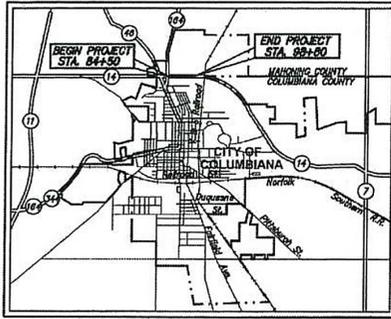


STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

COL SR14-9.02
CITY OF COLUMBIANA
COLUMBIANA COUNTY
MAHONING COUNTY



LOCATION MAP

SCALE IN MILES



LATITUDE: N 40°54'00" LONGITUDE: W 80°41'36"

PORTION TO BE IMPROVED _____
STATE & FEDERAL ROUTES _____
OTHER ROADS _____

DESIGN DESIGNATION S.R. 14
CURRENT ADT (2024) _____ 8828
DESIGN YEAR ADT (2044) _____ 9289
DESIGN HOURLY VOLUME (2044) _____ 756
DIRECTIONAL DISTRIBUTION _____ 50%
TRUCKS (24 HOUR B&C) _____ 10%
DESIGN SPEED _____ 35 MPH
LEGAL SPEED _____ 35 MPH

DESIGN FUNCTIONAL CLASSIFICATION - URBAN MAJOR COLLECTOR

DESIGN EXCEPTION: NONE

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig

OHIO 811, 8-1-1, or 1-800-362-2764
(Non-members must be called directly)

PLAN PREPARED BY:
HOWELLS & BAIRD, INC.
Consulting Engineers
1156 East State Street
Salem, Ohio 44460

JOHN D. VOLLNOGLE, P.E. #55991
P.S. #7308



INDEX OF SHEETS:

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PROJECT DESCRIPTION

- THIS PROJECT CONSISTS OF IMPROVEMENTS AS FOLLOWS:
- 1) WIDENING 0.23 MILES OF S.R. 14 TO INSTALL A CENTER TWO-WAY LEFT TURN LANE THROUGH THE INTERSECTION OF WINDJAMMER DRIVE.
 - 2) ADDING SIDEWALKS ALONG BOTH SIDES OF S.R. 14 IN THE WIDENING SECTION.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: 0.20 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.10 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: N/A (NOI NOT REQUIRED)

2023 SPECIFICATIONS

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

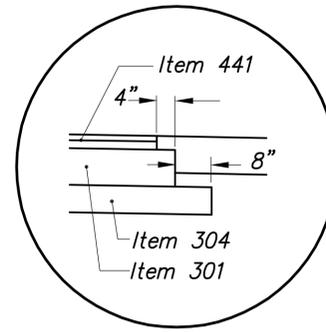
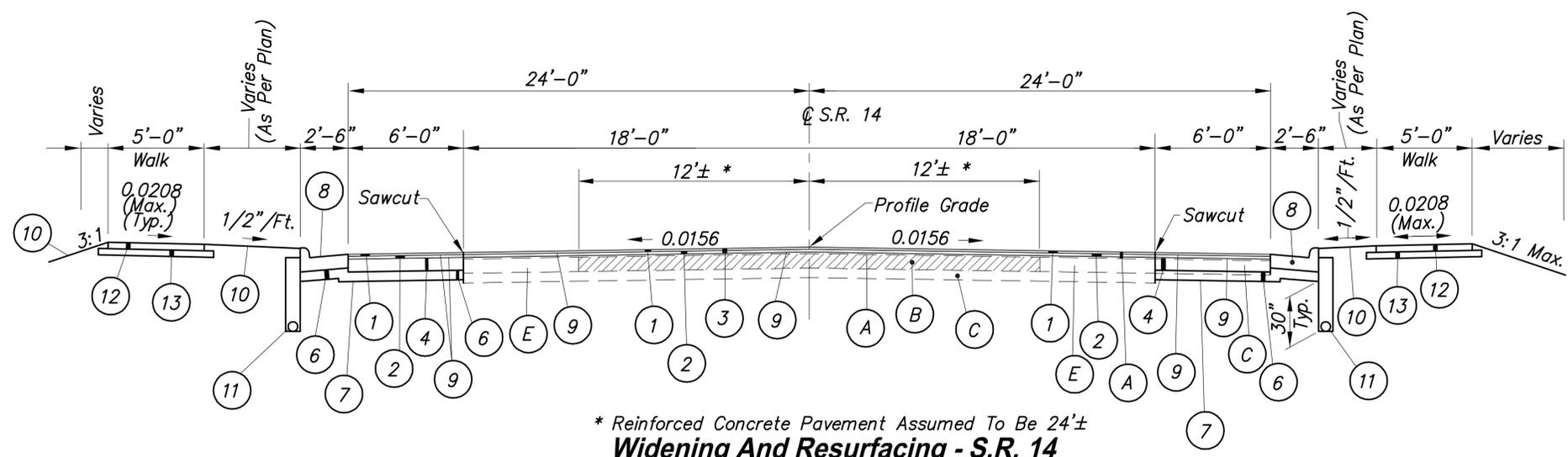
I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING OF S.R. 14 TO TRAFFIC.

APPROVED:
MANAGER, CITY OF COLUMBIANA DATE 1/23/2026

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS
DRAWING NO.	DATE	DRAWING NO.	DATE	DRAWING NO.	DATE	
BP-3.1	1/19/24	MH-3	7/19/24	TC-42.20	10/18/13	800-2023 7/18/25
BP-4.1	7/19/13			TC-52.10	10/18/13	832 7/18/25
BP-5.1	7/18/25	MT-95.31	7/18/25	TC-52.20	1/15/21	902 7/19/19
BP-7.1	7/18/25	MT-95.40	7/18/25			
		MT-95.45	7/21/23	TC-41.20	10/18/13	
CB-2-2A, 2B, 2C	7/19/24	MT-95.50	7/21/17	TC-71.10	7/18/25	
CB-3A	7/19/24	MT-97.10	7/18/25	TC-74.10	7/21/23	
DM-1.1	1/17/25	MT-97.12	7/18/25			
DM-1.2	1/17/25	MT-99.20	4/19/19			
DM-4.3	1/15/16	MT-101.60	1/17/25			
DM-4.4	1/15/16	MT-101.90	7/17/20			
		MT-102.20	4/19/19			
HW-2.1	7/15/22	MT-105.10	1/17/20			
		MT-110.10	7/19/13			

NOTE: STANDARD DRAWINGS HAVE BEEN REFERENCED IN ENGLISH UNITS

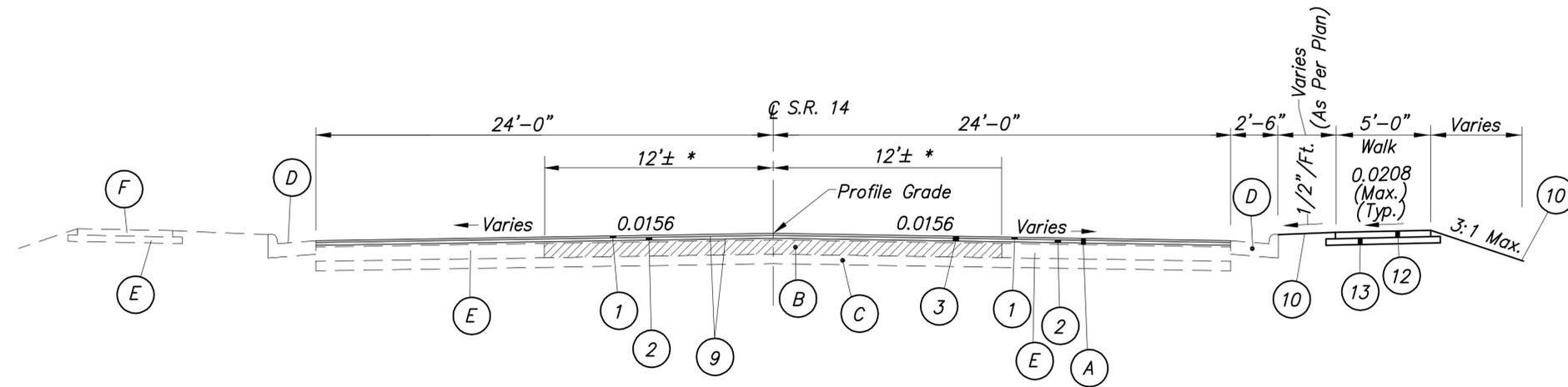
FEDERAL PROJECT NO. E241039
FD NO. 121969
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT NONE
COL-SR14-9.02
1/47



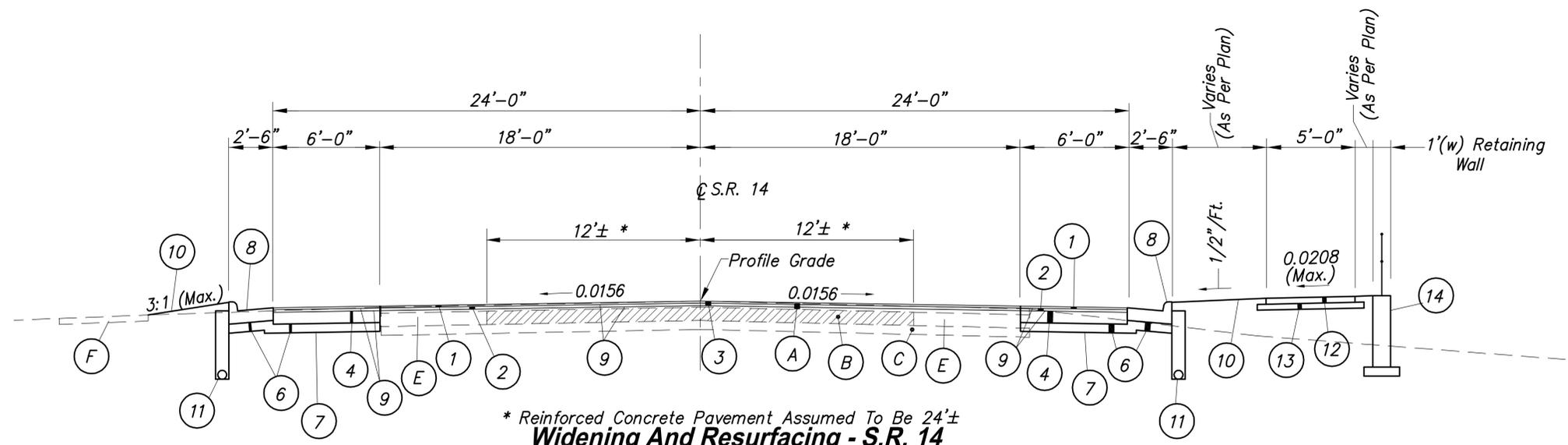
Typical Step Detail

* Reinforced Concrete Pavement Assumed To Be 24'±
Widening And Resurfacing - S.R. 14
Limiting Stations
Sta. 86+20.15 To Sta. 87+75
Sta. 88+90 To Sta. 89+00

- | | | |
|--|---|---|
| ① 441 1 1/4" Asphalt Concrete, Surface Course Type 1, (449) PG70-22M | ⑨ 407 Tack Coat, Applied At A Rate Of 0.04 Gal./Sq. Yd. | Ⓐ 4"± Existing Asphalt Surface |
| ② 441 1 3/4" Asphalt Concrete, Intermediate Course Type 2, (449) | ⑩ 659 Seeding & Mulching | Ⓑ 9"± Existing Reinforced Concrete Pavement |
| ③ 254 Pavement Planing, Asphalt Concrete (T = 3") | ⑪ 605 6" Shallow Pipe Underdrains | Ⓒ 6"± Existing Aggregate Base |
| ④ 301 8" Asphalt Concrete Base, PG64-22 (449) | ⑫ 608 4" Concrete Walk | Ⓓ Existing Curb |
| ⑤ Not Used | ⑬ 304 4" Aggregate Base | Ⓔ Existing Asphalt Base |
| ⑥ 304 6" Aggregate Base | ⑭ 602 Modular Block Retaining Wall w/42"(h) Handrailing | Ⓕ Existing Concrete Walk |
| ⑦ 204 Subgrade Compaction | | Ⓖ Existing Curb (To Be Removed) |
| ⑧ 609 Combination Concrete Curb & Gutter, Type 2 | | |



* Reinforced Concrete Pavement Assumed To Be 24'±
Widening And Resurfacing - S.R. 14
Limiting Stations
Sta. 84+22 To Sta. 86+20.15



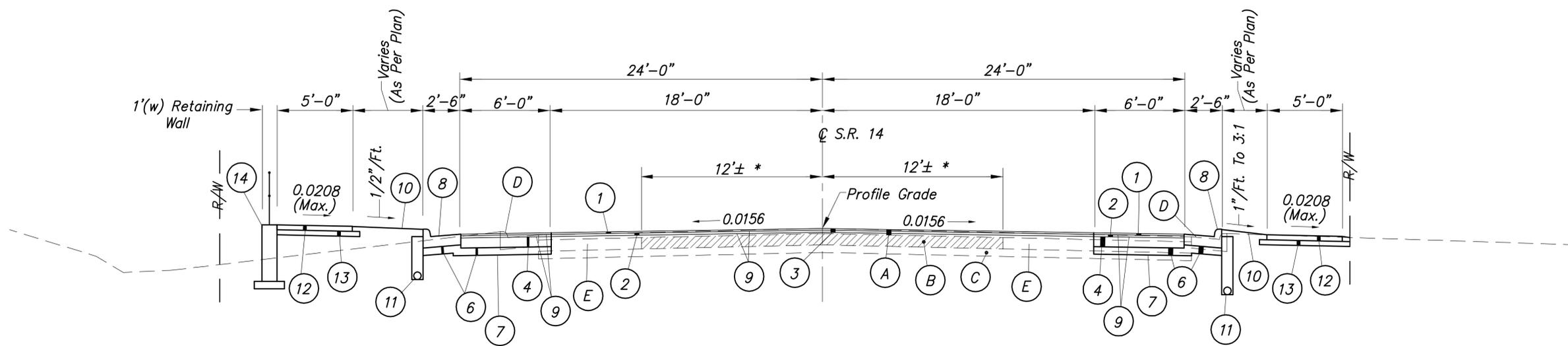
* Reinforced Concrete Pavement Assumed To Be 24'±
Widening And Resurfacing - S.R. 14

Limiting Stations
Sta. 89+00 Rt. To Sta. 90+60 Rt.
Sta. 89+04.12 Lt. To Sta. 91+05.15 Lt.

