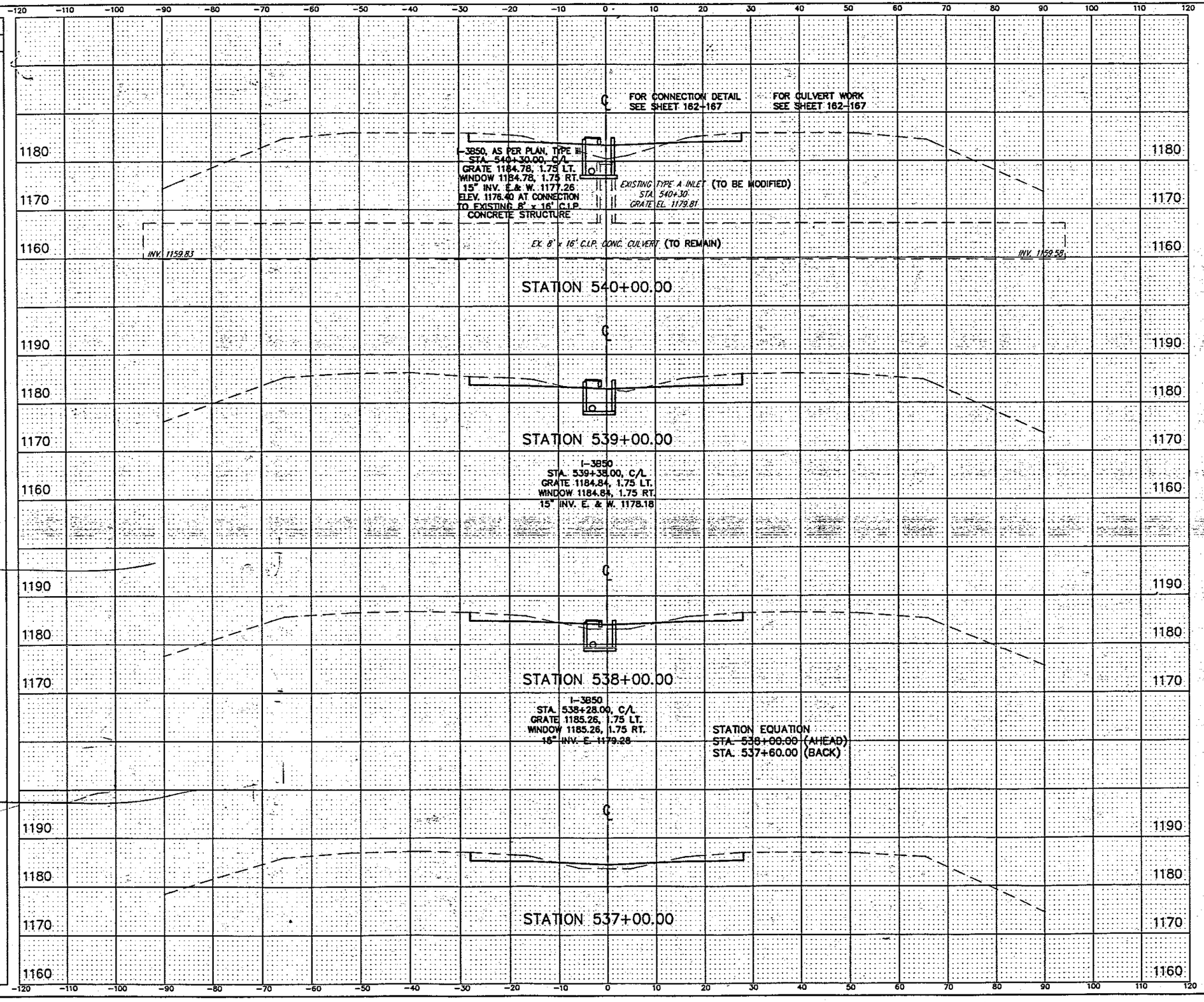
77960576.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
36.8	37.6		
		171	75
55.8	2.8		
		176	32
39.0	14.4		
		86	33
38.6	15.3		
		151	51

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.537+00 TO STA.540+00

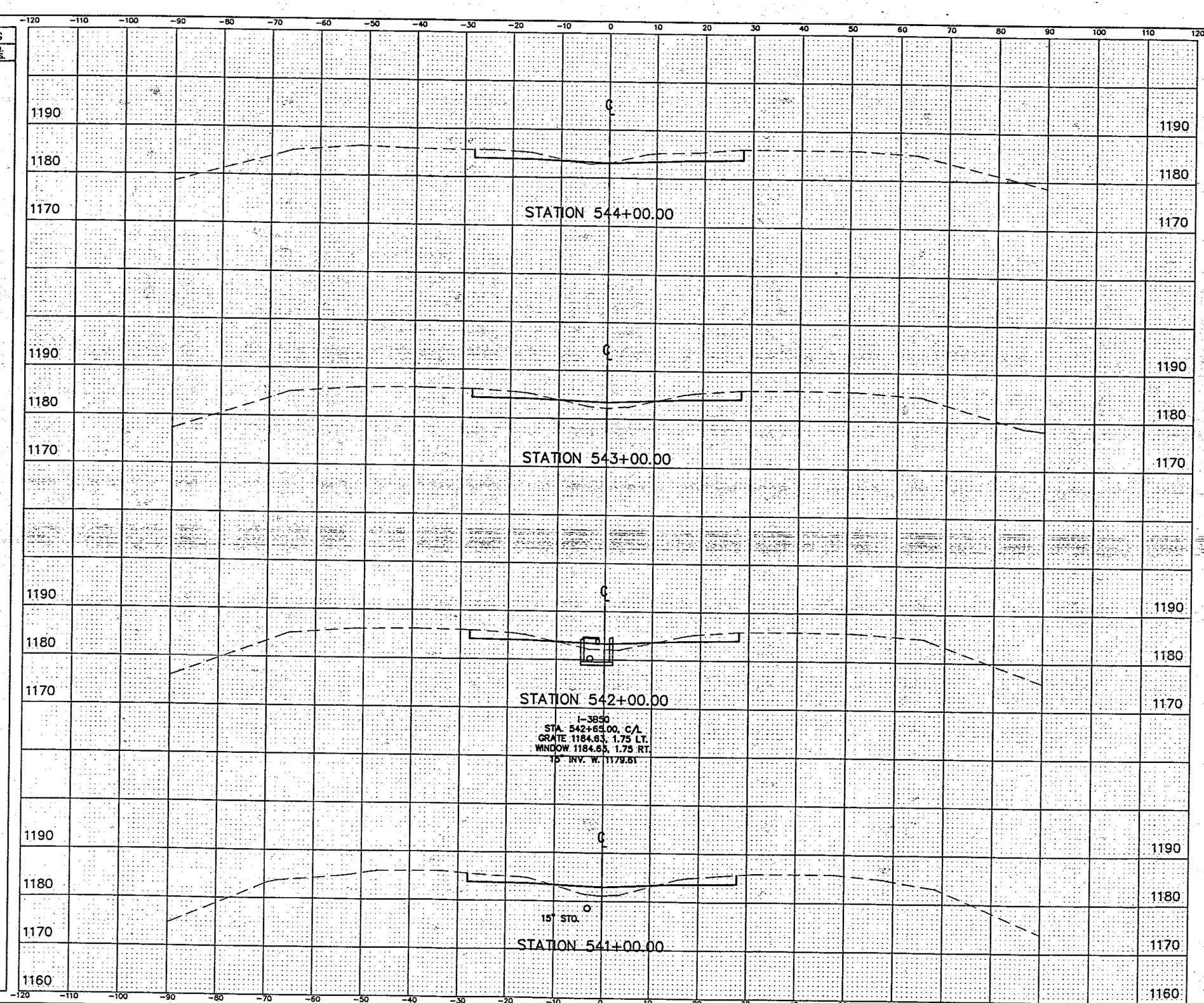
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'

CONTRACT 77-96-05 SHEET 117 OF 196

77960577.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
68.4	1.7		
		204	32
41.6	15.6		
		154	60
41.8	16.9		
		156	77
42.2	24.9		
		146	116

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.541+00 TO STA.544+00

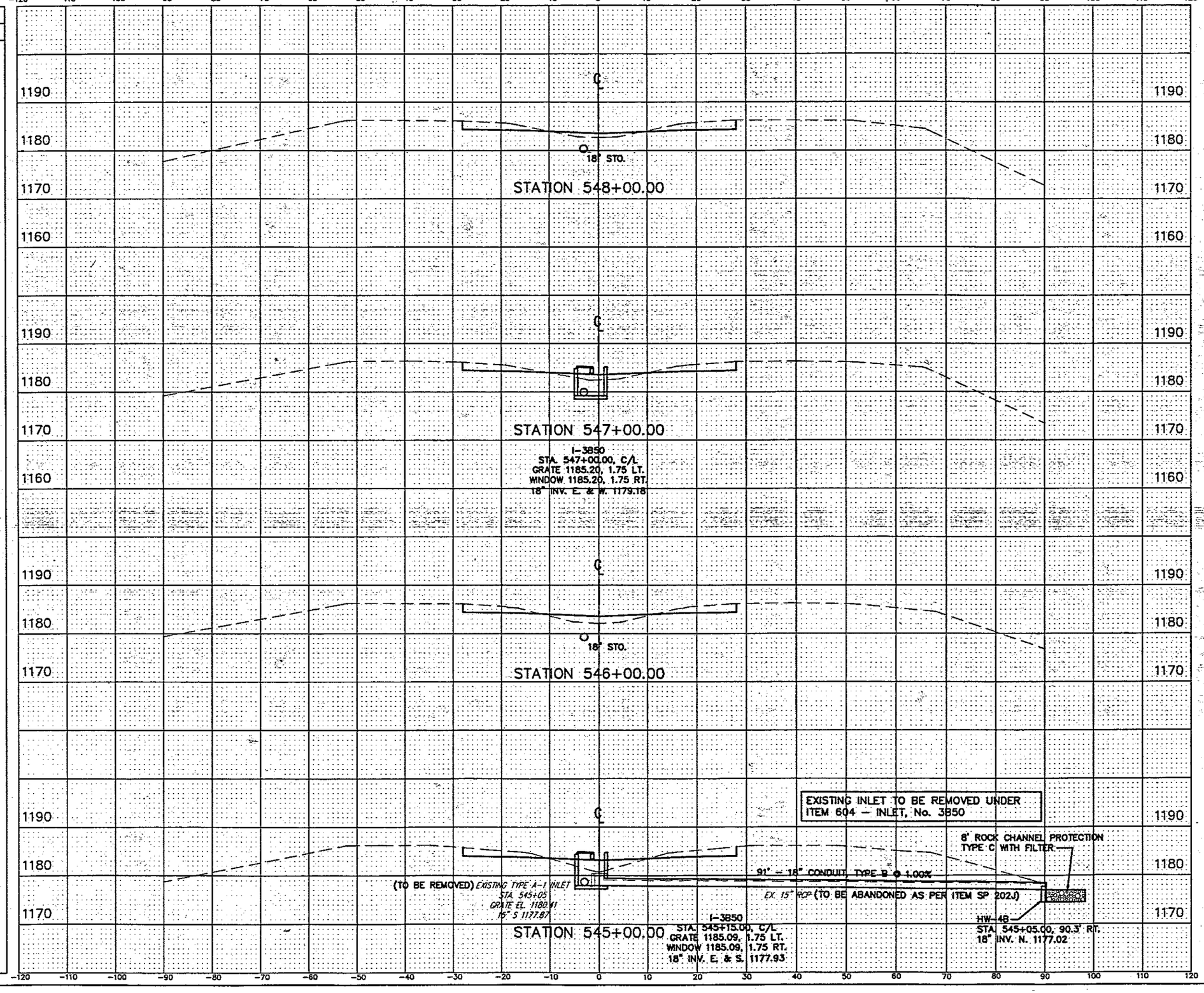
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 118 OF 196

77960578.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
44.6	11.4		
		157	48
40.2	14.7		
		145	70
38.0	23.1		
		148	90
41.7	25.5		
		204	50

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.545+00 TO STA.548+00

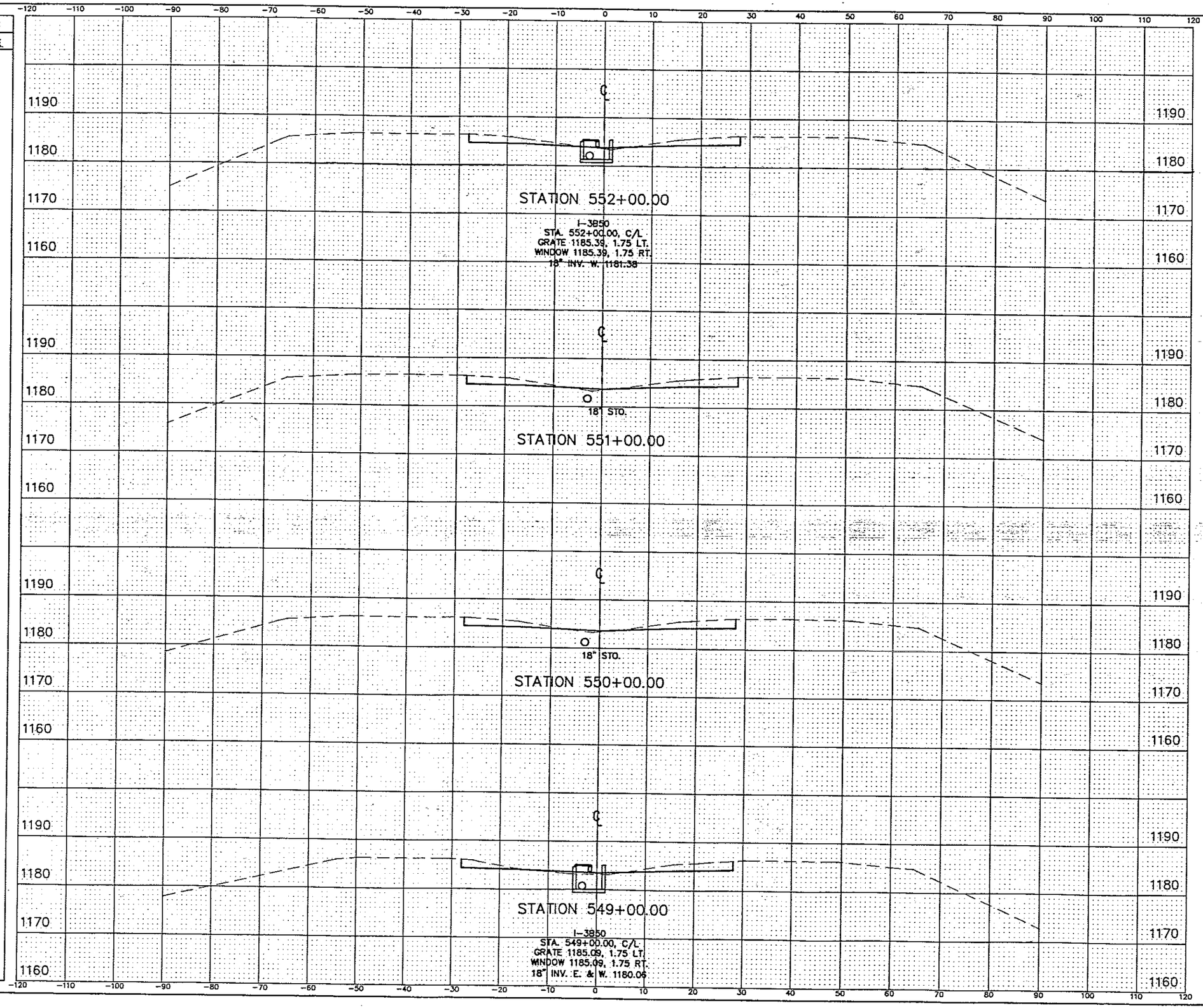
CT Consultants, Inc.
Engineers • Architects • Planners
Willoughby • Akron • Columbus • North Canton • Bangalore

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'

CONTRACT 77-96-05 SHEET 119 OF 196

77960579.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
48.6	1.8		
		183	7
50.4	2.0		
		186	7
50.2	1.9		
		164	13
38.3	5.1		
		154	31

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.549+00 TO STA.552+00

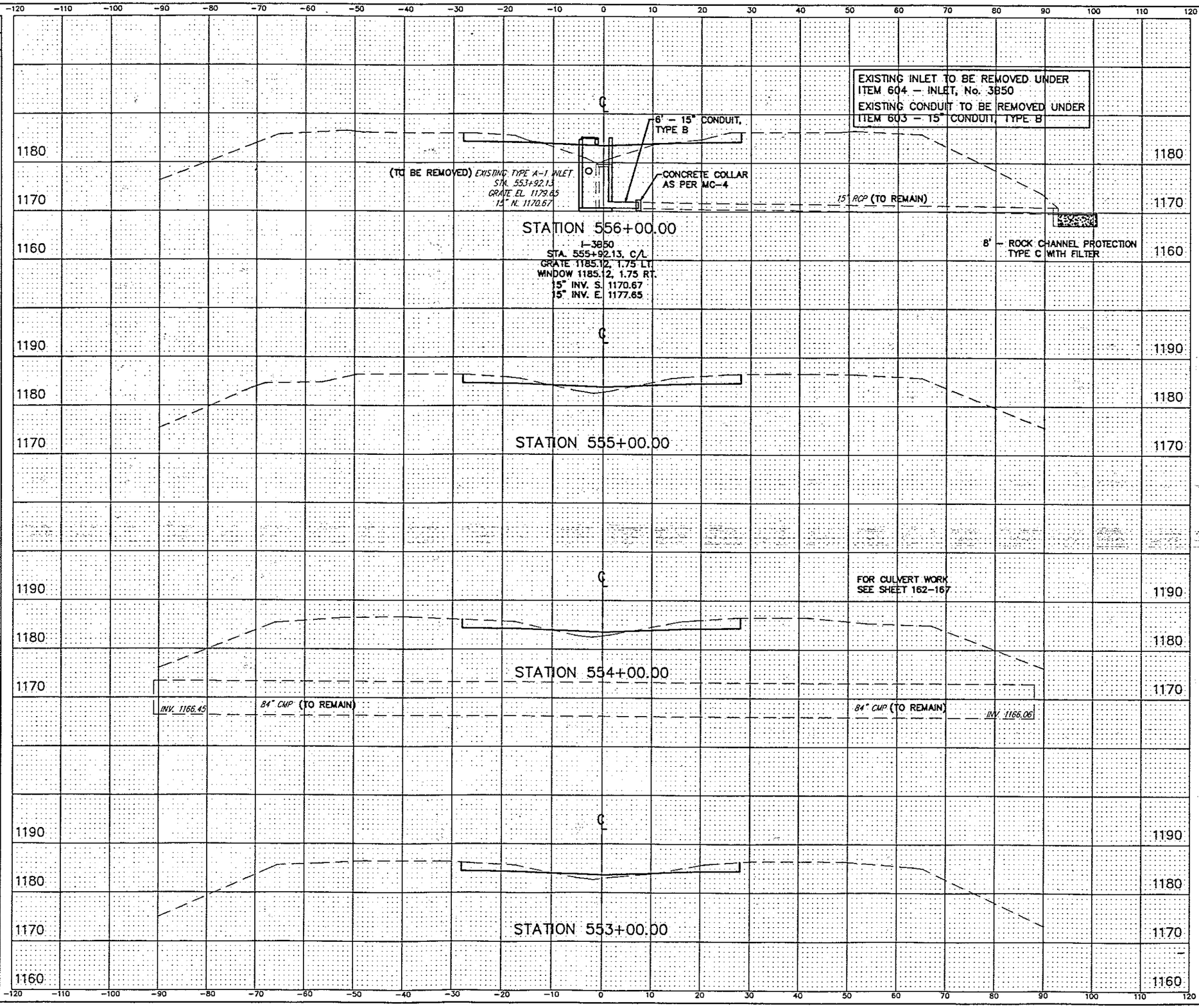
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'

CONTRACT 77-96-05 SHEET 120 OF 196

77960580.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
34.2	39.8		
		151	97
47.5	12.5		
		185	41
52.3	9.7		
		171	37
40.1	10.5		
		164	23

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.553+00 TO STA.556+00

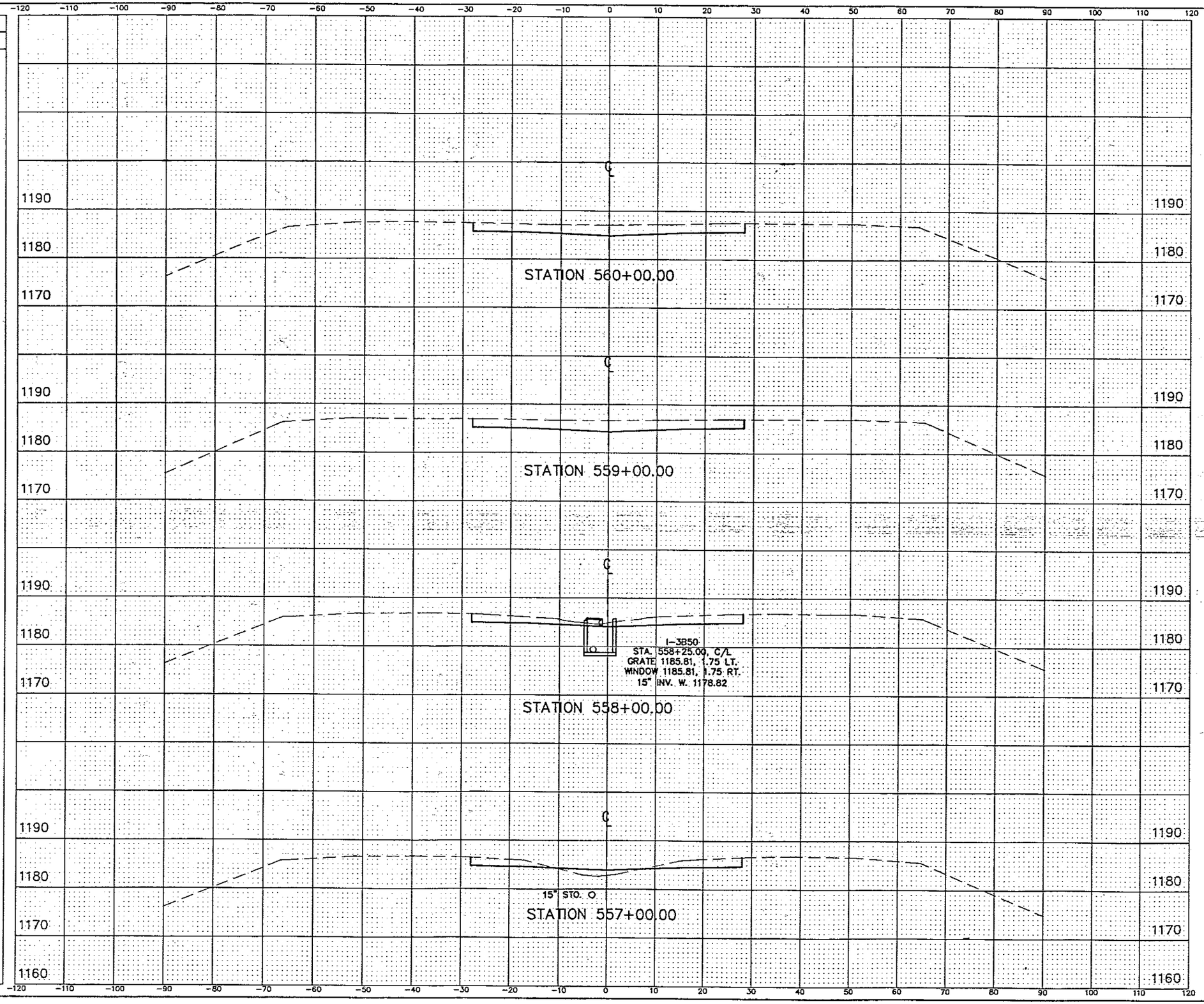
CT Consultants, Inc.
Engineers • Architects • Planners
Willoughby • Dresden • Columbus • North Canton • Youngstown

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'

CONTRACT 77-96-05 SHEET 121 OF 196

77960581.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
106.1	0	399	0
109.3	0	344	0
76.3	0	231	26
48.7	13.9	154	99

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.557+00 TO STA.560+00

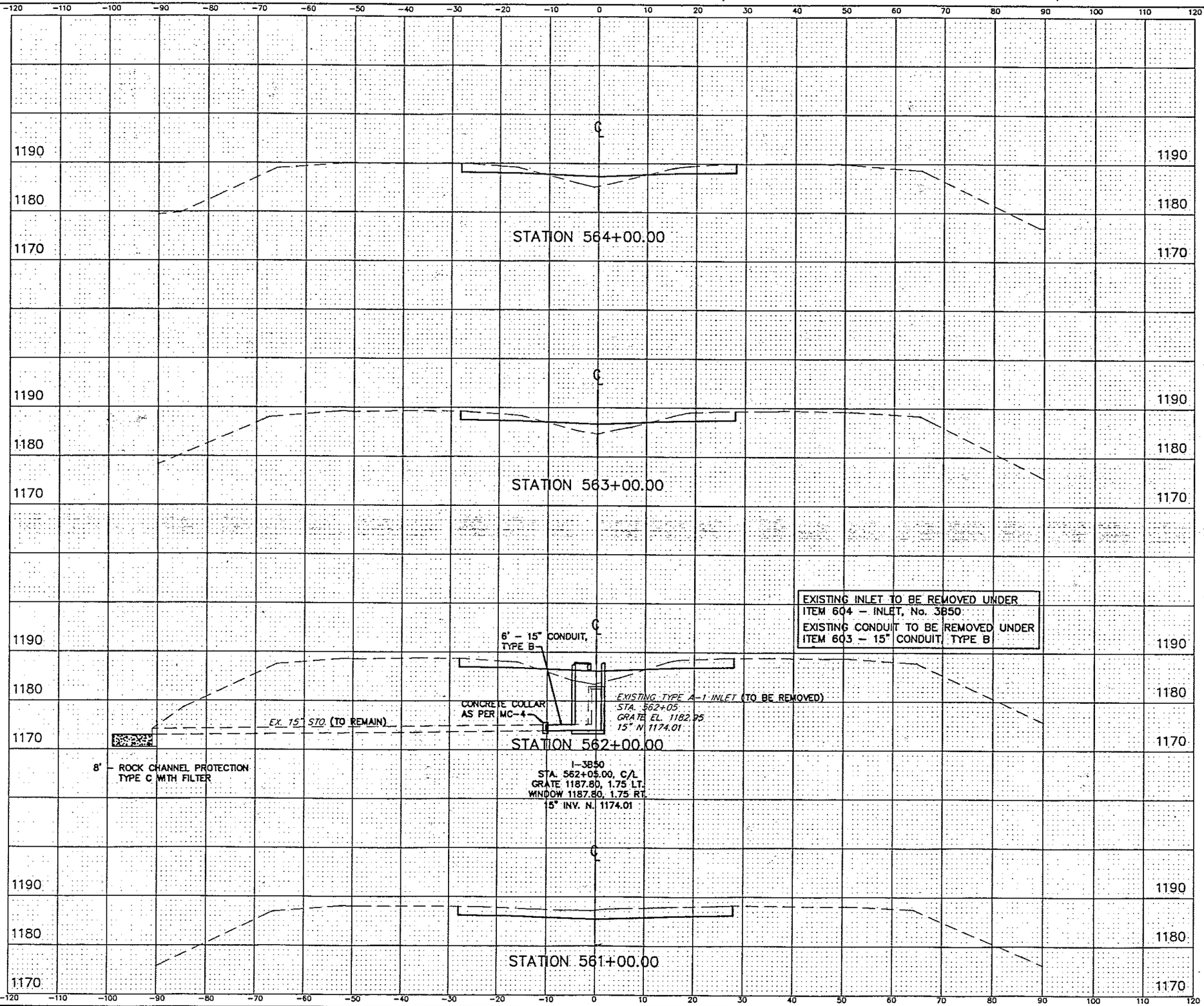
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 122 OF 196

77960502.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
43.3	23.3		
		162	86
44.4	22.9		
		167	104
45.9	33.1		
		273	61
101.6	0		
		385	0