- 1 441 1 1/4" Asphalt Concrete, Surface Course Type 1, (449) PG70-22M
- 2 441 1 3/4" Asphalt Concrete, Intermediate Course Type 2, (449)
- 3 254 Pavement Planing, Asphalt Concrete (T = 3")
- 4 301 8" Asphalt Concrete Base, PG64-22 (449)
- 5 Not Used
- 6 304 6" Aggregate Base
- 7 204 Subgrade Compaction
- 8 609 Combination Concrete Curb & Gutter, Type 2

- 9 407 Tack Coat, Applied At A Rate Of 0.04 Gal./Sq. Yd.
- 10 659 Seeding & Mulching
- 11 605 6" Shallow Pipe Underdrains
- 12 608 4" Concrete Walk
- 13 304 4" Aggregate Base
- 14 602 Modular Block Retaining Wall w/42"(h) Handrailing

- A 4"± Existing Asphalt Surface
- B 9"± Existing Reinforced Concrete Pavement
- C 6"± Existing Aggregate Base
- D Existing Curb
- E Existing Asphalt Base
- F Existing Concrete Walk
- G Existing Curb (To Be Removed)



* Reinforced Concrete Pavement Assumed To Be 24'±
Widening And Resurfacing - S.R. 14

Limiting Stations
Sta. 87+75 To Sta. 88+90

GENERAL NOTES

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS.

AT&T 2933 SALT SPRINGS ROAD YOUNGSTOWN, OH 44512 330-270-8810	OHIO EDISON COMPANY 730 SOUTH AVENUE YOUNGSTOWN, OH 44502 330-747-2071	CITY OF COLUMBIANA WATER, SEWAGE, STORM COLUMBIANA, OH 44408 330-482-2484
COMCAST (CABLE) 2810 DARLINGTON RD. BEAVER FALLS, PA 15010 800-266-2278	COLUMBIA GAS OF OHIO P.O. BOX 1038 LORAIN, OH 44055 440-891-2455	CITY OF COLUMBIANA ELECTRIC 28 WEST FRIEND ST. COLUMBIANA, OH 44408 330-482-2173

OHIO UTILITIES PROTECTION SERVICE MEMBERS SHALL BE NOTIFIED AT 1-800-362-2764, TWO WORKING DAYS PRIOR TO COMMENCING WORK, NON-MEMBER UTILITIES MUST BE CONTACTED DIRECTLY.

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM NAD83(1986).

PROPERTY PINS

DUE TO THE CLOSE PROXIMITY OF PROPERTY IRON PINS TO THE CONSTRUCTION AREA, SPECIAL CARE SHALL BE TAKEN TO AVOID THEIR DISTURBANCE. IF ANY PROPERTY IRON PIN SHOULD HAPPEN TO BE ACCIDENTALLY DISTURBED, THE CONTRACTOR SHALL HAVE THE PIN RESET BY A REGISTERED SURVEYOR AT HIS OWN EXPENSE. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER WRITTEN DOCUMENTATION THAT THE PROPERTY PINS WERE RESET BY A REGISTERED SURVEYOR. ALL TO BE RESET MUST BE RESET PRIOR TO COMPLETION OF THIS PROJECT.

TRENCH FOR PROPOSED IMPROVEMENTS

OPEN TRENCH EXCAVATION FOR THE STORM SEWER SYSTEM SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH APPROVED BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED CONDUIT AND BACKFILL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND THE EXCAVATION OPERATIONS. THE LENGTH OF TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIME BE SUBJECT TO APPROVAL OF THE ENGINEER.

SAW CUT - PAVEMENT

ALL SAW CUTTING SHALL BE PERFORMED WITH A SELF PROPELLED TYPE OF UNIT WHICH CAN MAINTAIN A STRAIGHT LINE BETWEEN CONTROL POINTS. CUTTING WHEELS MOUNTED ON GRADER, END LOADER OR BACKHOE WILL NOT BE ALLOWED. HAND HELD SAWS MAY BE USED ON SHORT LENGTHS OF 10 FEET OR LESS. PAYMENT FOR SAW CUTTING SHALL BE INCLUDED WITH THE RESPECTIVE WORK ITEMS.

ITEM 659, SEEDING AND MULCHING

SEEDING AND MULCHING SHALL BE APPLIED TO AREAS OF EXPOSED SOIL. QUANTITY CALCULATIONS FOR ITEM 659, SEEDING AND MULCHING, ARE BASED WITHIN THE CONSTRUCTION LIMITS.

ROADWAY QUANTITIES

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM	TOTAL	DESCRIPTION
201	LUMP	CLEARING AND GRUBBING
619	9 MONTHS	FIELD OFFICE, TYPE A
623	LUMP	CONSTRUCTION LAYOUT STAKES AND SURVEYING
624	LUMP	MOBILIZATION

441- ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS), AS PER PLAN

INTERSECTING PUBLIC ROADS (NON-PROJECT), AND DRIVEWAYS SHALL PLACE PAVEMENT THAT HAS AN AVERAGE THICKNESS EQUAL TO THE ADJACENT SURFACE COURSE. THE LENGTH SHOWN BELOW SHALL BE MEASURED FROM THE EDGE OF PAVEMENT/PAVED SHOULDERS, UNLESS OTHERWISE DIRECTED BY THE PLANS AS FOLLOWS:
EQUAL MILL/FILL (I.E. 3" MILL & 3" FILL)

PUBLIC ROADS: 10' WITH 10' WIDE WEARING COURSE REMOVED
DRIVES: 3'

UPHILL DRIVEWAYS SHALL BE PAVED TO THE BEGINNING OF THE UPSLOPE OF THE DRIVEWAY, OR AS DIRECTED BY THE ENGINEER.

ALL GRADING, TACK COAT, PRIME COAT, TOOLS, EQUIPMENT, AND INCIDENTALS REQUIRED TO LAYOUT AND PAVE THE DRIVEWAYS AND INTERSECTING PUBLIC ROADS SHALL BE INCLUDED IN THE CU. YD. PRICE BID FOR ITEM 441 - ASPHALT SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS), AS PER PLAN.

THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS SET FORTH IN CMS-107.10 CONCERNING THE PROTECTION AND RESTORATION OF ALL PUBLIC AND PRIVATE PROPERTY IMPACTED BY CONSTRUCTION OPERATIONS.

ALL DRIVEWAYS SHALL BE PAVED WITHIN (5) WORKING DAYS AFTER PLACING THE SURFACE COURSE ON THE MAINLINE PAVEMENT.

MATERIALS FURNISHED FOR FINE AND COURSE AGGREGATES USED IN THIS ITEM SHALL FOLLOW THE SPECIFICATIONS CMS 703.05, EXCEPT DO NOT USE COURSE AGGREGATE FROM A SOURCE DESIGNATE "SR" OR "SRH" AS DEFINED BY THE OFFICE OF MATERIALS MANAGEMENT (OMM) IN ANY JOB MIX FORMULA (JMF) FOR THIS ITEM OF WORK.

RIGHT-OF-WAY

ALL NECESSARY CONSTRUCTION FOR THIS PROJECT WILL BE PERFORMED WITHIN THE EXISTING RIGHT-OF-WAY SHOWN IN THESE PLANS.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

SANITARY SEWER

SANITARY SEWAGE FLOW MUST BE MAINTAINED DURING SANITARY REPLACEMENT USING EXISTING OR PROPOSED SEWER CONDUITS, MANHOLES, OR USING BY-PASS PUMPING. COST OF MAINTAINING SEWAGE FLOW SHALL BE INCLUDED IN SANITARY BID ITEMS.

COORDINATION OF RESURFACING AND PLANING OPERATIONS

ONCE THE PAVEMENT PLANING OPERATIONS HAVE COMMENCED, THE CONTRACTOR SHALL PLANE CONTINUOUSLY UNTIL ALL ELEMENTS OF WORK ASSOCIATED WITH THE PAVEMENT PLANING OPERATIONS ARE CONCLUDED FOR THAT SECTION OF ROADWAY. THE PAVEMENT PLANING OPERATIONS SHALL BE COMPLETED IN A TIMELY MATTER, ROADWAY. THE PAVEMENT PLANING OPERATIONS SHALL BE COMPLETED IN A OR AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR MUST BEGIN PAVING OPERATIONS TO COVER THE PLANED SURFACE NO LATER THAN 4 (FOUR) DAYS AFTER THE START OF THE PAVEMENT PLANING FOR THAT SECTION OR ROADWAY.

IF ASPHALT CONCRETE IS TO BE APPLIED DIRECTLY ONTO PORTLAND CEMENT, CONCRETE, OR BRICK PAVEMENT, THE CONTRACTOR SHALL TACK THE EXISTING PAVEMENT WITH RUBBERIZED ASPHALT EMULSION CONFORMING TO C&MS 702.13.

PAVEMENT PLANING AND MILLING STOCKPILE

ALL MILLINGS SHALL BECOME THE PROPERTY OF THE CITY OF COLUMBIANA, STOCKPILED AT A LOCATION TO BE DIRECTED BY THE CITY INCLUDED IN ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN.

PROFILE AND ALIGNMENT

PLACE THE PROPOSED PAVEMENT TO FOLLOW THE PROFILE AND ALIGNMENT OF EXISTING PAVEMENT. PLACE THE PROPOSED ASPHALT CONCRETE OVERLAY AS SHOWN ON THE TYPICAL SECTIONS.

CURB RAMP/DETECTABLE WARNINGS

UNLESS OTHERWISE DIRECTED BY THE ENGINEER, INSTALLATION OF THE CURB RAMPS/DETECTABLE WARNINGS WILL BE PERFORMED PRIOR TO MAINLINE RESURFACING. REFER TO PLAN FOR LOCATIONS, QUANTITIES AND NOTES OF THESE CURB RAMPS.

REQUIREMENTS AND SPECIFICATIONS FOR CONSTRUCTION ARE PER STANDARD CONSTRUCTION DRAWING BP-7.1 AND SECTION 608.07 IN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

INTERSECTIONS WILL BE RESURFACED 10 FT. BEYOND THE EDGELINE, UNLESS OTHERWISE DIRECTED BY ENGINEER OR INDICATED IN THE PLAN. INTERSECTIONS SHALL BE PAVED AFTER COMPLETION OF THE SURFACE COURSE OR WITH THE MAINLINE PAVEMENT IF THIS CAN BE ACCOMPLISHED WITHOUT CHANGING THE VELOCITY AND DIRECTION OF THE PAVER. USE THE SAME ASPHALT CONCRETE AS THE MAINLINE PAVEMENT. A BUTT JOINT, AS PER STANDARD DRAWING BP-3.1, SHALL BE USED TO PROVIDE A SMOOTH TRANSITION TO THE EXISTING PAVEMENT. ANY GRADING OR PRIME NECESSARY TO ACCOMPLISH THIS WORK SHALL BE INCLUDED IN THE COST OF ASPHALT SURFACE COURSE. ALL NEW CROSSWALKS SHALL BE HIGH VISIBILITY CROSSWALKS AS PER SCD TC-74-10.

CATCH BASIN ADJUSTED TO GRADE

AN ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR ADJUSTING CATCH BASINS TO GRADE. EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE ENGINEER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CASTINGS OR REQUIRED TYPE, SIZE AND STRENGTH. ENSURE ALL MATERIAL MEETS CMS ITEM 611 AND HAS PRIOR APPROVAL OF THE ENGINEER.

ITEM 611 - CATCH BASIN ADJUSTED TO GRADE, 4 EACH

ITEM SPECIAL - MISCELLANEOUS METAL, 500 LBS.

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201 - CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201- CLEARING AND GRUBBING.

ITEM 204 - PROOF ROLLING

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING.
ITEM 204 - PROOF ROLLING, 5 HOUR

DRAINAGE:

REVIEW OF DRAINAGE FACILITIES

PRIOR TO THE START OF WORK AND AGAIN BEFORE FINAL ACCEPTANCE, PERFORM AN INSPECTION WITH REPRESENTATIVES OF THE DEPARTMENT, CONTRACTOR AND LOCALS OF ALL EXISTING DRAINAGE FACILITIES THAT ARE TO REMAIN IN SERVICE WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES IS DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION ARE MAINTAINED BY THE DEPARTMENT.

CONFIRM ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE-MENTIONED PARTIES ARE MAINTAINED AND LEFT IN A CONDITION COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. THE CONTRACTOR IS RESPONSIBLE TO CORRECT ANY CHANGE IN THE CONDITION RESULTING FROM THEIR OPERATIONS AS DIRECTED AND APPROVED BY THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE IS INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

ESTIMATED ADDITIONAL DRAINAGE QUANTITIES

THE FOLLOWING AS DIRECTED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO ACCOUNT FOR UNFORESEEN LOW POINTS OR TRAPPED DRAINAGE DUE TO FIELD ADJUSTMENTS.

ITEM 611 - 6" CONDUIT, TYPE B	60 L.F.
ITEM 611 - 12" CONDUIT, TYPE B	100 L.F.
ITEM 611 - CATCH BASIN, CB-2-2B	2 EACH

PAVEMENT:

PART-WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1

PAVEMENT (CONT.):

INTERSECTIONS

INTERSECTIONS WILL BE RESURFACED 2 FT. BEYOND THE EDGE LINE, UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR INDICATED IN THE PLAN. INTERSECTIONS SHALL BE PAVED AFTER COMPLETION OF THE SURFACE COURSE OR WITH THE MAINLINE PAVEMENT IF THIS CAN BE ACCOMPLISHED WITHOUT CHANGING THE VELOCITY AND DIRECTION OF THE PAVER. USE THE SAME ASPHALT CONCRETE AS THE MAINLINE PAVEMENT. A BUTT JOINT, AS PER STANDARD CONSTRUCTION DRAWING BP3.1, SHALL BE USED TO PROVIDE A SMOOTH TRANSITION TO THE EXISTING PAVEMENT. ANY GRADING OR PRIME NECESSARY TO ACCOMPLISH THIS WORK SHALL BE INCLUDED IN THE COST OF THE ASPHALT SURFACE COURSE.

THE CONTRACTOR WILL NOT BE PERMITTED TO LEAVE A DIFFERENCE IN ELEVATION BETWEEN THE MAINLINE ASPHALT SURFACE COURSE AND THE EXISTING DRIVEWAYS. IF APPROVED BY THE ENGINEER, AN ASPHALT WEDGE WITH A MINIMUM WIDTH OF 2 FOOT MAYBE PLACED EITHER ON THE ROADWAY SHOULDER OR DRIVEWAY DEPENDENT UPON WHICH SIDE IS HIGH. A QUANTITY OF MAINLINE SURFACE COURSE ASPHALT HAS BEEN PROVIDED IN THE CALCULATIONS AND GENERAL SUMMARY TO PERFORM THIS ITEM OF WORK.

IN THE EVENT THAT THE ENGINEER DETERMINES ADDITIONAL WORK IS NECESSARY TO PROPERLY ADDRESS FIELD CONDITIONS, AN ITEM FOR WEARING COURSE REMOVED HAS BEEN PROVIDED. THE REMOVAL DEPTH IS DEPENDENT UPON THE ELEVATION DIFFERENCE AND ALLOW FOR 1"-2" OF COMPACTED ASPHALT MATERIAL TO BE PLACED.

ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG70-22M 6 C.Y.

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (T = 1.5"), AS PER PLAN 140 S.Y.

703.05 DO NOT USE COARSE AGGREGATE FROM A SOURCE DESIGNATED "SR" OR "SRH" ACCORDING TO THE OFFICE OF MATERIALS MANAGEMENT (CMM) IN JOB MIX FORMULA (JMF) FOR THESE ITEMS.

CONNECTIONS TO EXISTING PIPE AND WATERLINES

THE PLACES WHERE THE PLANS PROVIDE FOR PROPOSED PIPE AND WATERLINES TO BE CONNECTED TO EXISTING PIPE, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING PIPE BOTH AS TO LINE AND GRADE BEFORE HE STARTS TO LAY THE PROPOSED PIPE. CONTRACTOR SHALL ALSO VERIFY EXISTING PIPE MATERIAL AND PROPOSED CONNECTION METHOD WITH THE ENGINEER.

WATERLINE GENERAL NOTES AND SPECIFICATIONS

- ALL WATERLINE MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE CITY OF COLUMBIANA STANDARDS.
- WATERLINE MATERIALS SHALL BE PVC AWWA C-900, DR 18 OR ANSI/AWWA C151/A21.51 DUCTILE IRON, CLASS 52
- PIPE JOINTS MAY BE PUSH-ON TYPE AND SHALL CONFORM TO WITH RUBBER GASKET CONFORMING TO ASTM F 477, OTHER JOINT TYPES MAY BE NOTED AS PER PLAN.
- JOINT RESTRAINTS/GRIIP RINGS SHALL BE "MEG-A-LUG" AS DISTRIBUTED BY EBBA IRON, OR APPROVED EQUAL.
- PIPE FITTINGS SHALL BE IN ACCORDANCE WITH ANSI/AWWA C110/A21.10 OR ANSI/AWWA C 153/A21.53. DUCTILE IRON PIPE FITTINGS SHALL BE ENCASED IN 8 MILL THICK POLYETHYLENE MATERIAL AS PER ANSI/AWWA C105/A21.5.
- GATE VALVES SHALL BE RESILIENT SEATED, NON-RISING STEM, OPEN LEFT IN ACCORDANCE WITH AWWA C515.
- FIRE HYDRANTS SHALL BE MUELLER SUPER CENTURION DRY BARREL (PAINTED RED), OPEN COUNTER CLOCKWISE, STANDARD THREAD, AND SHALL BE IN ACCORDANCE WITH AWWA C502 AND FURTHER SUPPLEMENTED BY THE CITY OF COLUMBIANA, ALL FIRE HYDRANTS SHALL BE EQUIPPED WITH A FACTORY INSTALLED, 4 1/2 INCH NOZZLE AND (2) 2-1/2 INCH NOZZLES.
- ALL WATERLINE AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST REVISION OF ANSI/AWWA C600 AND AWWA C900.
- DISINFECTION OF WATERLINES AND APPURTENANCES SHALL BE IN ACCORDANCE WITH ANSI/AWWA C651.
- A MINIMUM OF 35 PSI SHALL BE MAINTAINED TO THE CURB STOP DURING NORMAL OPERATING CONDITIONS.
- BOOSTER PUMPS ARE NOT PERMITTED ON SERVICE CONNECTIONS.
- ALL BENDS, TEES AND DEAD ENDS SHALL BE RESTRAINED WITH "MEG-A-LUG" JOINT RESTRAINT FOR M.J. PIPE OR EQUAL.
- ALL BENDS, TEES AND FIRE HYDRANTS SHALL BE BLOCKED, AS PER THE BLOCKING DETAILS SHOWN ON THE DETAIL SHEET.
- WATERLINE SERVICE MATERIAL SHALL BE TYPE K COPPER, ASTM B88 FOR SERVICE LINES 2IN OR LESS.
- ALL BENDS, FITTINGS, AND VALVES SHALL BE MARKED WITH A WOOD STAKE UPON COMPLETION FOR PURPOSES OF "AS-BUILT" LOCATIONS.
- PROPOSED WATERLINE SHALL BE INSTALLED, DISINFECTED AND TESTED PRIOR TO SERVICE TAP CONNECTIONS AND ABANDONMENT OF EXISTING WATERLINES.
- A MINIMUM HORIZONTAL SEPARATION OF TEN FEET (10') SHALL BE MAINTAINED BETWEEN WATERLINES AND SANITARY SEWER LINES, UNLESS OTHERWISE INDICATED.
- A MINIMUM VERTICAL SEPARATION OF EIGHTEEN INCHES (18") SHALL BE MAINTAINED BETWEEN WATERLINES AND SANITARY SEWER CROSSINGS.
- A MINIMUM HORIZONTAL SEPARATION OF TEN FEET (10') SHALL BE MAINTAINED BETWEEN WATERLINES AND STORM SEWER LINES, UNLESS OTHERWISE INDICATED.
- A MINIMUM VERTICAL SEPARATION OF EIGHTEEN INCHES (18") SHALL BE MAINTAINED BETWEEN WATERLINES AND STORM SEWER CROSSINGS.
- ANY REMOVALS OF EXISTING WATERLINE, VALVES AND SERVICE LINES NECESSARY TO INSTALL NEW LINES SHALL BE INCLUDED IN THE NEW WORK ITEM FOR PAYMENT.
- JOINT DEFLECTION SHALL BE NO MORE THAN ALLOWED BY AWWA, AND SHALL BE USED TO ACHIEVE ADEQUATE DEPTH FOR NEW HYDRANTS, NO ADDITIONAL COMPENSATION WILL BE MADE FOR INCREASED DEPTH FOR FIRE HYDRANT PLACEMENTS, REQUIRED TO PASS UNDER THE EXISTING WATERLINE.
- WATER SERVICE BOXES SHALL BE BEDDED AND BACKFILLED WITH NO. 57 GRAVEL AS PER ODOT ITEM 703.11, TYPE 3.
- CURB STOPS SHALL BE ONE-QUARTER (1/4) TURN WITH CHECK AND SOLID TEE HEAD. CURB STOP SHALL BE MUELLER ORISEAL, A.Y. MCDONALD OR APPROVED EQUAL. MEETING AWWA C800.
- CORPORATION STOPS SHALL BE MUELLER PRODUCTS PART NO. H-15000 OR APPROVED EQUAL.
- CURB BOXES SHALL BE BUFFALO PATTERN 95E.
- ALL COPPER SERVICE LATERALS, 2 INCH AND SMALLER, SHALL BE INSTALLED BY FREE BORING UNDER S.R. 14 PAVEMENT.
- WATERLINE CONNECTIONS TO EXISTING WATERLINE SHALL BE DRESSER STYLE 3B BOLTED COUPLING OR APPROVED EQUAL.

TRACER WIRE AND IDENTIFICATION RIBBON

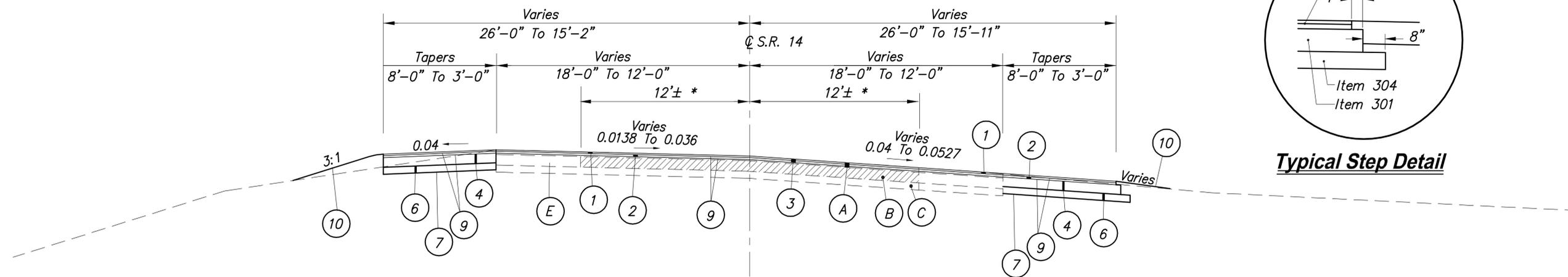
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GENERAL NOTES

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CALCULATED
M/S/L
CHECKED
J/D/V



Typical Step Detail

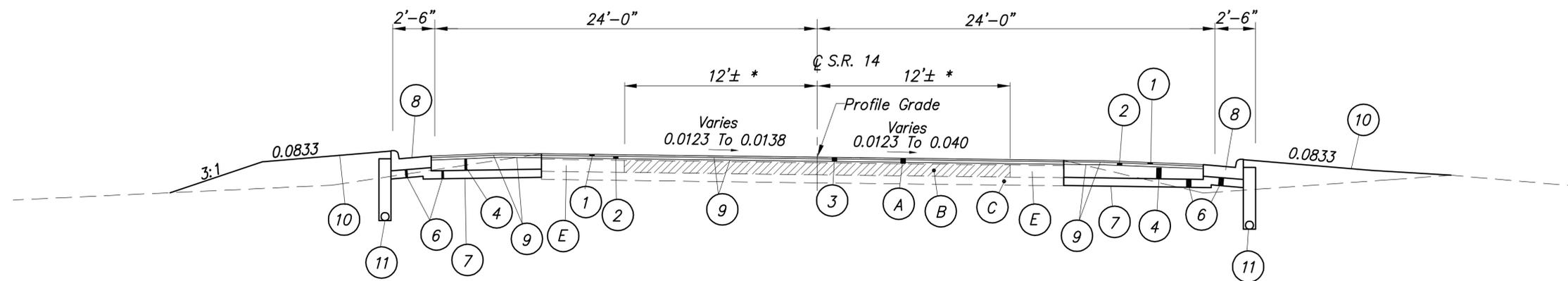
* Reinforced Concrete Pavement Assumed To Be 24'±
Widening And Resurfacing - S.R. 14

Limiting Stations
Sta. 97+20 To Sta. 98+80

- ① 441 1 1/4" Asphalt Concrete, Surface Course Type 1, (449) PG70-22M
- ② 441 1 3/4" Asphalt Concrete, Intermediate Course Type 2, (449)
- ③ 254 Pavement Planing, Asphalt Concrete (T = 3")
- ④ 301 8" Asphalt Concrete Base, PG64-22 (449)
- ⑤ Not Used
- ⑥ 304 6" Aggregate Base
- ⑦ 204 Subgrade Compaction
- ⑧ 609 Combination Concrete Curb & Gutter, Type 2

- ⑨ 407 Tack Coat, Applied At A Rate Of 0.04 Gal./Sq. Yd.
- ⑩ 659 Seeding & Mulching
- ⑪ 605 6" Shallow Pipe Underdrains
- ⑫ 608 4" Concrete Walk
- ⑬ 304 4" Aggregate Base
- ⑭ 602 Modular Block Retaining Wall w/42"(h) Handrailing

- Ⓐ 4"± Existing Asphalt Surface
- Ⓑ 9"± Existing Reinforced Concrete Pavement
- Ⓒ 6"± Existing Aggregate Base
- Ⓓ Existing Curb
- Ⓔ Existing Asphalt Base
- Ⓕ Existing Concrete Walk
- Ⓖ Existing Curb (To Be Removed)



* Reinforced Concrete Pavement Assumed To Be 24'±
Widening And Resurfacing - S.R. 14

Limiting Stations
Sta. 96+12 To Sta. 97+20

GENERAL NOTES

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS.

AT&T 2933 SALT SPRINGS ROAD YOUNGSTOWN, OH 44512 330-270-8810	OHIO EDISON COMPANY 730 SOUTH AVENUE YOUNGSTOWN, OH 44502 330-747-2071	CITY OF COLUMBIANA WATER, SEWAGE, STORM COLUMBIANA, OH 44408 330-482-2484
COMCAST (CABLE) 2810 DARLINGTON RD. BEAVER FALLS, PA 15010 800-266-2278	COLUMBIA GAS OF OHIO P.O. BOX 1038 LORAIN, OH 44055 440-891-2455	CITY OF COLUMBIANA ELECTRIC 28 WEST FRIEND ST. COLUMBIANA, OH 44408 330-482-2173

OHIO UTILITIES PROTECTION SERVICE MEMBERS SHALL BE NOTIFIED AT 1-800-362-2764, TWO WORKING DAYS PRIOR TO COMMENCING WORK, NON-MEMBER UTILITIES MUST BE CONTACTED DIRECTLY.

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM NAD83(1986).

PROPERTY PINS

DUE TO THE CLOSE PROXIMITY OF PROPERTY IRON PINS TO THE CONSTRUCTION AREA, SPECIAL CARE SHALL BE TAKEN TO AVOID THEIR DISTURBANCE. IF ANY PROPERTY IRON PIN SHOULD HAPPEN TO BE ACCIDENTALLY DISTURBED, THE CONTRACTOR SHALL HAVE THE PIN RESET BY A REGISTERED SURVEYOR AT HIS OWN EXPENSE. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER WRITTEN DOCUMENTATION THAT THE PROPERTY PINS WERE RESET BY A REGISTERED SURVEYOR. ALL TO BE RESET MUST BE RESET PRIOR TO COMPLETION OF THIS PROJECT.