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.561+00 TO STA.564+00

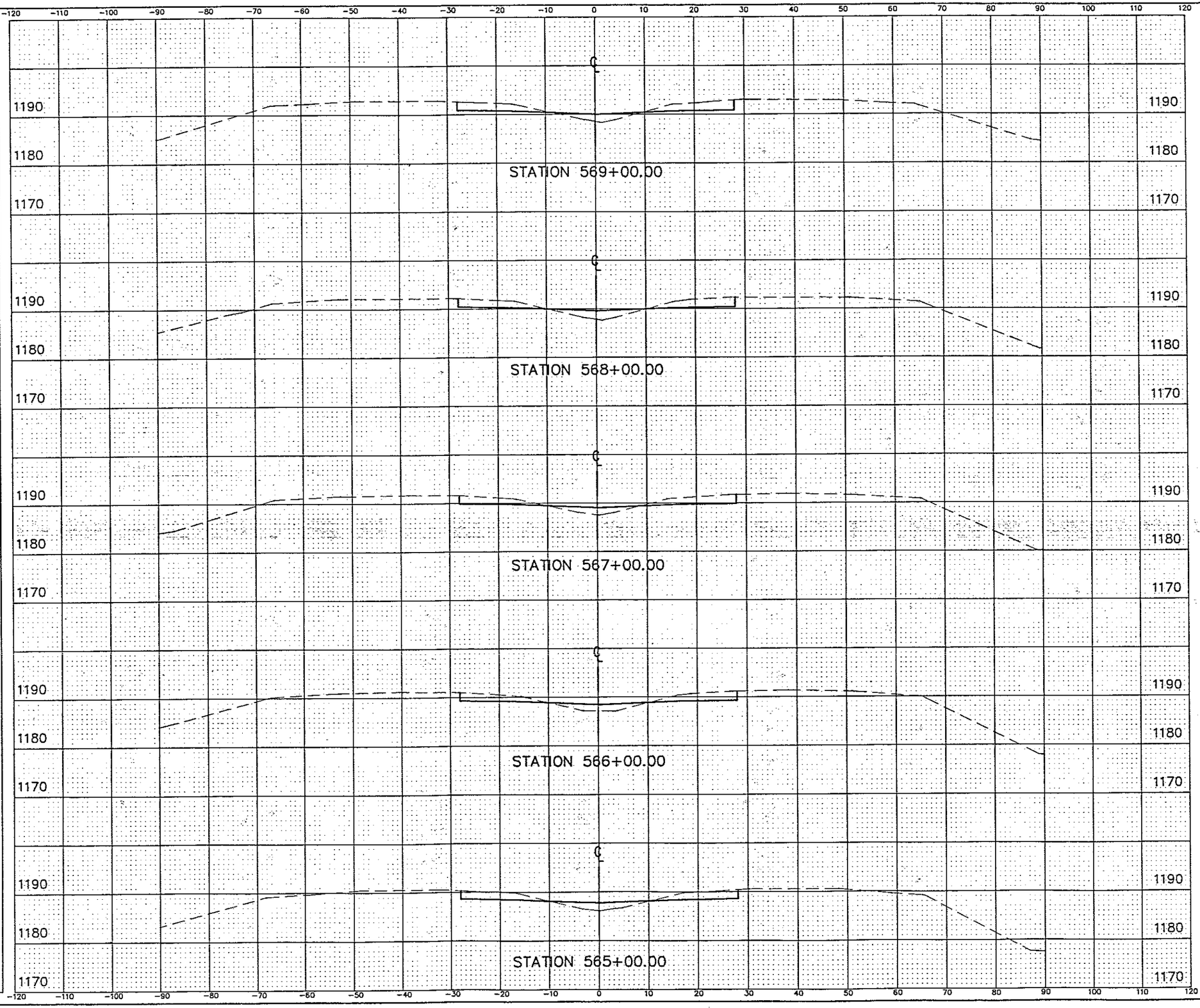
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WOB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 123 OF 196

77960583.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
49.7	16.3		
		179	69
46.7	21.1		
		171	68
45.5	15.7		
		167	63
44.8	18.2		
		166	70
44.6	19.4		
		163	79

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.565+00 TO STA.569+00

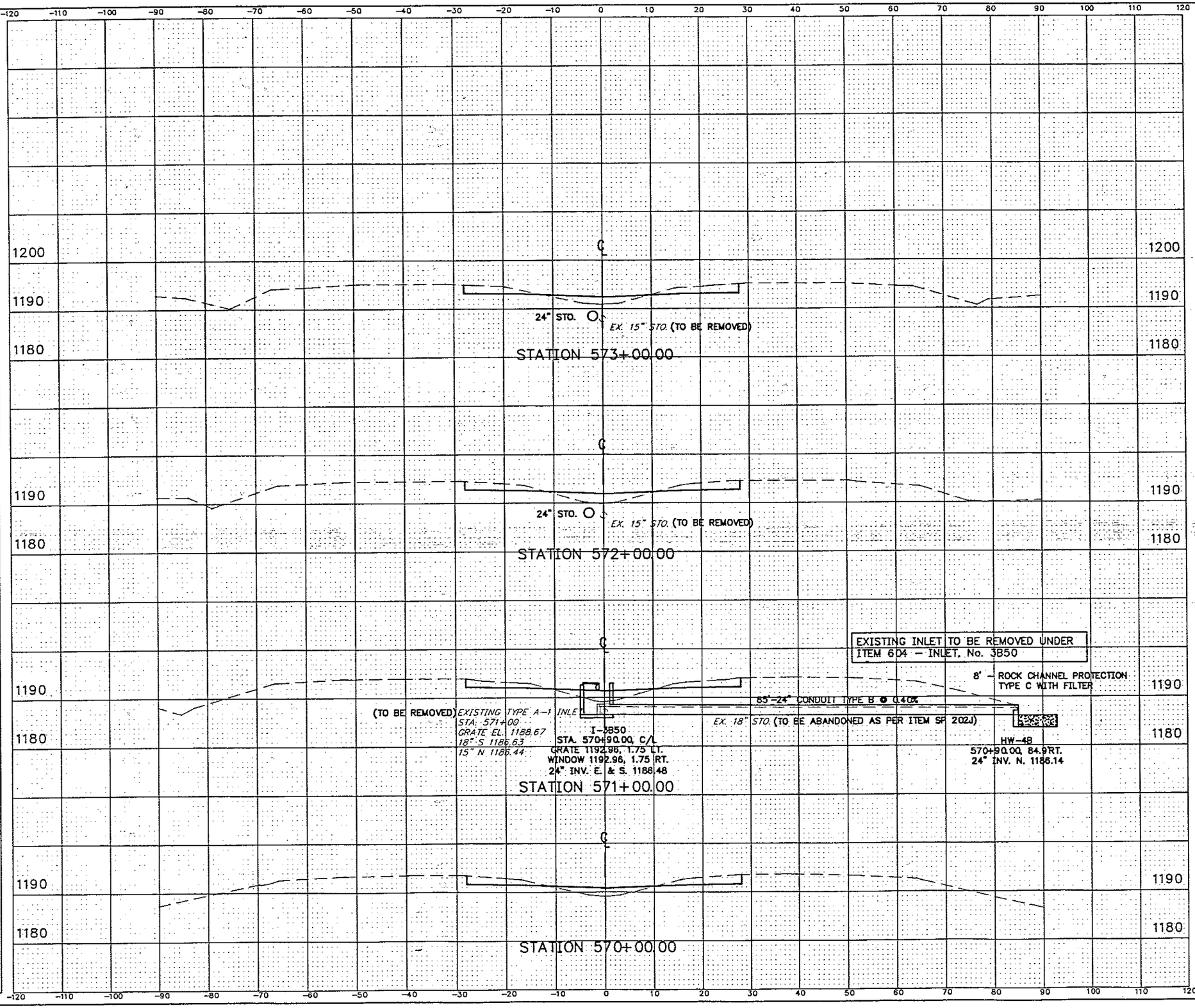
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 124 OF 196

77960564.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
42.7	20.8		
		158	90
42.3	27.4		
		150	101
38.5	26.8		
		149	91
42.0	22.0		
		170	71

NO.	REVISIONS	BY	DAT

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.570+00 TO STA.573+00

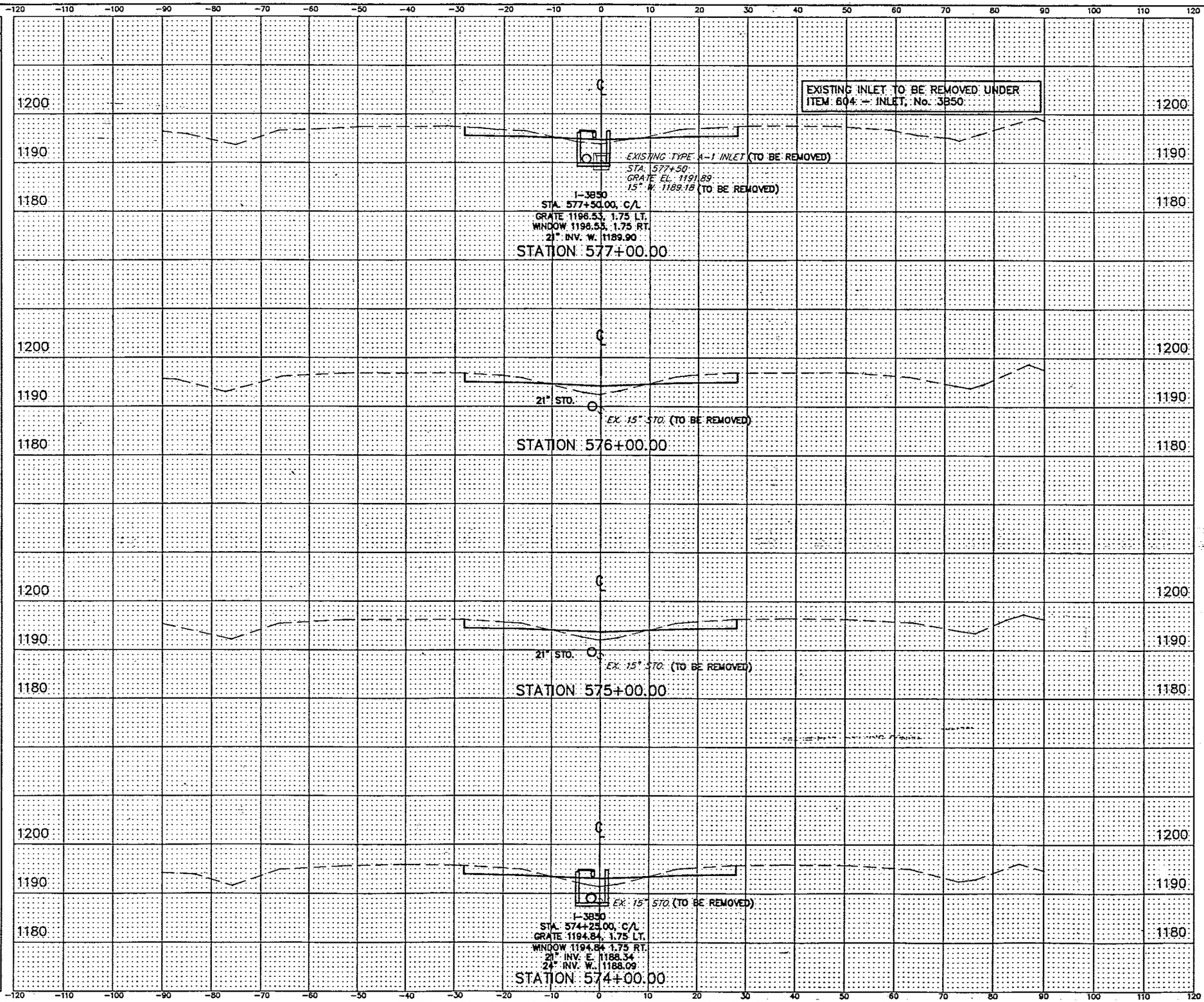
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-9
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'

CONTRACT 77-96-05 SHEET 125 OF 19

7796DS85.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
48.6	7.6		
		174	50
45.1	19.6		
		164	69
43.5	17.9		
		167	67
46.5	18.1		
		165	72

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

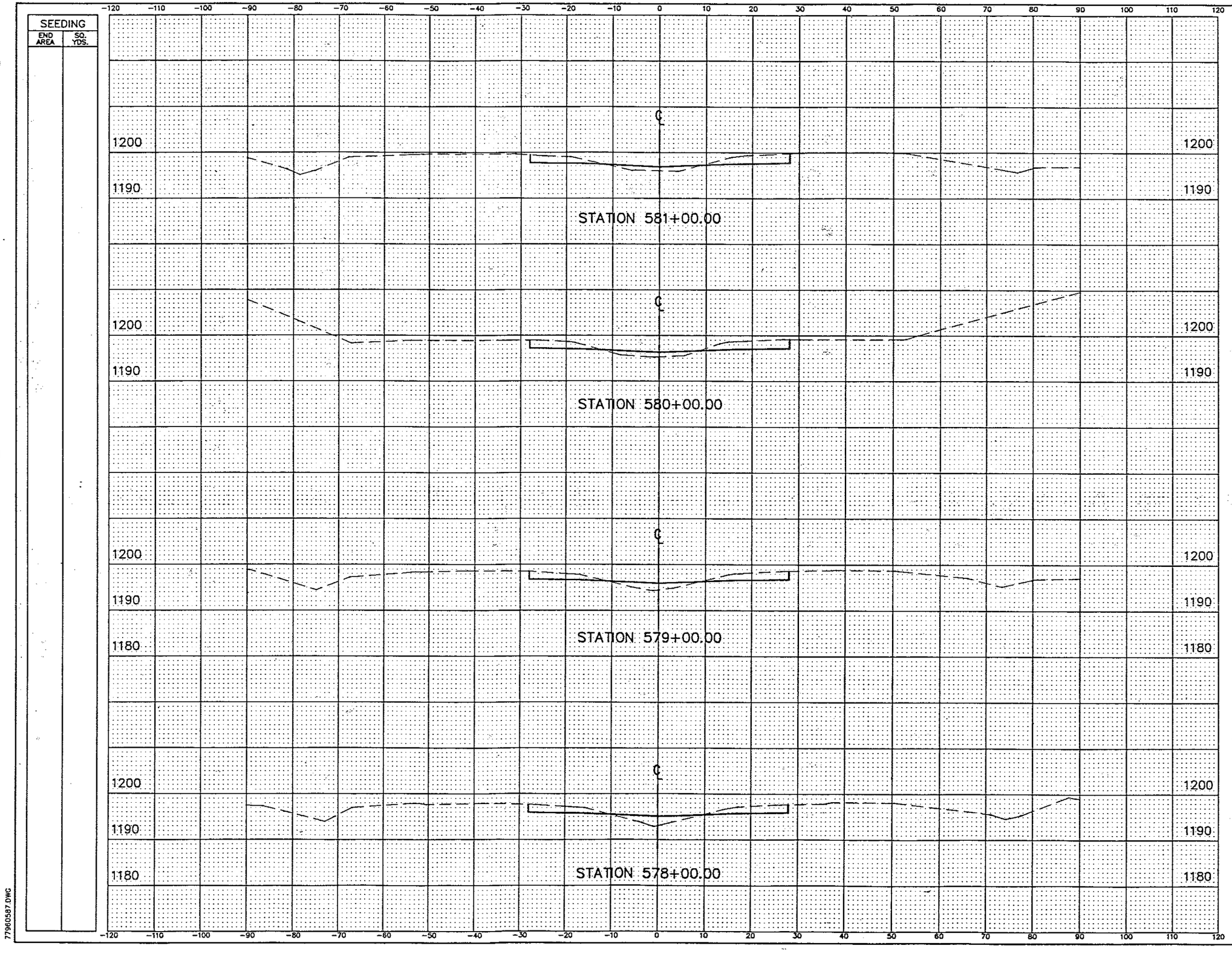
CROSS SECTIONS
STA.574+00 TO STA.577+00

CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-9	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 126 OF 196

77960586.DWG



END AREA		VOLUME	
CUT	FILL	CUT	FILL
47.6	14.9		
		183	59
51.0	17.1		
		178	66
44.9	18.3		
		168	74
46.0	21.6		
		175	54

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.578+00 TO STA.581+00

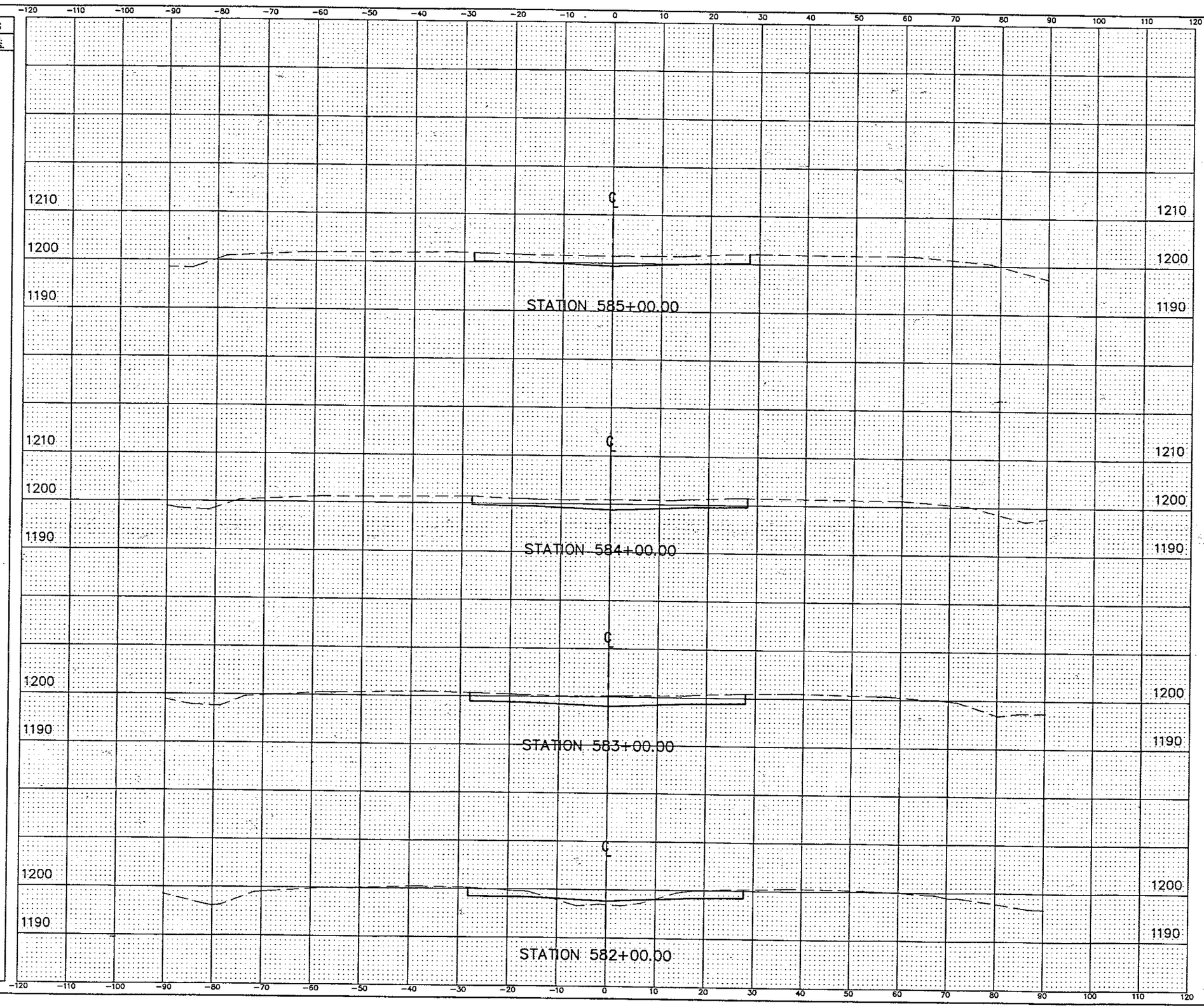
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-9
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'

CONTRACT 77-96-05 SHEET 127 OF 196

77960587.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
102.1	0		
		368	0
96.6	0		
		370	0
103.2	0		
		276	30
45.8	16.1		
		173	57

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.582+00 TO STA.585+00

CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

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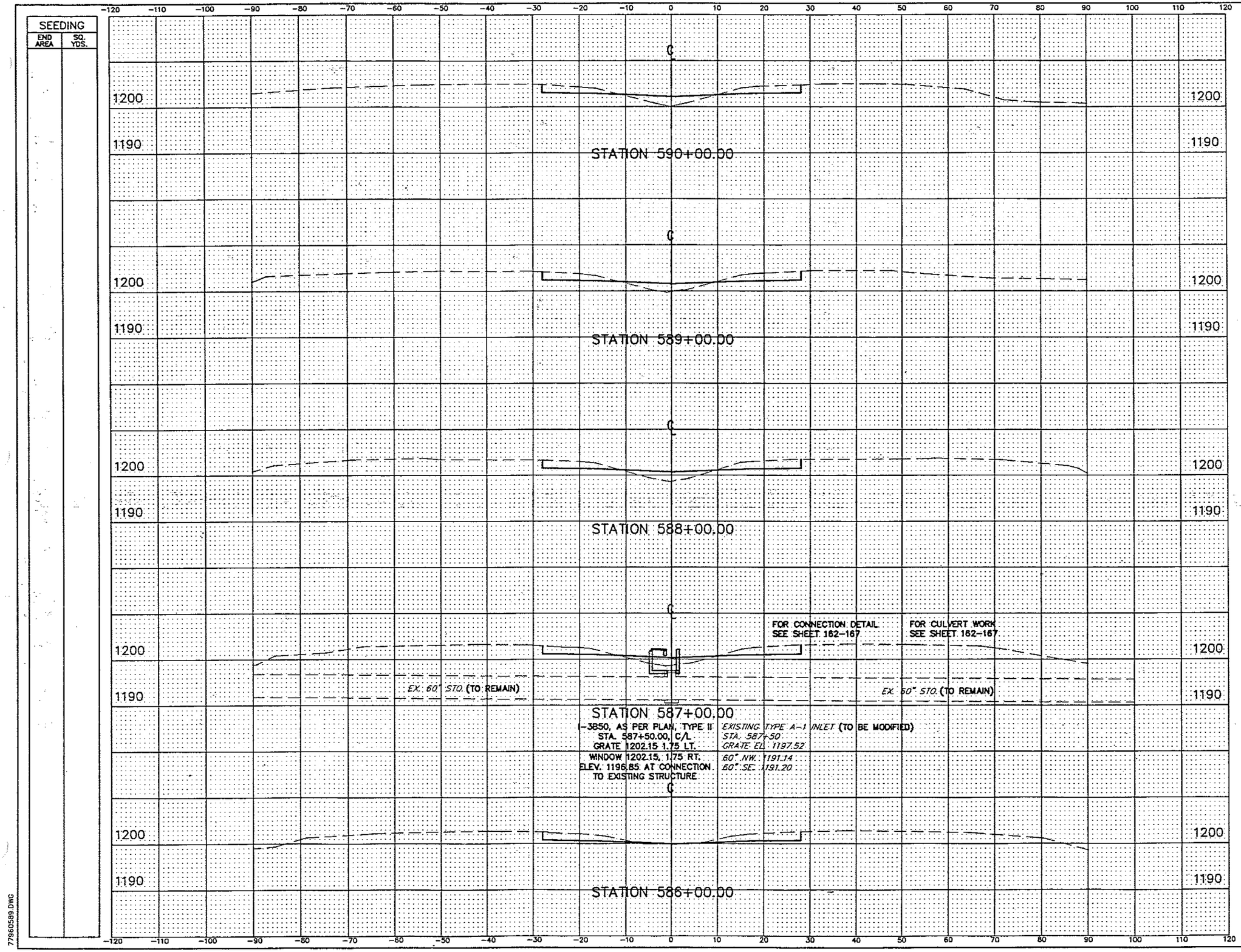
77960588.DWG



SEEDING	
END AREA	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
43.0	23.6		
		165	84
46.1	21.6		
		176	85
49.1	24.5		
		174	88
45.1	23.1		
		180	45
52.2	1.4		
		286	3

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.586+00 TO STA.590+00

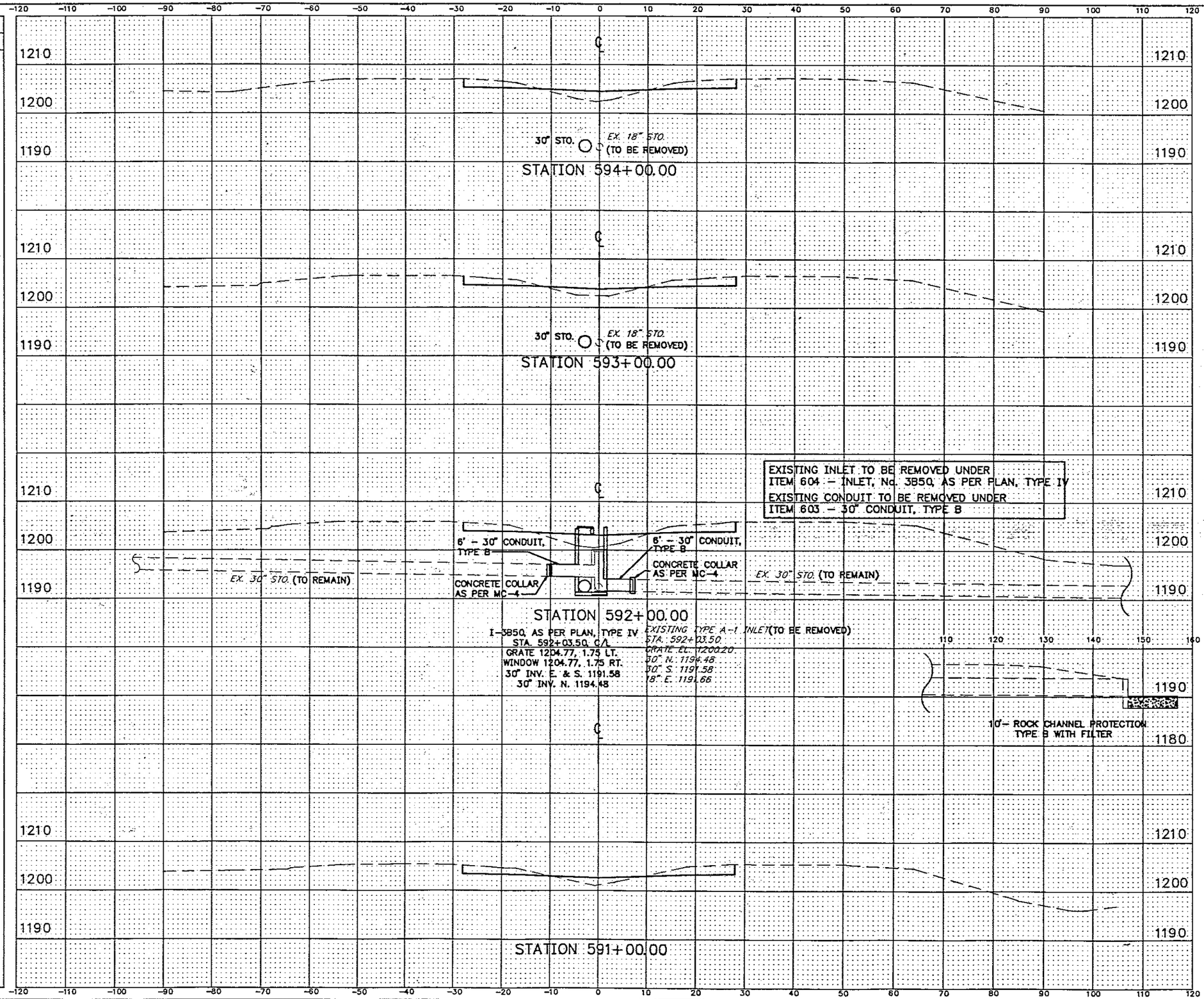
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-9	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 129 OF 196

77960589.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
42.2	26.8		
		160	86
43.2	19.6		
		159	105
42.4	36.9		
		167	97
47.4	15.2		
		168	72