TRENCH FOR PROPOSED IMPROVEMENTS

OPEN TRENCH EXCAVATION FOR THE STORM SEWER SYSTEM SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH APPROVED BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED CONDUIT AND BACKFILL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND THE EXCAVATION OPERATIONS. THE LENGTH OF TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIME BE SUBJECT TO APPROVAL OF THE ENGINEER.

SAW CUT - PAVEMENT

ALL SAW CUTTING SHALL BE PERFORMED WITH A SELF PROPELLED TYPE OF UNIT WHICH CAN MAINTAIN A STRAIGHT LINE BETWEEN CONTROL POINTS. CUTTING WHEELS MOUNTED ON GRADER, END LOADER OR BACKHOE WILL NOT BE ALLOWED. HAND HELD SAWS MAY BE USED ON SHORT LENGTHS OF 10 FEET OR LESS. PAYMENT FOR SAW CUTTING SHALL BE INCLUDED WITH THE RESPECTIVE WORK ITEMS.

ITEM 659, SEEDING AND MULCHING

SEEDING AND MULCHING SHALL BE APPLIED TO AREAS OF EXPOSED SOIL. QUANTITY CALCULATIONS FOR ITEM 659, SEEDING AND MULCHING, ARE BASED WITHIN THE CONSTRUCTION LIMITS.

ROADWAY QUANTITIES

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM	TOTAL	DESCRIPTION
201	LUMP	CLEARING AND GRUBBING
619	9 MONTHS	FIELD OFFICE, TYPE A
623	LUMP	CONSTRUCTION LAYOUT STAKES AND SURVEYING
624	LUMP	MOBILIZATION

441- ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS), AS PER PLAN

INTERSECTING PUBLIC ROADS (NON-PROJECT), AND DRIVEWAYS SHALL PLACE PAVEMENT THAT HAS AN AVERAGE THICKNESS EQUAL TO THE ADJACENT SURFACE COURSE. THE LENGTH SHOWN BELOW SHALL BE MEASURED FROM THE EDGE OF PAVEMENT/PAVED SHOULDERS, UNLESS OTHERWISE DIRECTED BY THE PLANS AS FOLLOWS:
 EQUAL MILL/FILL (I.E. 3" MILL & 3" FILL)

PUBLIC ROADS: 10' WITH 10' WIDE WEARING COURSE REMOVED
 DRIVES: 3'

UPHILL DRIVEWAYS SHALL BE PAVED TO THE BEGINNING OF THE UPSLOPE OF THE DRIVEWAY, OR AS DIRECTED BY THE ENGINEER.

ALL GRADING, TACK COAT, PRIME COAT, TOOLS, EQUIPMENT, AND INCIDENTALS REQUIRED TO LAYOUT AND PAVE THE DRIVEWAYS AND INTERSECTING PUBLIC ROADS SHALL BE INCLUDED IN THE CU. YD. PRICE BID FOR ITEM 441 - ASPHALT SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS), AS PER PLAN.

THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS SET FORTH IN CMS-107.10 CONCERNING THE PROTECTION AND RESTORATION OF ALL PUBLIC AND PRIVATE PROPERTY IMPACTED BY CONSTRUCTION OPERATIONS.

ALL DRIVEWAYS SHALL BE PAVED WITHIN (5) WORKING DAYS AFTER PLACING THE SURFACE COURSE ON THE MAINLINE PAVEMENT.

MATERIALS FURNISHED FOR FINE AND COURSE AGGREGATES USED IN THIS ITEM SHALL FOLLOW THE SPECIFICATIONS CMS 703.05, EXCEPT DO NOT USE COURSE AGGREGATE FROM A SOURCE DESIGNATE "SR" OR "SRH" AS DEFINED BY THE OFFICE OF MATERIALS MANAGEMENT (OMM) IN ANY JOB MIX FORMULA (JMF) FOR THIS ITEM OF WORK.

RIGHT-OF-WAY

ALL NECESSARY CONSTRUCTION FOR THIS PROJECT WILL BE PERFORMED WITHIN THE EXISTING RIGHT-OF-WAY SHOWN IN THESE PLANS.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

SANITARY SEWER

SANITARY SEWAGE FLOW MUST BE MAINTAINED DURING SANITARY REPLACEMENT USING EXISTING OR PROPOSED SEWER CONDUITS, MANHOLES, OR USING BY-PASS PUMPING. COST OF MAINTAINING SEWAGE FLOW SHALL BE INCLUDED IN SANITARY BID ITEMS.

COORDINATION OF RESURFACING AND PLANING OPERATIONS

ONCE THE PAVEMENT PLANING OPERATIONS HAVE COMMENCED, THE CONTRACTOR SHALL PLANE CONTINUOUSLY UNTIL ALL ELEMENTS OF WORK ASSOCIATED WITH THE PAVEMENT PLANING OPERATIONS ARE CONCLUDED FOR THAT SECTION OF ROADWAY. THE PAVEMENT PLANING OPERATIONS SHALL BE COMPLETED IN A TIMELY MATTER, ROADWAY. THE PAVEMENT PLANING OPERATIONS SHALL BE COMPLETED IN A OR AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR MUST BEGIN PAVING OPERATIONS TO COVER THE PLANED SURFACE NO LATER THAN 4 (FOUR) DAYS AFTER THE START OF THE PAVEMENT PLANING FOR THAT SECTION OR ROADWAY.

IF ASPHALT CONCRETE IS TO BE APPLIED DIRECTLY ONTO PORTLAND CEMENT, CONCRETE, OR BRICK PAVEMENT, THE CONTRACTOR SHALL TACK THE EXISTING PAVEMENT WITH RUBBERIZED ASPHALT EMULSION CONFORMING TO C&MS 702.13.

PAVEMENT PLANING AND MILLING STOCKPILE

ALL MILLINGS SHALL BECOME THE PROPERTY OF THE CITY OF COLUMBIANA, STOCKPILED AT A LOCATION TO BE DIRECTED BY THE CITY INCLUDED IN ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN.

PROFILE AND ALIGNMENT

PLACE THE PROPOSED PAVEMENT TO FOLLOW THE PROFILE AND ALIGNMENT OF EXISTING PAVEMENT. PLACE THE PROPOSED ASPHALT CONCRETE OVERLAY AS SHOWN ON THE TYPICAL SECTIONS.

CURB RAMP/DETECTABLE WARNINGS

UNLESS OTHERWISE DIRECTED BY THE ENGINEER, INSTALLATION OF THE CURB RAMPS/DETECTABLE WARNINGS WILL BE PERFORMED PRIOR TO MAINLINE RESURFACING. REFER TO PLAN FOR LOCATIONS, QUANTITIES AND NOTES OF THESE CURB RAMPS.

REQUIREMENTS AND SPECIFICATIONS FOR CONSTRUCTION ARE PER STANDARD CONSTRUCTION DRAWING BP-7.1 AND SECTION 608.07 IN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

INTERSECTIONS WILL BE RESURFACED 10 FT. BEYOND THE EDGELINE, UNLESS OTHERWISE DIRECTED BY ENGINEER OR INDICATED IN THE PLAN. INTERSECTIONS SHALL BE PAVED AFTER COMPLETION OF THE SURFACE COURSE OR WITH THE MAINLINE PAVEMENT IF THIS CAN BE ACCOMPLISHED WITHOUT CHANGING THE VELOCITY AND DIRECTION OF THE PAVER. USE THE SAME ASPHALT CONCRETE AS THE MAINLINE PAVEMENT. A BUTT JOINT, AS PER STANDARD DRAWING BP-3.1, SHALL BE USED TO PROVIDE A SMOOTH TRANSITION TO THE EXISTING PAVEMENT. ANY GRADING OR PRIME NECESSARY TO ACCOMPLISH THIS WORK SHALL BE INCLUDED IN THE COST OF ASPHALT SURFACE COURSE. ALL NEW CROSSWALKS SHALL BE HIGH VISIBILITY CROSSWALKS AS PER SCD TC-74-10.

CATCH BASIN ADJUSTED TO GRADE

AN ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR ADJUSTING CATCH BASINS TO GRADE. EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE ENGINEER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CASTINGS OR REQUIRED TYPE, SIZE AND STRENGTH. ENSURE ALL MATERIAL MEETS CMS ITEM 611 AND HAS PRIOR APPROVAL OF THE ENGINEER.

ITEM 611 - CATCH BASIN ADJUSTED TO GRADE, 4 EACH
 ITEM SPECIAL - MISCELLANEOUS METAL, 500 LBS.

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201 - CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201- CLEARING AND GRUBBING.

ITEM 204 - PROOF ROLLING

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING.
 ITEM 204 - PROOF ROLLING, 5 HOUR

DRAINAGE:

REVIEW OF DRAINAGE FACILITIES

PRIOR TO THE START OF WORK AND AGAIN BEFORE FINAL ACCEPTANCE, PERFORM AN INSPECTION WITH REPRESENTATIVES OF THE DEPARTMENT, CONTRACTOR AND LOCALS OF ALL EXISTING DRAINAGE FACILITIES THAT ARE TO REMAIN IN SERVICE WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES IS DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION ARE MAINTAINED BY THE DEPARTMENT.

CONFIRM ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE-MENTIONED PARTIES ARE MAINTAINED AND LEFT IN A CONDITION COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. THE CONTRACTOR IS RESPONSIBLE TO CORRECT ANY CHANGE IN THE CONDITION RESULTING FROM THEIR OPERATIONS AS DIRECTED AND APPROVED BY THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE IS INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

ESTIMATED ADDITIONAL DRAINAGE QUANTITIES

THE FOLLOWING AS DIRECTED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO ACCOUNT FOR UNFORESEEN LOW POINTS OR TRAPPED DRAINAGE DUE TO FIELD ADJUSTMENTS.

ITEM 611 - 6" CONDUIT, TYPE B	60 L.F.
ITEM 611 - 12" CONDUIT, TYPE B	100 L.F.
ITEM 611 - CATCH BASIN, CB-2-2B	2 EACH

PAVEMENT:

PART-WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1

PAVEMENT (CONT.):

INTERSECTIONS

INTERSECTIONS WILL BE RESURFACED 2 FT. BEYOND THE EDGE LINE, UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR INDICATED IN THE PLAN. INTERSECTIONS SHALL BE PAVED AFTER COMPLETION OF THE SURFACE COURSE OR WITH THE MAINLINE PAVEMENT IF THIS CAN BE ACCOMPLISHED WITHOUT CHANGING THE VELOCITY AND DIRECTION OF THE PAVER. USE THE SAME ASPHALT CONCRETE AS THE MAINLINE PAVEMENT. A BUTT JOINT, AS PER STANDARD CONSTRUCTION DRAWING BP3.1, SHALL BE USED TO PROVIDE A SMOOTH TRANSITION TO THE EXISTING PAVEMENT. ANY GRADING OR PRIME NECESSARY TO ACCOMPLISH THIS WORK SHALL BE INCLUDED IN THE COST OF THE ASPHALT SURFACE COURSE.

THE CONTRACTOR WILL NOT BE PERMITTED TO LEAVE A DIFFERENCE IN ELEVATION BETWEEN THE MAINLINE ASPHALT SURFACE COURSE AND THE EXISTING DRIVEWAYS. IF APPROVED BY THE ENGINEER, AN ASPHALT WEDGE WITH A MINIMUM WIDTH OF 2 FOOT MAYBE PLACED EITHER ON THE ROADWAY SHOULDER OR DRIVEWAY DEPENDENT UPON WHICH SIDE IS HIGH. A QUANTITY OF MAINLINE SURFACE COURSE ASPHALT HAS BEEN PROVIDED IN THE CALCULATIONS AND GENERAL SUMMARY TO PERFORM THIS ITEM OF WORK.

IN THE EVENT THAT THE ENGINEER DETERMINES ADDITIONAL WORK IS NECESSARY TO PROPERLY ADDRESS FIELD CONDITIONS, AN ITEM FOR WEARING COURSE REMOVED HAS BEEN PROVIDED. THE REMOVAL DEPTH IS DEPENDENT UPON THE ELEVATION DIFFERENCE AND ALLOW FOR 1"-2" OF COMPACTED ASPHALT MATERIAL TO BE PLACED.

ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG70-22M 6 C.Y.

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (T = 1.5"), AS PER PLAN 140 S.Y.

703.05 DO NOT USE COARSE AGGREGATE FROM A SOURCE DESIGNATED "SR" OR "SRH" ACCORDING TO THE OFFICE OF MATERIALS MANAGEMENT (CMM) IN JOB MIX FORMULA (JMF) FOR THESE ITEMS.

CONNECTIONS TO EXISTING PIPE AND WATERLINES

THE PLACES WHERE THE PLANS PROVIDE FOR PROPOSED PIPE AND WATERLINES TO BE CONNECTED TO EXISTING PIPE, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING PIPE BOTH AS TO LINE AND GRADE BEFORE HE STARTS TO LAY THE PROPOSED PIPE. CONTRACTOR SHALL ALSO VERIFY EXISTING PIPE MATERIAL AND PROPOSED CONNECTION METHOD WITH THE ENGINEER.

WATERLINE GENERAL NOTES AND SPECIFICATIONS

- ALL WATERLINE MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE CITY OF COLUMBIANA STANDARDS.
- WATERLINE MATERIALS SHALL BE PVC AWWA C-900, DR 18 OR ANSI/AWWA C151/A21.51 DUCTILE IRON, CLASS 52
- PIPE JOINTS MAY BE PUSH-ON TYPE AND SHALL CONFORM TO WITH RUBBER GASKET CONFORMING TO ASTM F 477, OTHER JOINT TYPES MAY BE NOTED AS PER PLAN.
- JOINT RESTRAINTS/GRIP RINGS SHALL BE "MEG-A-LUG" AS DISTRIBUTED BY EBBA IRON, OR APPROVED EQUAL.
- PIPE FITTINGS SHALL BE IN ACCORDANCE WITH ANSI/AWWA C110/A21.10 OR ANSI/AWWA C 153/A21.53. DUCTILE IRON PIPE FITTINGS SHALL BE ENCASED IN 8 MILL THICK POLYETHYLENE MATERIAL AS PER ANSI/AWWA C105/A21.5.
- GATE VALVES SHALL BE RESILIENT SEATED, NON-RISING STEM, OPEN LEFT IN ACCORDANCE WITH AWWA C515.
- FIRE HYDRANTS SHALL BE MUELLER SUPER CENTURION DRY BARREL (PAINTED RED), OPEN COUNTER CLOCKWISE, STANDARD THREAD, AND SHALL BE IN ACCORDANCE WITH AWWA C502 AND FURTHER SUPPLEMENTED BY THE CITY OF COLUMBIANA, ALL FIRE HYDRANTS SHALL BE EQUIPPED WITH A FACTORY INSTALLED, 4 1/2 INCH NOZZLE AND (2) 2-1/2 INCH NOZZLES.
- ALL WATERLINE AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST REVISION OF ANSI/AWWA C600 AND AWWA C900.
- DISINFECTION OF WATERLINES AND APPURTENANCES SHALL BE IN ACCORDANCE WITH ANSI/AWWA C651.
- A MINIMUM OF 35 PSI SHALL BE MAINTAINED TO THE CURB STOP DURING NORMAL OPERATING CONDITIONS.
- BOOSTER PUMPS ARE NOT PERMITTED ON SERVICE CONNECTIONS.
- ALL BENDS, TEES AND DEAD ENDS SHALL BE RESTRAINED WITH "MEG-A-LUG" JOINT RESTRAINT FOR M.J. PIPE OR EQUAL.
- ALL BENDS, TEES AND FIRE HYDRANTS SHALL BE BLOCKED, AS PER THE BLOCKING DETAILS SHOWN ON THE DETAIL SHEET.
- WATERLINE SERVICE MATERIAL SHALL BE TYPE K COPPER, ASTM B88 FOR SERVICE LINES 2IN OR LESS.
- ALL BENDS, FITTINGS, AND VALVES SHALL BE MARKED WITH A WOOD STAKE UPON COMPLETION FOR PURPOSES OF "AS-BUILT" LOCATIONS.
- PROPOSED WATERLINE SHALL BE INSTALLED, DISINFECTED AND TESTED PRIOR TO SERVICE TAP CONNECTIONS AND ABANDONMENT OF EXISTING WATERLINES.
- A MINIMUM HORIZONTAL SEPARATION OF TEN FEET (10') SHALL BE MAINTAINED BETWEEN WATERLINES AND SANITARY SEWER LINES, UNLESS OTHERWISE INDICATED.
- A MINIMUM VERTICAL SEPARATION OF EIGHTEEN INCHES (18") SHALL BE MAINTAINED BETWEEN WATERLINES AND SANITARY SEWER CROSSINGS.
- A MINIMUM HORIZONTAL SEPARATION OF TEN FEET (10') SHALL BE MAINTAINED BETWEEN WATERLINES AND STORM SEWER LINES, UNLESS OTHERWISE INDICATED.
- A MINIMUM VERTICAL SEPARATION OF EIGHTEEN INCHES (18") SHALL BE MAINTAINED BETWEEN WATERLINES AND STORM SEWER CROSSINGS.
- ANY REMOVALS OF EXISTING WATERLINE, VALVES AND SERVICE LINES NECESSARY TO INSTALL NEW LINES SHALL BE INCLUDED IN THE NEW WORK ITEM FOR PAYMENT.
- JOINT DEFLECTION SHALL BE NO MORE THAN ALLOWED BY AWWA, AND SHALL BE USED TO ACHIEVE ADEQUATE DEPTH FOR NEW HYDRANTS, NO ADDITIONAL COMPENSATION WILL BE MADE FOR INCREASED DEPTH FOR FIRE HYDRANT PLACEMENTS, REQUIRED TO PASS UNDER THE EXISTING WATERLINE.
- WATER SERVICE BOXES SHALL BE BEDDED AND BACKFILLED WITH NO. 57 GRAVEL AS PER ODOT ITEM 703.11, TYPE 3.
- CURB STOPS SHALL BE ONE-QUARTER (1/4) TURN WITH CHECK AND SOLID TEE HEAD. CURB STOP SHALL BE MUELLER ORISEAL, A.Y. MCDONALD OR APPROVED EQUAL. MEETING AWWA C800.
- CORPORATION STOPS SHALL BE MUELLER PRODUCTS PART NO. H-15000 OR APPROVED EQUAL.
- CURB BOXES SHALL BE BUFFALO PATTERN 95E.
- ALL COPPER SERVICE LATERALS, 2 INCH AND SMALLER, SHALL BE INSTALLED BY FREE BORING UNDER S.R. 14 PAVEMENT.
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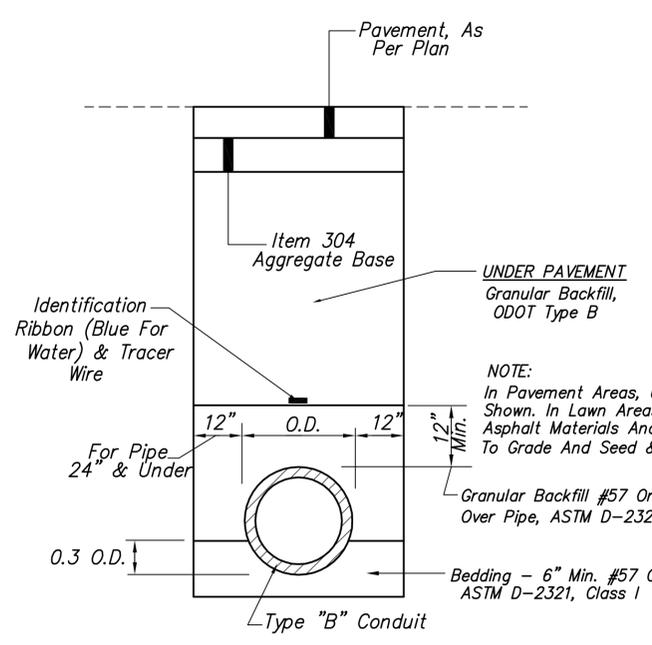
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GENERAL NOTES

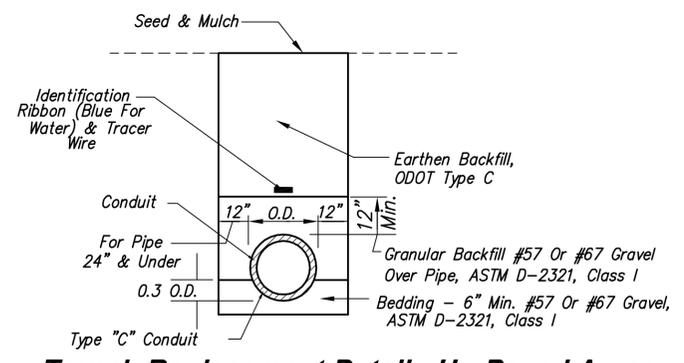
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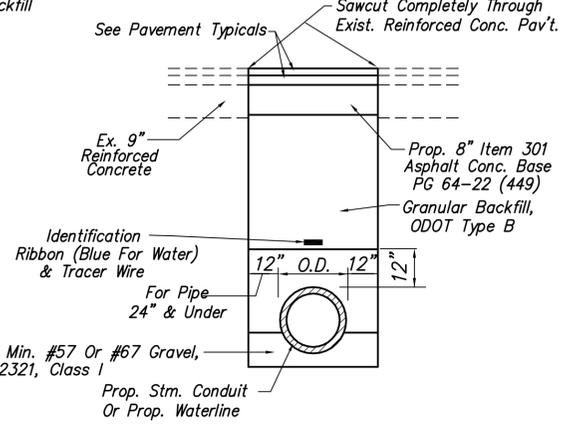
Trench Replacement Detail Under Pavement

N.T.S.



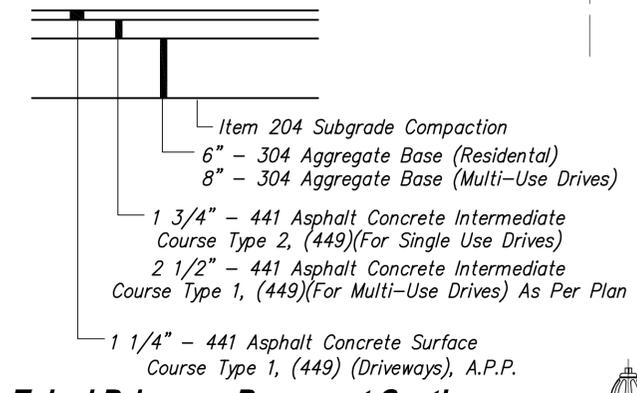
Trench Replacement Detail - Un-Paved Areas

N.T.S.



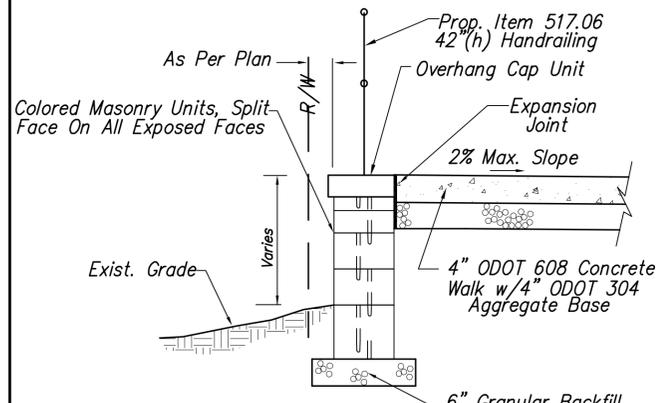
Utility Crossing Trench Detail

N.T.S.



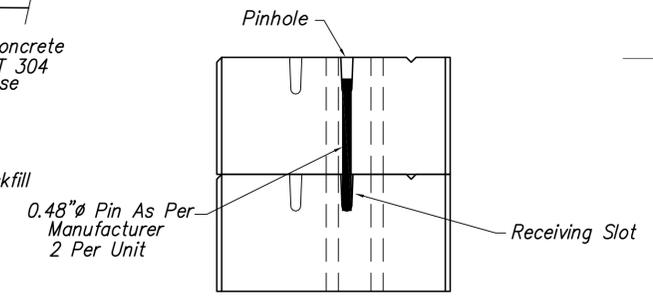
Typical Driveway Pavement Section

N.T.S.



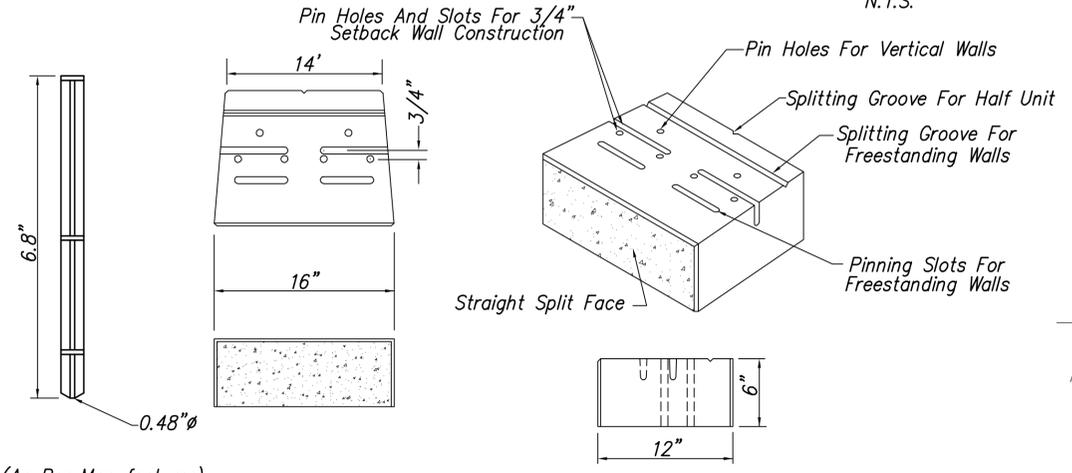
Section A-A Modular Block Wall

N.T.S.
(Sta. 87+75 Lt. To Sta. 88+90 Lt.)
(Sta. 89+00 Rt. To Sta. 90+60 Rt.)



Masonry Unit Pinning Detail

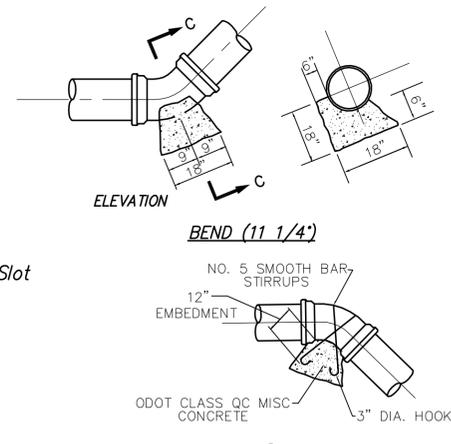
N.T.S.



Masonry Unit Details

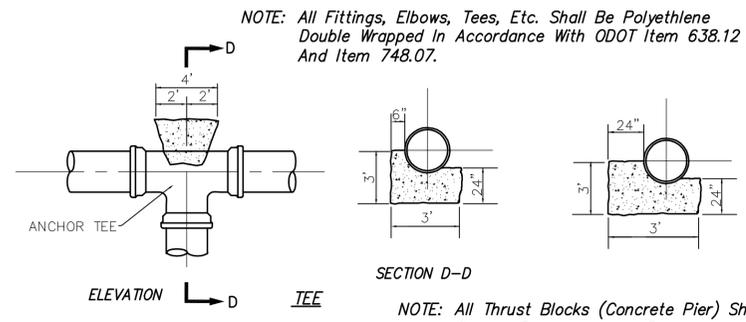
N.T.S.

(As Per Manufacturer)
Pin
N.T.S.