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.591+00 TO STA.594+00

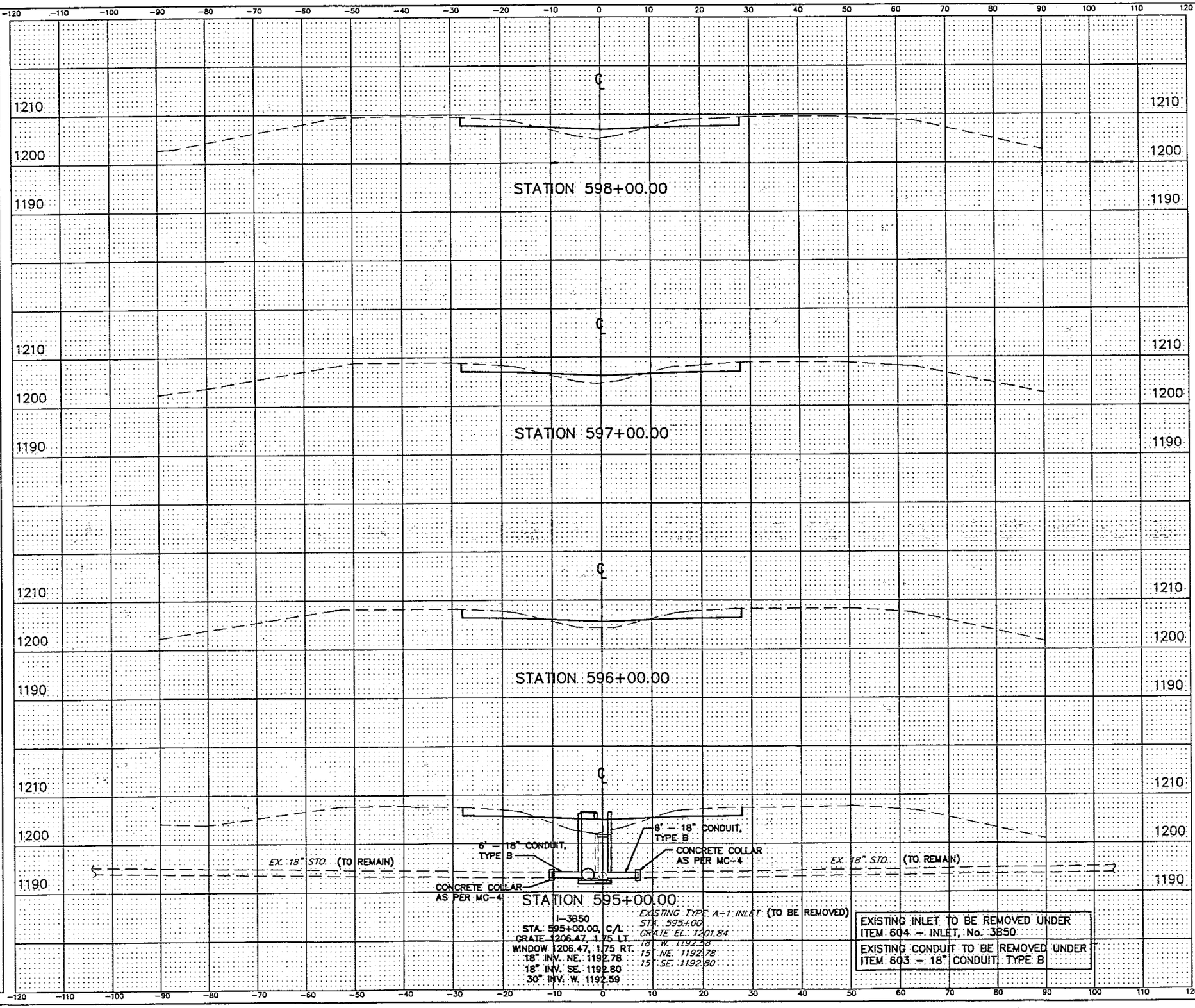
CT Consultants, Inc.
Engineers • Architects • Planners
Willoughby • Dresden • Columbus • North Canton • Youngstown

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'

CONTRACT 77-96-05 SHEET 130 OF 196

7796C0590.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
41.3	23.9		
		158	82
43.9	20.5		
		164	72
44.7	18.6		
		162	106
43.0	38.8		
		158	122

NO.	REVISIONS	BY	DA

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.595+00 TO STA.598+00

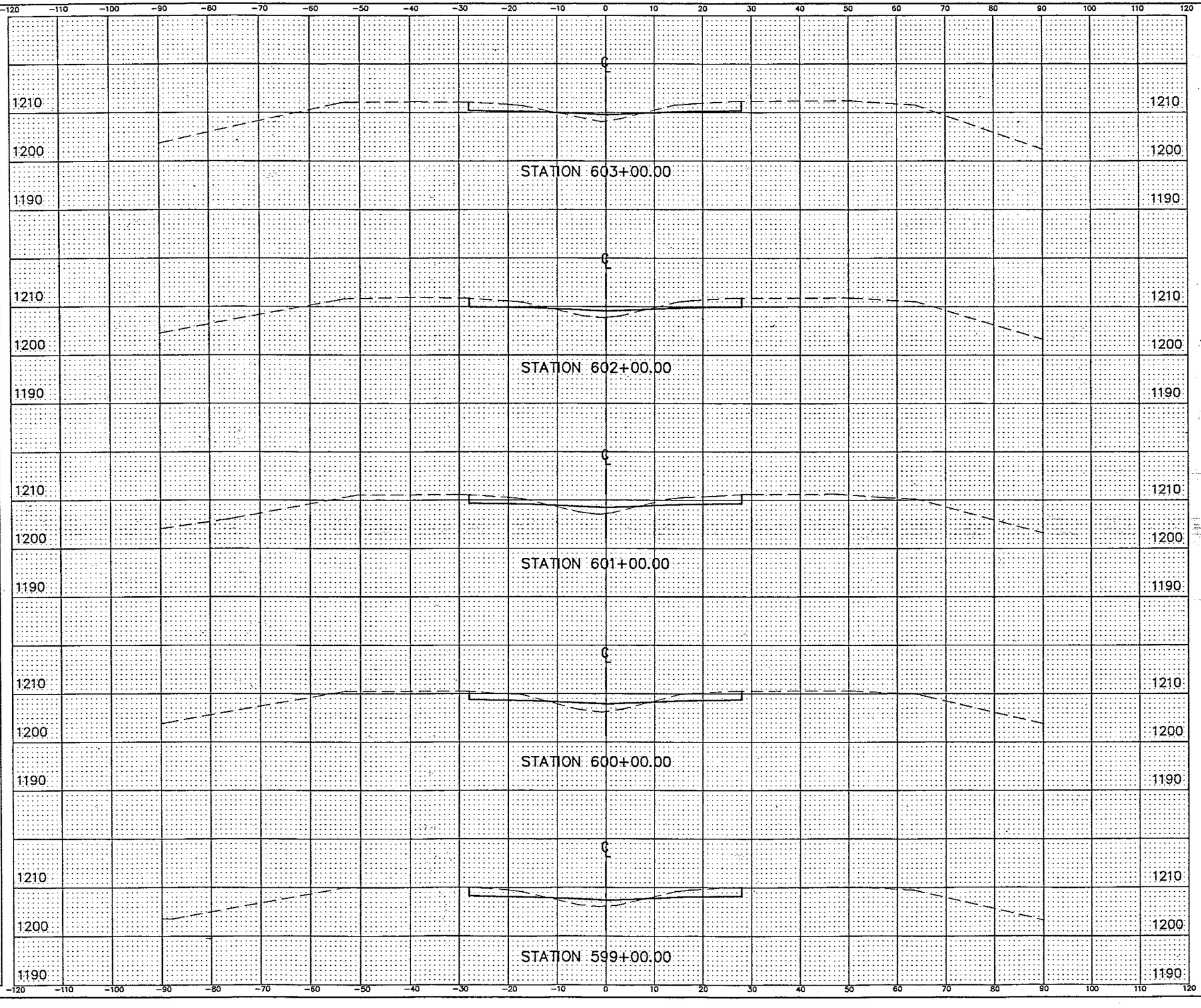
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 131 OF 19

77960591.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
49.3	13.5		
		174	56
44.4	16.7		
		168	59
46.4	15.2		
		168	68
44.1	21.3		
		163	71
44.1	17.0		
		158	78

NO.	REVISIONS	BY	DA

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.599+00 TO STA.603+0C

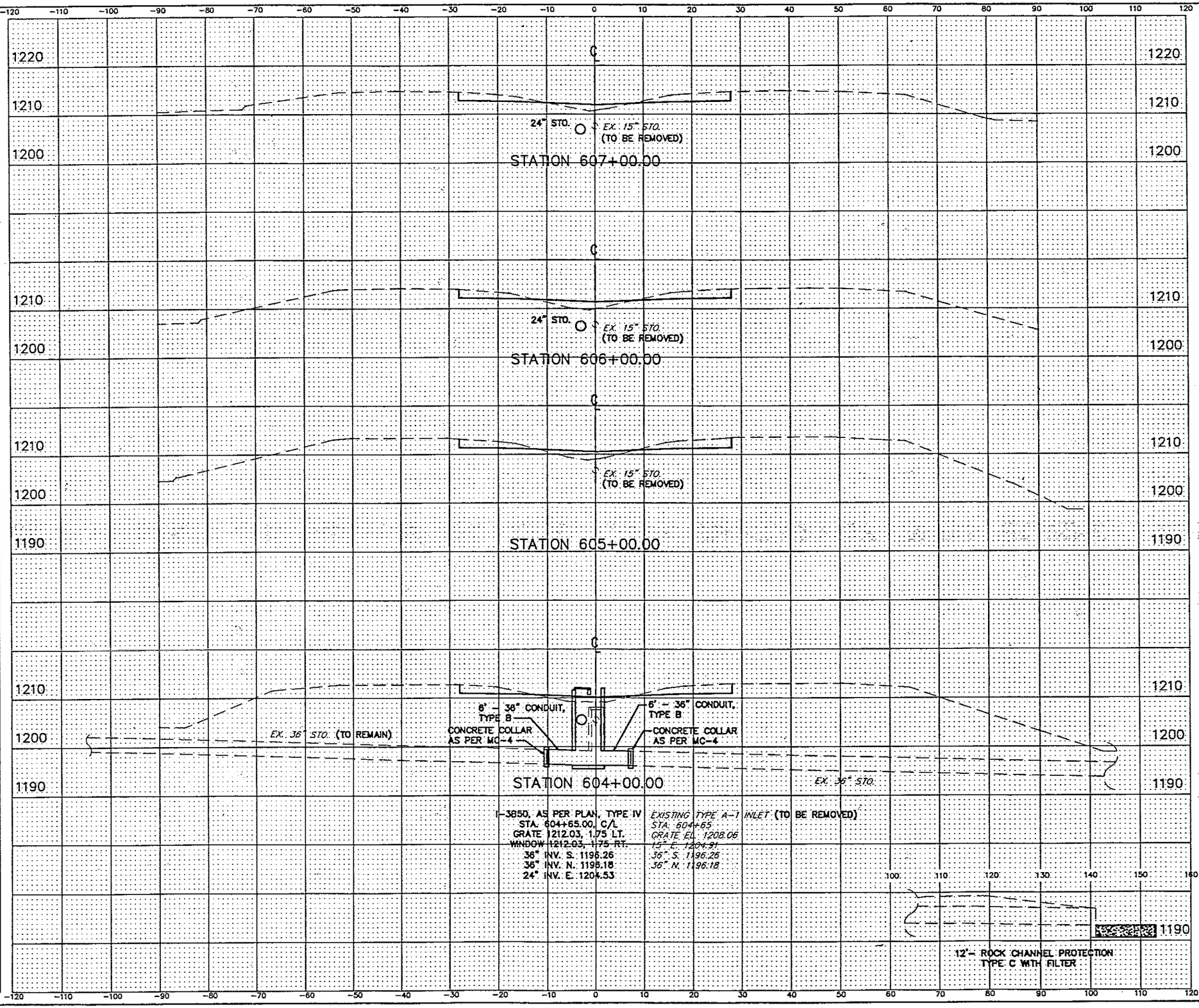
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 132 OF 19

77960592.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
45.9	12.1		
		164	58
42.7	19		
		165	73
46.3	20.2		
		169	64
44.9	14.6		
		169	52

NO.	REVISIONS	BY	DAT

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.604+00 TO STA.607+00

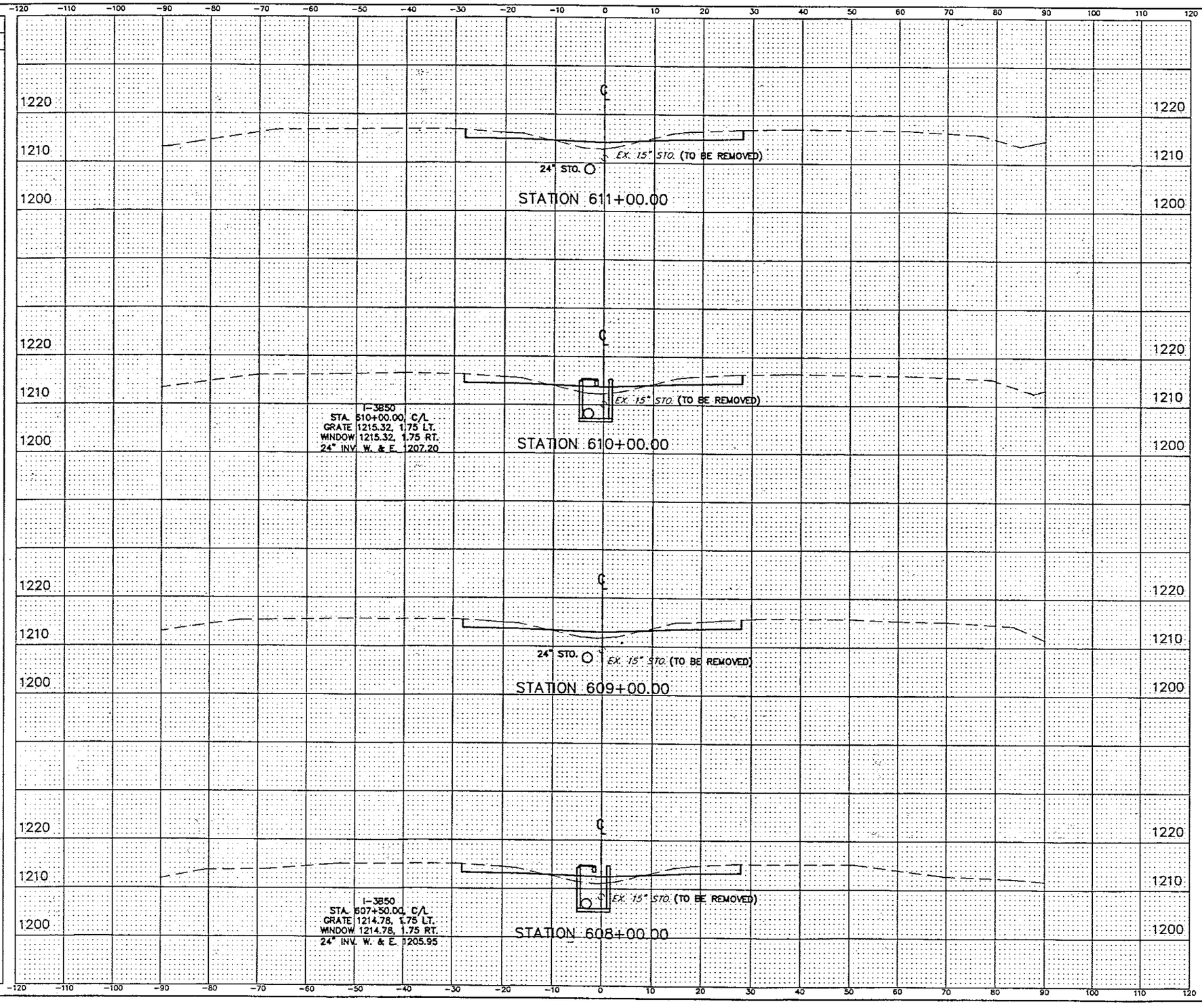
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-9	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 133 OF 19

77960593.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
47.0	15.2		
		169	61
44.4	17.7		
		167	60
45.6	14.9		
		169	59
45.6	16.7		
		169	53

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.608+00 TO STA.611+00

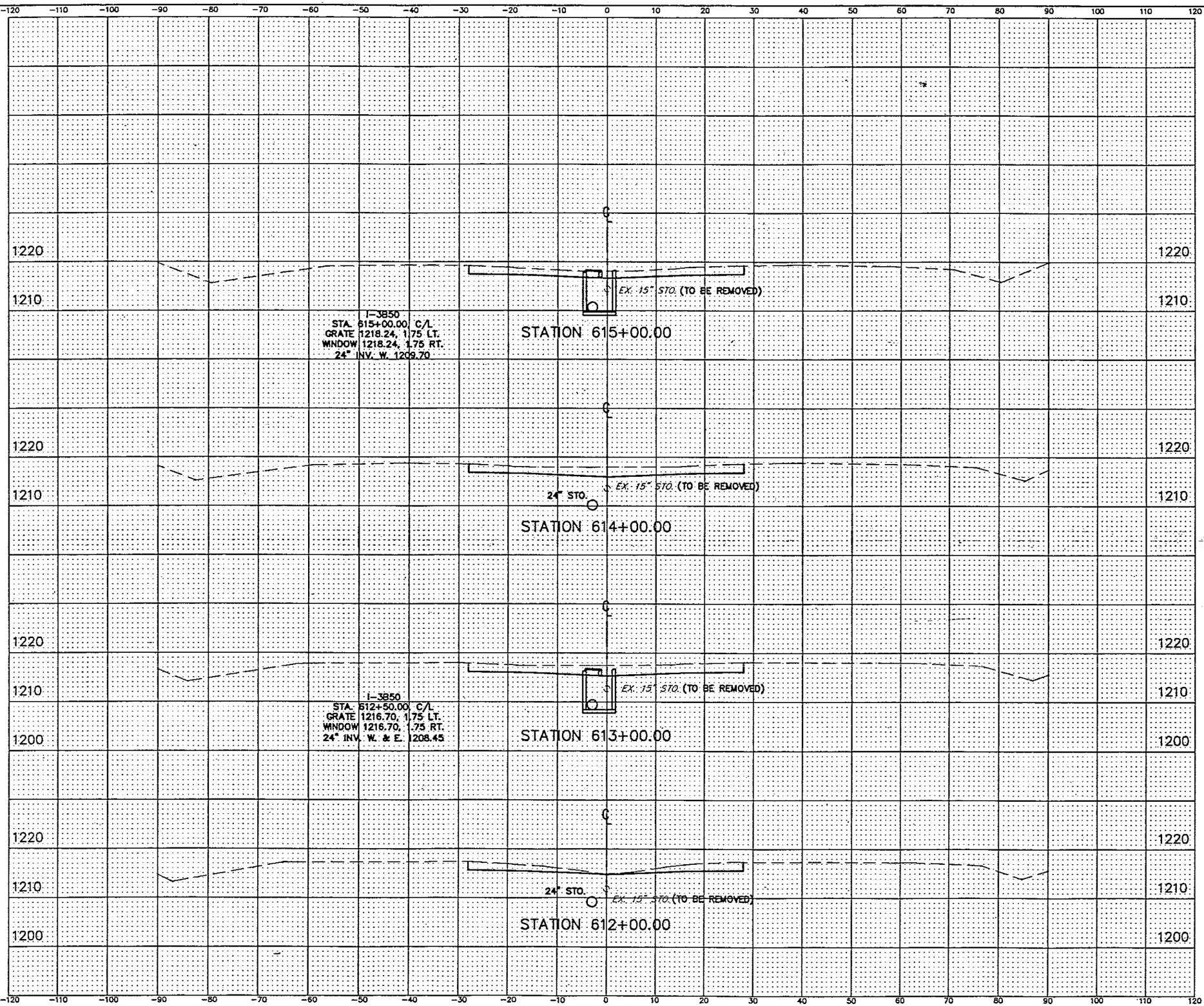
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 134 OF 196

77960594.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
82.6	0		
		328	0
94.3	0		
		361	0
100.6	0		
		297	0
59.7	0		
		198	28

NO.	REVISIONS	BY	DA

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.612+00 TO STA.615+0C

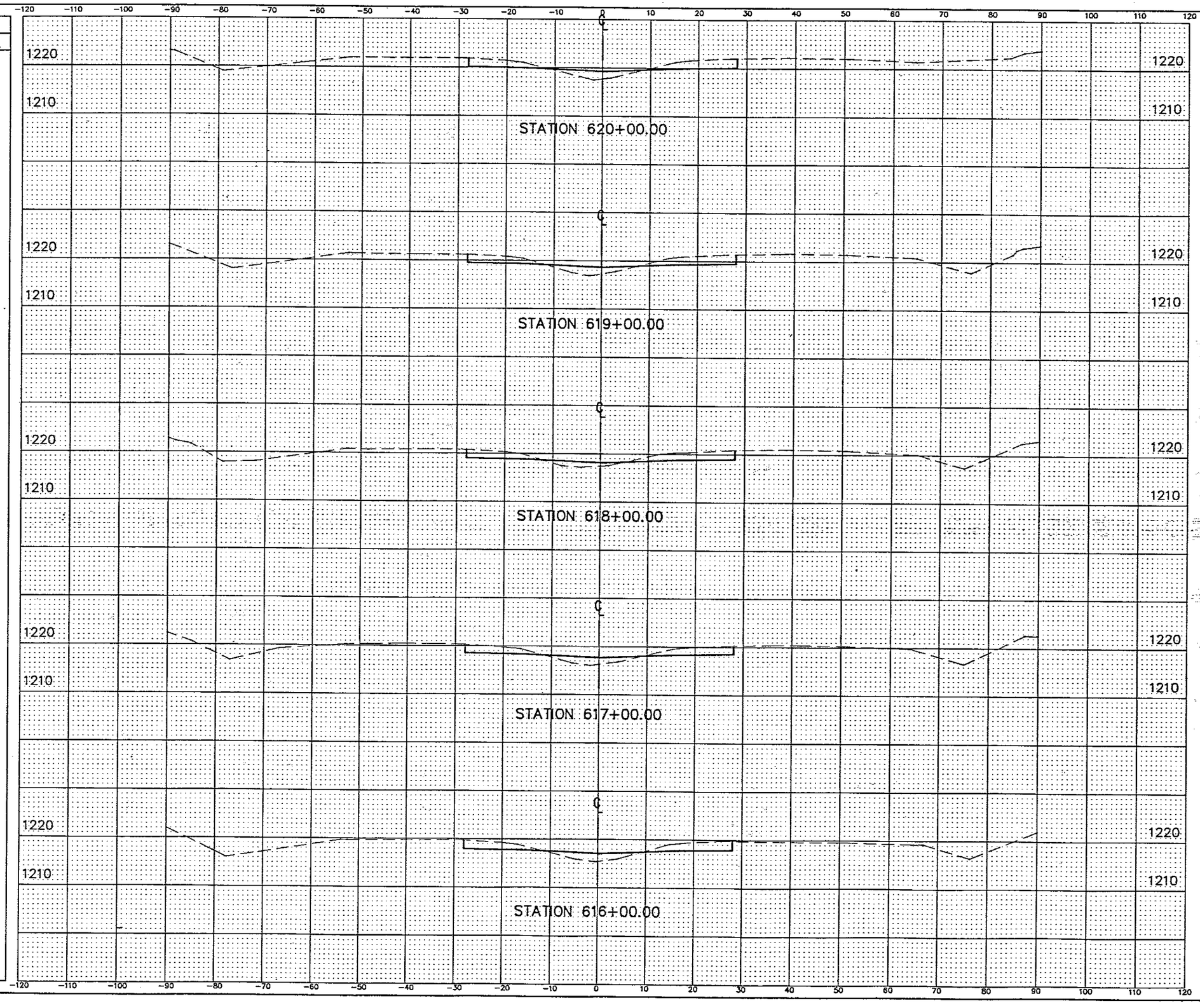
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 135 OF 1

77960595.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
46.4	19.1		
		176	72
48.4	19.6		
		184	58
51.0	11.9		
		175	59
43.7	19.7		
		167	75
46.5	20.9		
		239	39

NO.	REVISIONS	BY	DA

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.616+00 TO STA.620+0C

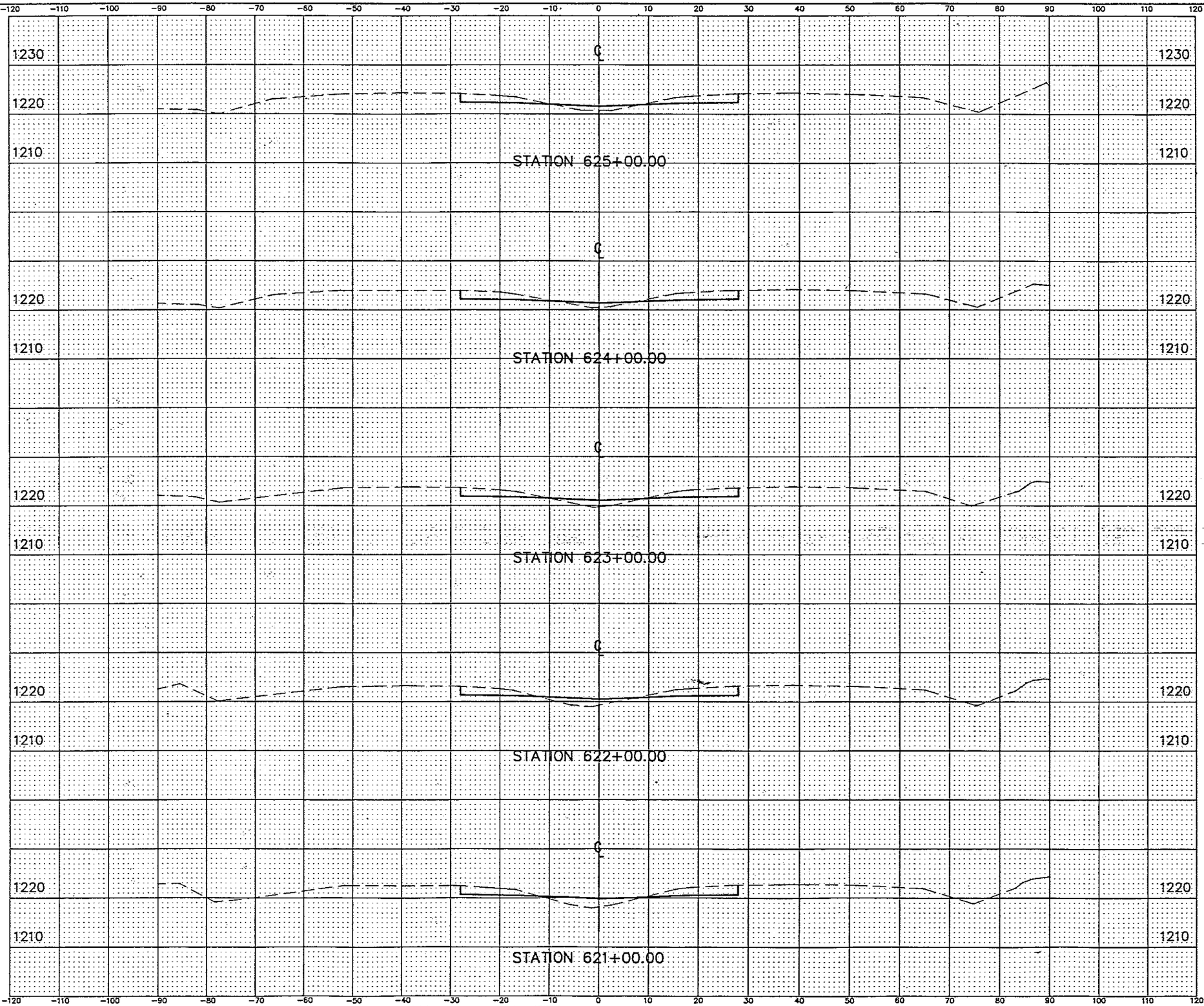
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 136 OF 19

77960596.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
44.6	11.0		
		172	37
48.1	8.9		
		169	45
43.3	15.2		
		163	61
44.5	17.7		
		168	74
46.0	22.4		
		171	77