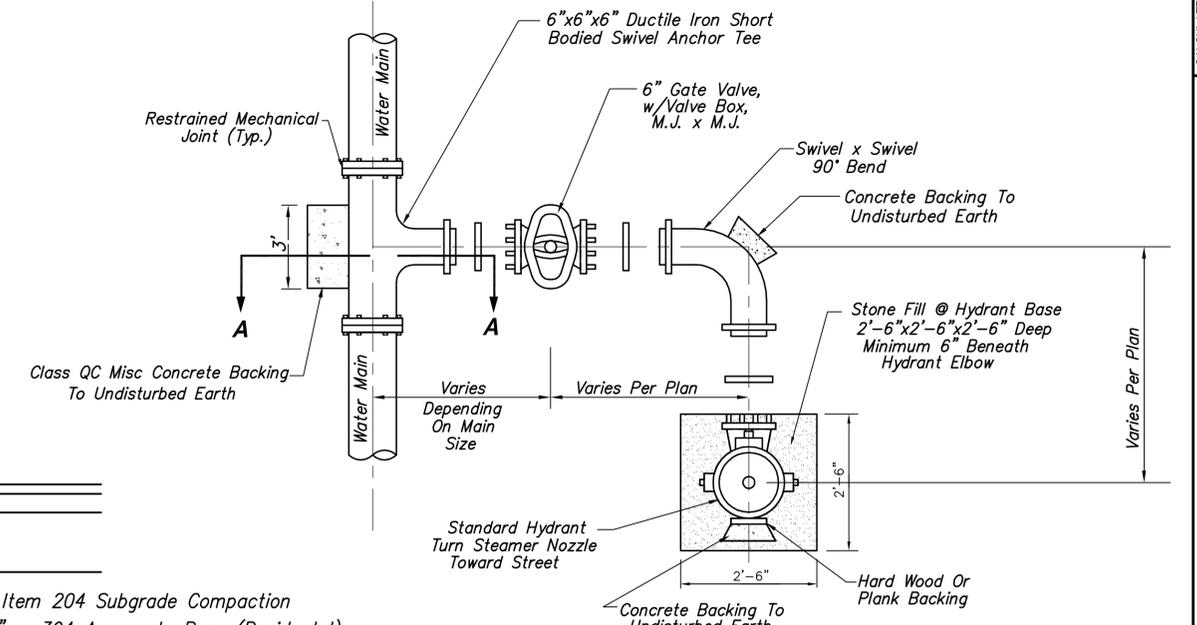
Thrust Blocking For Down Bends

N.T.S.



Typical Tee Thrust Blocking

NOTE: All Thrust Blocks (Concrete Pier) Shall To Be Carried To Undisturbed Earth.

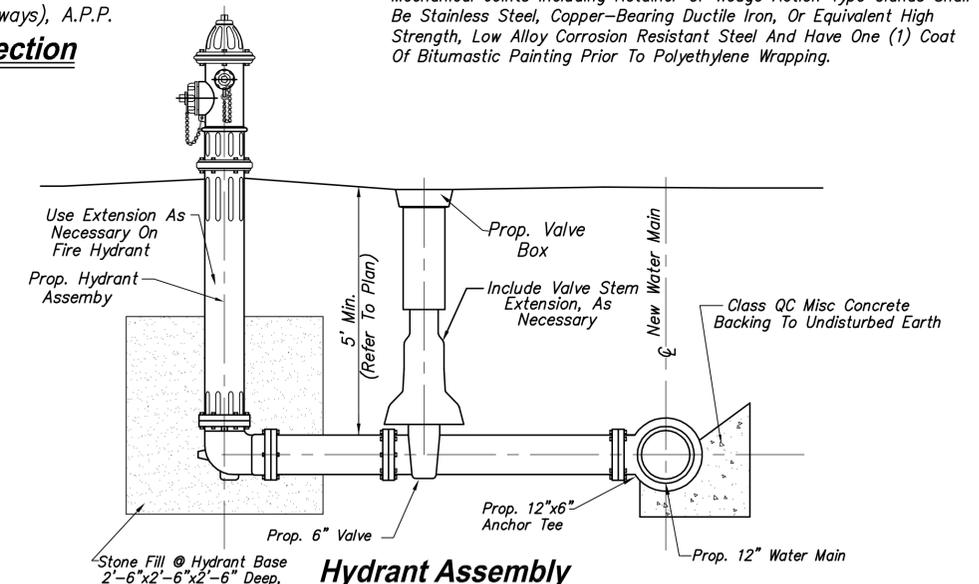


90° Fire Hydrant Detail

N.T.S.

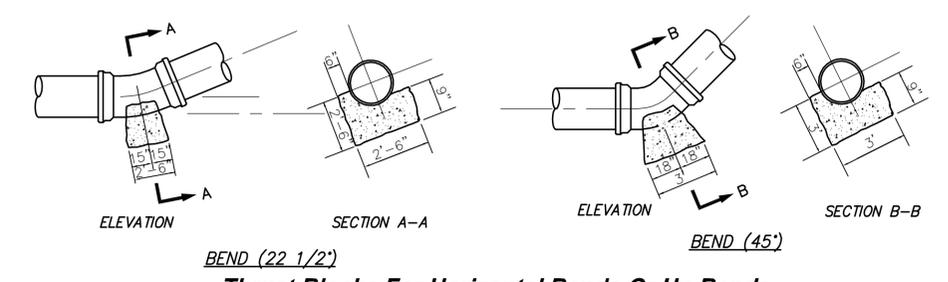
NOTE: All Mechanical Joints, Fittings, Elbows, Tees, Etc. Shall Be Polyethylene Polyethylene Double With In Accordance With ODOT Item 638.12 And Item 748.07.

All Bolts And Nuts Furnished With Mechanical Joints Or Retained Mechanical Joints Including Retainer Or Wedge Action Type Glands Shall Be Stainless Steel, Copper-Bearing Ductile Iron, Or Equivalent High Strength, Low Alloy Corrosion Resistant Steel And Have One (1) Coat Of Bitumastic Painting Prior To Polyethylene Wrapping.



Hydrant Assembly

NTS



Thrust Blocks For Horizontal Bends Or Up Bends

N.T.S.

ITEM 614 - MAINTAINING TRAFFIC, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF "ITEM 614 - MAINTAINING TRAFFIC" OF THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS, THE FOLLOWING SHALL APPLY:

THE CONTRACTOR SHALL MAINTAIN SAFE AND SATISFACTORY ACCESS TO ABUTTING PROPERTY. THE CONTRACTOR SHALL MAINTAIN ADEQUATE PEDESTRIAN WALKS AT ALL INTERSECTIONS. THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN ACCESS TO ALL BUSINESSES.

TRAFFIC SHALL BE MAINTAINED AT ALL TIMES WITH A MINIMUM ONE LANE OF TRAFFIC IN EACH DIRECTION.

THE LENGTH AND DURATION OF LANE CLOSURES AND OR TRAFFIC RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT, IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ADEQUATE DRAINAGE OF THE TRAVELED ROADWAYS DURING ALL PHASES OF CONSTRUCTION BY USING EXISTING DRAINAGE FACILITIES AND TEMPORARY DRAINAGE FACILITIES, IF REQUIRED.

A FLAGGER SHALL BE USED WHERE THE CONTRACTOR'S EQUIPMENT MUST MERGE WITH THE TRAFFIC STREAM. THE CONTRACTOR'S VEHICLES AND EQUIPMENT SHALL BE EQUIPPED WITH AT LEAST ONE AMBER FLASHING LIGHT. ANY CHANGES IN TRAFFIC PATTERN SHALL BE MADE USING L.E.O.'S DURING OFF-PEAK HOURS ONLY. (9 A.M. TO 11 A.M. OR 1 P.M. TO 3 P.M.)

IT IS ANTICIPATED THAT OTHER CONTRACTORS WILL BE WORKING ON PROJECTS ADJACENT TO OR WITHIN THE LIMITS OF, EITHER FOR THE CITY OR THE PUBLIC AGENCIES. THE CONTRACTOR SHALL CORPORATE AND COORDINATE HIS OPERATIONS, INCLUDING PROVISIONS FOR THE MAINTENANCE OR TRAFFIC, WITH THE CONTRACTORS OF OTHER PROJECTS THAT MAY BE IN FORCE DURING THE LIFE OF THIS CONTRACT.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC, AS PER PLAN, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616 - WATER 2 M.GAL.

CONSTRUCTION NOTIFICATION

THE CONTRACTOR WILL ADVISE THE ENGINEER A MINIMUM OF FOURTEEN (14) DAYS PRIOR TO START OF CONSTRUCTION ACTIVITIES, LANE CLOSURE, AND ROAD CLOSURES. THE ENGINEER WILL FORWARD THE INFORMATION AND ANY OTHER LOCAL OFFICIALS RESPONSIBLE FOR PUBLIC NOTIFICATION.

CITY OF COLUMBIANA SERVICE DEPARTMENT
ATTN: JESSE WILSON
PHONE: 330-719-0612
jwilson@columbianaohio.gov

CITY OF COLUMBIANA SCHOOL DISTRICT
ATTN: DR. DONALD J. MOOK - SUPERINTENDENT
PHONE: 330-452-5352 EXT. 34202

CITY OF COLUMBIANA FIRE DEPARTMENT
CHIEF JIM DOUGLAS
PHONE: 330-482-9292

THE UNITED STATES POSTAL SERVICE
PHONE: 330-482-4111

CITY OF COLUMBIANA POLICE DEPARTMENT
CHIEF MARK EDWARDS
PHONE: 330-482-9292

OVERNIGHT EXCAVATION

THE BASE WIDENING SHALL BE COMPLETED AT A DEPTH NO MORE THAN 9 INCHES BELOW THE EXISTING PAVEMENT BY THE END OF EACH DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER. IN THE CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE EXCAVATED AREA SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

COORDINATION

BUSINESS OWNERS: THE CONTRACTOR SHALL WORK WITH THE LOCAL BUSINESS OWNERS TO ENSURE ACCESS TO ALL PROPERTIES AT ALL TIME. HOWEVER, SOME INCONVENIENCES WILL OCCUR. PAYMENT FOR COORDINATION OR PROVIDING ACCESS TO THE BUSINESS PROPERTIES SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC, AS PER PLAN.

SCHOOLS: THE CONTRACTOR IS REQUIRED TO NOTIFY AND COORDINATE WITH COLUMBIANA LOCAL SCHOOLS FOR ACCESS AND STUDENT SAFETY CONSIDERATION DURING THE VARIOUS MAINTENANCE OF TRAFFIC PHASES, INCLUDING BUS STAGING AS NEEDED.

CONSTRUCTION TRAFFIC

ALL CONSTRUCTION TRAFFIC SHALL USE ACCEPTABLE TRUCK ROUTES TO ACCESS THE CONSTRUCTION AREA. USE OF THE LOCAL STREETS IS STRICTLY PROHIBITED UNLESS ALLOWED IN WRITING BY THE ENGINEER.

PEDESTRIAN ACCESS

DURING TEMPORARY CLOSURE OR RELOCATION OF SIDEWALKS AND OTHER PEDESTRIAN FACILITIES, TEMPORARY FACILITIES SHALL BE PROVIDED. THESE FACILITIES SHALL BE DETECTABLE AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH THE FEATURES PRESENT IN THE EXISTING FACILITY. PEDESTRIAN SIDEWALK CLOSURES, CROSSWALK CLOSURES, AND PEDESTRIAN DETOURS OR BYPASSES SHALL BE INSTALLED ACCORDING TO ODOT TYPICAL APPLICATIONS TA-28 AND TA-29 AND ODOT STD. DWG. MT-110.10 INCLUDE WITH ITEM 614 MAINTAINING TRAFFIC, AS PER PLAN FOR PAYMENT.

DRIVEWAY ACCESS

THIS WORK SHALL BE IN CONJUNCTION WITH ODOT ITEM 614 - MAINTAINING TRAFFIC, AS PER PLAN AND ALL COSTS INCURRED FOR THIS ITEM SHALL BE INCLUDED IN THE LUMP SUM BID MAINTAINING TRAFFIC.

NO ADDITIONAL PAYMENTS OR REIMBURSEMENT WILL BE FOR THIS WORK.

ACCESS TO ALL PROPERTY OWNERS, INCLUDING RESIDENCES AND BUSINESSES, SHALL BE MADE AVAILABLE AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL MAKE AVAILABLE DURING THE CONSTRUCTION, STEEL PLATES, BRIDGES OR OTHER MEANS APPROVED BY THE ENGINEER TO BRIDGE ACROSS THE HALF WIDTH ROADWAY CONSTRUCTION, TO PROVIDE FULL TIME (24 HOURS - 7 DAYS A WEEK) ACCESS TO DRIVEWAYS.

THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL, AT THE PRE-CONSTRUCTION MEETING, HIS PROPOSAL FOR PROVIDING ACCESS TO THE DRIVEWAYS.

COVERING OF SIGNS

ANY EXISTING SIGNS THAT ARE IN CONFLICT WITH THE PROPOSED MAINTENANCE OF TRAFFIC PLANS SHALL BE COVERED. THE CONTRACTOR SHALL DO SO IN SUCH A MANNER AS TO AVOID DAMAGING THE PERMANENT SIGN WHEN THE COVER IS REMOVED. THE COVER SHALL BE TOTALLY OPAQUE. THE USE OF ADHESIVE TAPE APPLIED DIRECTLY TO ANY EXISTING OR NEW SIGN FACE IS STRICTLY PROHIBITED.

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOs) BY CONTRACTOR OTHER THAN THE USES BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOs SHOULD NOT BE USED WHERE THE ODOT INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE ODOT, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

FOR LANE CLOSURE: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

IN GENERAL, LEOs SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION (OR AT THE POINT OF ROAD CLOSURE), AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

LEOs SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THE PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOs WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOs WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOs. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOs DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

ENSURE PROVIDED LEOs HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

THE LEOs SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE THAT SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOs (WITH PATROL CAR) REQUIRED BY TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 60 HOURS

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICE OF A LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

ITEM 614, MAINTAINING TRAFFIC (LANE OPEN DURING HOLIDAYS OR SPECIAL EVENTS)

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

CHRISTMAS	FOURTH OF JULY
NEW YEAR'S	LABOR DAY
MEMORIAL DAY	THANKSGIVING

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD.

DAY OF HOLIDAY OR EVENT	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00N FRIDAY THROUGH 6:00 AM WEDNESDAY
WEDNESDAY	12:00N FRIDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N FRIDAY THROUGH 6:00 AM FRIDAY
THURSDAY (THANKSGIVING ONLY)	6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

CALCULATED
MSL
CHECKED
JDV

MAINTENANCE OF TRAFFIC NOTES

COL-SR14-9.02

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (Hauling.Permits@dot.ohio.gov) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFICATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION OF TRAFFIC RESTRICTIONS TIME TABLE

<u>ITEM</u>	<u>DURATION OF CLOSURE</u>	<u>NOTICE DUE TO PERMITS & PIO</u>
RAMP &	≥ 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
ROAD	>12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
CLOSURES	> =12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE
LANE	≥ 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
CLOSURES & RESTRICTIONS	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

THE CITY OF COLUMBIANA SAFETY/SERVICE DEPARTMENT SHALL BE NOTIFIED OF MAINTENANCE OF TRAFFIC PHASE CHANGES 96 HOURS PRIOR TO CHANGE. THE CITY OF COLUMBIANA SAFETY/SERVICE DEPARTMENT WILL BE RESPONSIBLE FOR PLACING DOOR HANGERS OR OTHERWISE NOTIFYING RESIDENTS OR BUSINESSES WITHIN THE ZONE AS TO THE TRAFFIC RESTRICTIONS FOR THE PENDING PHASE.