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.621+00 TO STA.625+00

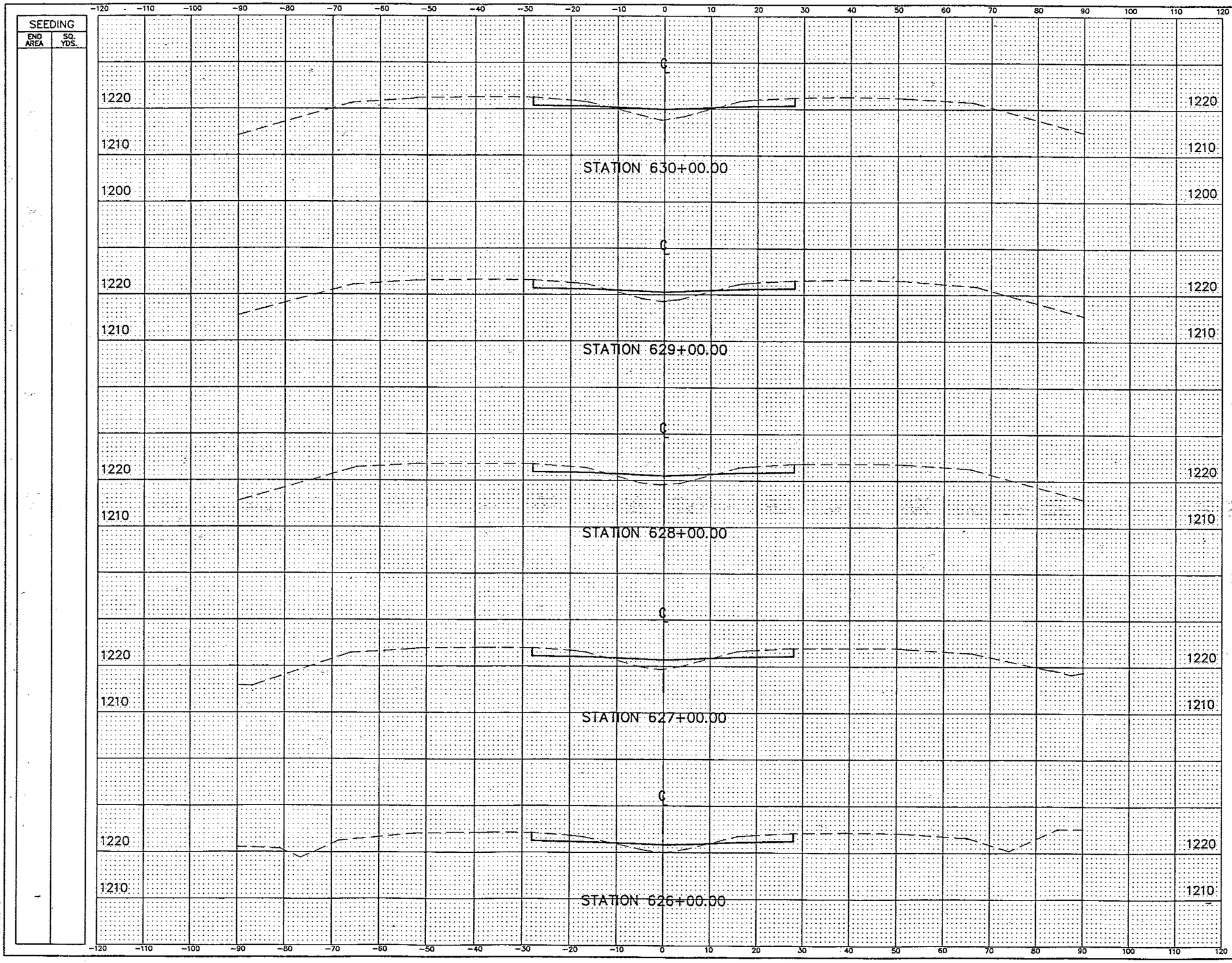
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 137 OF 196

77960597.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
38.4	28.8		
		145	103
39.9	26.6		
		146	101
39.2	28.0		
		306	101
40.8	26.6		
		152	85
41.4	19.3		
		159	56

NO.	REVISIONS	BY	DA

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.626+00 TO STA.630+0(

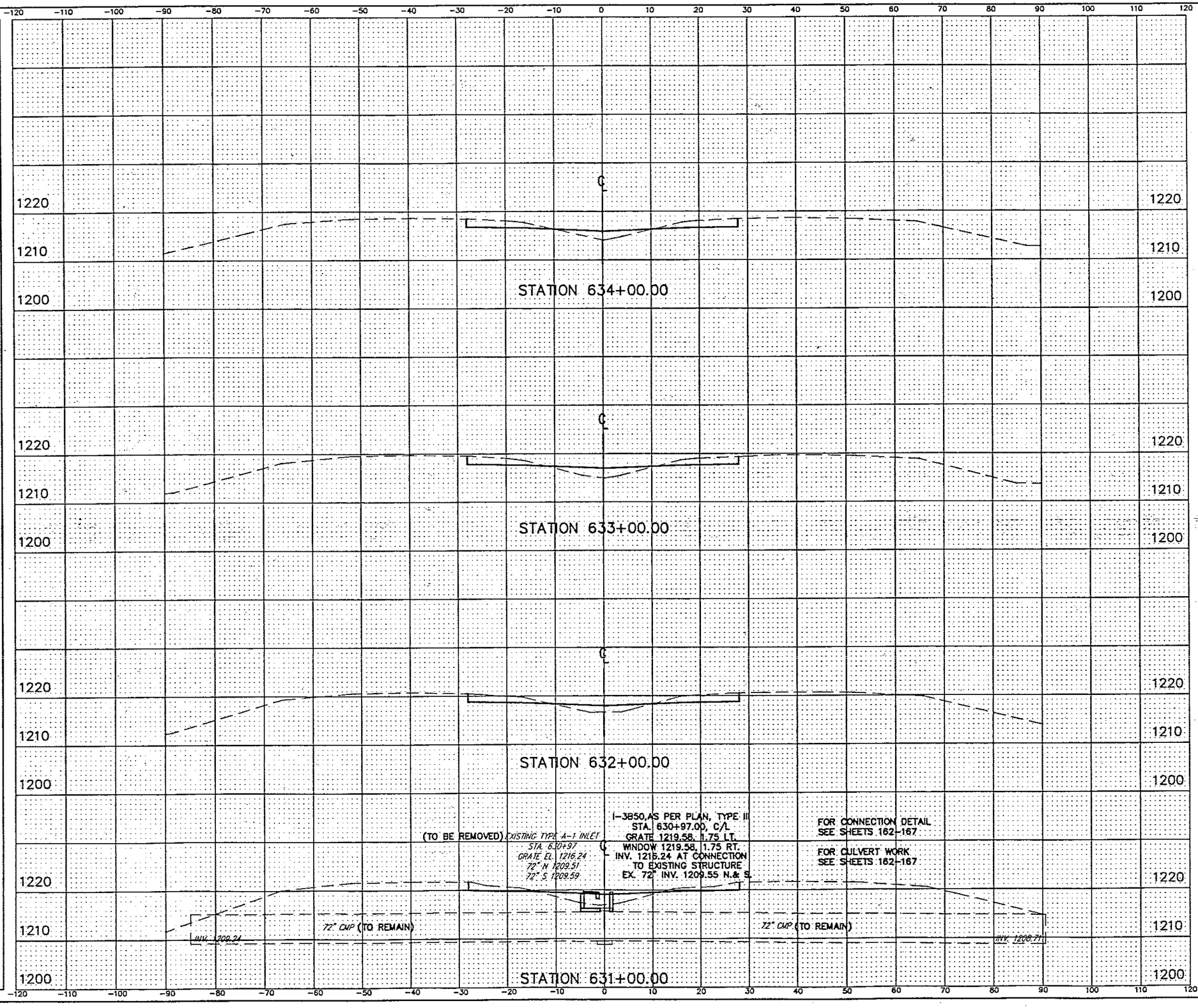
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 138 OF 1

77960598.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
42.0	19.3		
		149	85
38.4	26.4		
		151	84
43.0	19.2		
		129	107
26.8	33.8		
		121	116

NO.	REVISIONS	BY	DA

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.631+00 TO STA.634+00

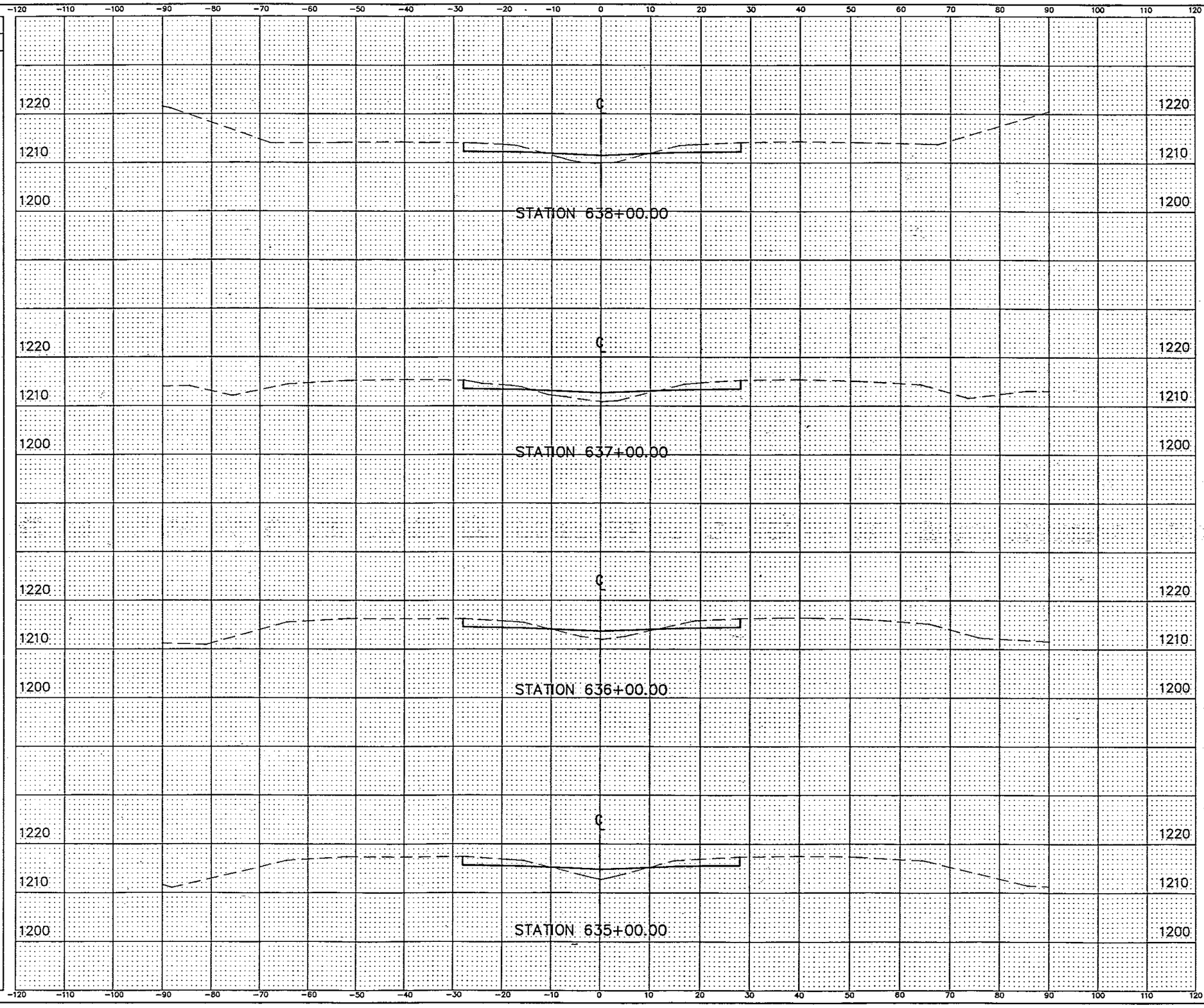
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'

CONTRACT 77-96-05 SHEET 139 OF 19

77960599.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
45.4	21.9		
		146	93
33.2	28.1		
		138	91
42.0	20.8		
		159	78
44.0	21.2	159	75

NO.	REVISIONS	BY	DA

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.635+00 TO STA.638+0(

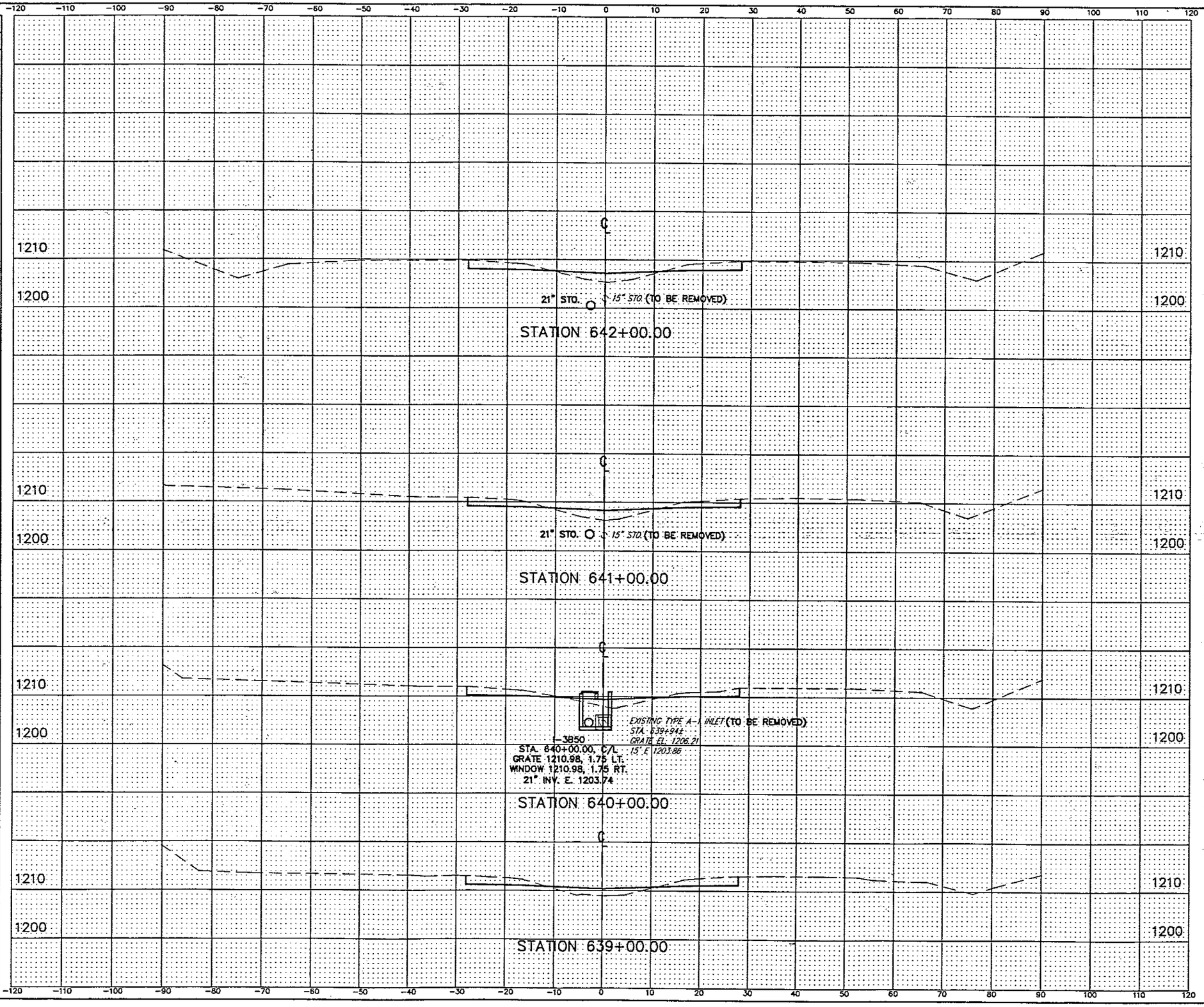
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'

CONTRACT 77-96-05 SHEET 140 OF 1

779605A0.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
41.0	25.5		
		149	98
39.6	27.3		
		140	85
35.8	18.7		
		145	77
42.4	23.1	163	45

NO.	REVISIONS	BY	DAT

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.639+00 TO STA.642+00

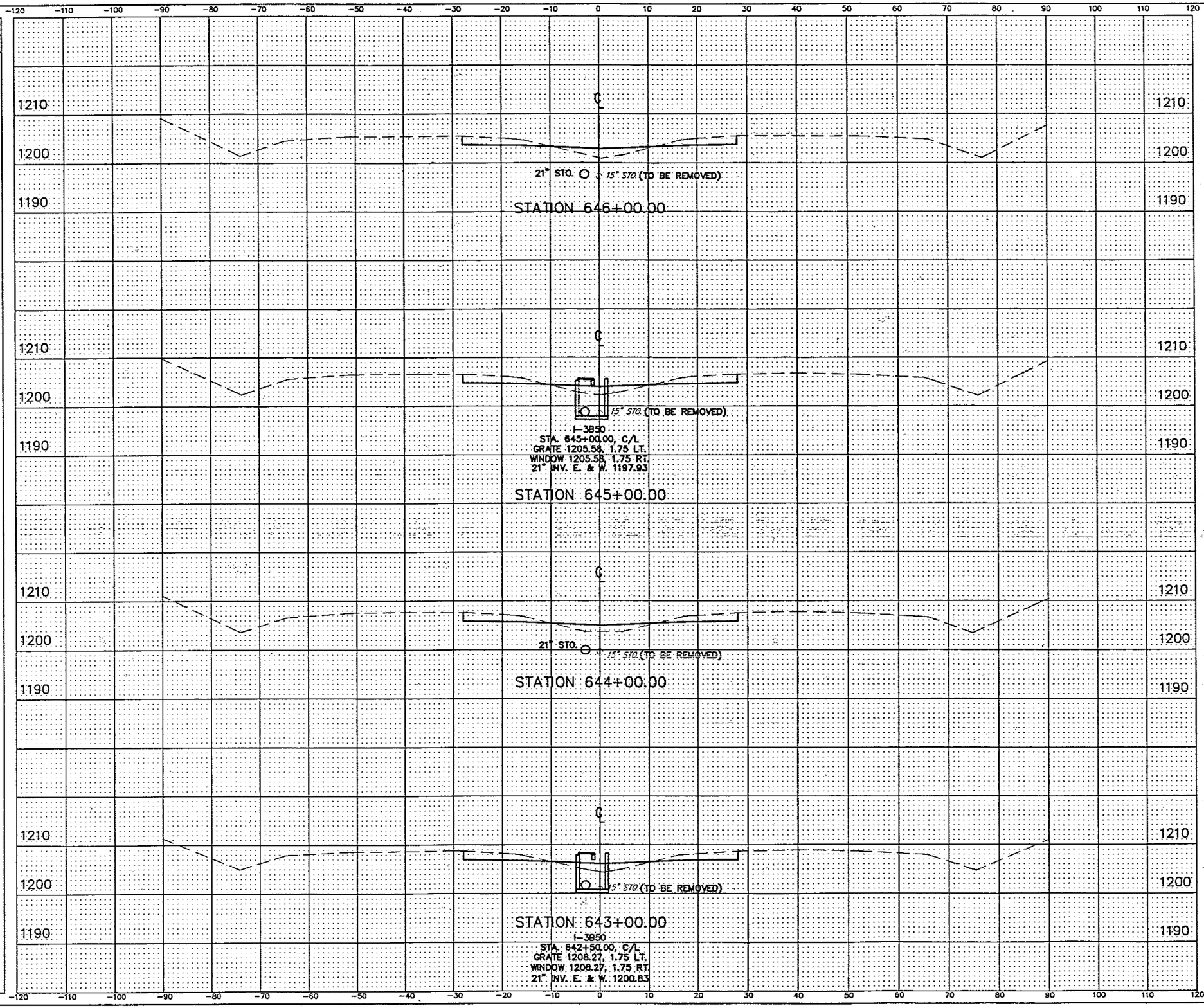
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-9	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 141 OF 19

779605A1.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
41.8	22.1		
		156	79
42.6	20.8		
		153	77
40.2	20.7		
		152	75
41.8	19.7		
		153	84

NO.	REVISIONS	BY	DA

OHIO TURNPIKE COMMISSION

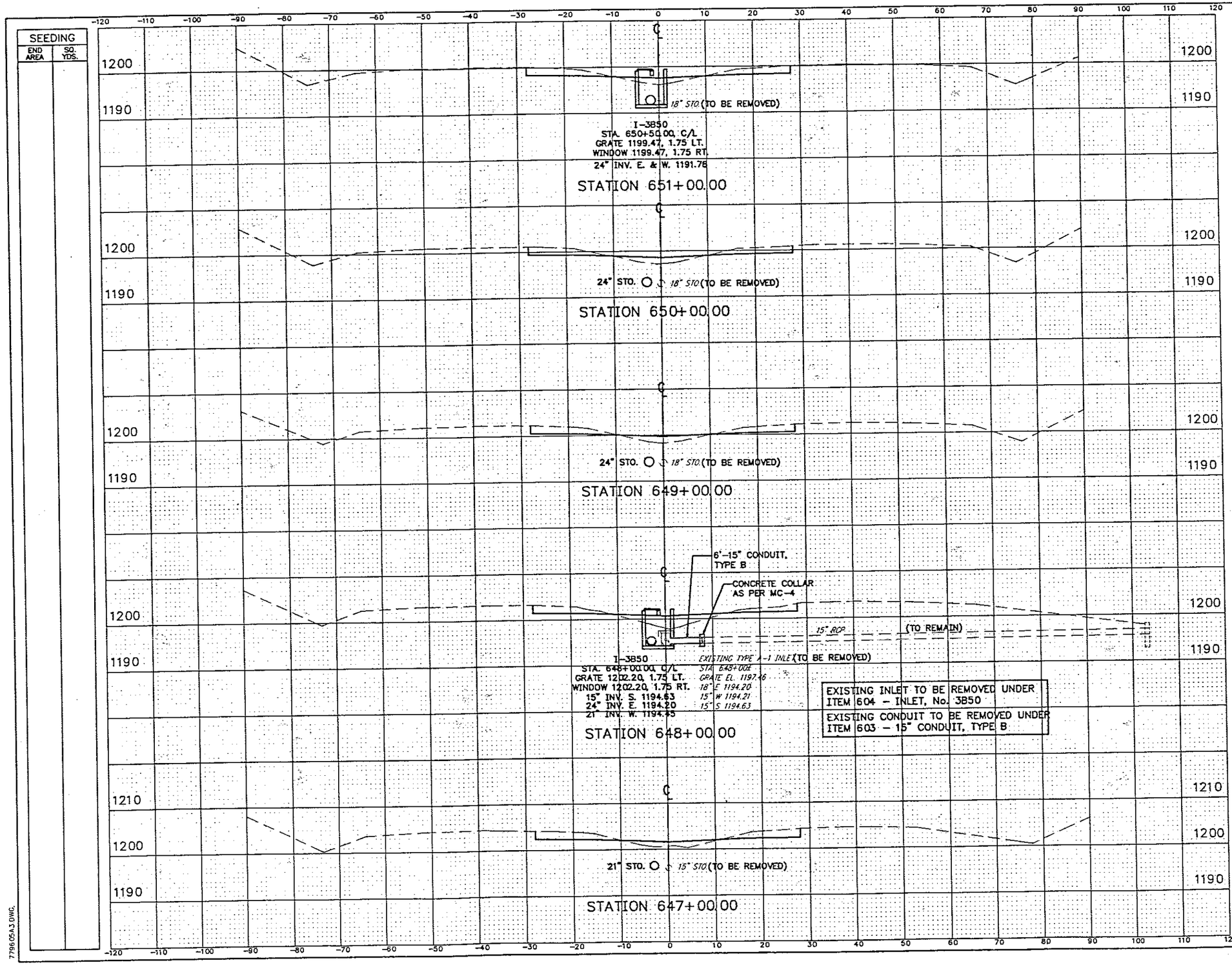
CROSS SECTIONS
STA.643+00 TO STA.646+00

CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 142 OF 19

779605A2.DWG



END AREA		VOLUME	
CUT	FILL	CUT	FILL
42.6	15.1		
		153	59
40.2	16.8		
		152	63
42.0	17.0		
		139	97
32.8	35.3		
		149	96
45.4	16.5		
		161	71

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.647+00 TO STA.651+00

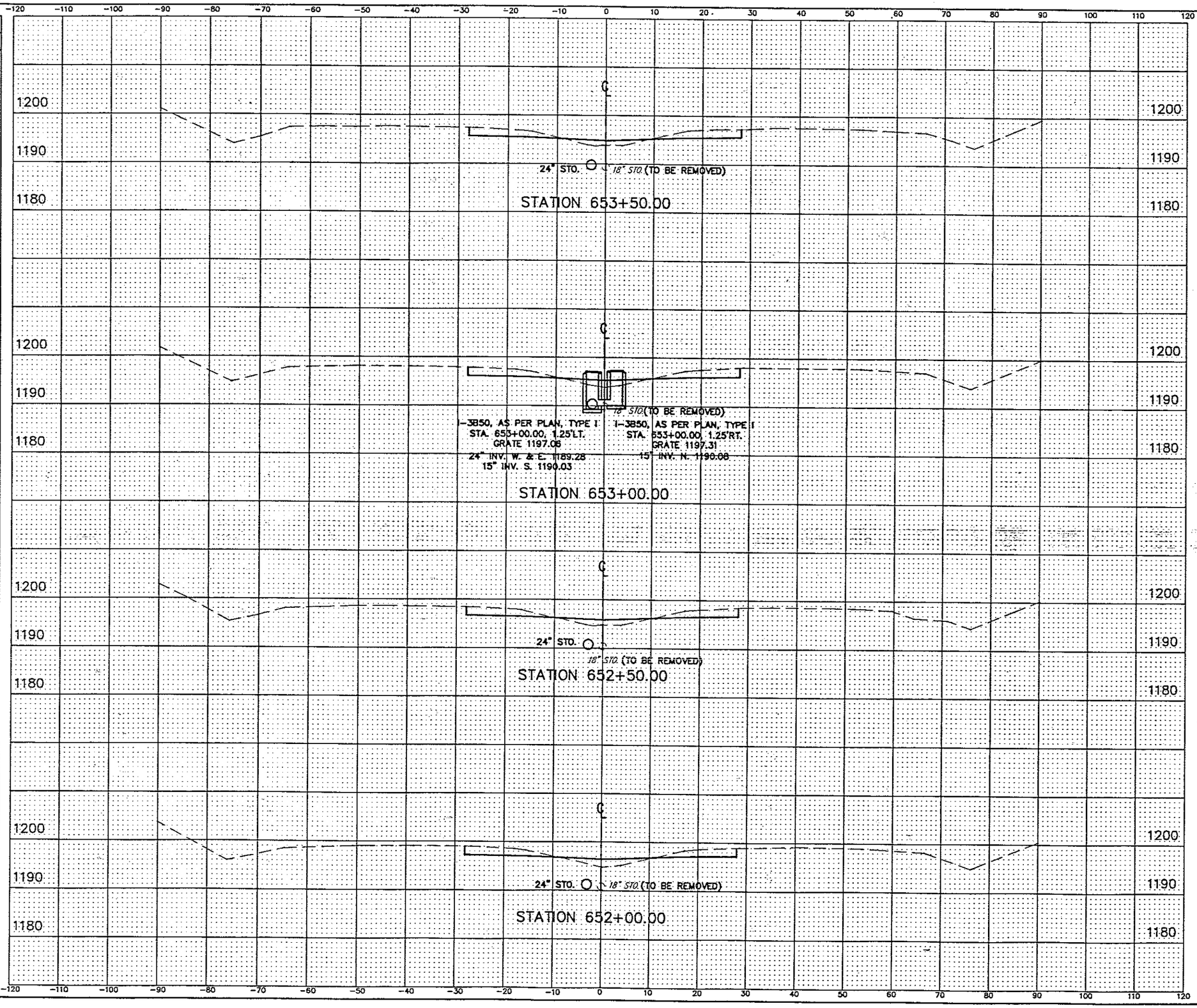
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 143 OF 196

7796054.3 DWG.

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
47.7	13.2		
		88	26
46.9	14.8		
		84	28
43.8	15.8		
		81	31
43.9	17.3		
		160	60

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.652+00 TO STA.653+50

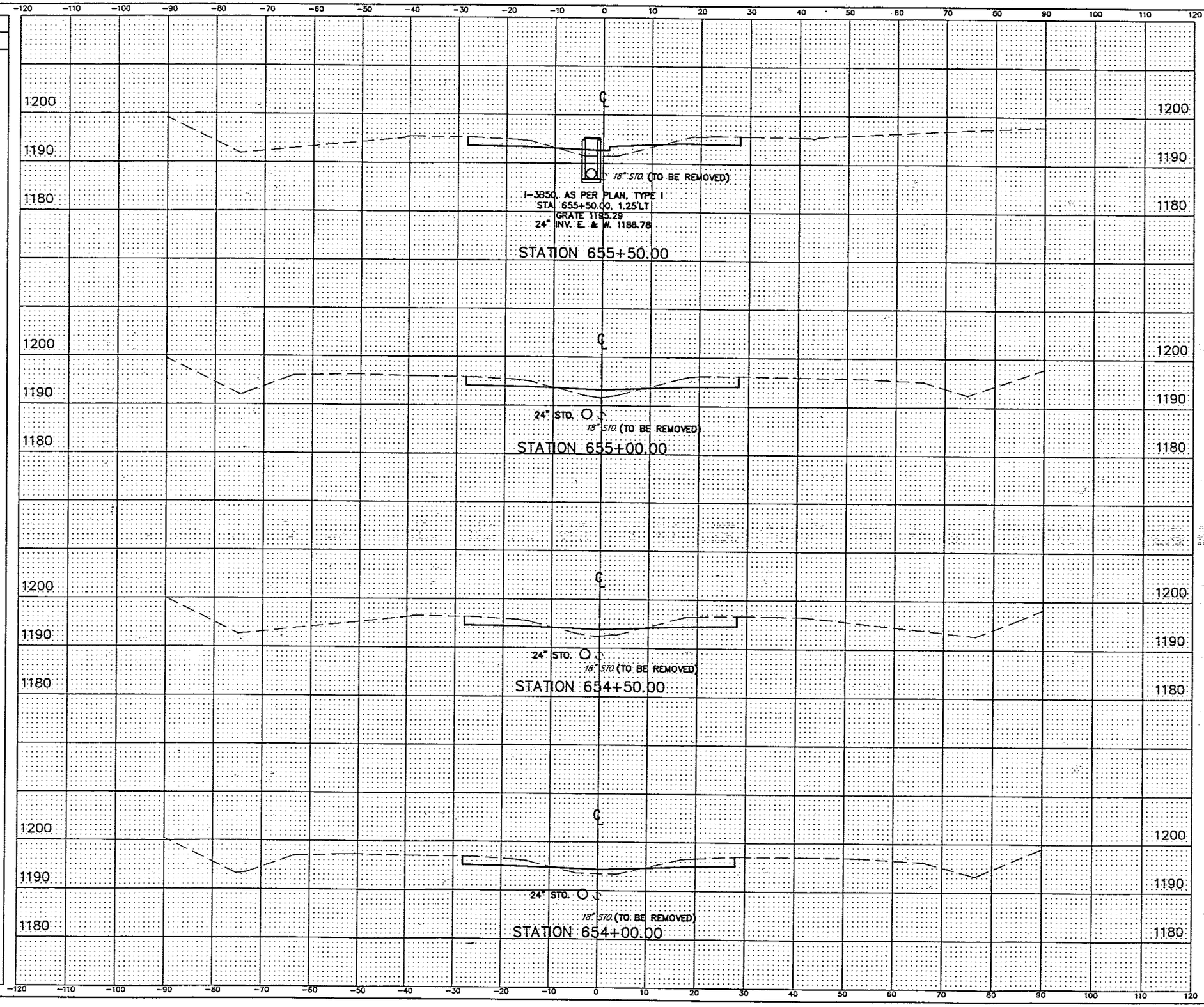
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'