SEQUENCE OF OPERATIONS

TO ASSURE THE LEAST POSSIBLE OBSTRUCTION TO TRAFFIC SAFETY, CONVENIENCE OF THE GENERAL PUBLIC AND THE RESIDENTS, AND PROTECTION OF PERSONS AND PROPERTY, THE SEQUENCE OF CONSTRUCTION AS DETAILED IN THIS NOTE SHALL BE ADHERED TO UNLESS OTHERWISE APPROVED BY THE PROJECT ENGINEER.

PRE-PHASE:
ERECT SIGNAGE.

PHASE 1:
CONSTRUCTION AREA: CONSTRUCT RIGHT SIDE OF S.R. 14, STA. 84+22 TO STA. 98+80 WORK SHALL BE COMPLETED ALLOWING TWO 10 FOOT LANE TO BE MAINTAINED FOR TWO-WAY LOCAL TRAFFIC AND CONSTRUCTION TRAFFIC UTILIZING EXISTING PAVEMENT. THE STORM SEWER CROSSING AT STA. 89+65 TO BE CONSTRUCTED ENTIRELY ACROSS THE PAVEMENT SECTION, USING FLAGGERS AS NECESSARY.

PRE-PHASE 2:
ERECT SIGNAGE.

PHASE 2A:
CONSTRUCT LEFT SIDE OF S.R. 14, STA. 84+22 TO STA. 98+80 WORK SHALL BE COMPLETED ALLOWING TWO 10 FOOT LANES TO BE MAINTAINED FOR ALL TRAFFIC UTILIZING EXISTING PAVEMENT.

PHASE 2B:
PLANING AND RESURFACING:
A MINIMUM OF ONE LANE OF TRAFFIC SHALL BE MAINTAINED AT ALL TIMES PER ITEM 614 AND AS PER SCD MT-97.12. LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

THE PLANING AND RESURFACING WILL PROCEED CONTINUOUSLY A MINIMUM OF FIVE (5) DAYS PER WEEK, WEATHER PERMITTING, EXCEPT FOR HOLIDAYS AND EVENTS LISTED BELOW. ANY OPEN PAVEMENT TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR PORTABLE BARRIERS, PER SCD MT-101.90.

THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN W8-15 "GROOVED PAVEMENT" SIGNS PER CMS 614.055.

THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN SIGNS W8-1 (48"x48") "BUMP" AND W8-2 (48"x48") "DIP" WITH W13-1P (24"x24") ADVISORY SPEED PLAQUE WITH SPEEDS APPROVED BY THE ENGINEER FOR ALL BUTT JOINT LOCATIONS, WHILE THE BUMP OR DIP CONDITION EXISTS.

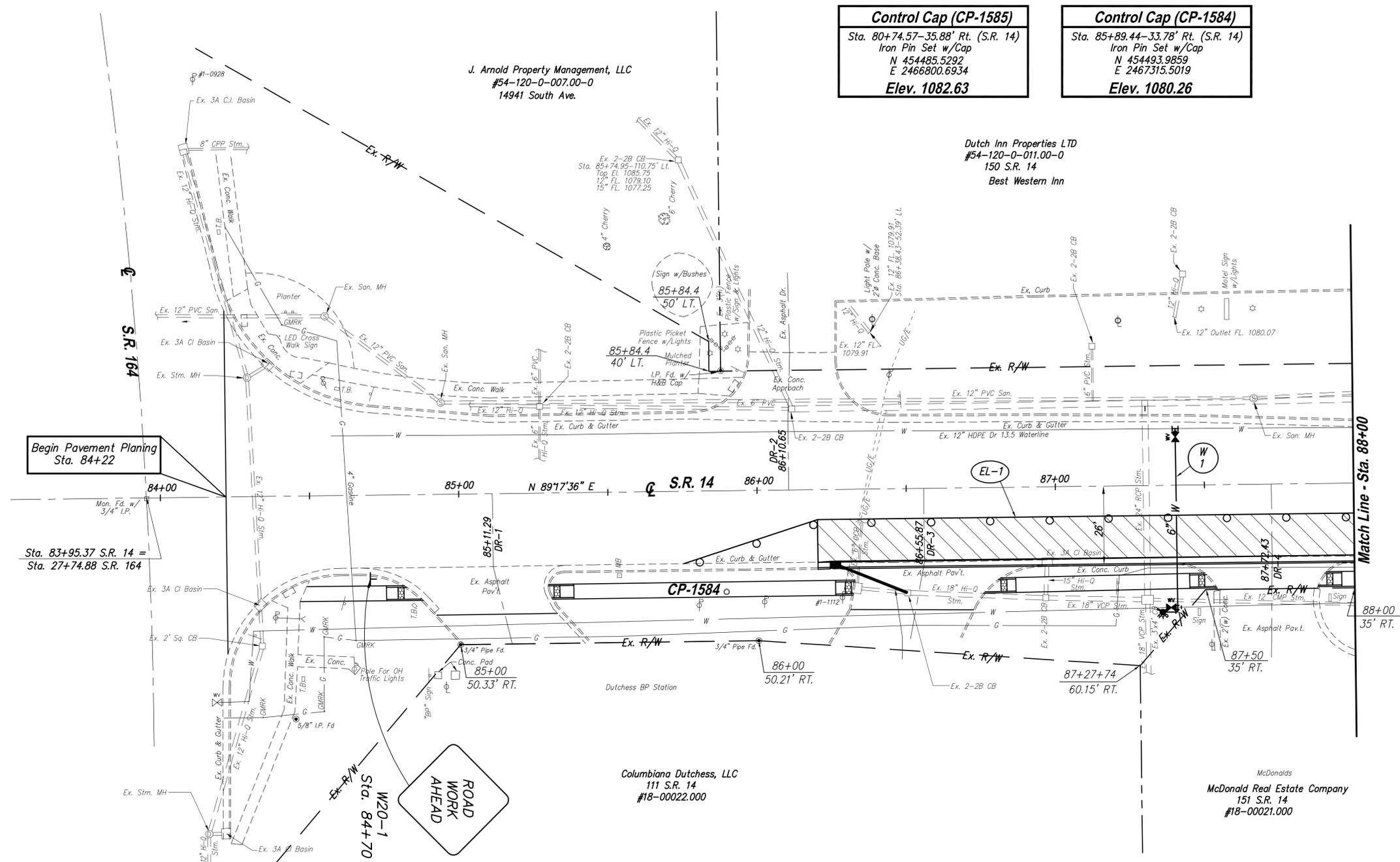


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**MAINTENANCE OF TRAFFIC
PHASE ONE**

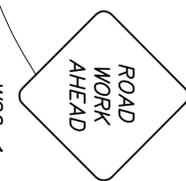
COL-SR14-9.02

Control Cap (CP-1585) Sta. 80+74.57-35.88' Rt. (S.R. 14) Iron Pin Set w/Cap N 454485.5292 E 2466800.6934 Elev. 1082.63	Control Cap (CP-1584) Sta. 85+89.44-33.78' Rt. (S.R. 14) Iron Pin Set w/Cap N 454493.9859 E 2467315.5019 Elev. 1080.26
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Begin Pavement Planning
Sta. 84+22

Sta. 83+95.37 S.R. 14 =
Sta. 27+74.88 S.R. 164

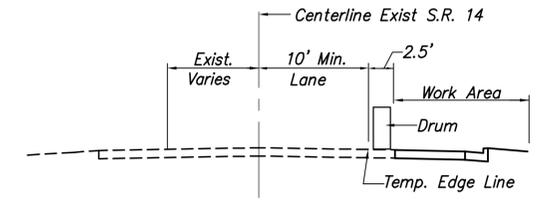


**ESTIMATED QUANTITIES PHASE ONE
STA. 84+00 TO STA. 88+00**

REF. NO.	STATION TO STATION	614		
		Temporary Edge Line Class 1		
		Lin. Ft.		
EL-1	85+75 TO 88+00	227		
TOTALS THIS SHEET		227		

LEGEND

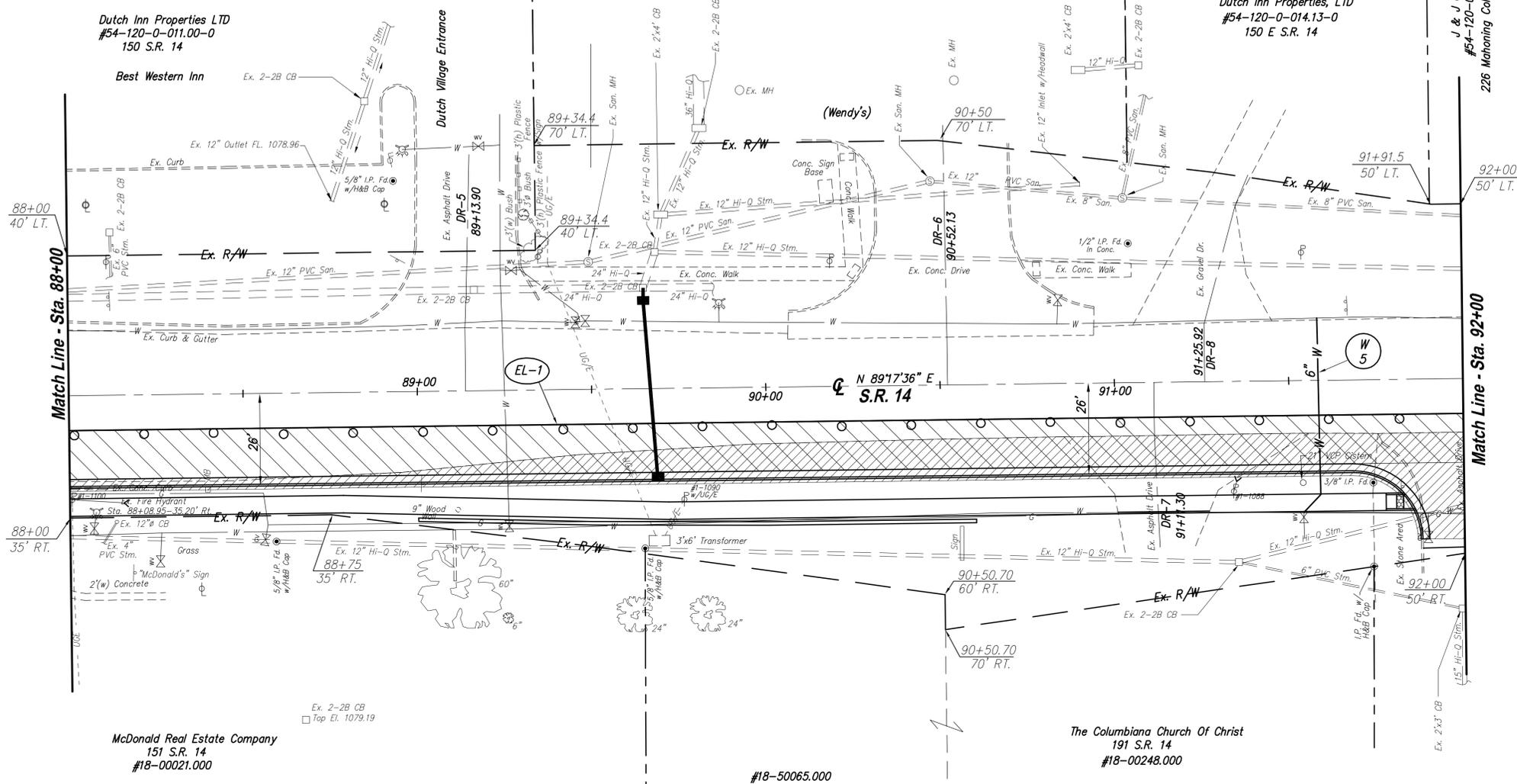
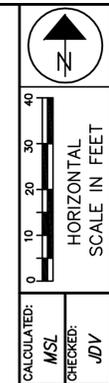
- Plastic Safety Drum
- Area To Be Constructed
- Underground Utility To Be Constructed



Sta. 85+75 TO 88+00
TYPICAL SECTION

Control Cap (CP-1585)
 Sta. 80+74.57-35.88' Rt. (S.R. 14)
 Iron Pin Set w/Cap
 N 454485.5292
 E 2466800.6934
 Elev. 1082.63

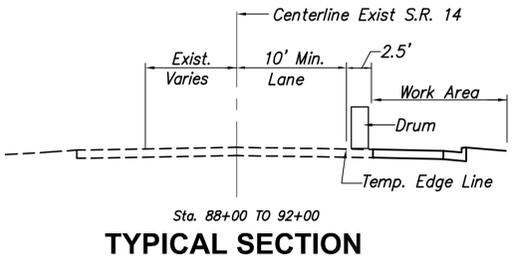
Control Cap (CP-1584)
 Sta. 85+89.44-33.78' Rt. (S.R. 14)
 Iron Pin Set w/Cap
 N 454493.9859
 E 2467315.5019
 Elev. 1080.26