CONTRACT 77-96-05 SHEET 144 OF 196

779605A4.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
44.2	23.1		
		91	37
54.6	17.0		
		100	30
52.9	15.3		
		94	26
48.8	12.7		
		89	24

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.654+00 TO STA.655+50

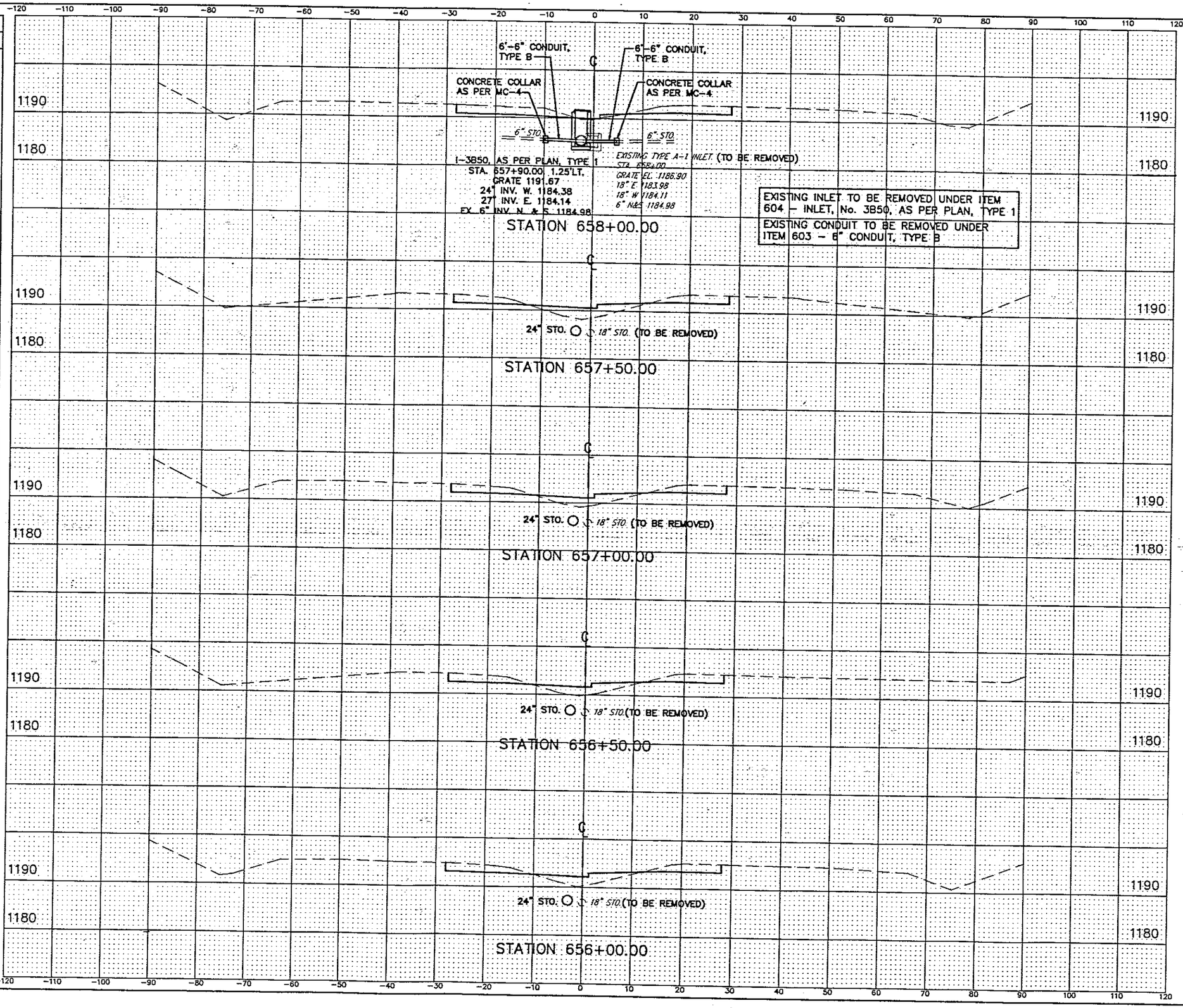
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-9	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-98-05 SHEET 145 OF 196

779605A5.DWG

SEEDING	
END AREA	SQ. YDS.



EXISTING INLET TO BE REMOVED UNDER ITEM 604 – INLET, No. 3B50, AS PER PLAN, TYPE 1

EXISTING CONDUIT TO BE REMOVED UNDER ITEM 603 – 6" CONDUIT, TYPE B

END AREA		VOLUME	
CUT	FILL	CUT	FILL
67.0	2.6		
		100	35
41.3	35.4		
		78	59
43.3	28.1		
		80	52
43.5	27.7		
		82	51
44.6	27.5		
		82	47

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.656+00 TO STA.658+00

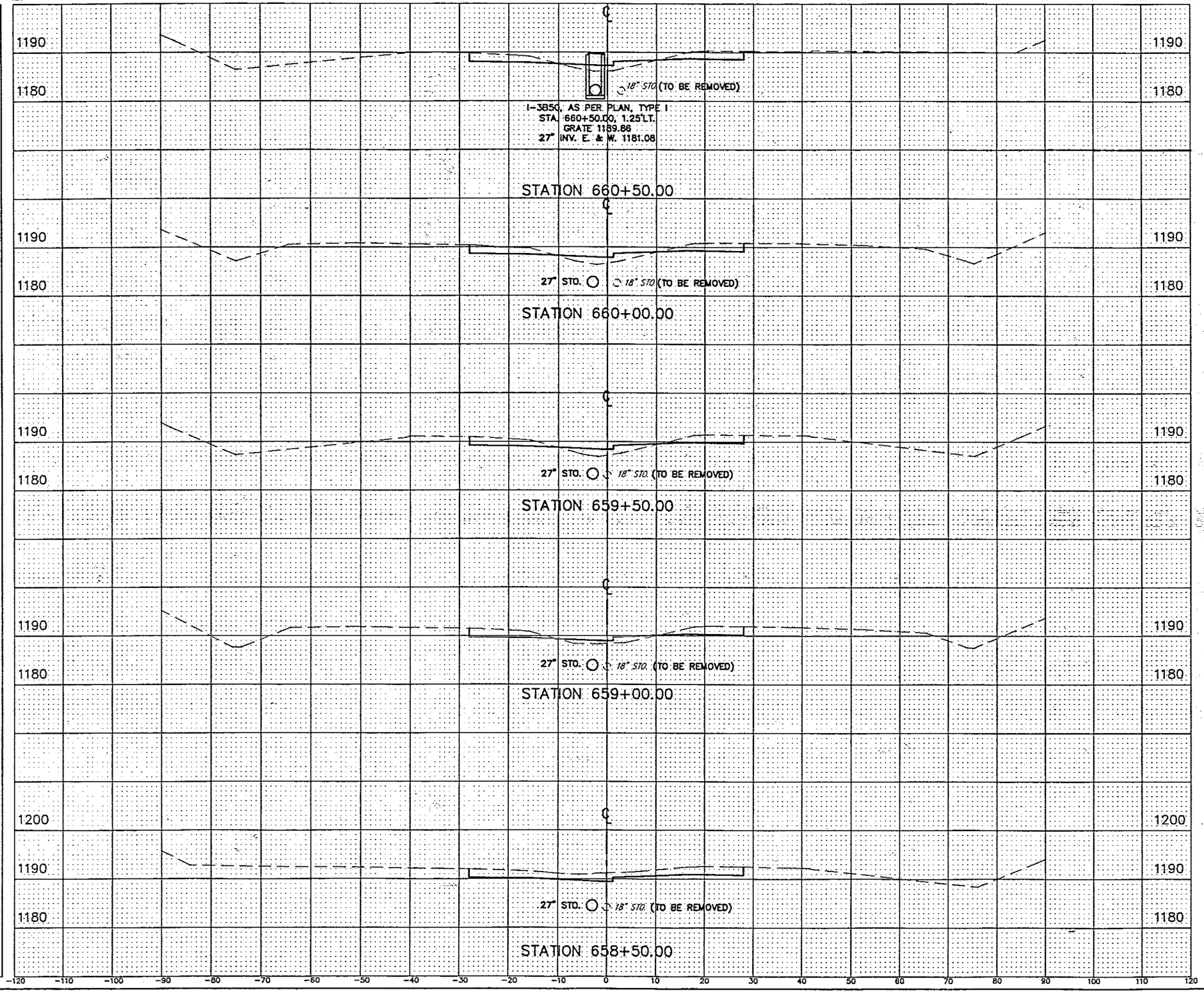
CT Consultants, Inc.
Engineers • Architects • Planners
Willoughby • Exeter • Columbus • North Canton • Youngstown

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 146 OF 196

779605A6.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
47.2	18.2		
		84	36
44.0	20.5		
		83	38
45.6	20.4		
		85	32
45.9	14.0		
		117	13
80.9	0		
		137	2

NO.	REVISIONS	BY	DAT

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.658+50 TO STA.660+50

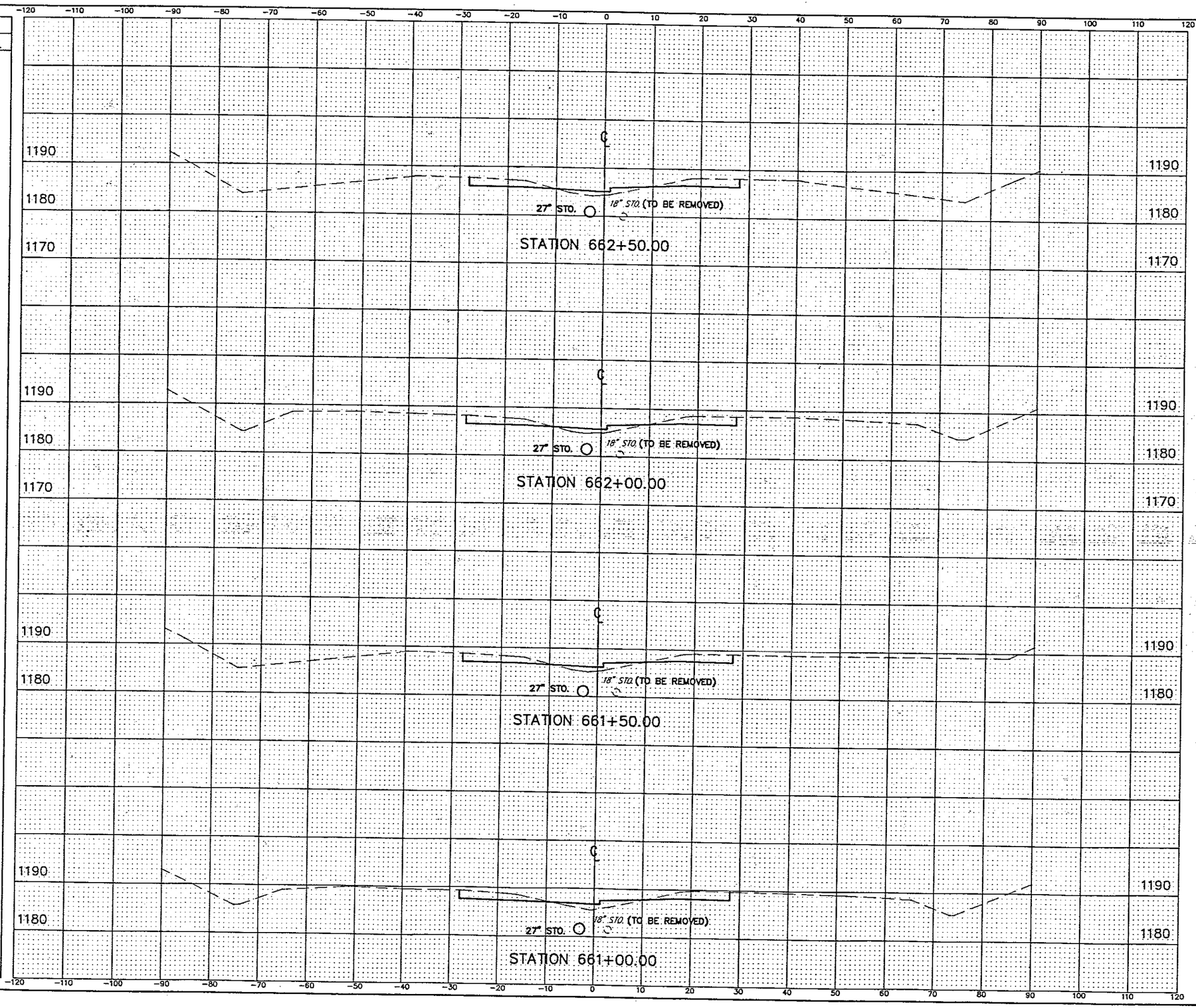
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-9	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 147 OF 19

779605A7.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
46.2	13.7		
		85	25
46.1	13.5		
		87	26
47.9	14.4		
		86	28
45.3	15.4		
		86	31

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.661+00 TO STA.662+50

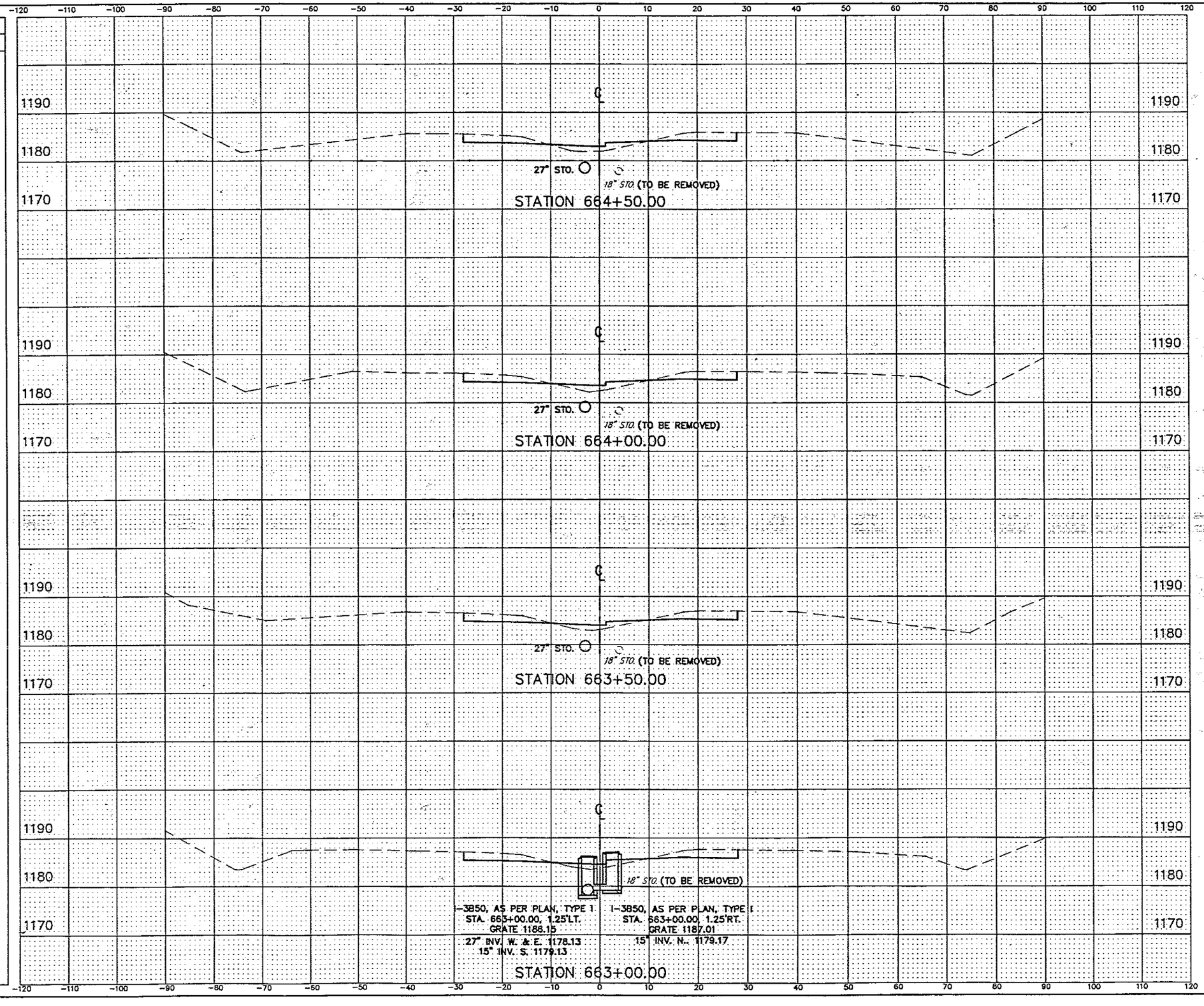
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 148 OF 196

779605A8.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
46.4	17.4		
		85	31
45.6	16.4		
		86	28
47.8	13.7		
		88	26
46.7	14.0		
		86	26

NO.	REVISIONS	BY

OHIO TURNPIKE COMMISSIO

CROSS SECTIONS
STA.663+00 TO STA.664+5

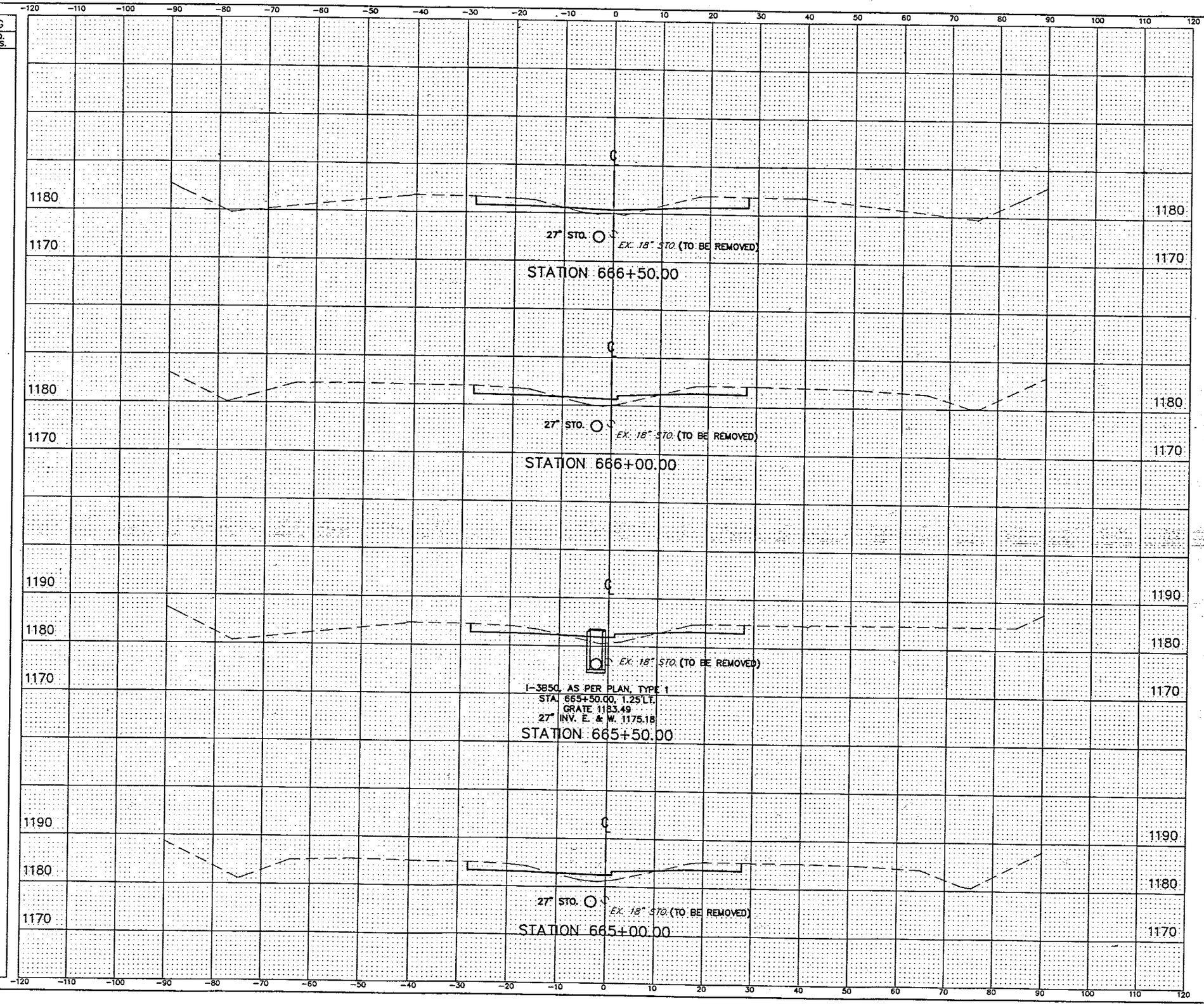
CT Consultants, Inc.
Engineers • Architects • Planners
Willoughby • Akron • Columbus • North Canton • Youngstown

DESIGNED: WDB	CHECKED: DJW	DATE: 12-0
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=1

CONTRACT 77-96-05 SHEET 149 OF

779605A9.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
57.8	11.5	95	30
45.0	20.6	85	35
46.6	17.0	84	34
44.2	20.2	84	35

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.665+00 TO STA.666+50

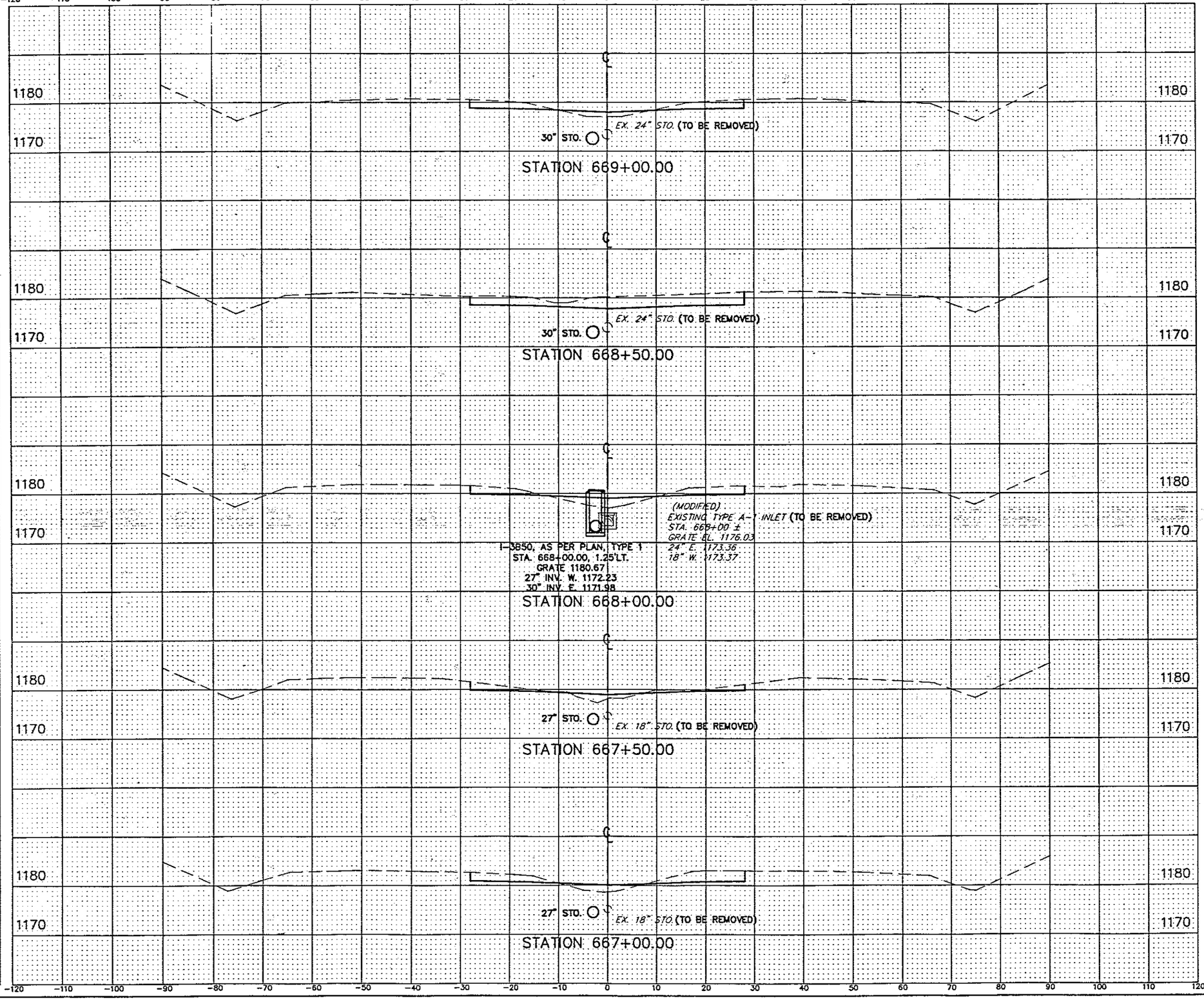
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-95	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 150 OF 196

779605B0.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
44.8	12.8		
		147	12
113.7	0		
		143	24
40.8	25.5		
		70	19
26.4	12.6		
		77	26
57.1	16.0		
		106	25

NO.	REVISIONS	BY	DAT

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.667+00 TO STA.669+00

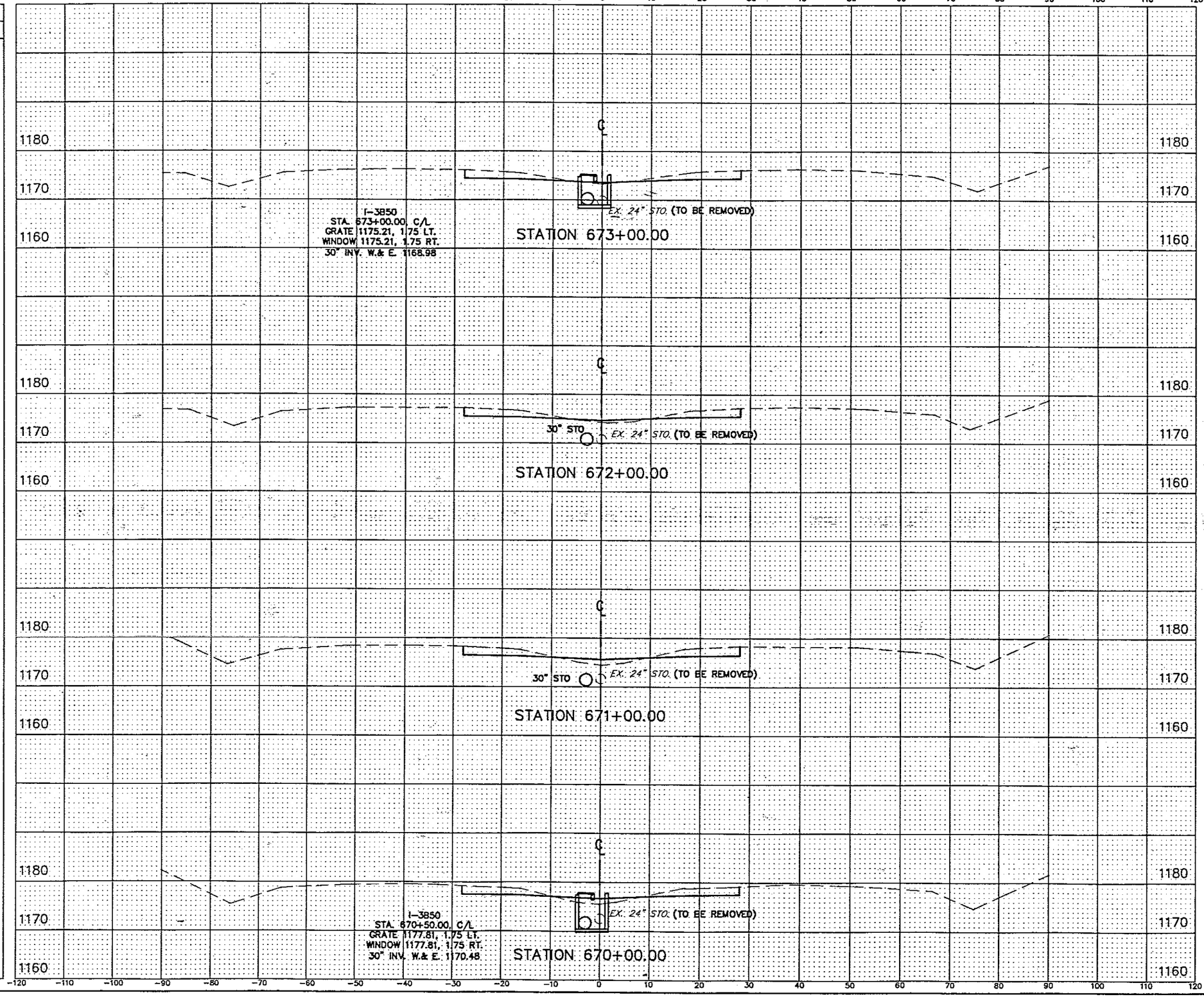
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-9
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'

CONTRACT 77-96-05 SHEET 151 OF 19

7796058I.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
49.2	0		
		177	13
46.5	5.2		
		176	33
48.6	12.7		
		176	46
46.7	12.4		
		169	47

NO.	REVISIONS	BY	DAT

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.670+00 TO STA.673+00

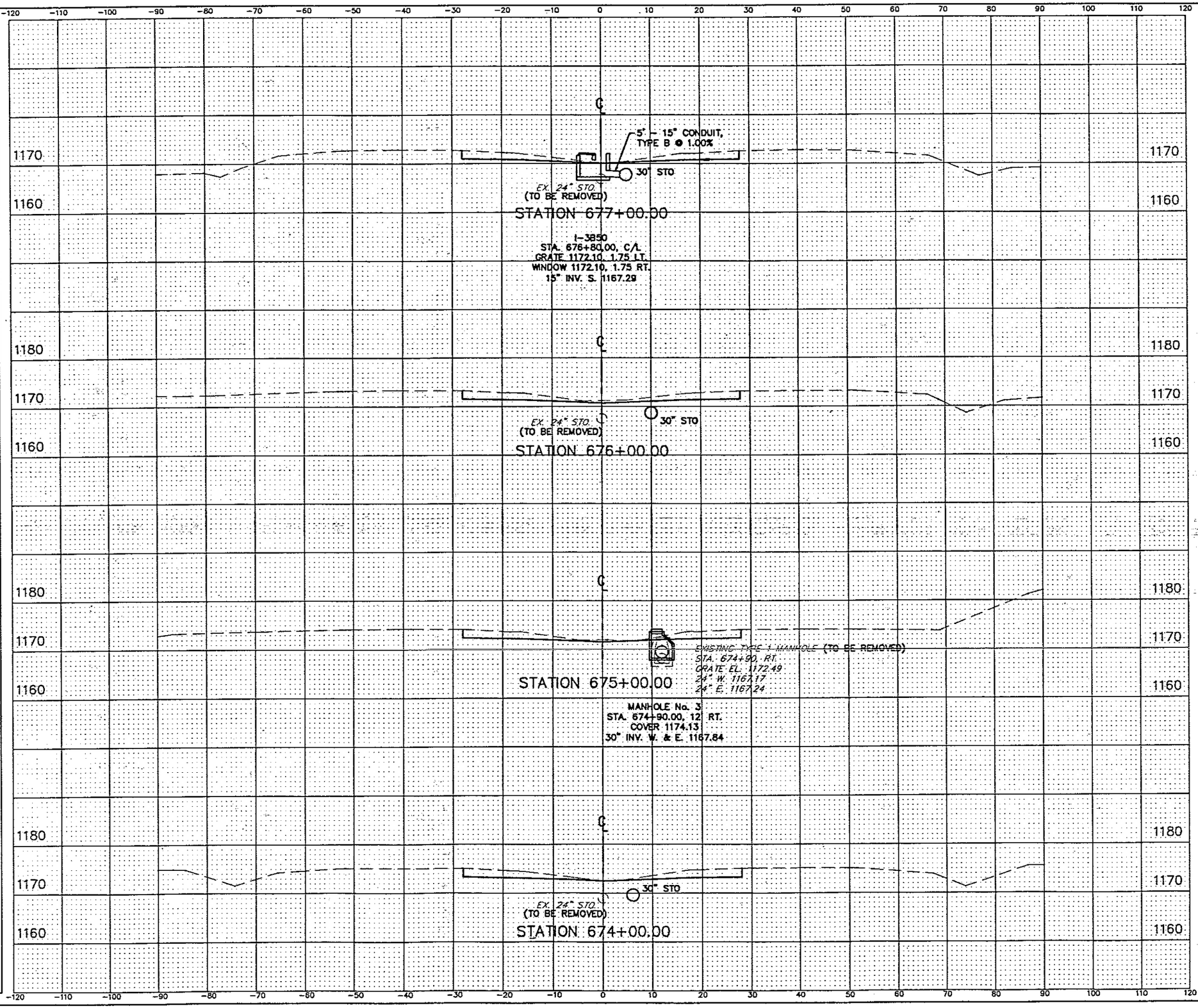
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-9	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 152 OF 19

77960582.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
54.5	0		
		211	0
59.7	0		
		211	0
54.0	0		
		209	1
58.9	0.4		
		200	4

NO.	REVISIONS	BY	DA

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.674+00 TO STA.677+0C

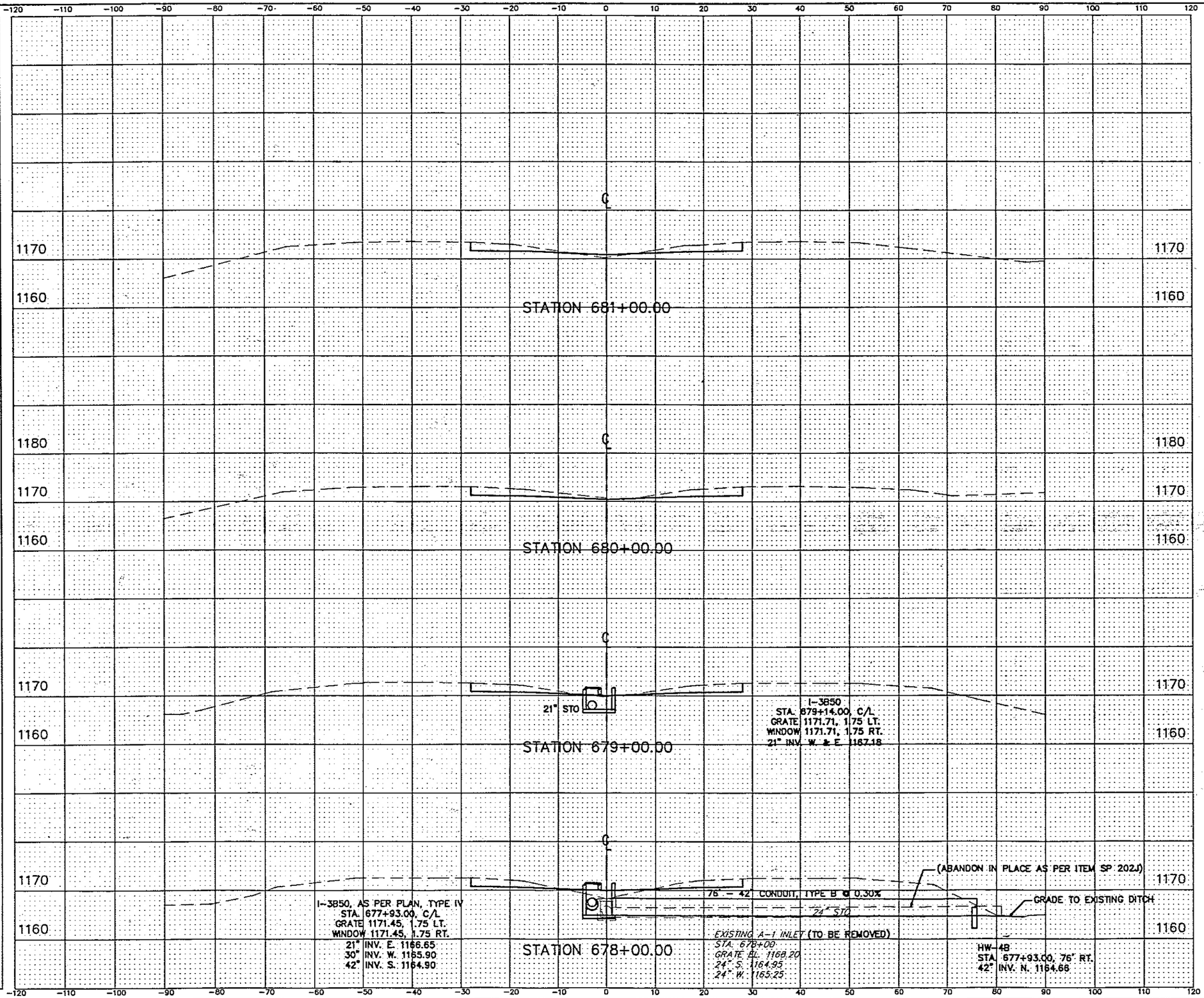
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 153 OF 19

77960583.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
46.8	3.7		
		192	7
57.1	0.2		
		201	3
51.2	1.4		
		176	30
43.7	14.8		
		182	27

NO.	REVISIONS	BY	DAT

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.678+00 TO STA.681+00

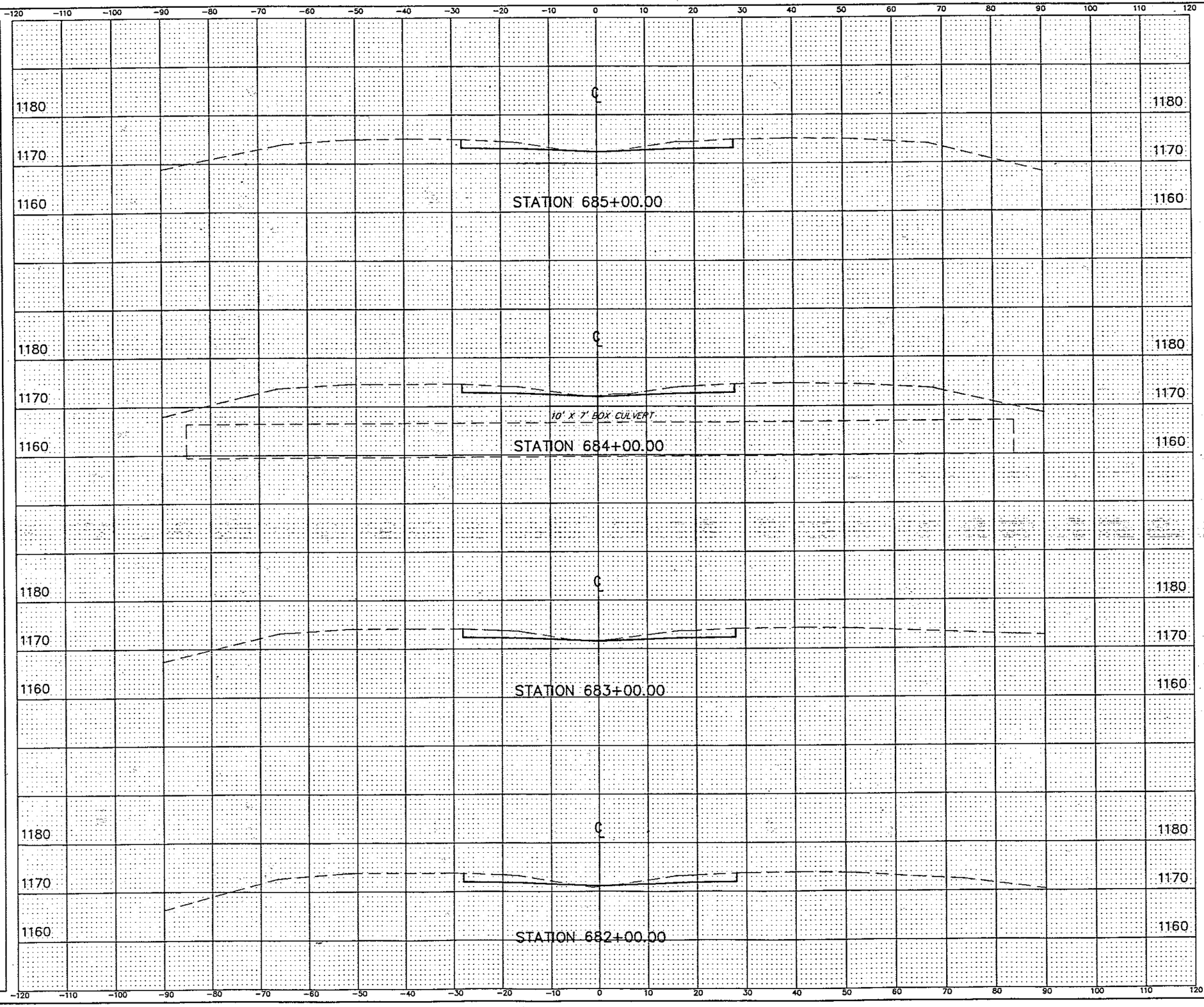
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-9
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'

CONTRACT 77-96-05 SHEET 154 OF 19

77960584.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
51.2	0		
		197	0
55.1	0		
		209	0
57.9	0		
		209	2
55.1	1.1		
		189	9

NO.	REVISIONS	BY	DA

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.682+00 TO STA.685+0C

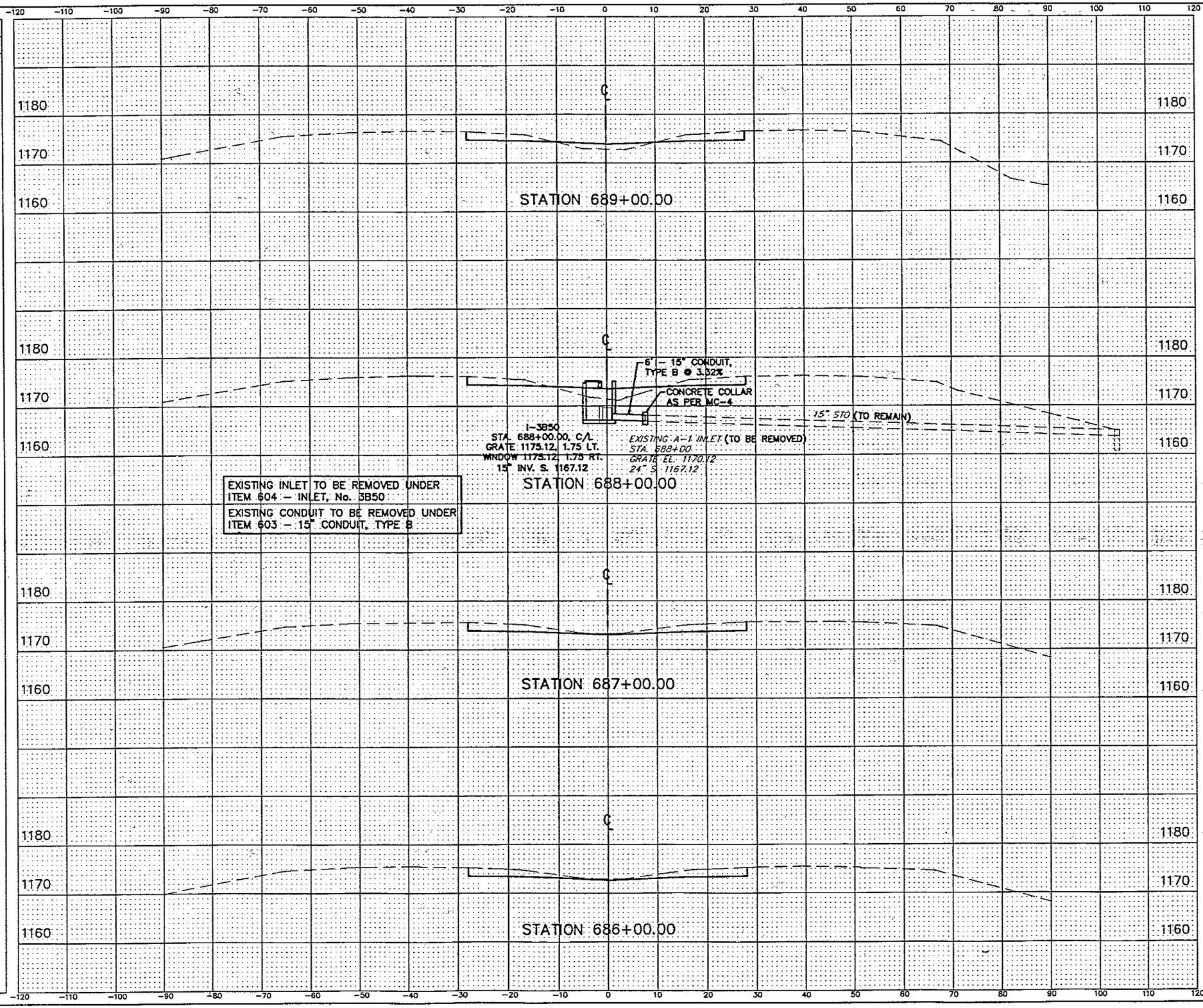
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 155 OF 19

7796055B5.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
43.9	16.7		
		155	88
39.6	30.8		
		184	57
59.5	0		
		218	0
58.3	0		
		203	0

NO.	REVISIONS	BY	DAT

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.686+00 TO STA.689+00

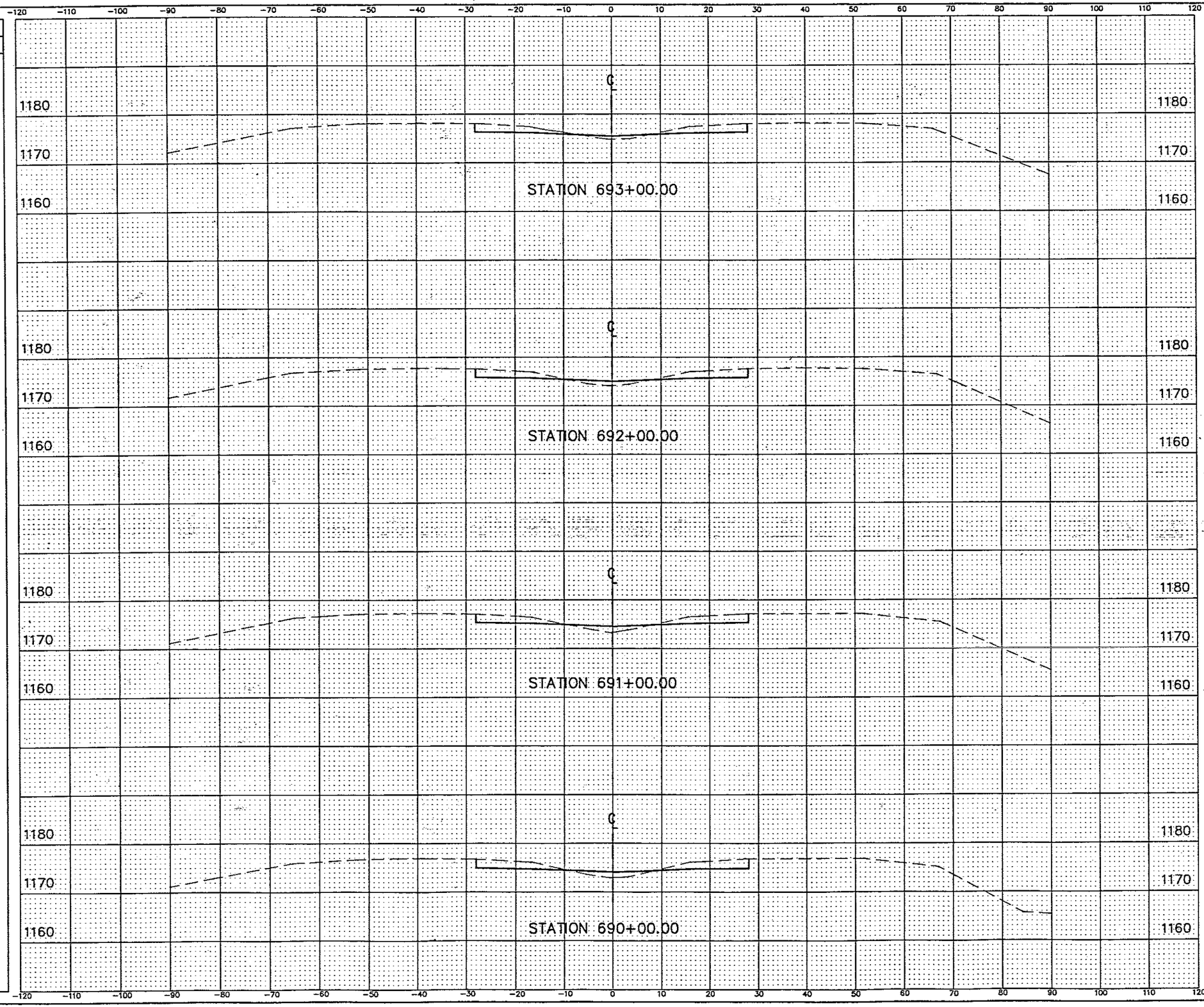
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-9	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 156 OF 19

779605B6.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
47.1	6.3		
		174	30
47.1	9.8		
		174	40
46.7	11.9		
		178	46
49.3	13.0		
		173	55

NO.	REVISIONS	BY	DA

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.690+00 TO STA.693+0C

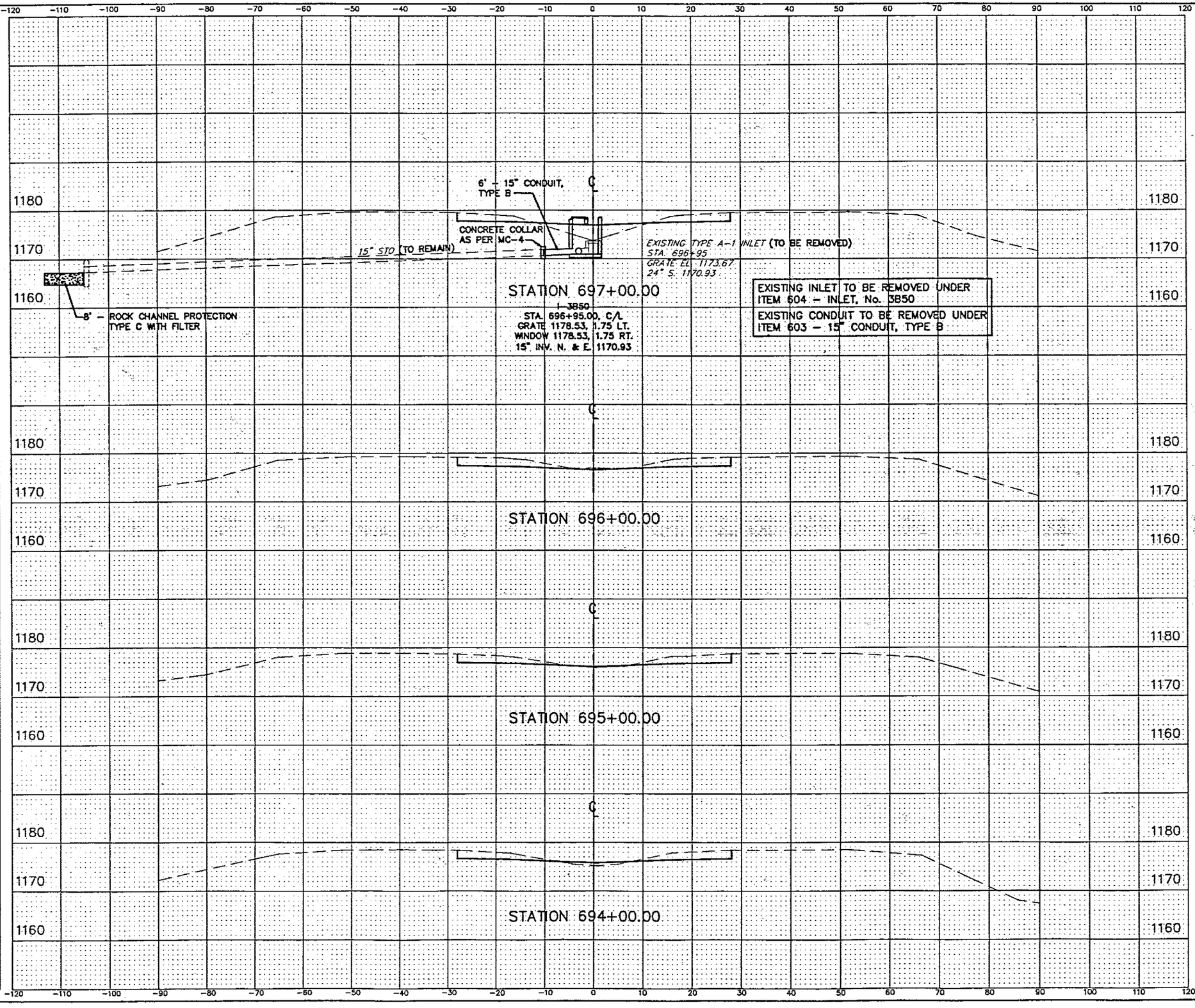
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 157 OF 19

77960587.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
21.3	37.7		
		152	70
60.7	0		
		209	3
52.1	1.6		
		186	14
48.6	6.2		
		177	23

NO.	REVISIONS	BY	DA

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.694+00 TO STA.697+00

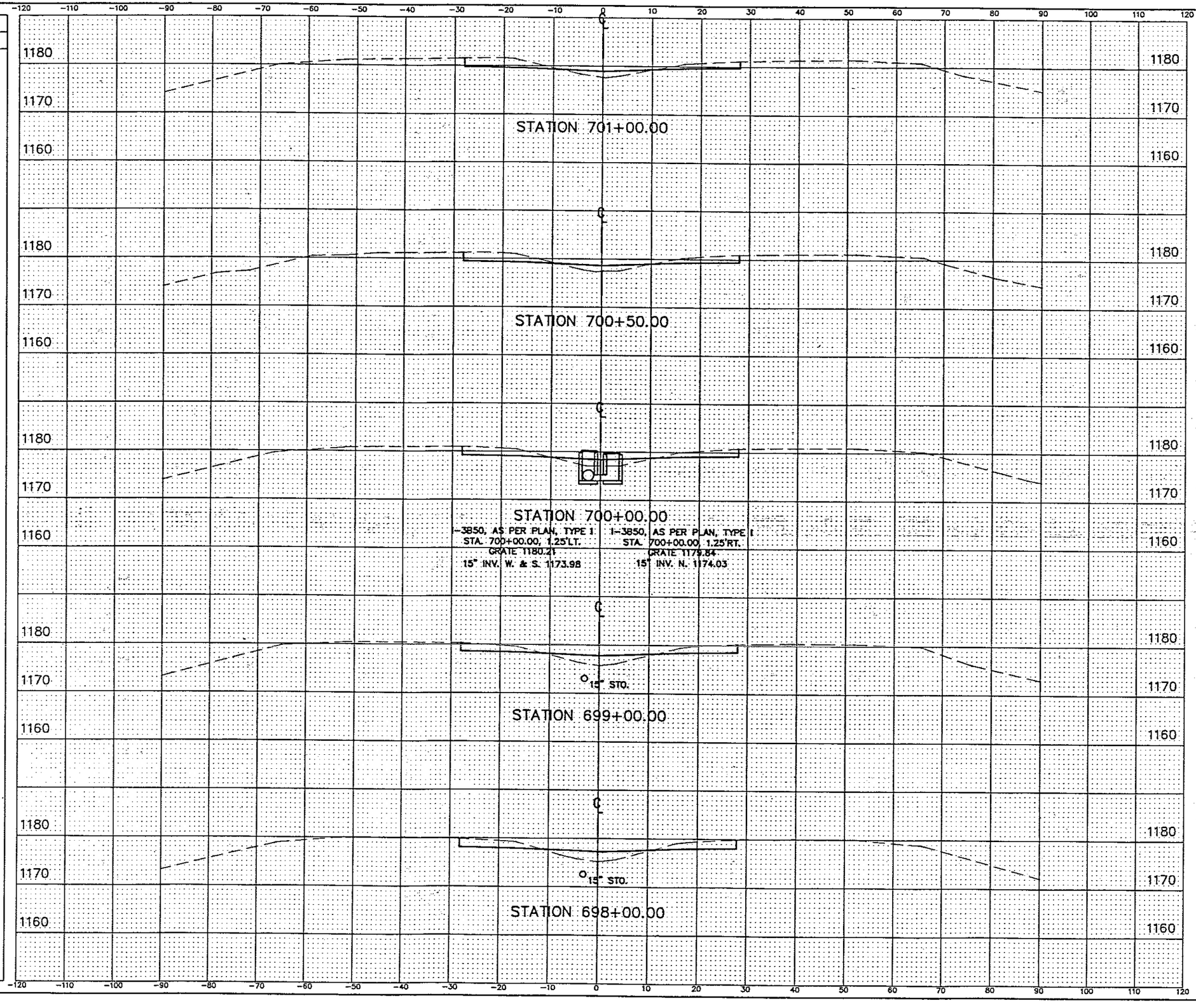
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'

CONTRACT 77-96-05 SHEET 158 OF 19

77960588.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
44.1	13.8		
		82	27
44.8	15.0		
		80	31
41.3	18.9		
		149	84
39.1	26.2		
		152	99
43.1	27.3		
		119	120

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.698+00 TO STA.701+00

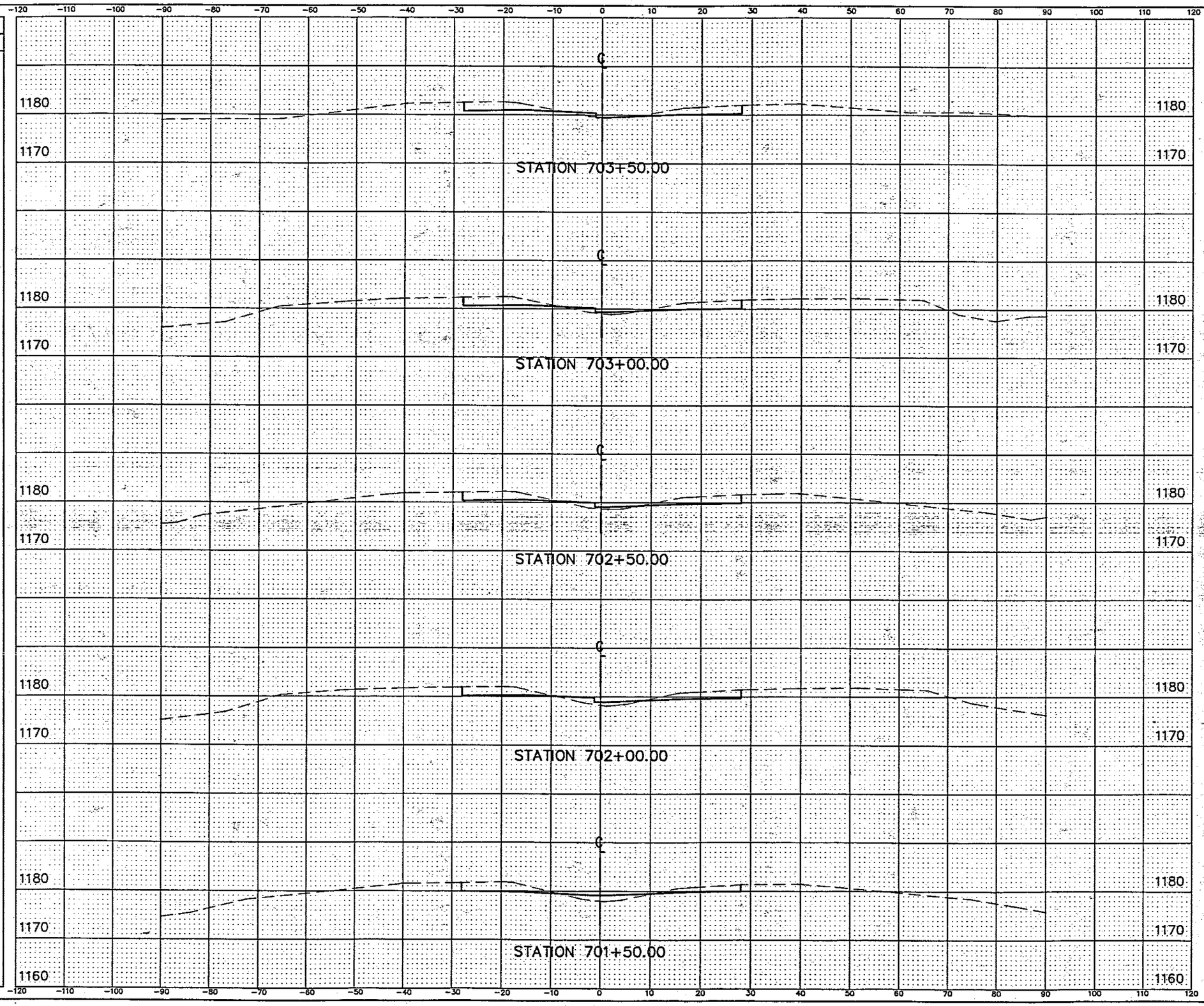
CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-9	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 159 OF 196

77960589.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
49.9	3.1		
		91	9
48.9	7.1		
		92	14
50.3	8.0		
		91	18
47.7	11.2		
		85	23
44.6	14.1		
		82	26

NO.	REVISIONS	BY	DA

OHIO TURNPIKE COMMISSION

CROSS SECTIONS
STA.701+50 TO STA.703+50

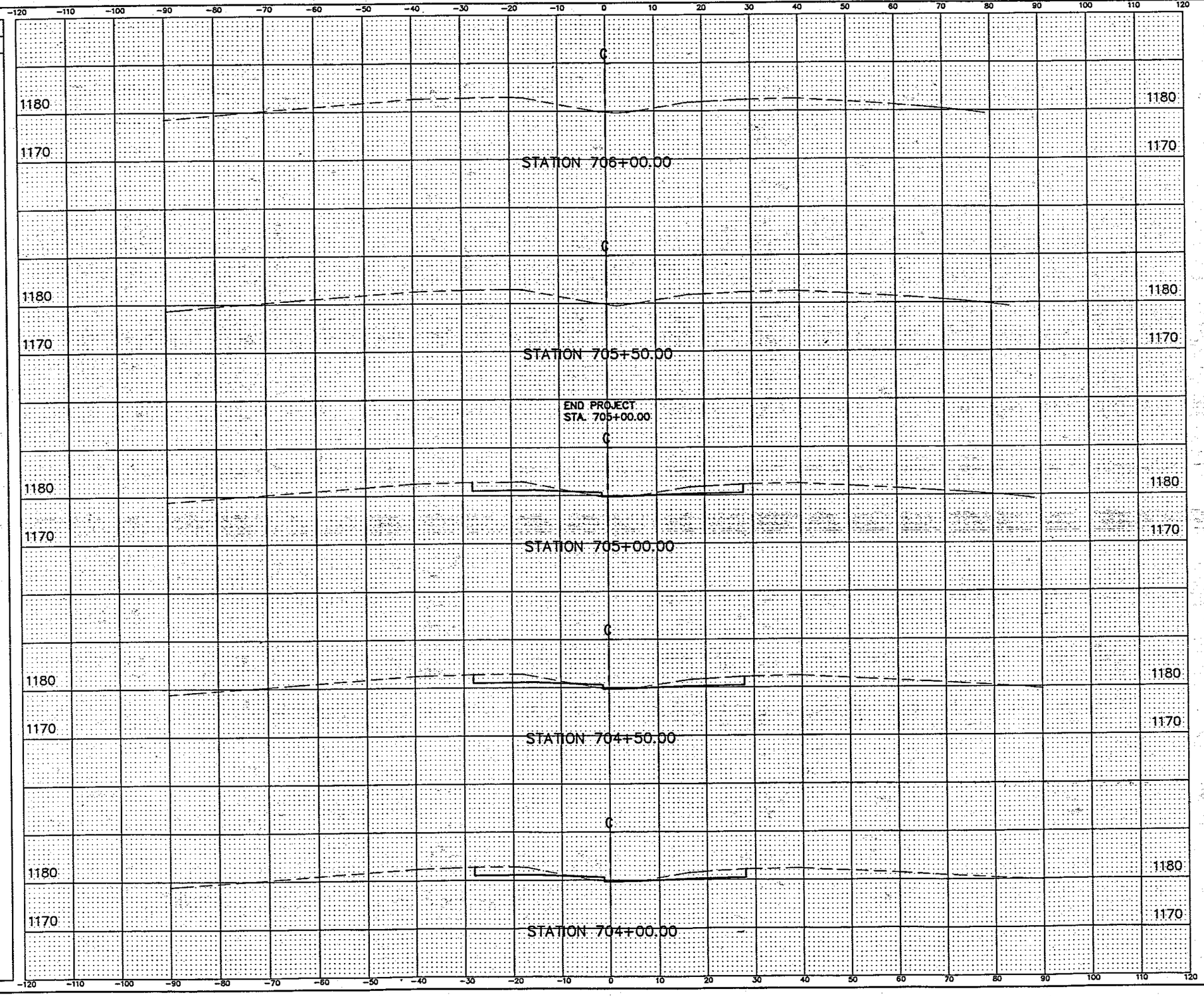
CT Consultants, Inc.
Engineers • Architects • Planners
Wooster • Medina • Columbus • North Canton • Youngstown

DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'

CONTRACT 77-96-05 SHEET 160 OF 19

77960SC0.DWG

SEEDING	
END AREA	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
51.4	2.5		
		96	4
51.8	2.1		
		94	2
50.1	0.1		
		93	3

NO.	REVISIONS	BY	DA

OHIO TURNPIKE COMMISSION

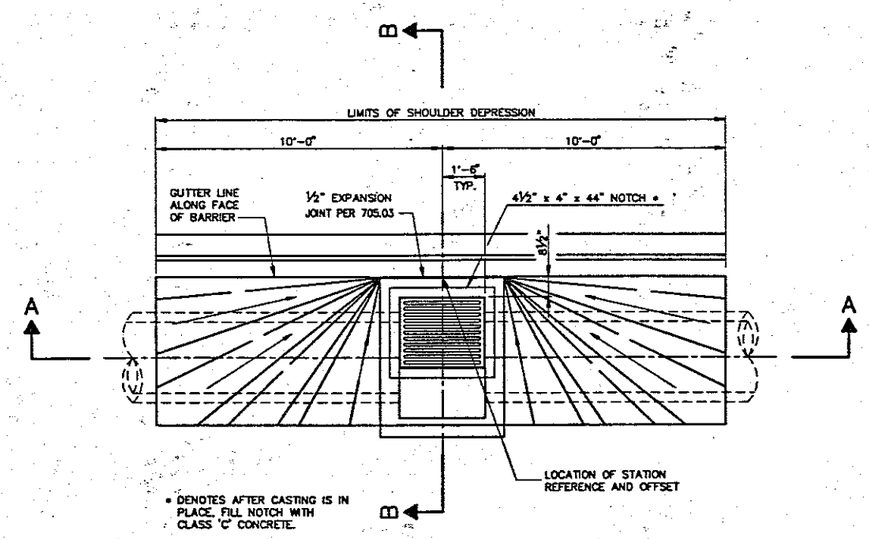
CROSS SECTIONS
STA.704+00 TO STA.706+0(

CT Consultants, Inc.
Engineers • Architects • Planners

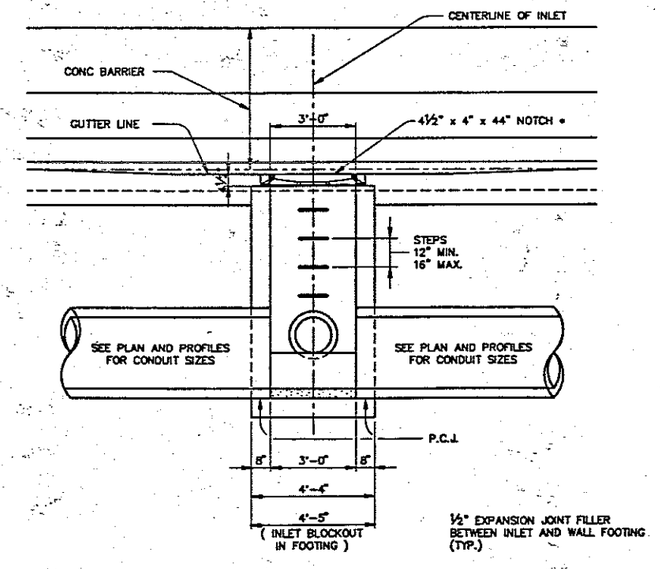
DESIGNED: WDB	CHECKED: DJW	DATE: 12-01-	
DRAWN: DCD	IN CHARGE: JEA	SCALE: 1"=10'	

CONTRACT 77-96-05 SHEET 161 OF 1

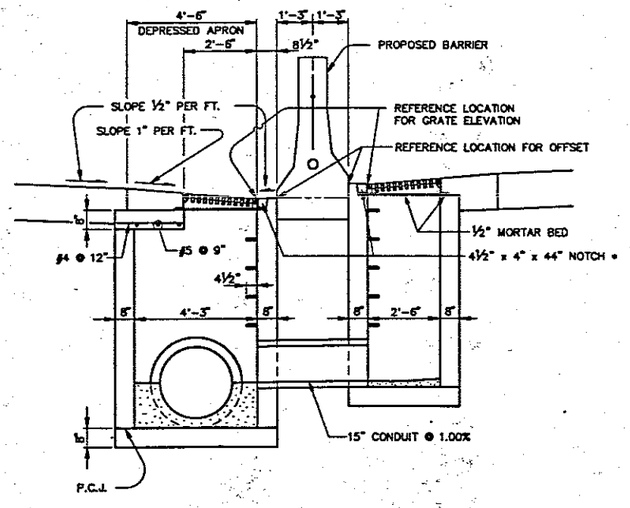
77960501.DWG



PLAN VIEW



ELEVATION A-A



SECTION B-B

NOTES :

① WALLS : THE SECTIONS BETWEEN THE BASE AND THE UPPER PERMISSIBLE CONSTRUCTION JOINT MAY BE BUILT OF PRECAST CONCRETE OR CAST-IN-PLACE CONCRETE , 8" NOMINAL THICKNESS FOR DEPTHS OF 12' OR LESS.

② THE UNIT ABOVE THE UPPER PERMISSIBLE CONSTRUCTION JOINT MAY BE PRECAST OR CAST-IN-PLACE.

③ CONCRETE FOR PRECAST OR CAST-IN-PLACE INLET CONSTRUCTION SHALL MEET THE REQUIREMENTS OF 511 CLASS C.

④ IF A SKEWED PIPE PROTRUDES MORE THAN 2" INSIDE A WALL , THE PIPE SHALL BE TRIMMED FLUSH AND FINISHED TO PROVIDE A NEAT APPEARANCE.

⑤ STEPS SHALL BE PROVIDED IN ACCORDANCE WITH O.D.O.T. STANDARD DRAWING MH-1 FOR INLETS OVER 72" IN DEPTH.

⑥ INLETS OVER 12' IN DEPTH SHALL BE BUILT OF CLASS C CONCRETE REINFORCED BY PLACING 1/2" DIA. BARS 12" CENTER TO CENTER BOTH HORIZONTALLY AND VERTICALLY WITH A 2" CLEARANCE FROM INSIDE FACE OF THE WALL.

⑦ OPENINGS FOR PIPES SHALL BE THE PIPE OUTSIDE DIAMETER PLUS 2" WHEN FIELD CUT OR PREFABRICATED.

⑧ FOR CASTING DETAILS SEE O.D.O.T. STANDARD DRAWING I-3A & B.

⑨ P.C.J. DENOTES PERMISSIBLE CONSTRUCTION JOINT.

LOCATIONS OF INLET NO. 3B50, AS PER PLAN, No. I WITH 4'-3" WIDTH

STA. 653+00.00, 1.25' LT.
STA. 655+50.00, 1.25' LT.
STA. 658+00.00, 1.25' LT.
STA. 660+50.00, 1.25' LT.
STA. 663+00.00, 1.25' LT.
STA. 665+50.00, 1.25' LT.
STA. 668+00.00, 1.25' LT.

LOCATIONS OF INLET NO. 3B50, AS PER PLAN, No. I WITH 2'-6" WIDTH

STA. 653+00.00, 1.25' RT.
STA. 663+00.00, 1.25' RT.
STA. 700+00.00, 1.25' LT.
STA. 700+00.00, 1.25' RT.

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

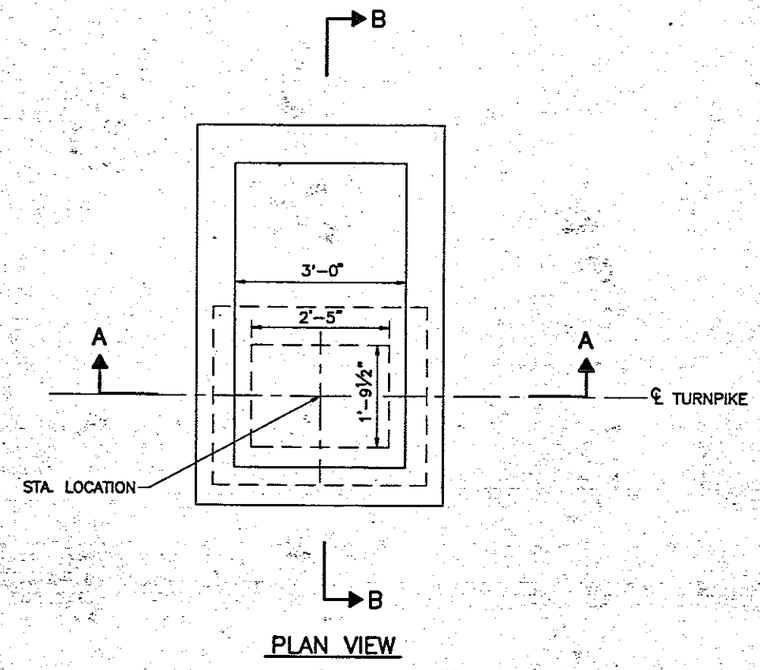
INLET NO. 3B50, AS PER PLAN, No. I

CT Consultants, Inc.
Engineers • Architects • Planners

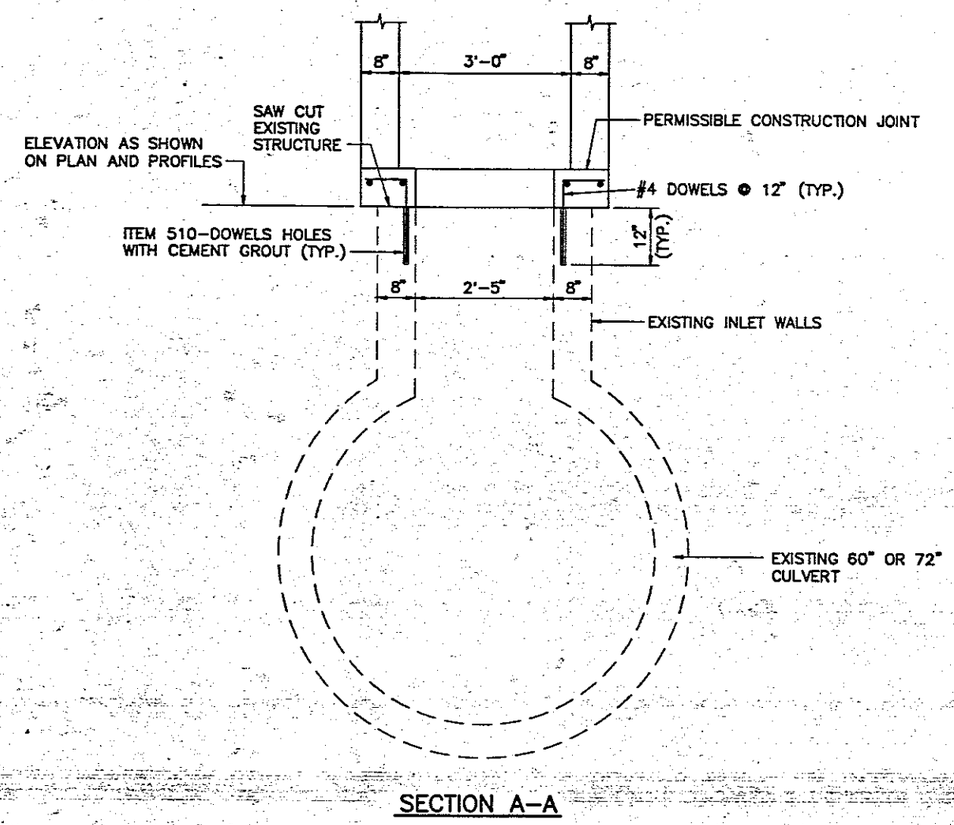
DESIGNED: W.D.B.	CHECKED: D.J.W.	DATE: 12-01-9	
DRAWN: R.L.B.	IN CHARGE: J.E.A.	SCALE: 3/8"=1'-0	

CONTRACT 77-96-05 SHEET 162 OF 196

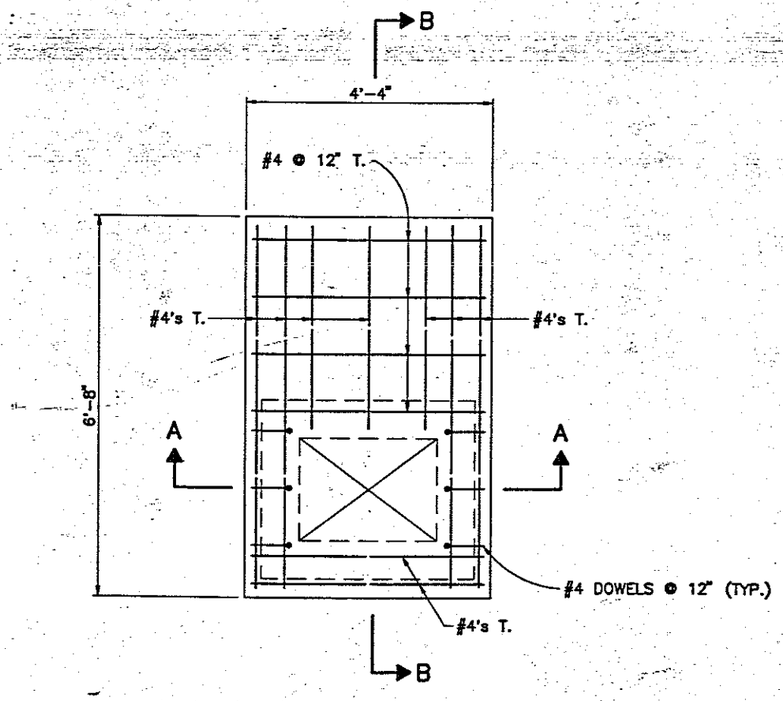
7195172E9.DWG



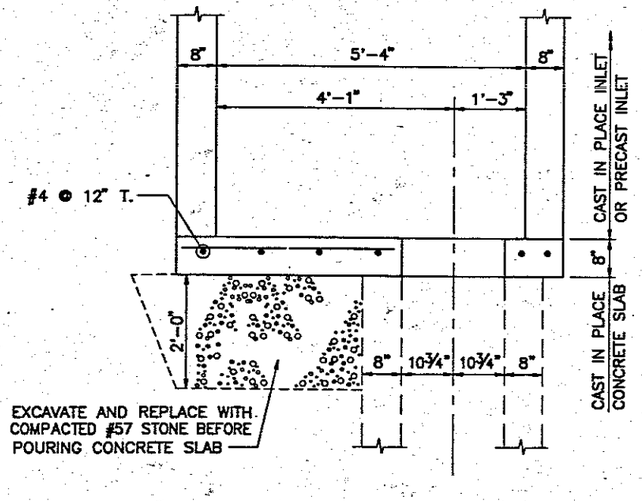
PLAN VIEW



SECTION A–A



BOTTOM SLAB PLAN



SECTION B–B

NOTES:

REMOVE EXISTING GRATE AND SAW CUT EXISTING STRUCTURE AT ELEVATION SHOWN. DOWEL HOLES SHALL BE AS PER ITEM 510. COST TO REMOVE THE PORTION OF THE EXISTING STRUCTURE AND THE DOWEL HOLES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 604 – I–3B50, AS PER PLAN, No. 2.

FOR ADDITIONAL DETAILS SEE STANDARD CONSTRUCTION DRAWING I–3A & B (BARRIER MEDIAN INLETS).

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

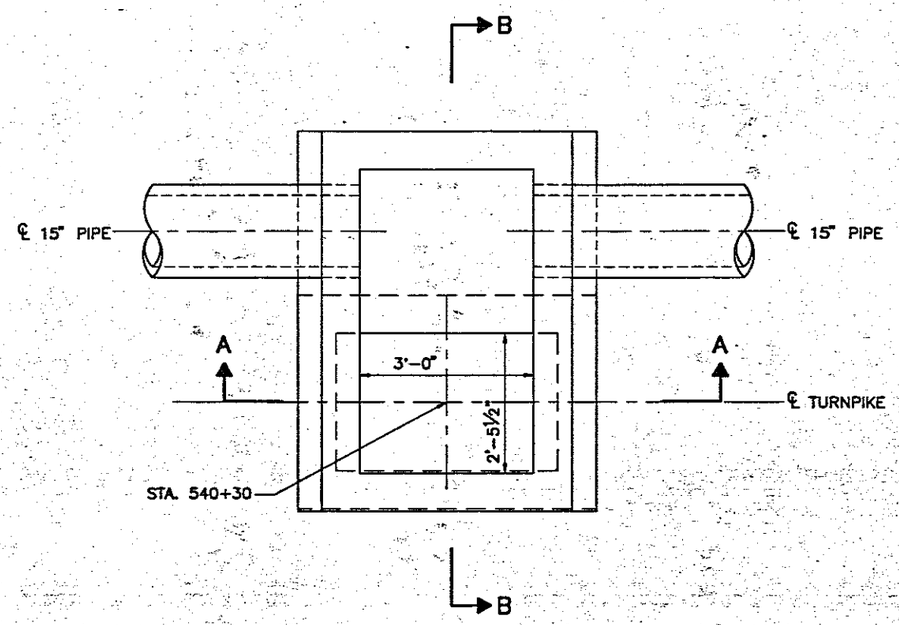
I–3B50, AS PER PLAN, No. 2
STA. 430+00, 587+50 & 630+97

CT Consultants, Inc.
Engineers • Architects • Planners
Willoughby • Akron • Columbus • North Canton • Youngstown

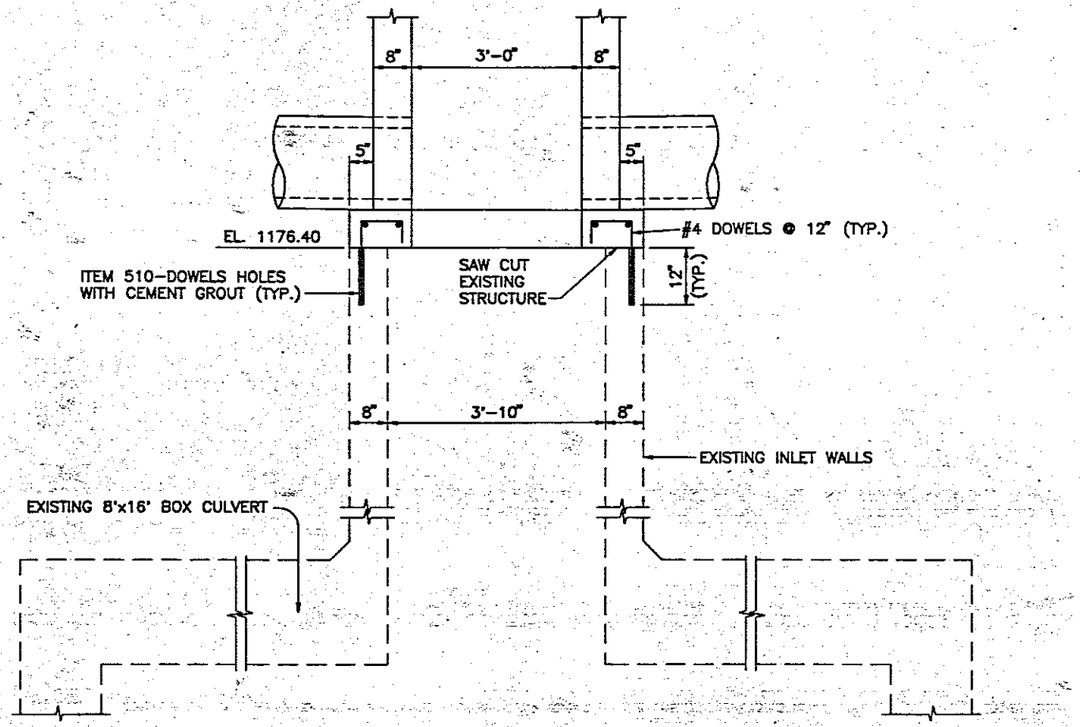
DESIGNED: W.D.B.	CHECKED: D.J.W.	DATE: 12–01–95	
DRAWN: R.L.B.	IN CHARGE: J.E.A.	SCALE: 3/4"=1'–0"	

CONTRACT 77–96–05 SHEET 163 OF 196

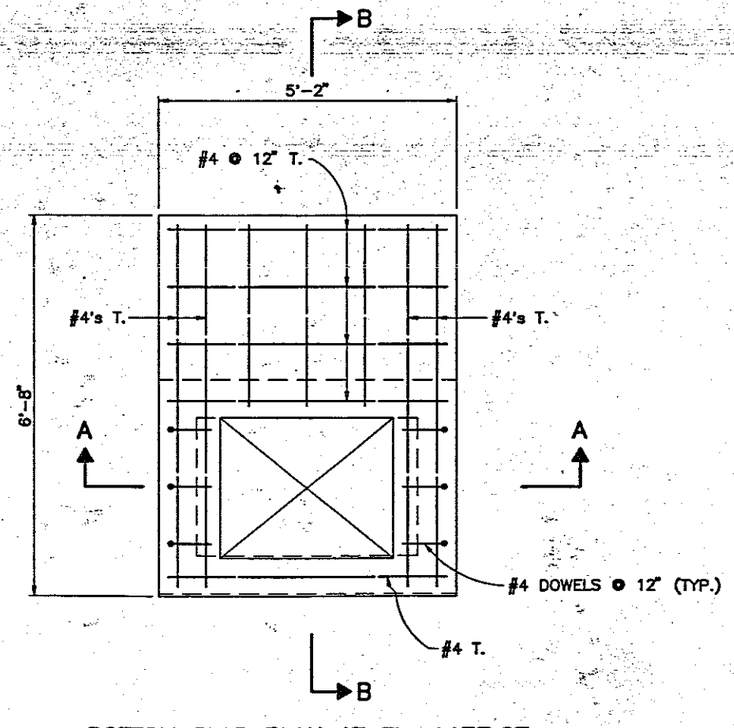
719517F0.DWG



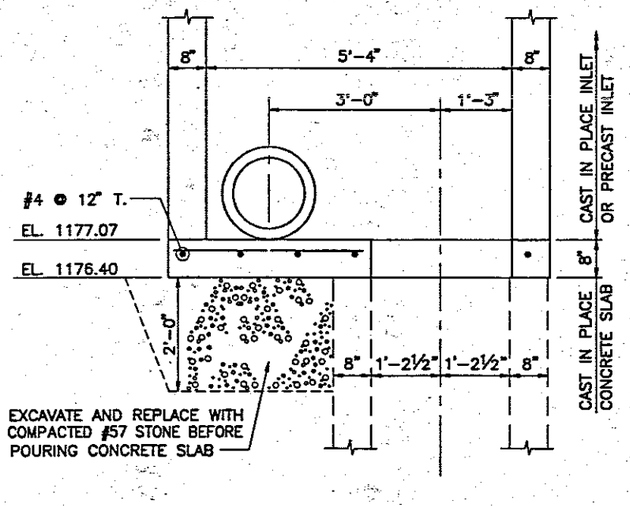
PLAN VIEW



SECTION A-A



BOTTOM SLAB PLAN AT EL. 1177.07



SECTION B-B

NOTES:

REMOVE EXISTING GRATE AND SAW CUT EXISTING STRUCTURE AT ELEVATION SHOWN. DOWEL HOLES SHALL BE AS PER ITEM 510. COST TO REMOVE THE PORTION OF THE EXISTING STRUCTURE AND THE DOWEL HOLES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 604 – I-3B50, AS PER PLAN, No.3

FOR ADDITIONAL DETAILS SEE STANDARD CONSTRUCTION DRAWING I-3A & B (BARRIER MEDIAN INLETS).

NO.	REVISIONS	BY	DA

OHIO TURNPIKE COMMISSION

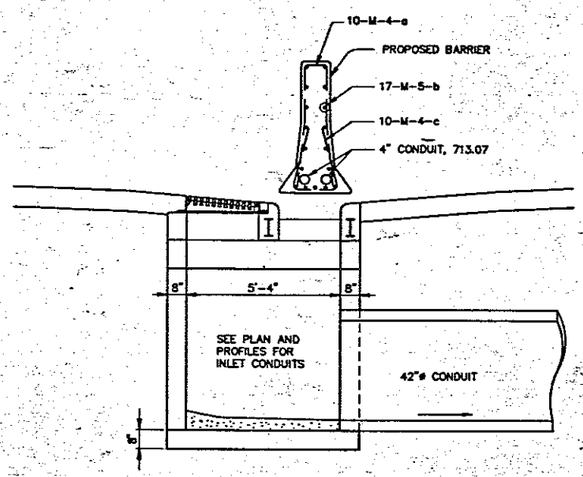
I-3B50, AS PER PLAN, No.3
STA. 540+30

CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED:	W.D.B.	CHECKED:	D.J.W.	DATE:	12-01-
DRAWN:	R.L.B.	IN CHARGE:	J.E.A.	SCALE:	3/8"=1'-0

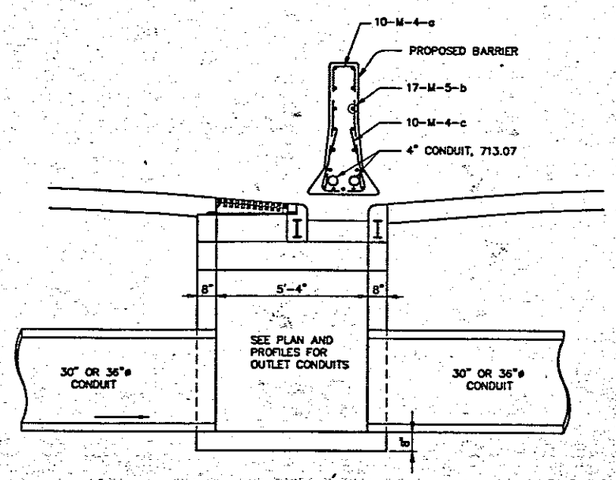
CONTRACT 77-96-05 SHEET 164 OF 19

7195171.DWG



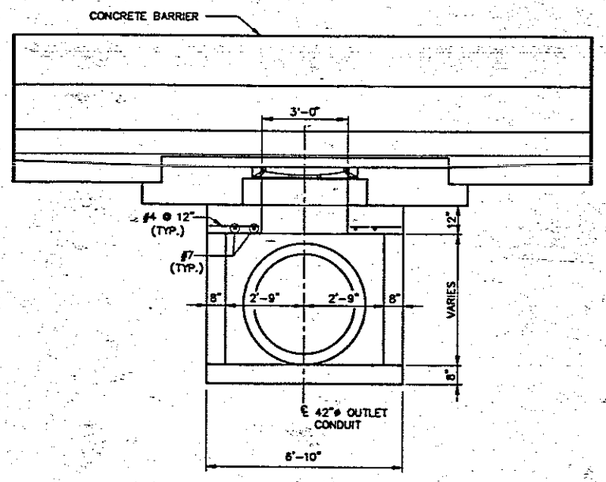
SECTION C-C

FOR INLET AT STA. 677+93.00



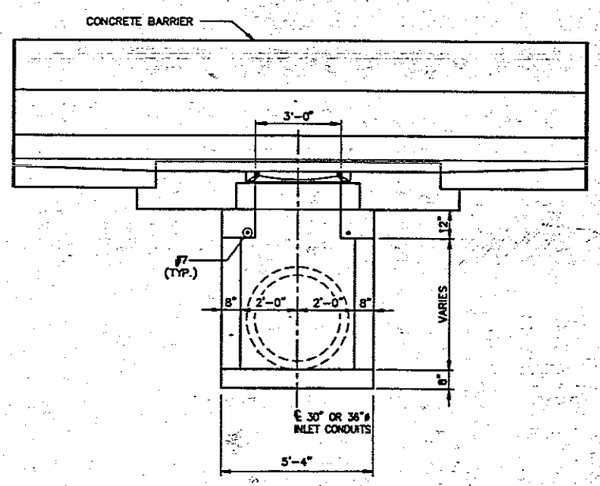
SECTION C-C

FOR INLETS AT STA. 592+03.50, AND 604+65.00



ELEVATION A-A

FOR INLET AT STA. 677+93.00



ELEVATION A-A

FOR INLETS AT STA. 592+03.50, AND 604+65.00

NOTE: FOR ADDITIONAL DETAILS SEE STANDARD CONSTRUCTION DRAWING I-3A & B (BARRIER MEDIAN INLETS)

NO.	REVISIONS	BY	DAT

OHIO TURNPIKE COMMISSION

INLET NO. 3B50, AS PER PLAN, No. 4

CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: W.D.B.	CHECKED: D.J.W.	DATE: 12-01-9	
DRAWN: R.L.B.	IN CHARGE: J.E.A.	SCALE: 3/8"=1'-0	

CONTRACT 77-96-05 SHEET 165 OF 19

719517F2.DWG

ITEM SPECIAL – FIELD PAVING CORRUGATED METAL PIPES

A. DESCRIPTION

THIS ITEM SHALL CONSIST OF FURNISHING THE NECESSARY LABOR, MATERIALS AND EQUIPMENT TO FIELD PAVE CORRUGATED METAL PIPES WITH BITUMINOUS COATING. CULVERT PIPE REQUIRING FIELD PAVING ARE: 72" CMP AT MILEPOST 193.86; 84" CMP AT MILEPOST 196.2; 72" CMP AT MILEPOST 197.62.

B. SURFACE PREPARATION

THE INTERIOR SURFACE OF THE CORRUGATED METAL PIPES TO BE FIELD PAVED SHALL BE ABRASIVE BLAST CLEANED PER SSPC–SP6 COMMERCIAL BLAST.

C. FIELD PAVING WITH BITUMINOUS COATING

THE BITUMINOUS MATERIAL FOR COATING SHALL MEET THE REQUIREMENTS OF AASHTO M–190. THE BITUMINOUS MATERIAL SHALL BE APPLIED IN SUCH A MANNER THAT A SMOOTH PAVEMENT WILL BE FORMED ON THE PIPE SIDES, FILLING THE CORRUGATIONS BETWEEN THE SILT LINE AND THE EXISTING BITUMINOUS COATING AT THE MID–HEIGHT OF THE CULVERT SECTION. THE PAVEMENT SHALL HAVE A MINIMUM THICKNESS OF 1/8 INCH ABOVE THE CREST OF THE CORRUGATIONS.

D. MEASUREMENT AND PAYMENT

FIELD PAVING CORRUGATED METAL PIPES WILL BE MEASURED IN PLACE BY AREA IN SQUARE FEET AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE BID FOR:

ITEM	UNIT	DESCRIPTION
SPECIAL	S.F.	FIELD PAVING CORRUGATED METAL PIPES

ITEM SPECIAL – BITUMINOUS COATING CORRUGATED METAL PIPES (SPOT REPAIRS)

A. DESCRIPTION

THIS ITEM SHALL CONSIST OF FURNISHING THE NECESSARY LABOR, MATERIALS AND EQUIPMENT TO REPAIR ISOLATED AREAS OF THE CORRUGATED METAL PIPES WHERE THE EXISTING BITUMINOUS COATING HAS FAILED. CULVERT PIPES REQUIRING SUCH SPOT REPAIRS ARE: 72" CMP AT MILEPOST 193.86; 84" CMP AT MILEPOST 196.2; 72" CMP AT MILEPOST 197.62.

B. SURFACE PREPARATION

THE AREAS NEEDING REPAIR ON THE INTERIOR SURFACES OF THE CORRUGATED METAL PIPE SECTIONS SHALL BE ABRASIVE BLAST CLEANED PER SSPC – SP6 COMMERCIAL BLAST. THE CONTRACTOR SHALL EXERCISE CARE DURING THE BLASTING OPERATION NOT TO DAMAGE ADJACENT BITUMINOUS COATING THAT IS IN SATISFACTORY CONDITION.

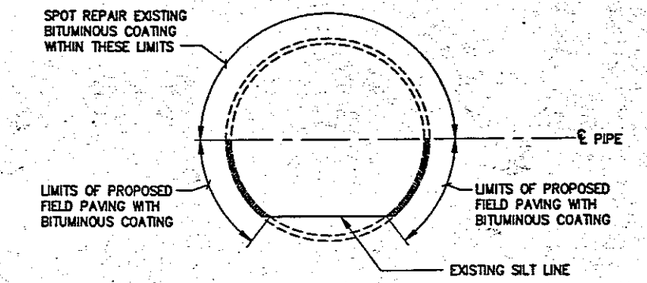
C. BITUMINOUS COATING

THE BITUMINOUS MATERIAL FOR COATING SHALL MEET THE REQUIREMENTS OF AASHTO M–190. PIPE SURFACE AREAS THAT WERE BLAST CLEANED SHALL BE UNIFORMLY COATED, TO A MINIMUM THICKNESS OF 1/16 INCH.

D. MEASUREMENT AND PAYMENT

BITUMINOUS COATING CORRUGATED METAL PIPES (SPOT REPAIRS) WILL BE MEASURED IN PLACE BY AREA IN SQUARE FEET AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE BID FOR:

ITEM	UNIT	DESCRIPTION
SPECIAL	S.F.	BITUMINOUS COATING CORRUGATED METAL



FIELD PAVING CORRUGATED METAL PIPES

BITUMINOUS COATING CORRUGATED METAL PIPES (SPOT REPAIR)

ITEM SPECIAL – SEALING REINFORCED CONCRETE PIPE JOINTS

A. DESCRIPTION

THIS ITEM SHALL CONSIST OF FURNISHING THE NECESSARY LABOR, MATERIALS AND EQUIPMENT TO SEAL JOINTS BETWEEN REINFORCED CONCRETE PIPE SECTIONS WITH BITUMINOUS PIPE JOINT FILLER. CULVERT PIPE REQUIRING JOINT SEALING ARE: 72" RCP AT MILEPOST 193.45; 60" RCP AT MILEPOST 196.79; 30" RCP AT MILEPOST 196.88; 36" RCP AT MILEPOST 197.12.

B. SURFACE PREPARATION

THE CONTRACTOR SHALL IDENTIFY LOOSE MORTAR BETWEEN PIPE JOINTS AND REMOVE PRIOR TO SEALING THE JOINTS. ONLY PNEUMATIC OR HAND TOOLS SHALL BE USED IN THE REMOVAL OF LOOSE MORTAR.

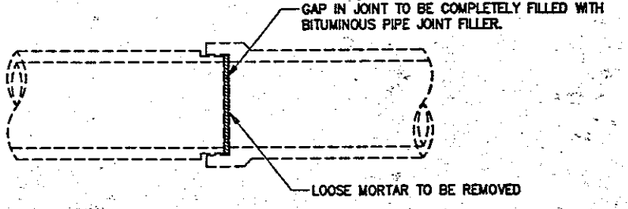
C. SEALING OF PIPE JOINTS

GAPS IN PIPE JOINTS SHALL BE SEALED WITH BITUMINOUS PIPE JOINT FILLER MEETING THE REQUIREMENTS OF 706.10. PIPE JOINT FILLER SHALL BE APPLIED FROM THE INSIDE OF THE PIPE IN SUFFICIENT QUANTITY TO COMPLETELY FILL THE JOINT.

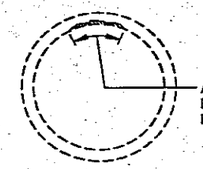
D. MEASUREMENT AND PAYMENT

SEALING REINFORCED CONCRETE PIPE JOINTS WILL BE MEASURED IN PLACE BY LENGTH IN LINEAR FEET AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE BID FOR:

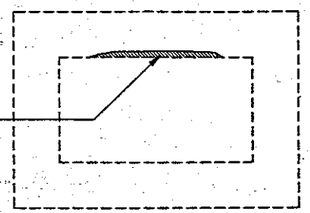
ITEM	UNIT	DESCRIPTION
SPECIAL	L.F.	SEALING REINFORCED CONCRETE PIPE JOINTS



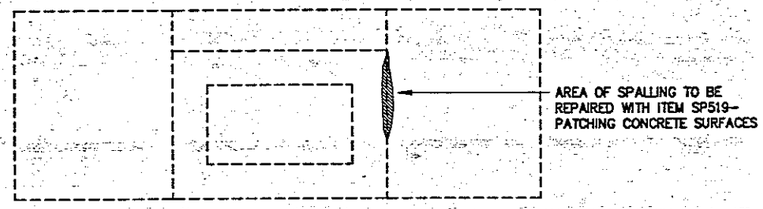
SEALING REINFORCED CONCRETE PIPE JOINTS
(INSIDE SURFACE OF PIPES SHOWN)



RCP PIPE REPAIR



BOX CULVERT REPAIR



HEADWALL OR WINGWALL REPAIR

ITEM SP519 – PATCHING CONCRETE SURFACES

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION

CULVERT REPAIR DETAILS

CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: JPR	CHECKED: DJW	DATE: 12-18-9	
DRAWN: RLB	IN CHARGE: JEA	SCALE:	

CONTRACT 77–96–05 SHEET 166 OF 196

779605H3.DWG

PROPOSED CULVERT REHABILITATION WORK:

PROPOSED REPAIRS ON 72" RCP CULVERT AT MILEPOST 193.45:

1. REPAIR A SPALL ON THE INSIDE SURFACE OF THE PIPE AT THE TOP USING ITEM SP519 – PATCHING CONCRETE STRUCTURES. (ESTIMATED QUANTITY 2 S.F.)
2. REMOVE LOOSE MORTAR IN THE JOINT BETWEEN THE FIRST TWO PIPES AT THE NORTH END AND SEAL JOINT WITH BITUMINOUS PIPE JOINT FILLER USING ITEM SPECIAL – SEALING REINFORCED CONCRETE PIPE JOINTS. (ESTIMATED QUANTITY 19 L.F.)

PROPOSED REPAIRS ON 72" CMP CULVERT AT MILEPOST 193.86:

1. FIELD PAVE THE PIPE BETWEEN CATCH BASINS WITH BITUMINOUS MATERIAL USING ITEM SPECIAL – FIELD PAVING CORRUGATED METAL PIPES. THE LIMITS OF THE PAVING ARE FROM THE SILT LINE TO THE EDGE OF THE EXISTING COATING AT ABOUT THE MID–HEIGHT OF THE PIPE. (ESTIMATED QUANTITY 1,750 S.F.)
2. SPOT REPAIR THE DAMAGED BITUMINOUS COATING AT THE UPPER HALF OF THE PIPE BETWEEN CATCH BASINS USING ITEM SPECIAL – BITUMINOUS COATING CORRUGATED METAL PIPES (SPOT REPAIRS). (ESTIMATED QUANTITY 450 S.F.)
3. REPAIR THE ERODED AREA ON THE EAST EMBANKMENT BY THE SOUTH HEADWALL USING ITEM 659 – REPAIR SEEDING AND MULCHING. (ESTIMATED QUANTITY 125 S.Y.)

PROPOSED REPAIRS ON 72" RCP CULVERT AT MILEPOST 195.95:

PROPOSED REPAIRS ON 8' X 16' C.I.P. CONCRETE BOX CULVERT AT MILEPOST 195.95:

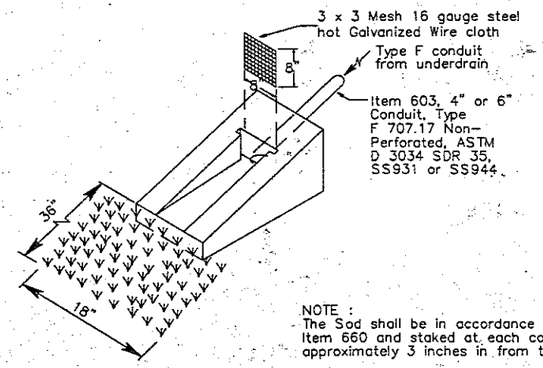
1. REPAIR THE DELAMINATED AND SPALLED CONCRETE AREAS ON THE BOTTOM SURFACE OF THE TOP SLAB USING ITEM SP519 – PATCHING CONCRETE STRUCTURES. (ESTIMATED QUANTITY 25 S.F.)
2. REPAIR THE SPALLED CONCRETE AREAS ALONG THE VERTICAL CONSTRUCTION JOINTS OF THE WINGWALLS USING ITEM SP519. (ESTIMATED QUANTITY 5 S.F.)

PROPOSED REPAIRS ON 84" CMP PIPE CULVERT AT MILEPOST 196.20:

1. FIELD PAVE THE PIPE WITH BITUMINOUS MATERIAL USING ITEM SPECIAL – FIELD PAVING CORRUGATED METAL PIPES. THE LIMITS OF THE PAVING ARE FROM THE SILT LINE TO THE EDGE OF THE EXISTING COATING AT ABOUT THE MID–HEIGHT OF THE PIPE. (ESTIMATED QUANTITY 1,500 S.F.)
2. SPOT REPAIR THE DAMAGED BITUMINOUS COATING AT THE UPPER HALF OF THE PIPE USING ITEM SPECIAL – BITUMINOUS COATING CORRUGATED METAL PIPES (SPOT REPAIRS). (ESTIMATED QUANTITY 250 S.F.)
3. PATCH THE SPALLED CONCRETE ABOVE THE CULVERT PIPE ON THE NORTH HEADWALL USING ITEM SP519 – PATCHING CONCRETE STRUCTURES. (ESTIMATED QUANTITY 2 S.F.)

PROPOSED REPAIRS ON 60" RCP CULVERT AT MILEPOST 196.79:

1. REMOVE LOOSE MORTAR IN PIPE JOINTS AND SEAL JOINTS WITH BITUMINOUS PIPE JOINT FILLER USING ITEM SPECIAL – SEALING REINFORCED CONCRETE PIPE JOINTS. (ESTIMATED QUANTITY 425 L.F.)
2. REPAIR A CONCRETE SPALL ON THE SOUTH HEADWALL USING ITEM SP519 – PATCHING CONCRETE STRUCTURES. (ESTIMATED QUANTITY 3 S.F.)
3. REPAIR TWO TWELVE–INCH LONG SPALLS ON THE INSIDE SURFACE OF THE PIPE AT ITS TOP USING ITEM SP519. (ESTIMATED QUANTITY 2 S.F.)



NOTE :
The Sod shall be in accordance with Item 660 and staked at each corner approximately 3 inches in from the edge.

PROPOSED REPAIRS ON 30" RCP CULVERT AT MILEPOST 196.88:

1. FOR CULVERT PORTION NORTH OF THE MEDIAN INLET STRUCTURE, REMOVE LOOSE MORTAR IN THE PIPE JOINTS AND SEAL JOINTS WITH BITUMINOUS PIPE JOINT FILLER USING ITEM SPECIAL – SEALING REINFORCED CONCRETE PIPE JOINTS. (ESTIMATED QUANTITY 118 L.F.)

PROPOSED REPAIRS ON 36" RCP CULVERT AT MILEPOST 197.12:

1. FOR CULVERT PORTION NORTH OF THE MEDIAN INLET STRUCTURE, REMOVE LOOSE MORTAR IN THE PIPE JOINTS AND SEAL JOINTS WITH BITUMINOUS PIPE JOINT FILLER USING ITEM SPECIAL – SEALING REINFORCED CONCRETE PIPE JOINTS. (ESTIMATED QUANTITY 170 L.F.)

PROPOSED REPAIRS ON 72" CMP CULVERT AT MILEPOST 197.62:

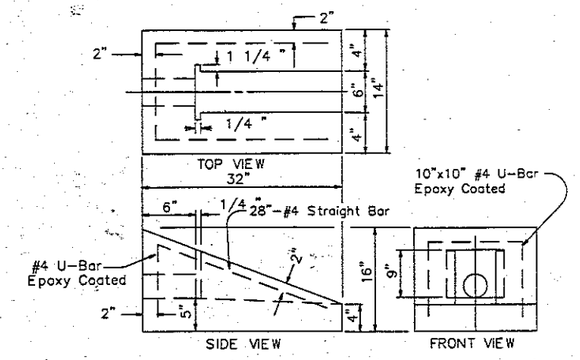
1. AT THE SOUTH END OF THE CULVERT (APPROXIMATELY 50 FEET), FIELD PAVE THE PIPE BETWEEN THE SILT LINE AND MID–HEIGHT OF THE SECTION WITH BITUMINOUS MATERIAL. FIELD PAVE THE REMAINING LENGTH OF PIPE BETWEEN THE EXISTING BITUMINOUS PAVING AT THE BOTTOM QUARTER AND THE EXISTING BITUMINOUS COATING AT ABOUT THE MID–HEIGHT OF THE SECTION. USE ITEM SPECIAL – FIELD PAVING CORRUGATED METAL PIPE FOR BOTH REPAIRS. (ESTIMATED QUANTITY 750 S.F.)
2. SPOT REPAIR THE DAMAGED BITUMINOUS COATING AT THE UPPER HALF OF THE PIPE USING ITEM SPECIAL – BITUMINOUS COATING CORRUGATED METAL PIPES (SPOT REPAIRS). (ESTIMATED QUANTITY 425 S.F.)
3. REPAIR TIRE RUTS IN THE NORTH EMBANKMENT USING ITEM 659 – REPAIR SEEDING AND MULCHING. (ESTIMATED QUANTITY 25 S.Y.)

PROPOSED REPAIRS ON 10' X 7' C.I.P. CONCRETE BOX CULVERT AT MILEPOST 198.62:

1. REPAIR A CONCRETE SPALL ON THE EAST SIDE OF THE SOUTH HEADWALL USING ITEM SP519 – PATCHING CONCRETE STRUCTURES. (ESTIMATED QUANTITY 2 S.F.)
2. REPAIR THE TIRE RUTS IN THE NORTH EMBANKMENT USING ITEM 659 – REPAIR SEEDING AND MULCHING. (ESTIMATED QUANTITY 25 S.Y.)
3. REMOVE AND REPLACE THE FENCE AROUND BOTH HEADWALLS USING ITEM 202 – FENCE REMOVED AND ITEM 607 – FENCE, TYPE 47. (ESTIMATED QUANTITY 120 L.F.)

ITEM SPECIAL – PRECAST REINFORCED CONCRETE OUTLET

The Concrete outlet shall meet the requirements of Item 604 in the Construction & Materials Specifications. Payment shall be made on an Each basis. Payment shall include the cost of the Sod & Wire Cloth.



CULVERT LOCATIONS	202 FENCE REMOVED LIN.FT.	607 FENCE, TYPE 47, AS PER PLAN LIN.FT.	SPECIAL SEALING REINFORCED CONCRETE PIPE JOINTS LIN.FT.	SPECIAL FIELD PAVING CORRUGATED METAL PIPES SQ.FT.	SPECIAL BITUMINOUS COATING CORRUGATED METAL PIPES (SPOT REPAIRS) SQ.FT.	659 REPAIR SEEDING AND MULCHING SQ.YD.	SP519 PATCHING CONCRETE STRUCTURES SQ.FT.
MP 193.45			19				2
MP 193.86				1,750	450	125	
MP 195.95							30
MP 196.20				1,500	250		2
MP 196.79			425				5
MP 196.88			118				
MP 197.12			170				
MP 197.62				750	425	25	
MP 198.62	120	120				25	2
TOTALS	132	132	805	4,400	1,238	193	46

ESTIMATED QUANTITIES ARE CARRIED TO THE GENERAL SUMMARY SHEETS 31–34. TOTALS INCLUDE A 10% CONTINGENCY QUANTITY TO BE USED AS DIRECTED BY THE ENGINEER.

NO.	REVISIONS	BY	DA

OHIO TURNPIKE COMMISSION

CULVERT REPAIR DETAILS

CT Consultants, Inc.
Engineers • Architects • Planners

DESIGNED: JPR	CHECKED: DJW	DATE: 12–18–
DRAWN: RLB	IN CHARGE: JEA	SCALE:

CONTRACT 77–96–05 SHEET 167 OF 19

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