**MAINTENANCE OF TRAFFIC
 PHASE ONE**

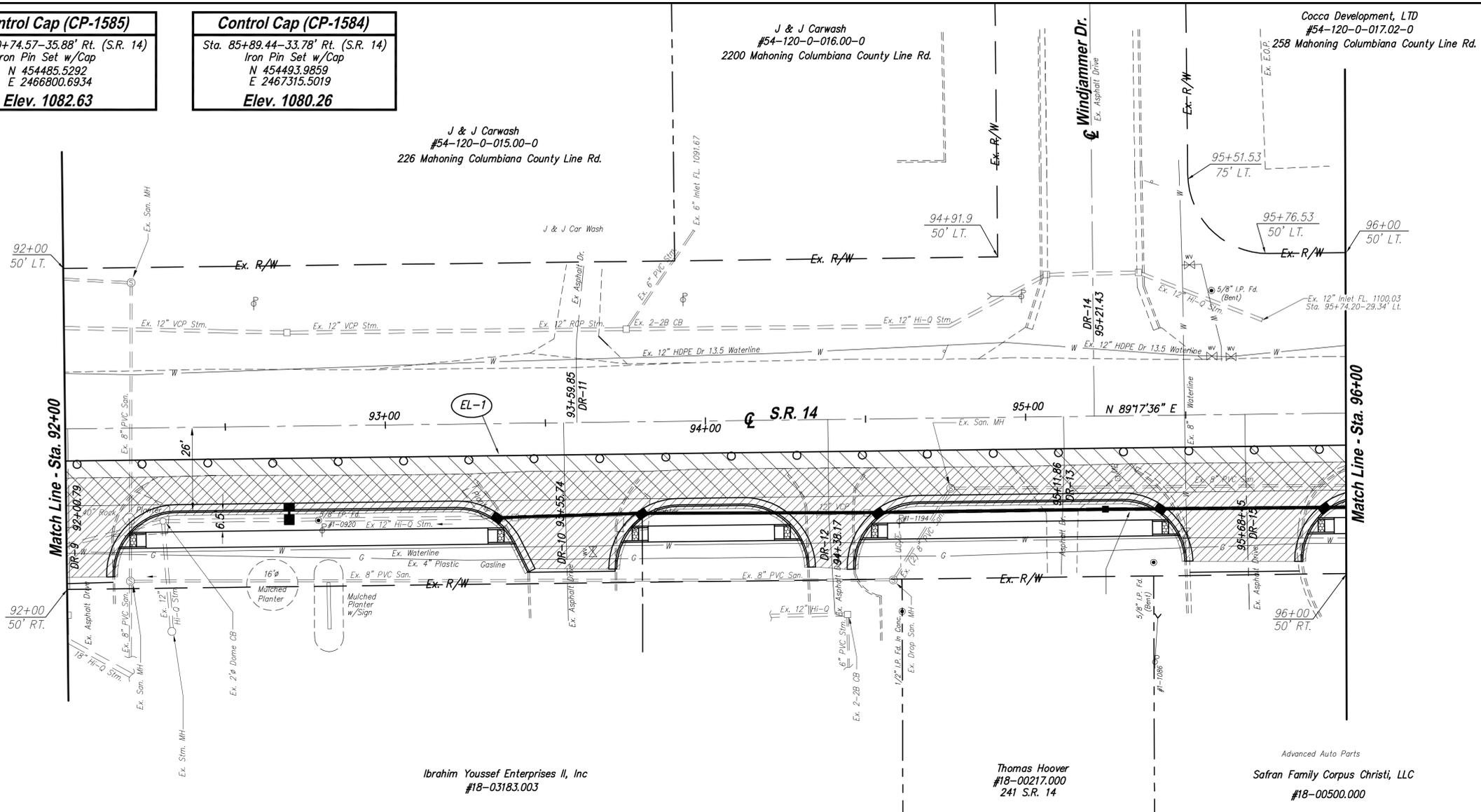
**ESTIMATED QUANTITIES PHASE ONE
 STA. 88+00 TO STA. 92+00**

REF. NO.	STATION TO STATION	614		
		Temporary Edge Line Class 1		
		Lin. Ft.		
EL-1	88+00 TO 92+00	400		
TOTALS THIS SHEET		400		



Control Cap (CP-1585)
 Sta. 80+74.57-35.88' Rt. (S.R. 14)
 Iron Pin Set w/Cap
 N 454485.5292
 E 2466800.6934
 Elev. 1082.63

Control Cap (CP-1584)
 Sta. 85+89.44-33.78' Rt. (S.R. 14)
 Iron Pin Set w/Cap
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 Elev. 1080.26



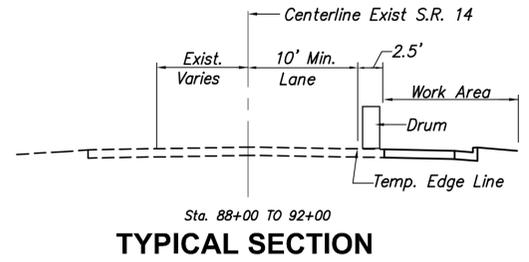
**MAINTENANCE OF TRAFFIC
 PHASE ONE**

**ESTIMATED QUANTITIES PHASE ONE
 STA. 92+00 TO STA. 96+00**

REF. NO.	STATION TO STATION	614	
		Temporary Edge Line Class 1	Lin. Ft.
EL-1	92+00 TO 96+00	400	
TOTALS THIS SHEET		400	

LEGEND

- Plastic Safety Drum
- Area To Be Constructed
- Underground Utility To Be Constructed

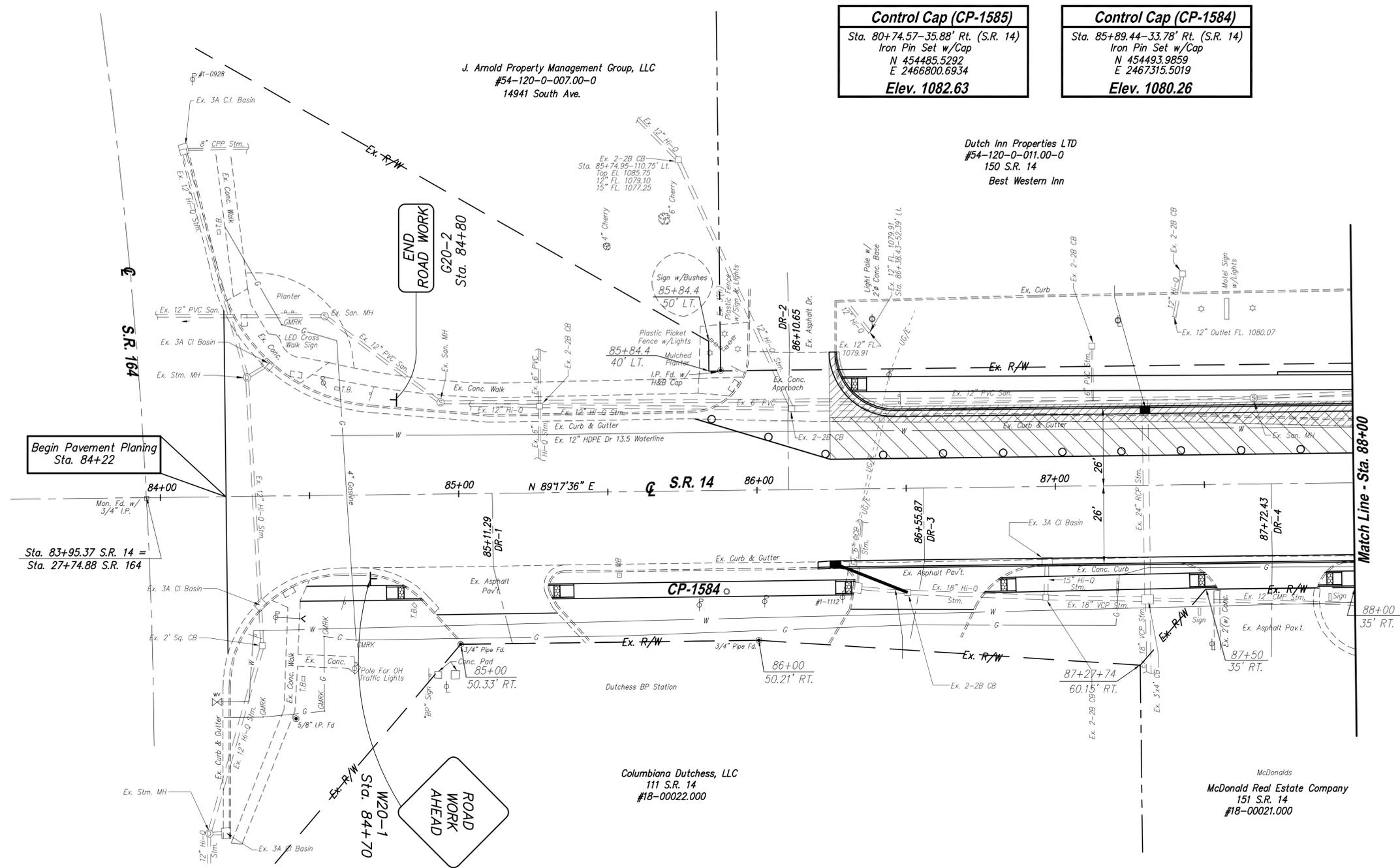


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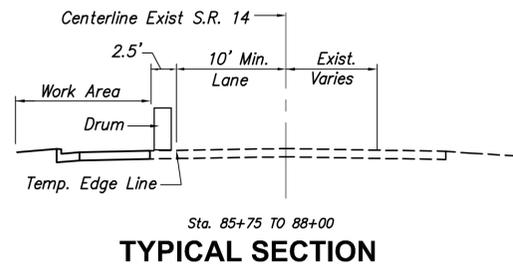
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Control Cap (CP-1585) Sta. 80+74.57-35.88' Rt. (S.R. 14) Iron Pin Set w/Cap N 454485.5292 E 2466800.6934 Elev. 1082.63	Control Cap (CP-1584) Sta. 85+89.44-33.78' Rt. (S.R. 14) Iron Pin Set w/Cap N 454493.9859 E 2467315.5019 Elev. 1080.26
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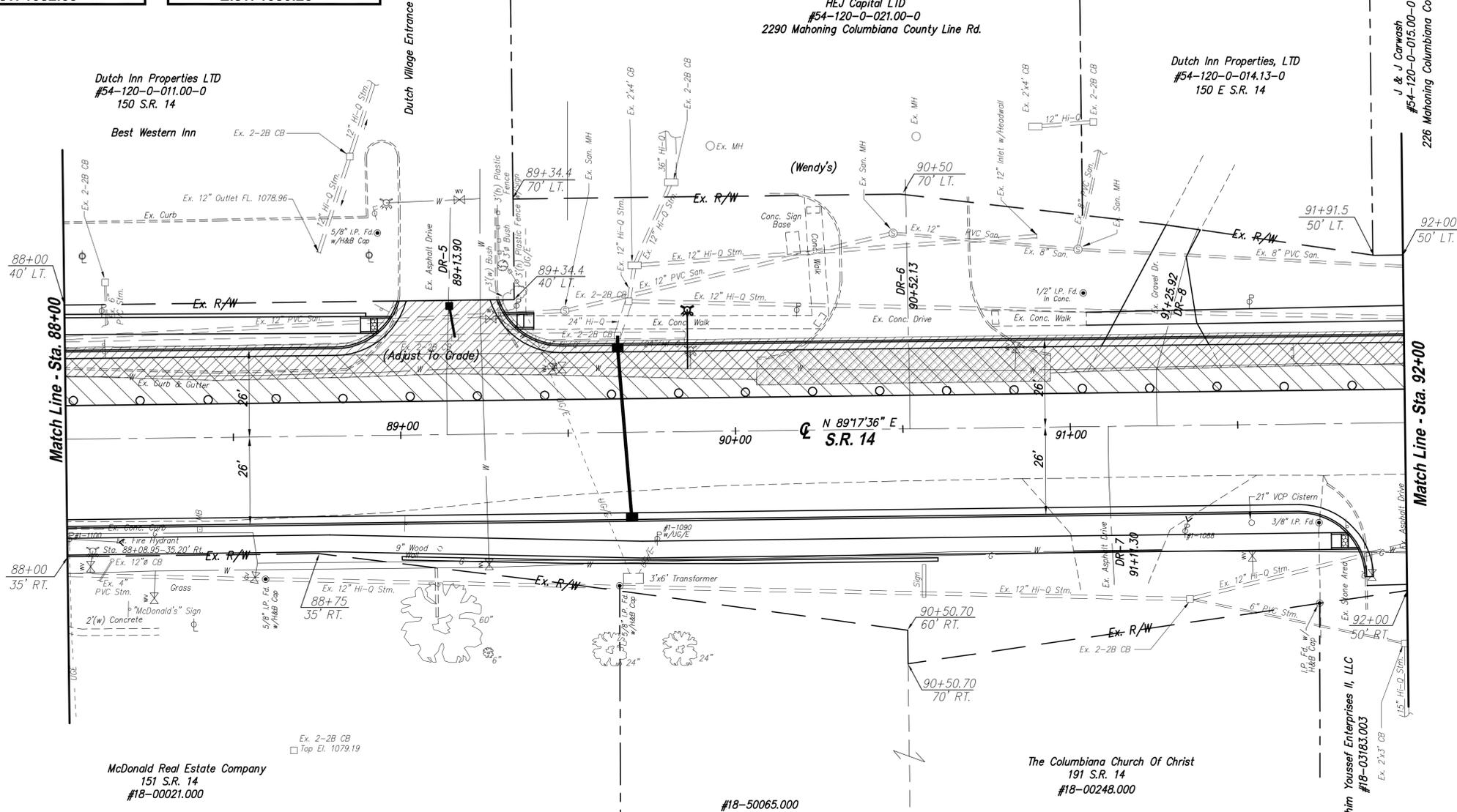
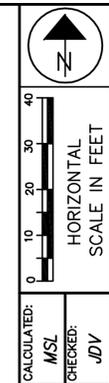
**MAINTENANCE OF TRAFFIC
PHASE TWO**

ESTIMATED QUANTITIES PHASE TWO STA. 84+00 TO STA. 88+00				
REF. NO.	STATION TO STATION	614		
		Temporary Edge Line Class 1		
		Lin. Ft.		
EL-2	85+80 TO 88+00	222		
TOTALS THIS SHEET		222		



Control Cap (CP-1585)
 Sta. 80+74.57-35.88' Rt. (S.R. 14)
 Iron Pin Set w/Cap
 N 454485.5292
 E 2466800.6934
 Elev. 1082.63

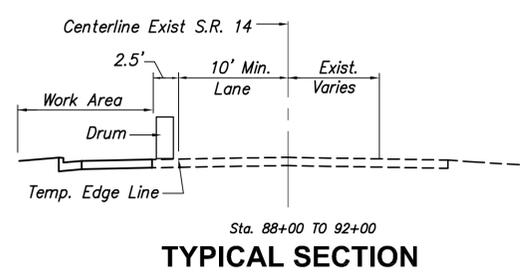
Control Cap (CP-1584)
 Sta. 85+89.44-33.78' Rt. (S.R. 14)
 Iron Pin Set w/Cap
 N 454493.9859
 E 2467315.5019
 Elev. 1080.26



**MAINTENANCE OF TRAFFIC
 PHASE TWO**

**ESTIMATED QUANTITIES PHASE TWO
 STA. 88+00 TO STA. 92+00**

REF. NO.	STATION TO STATION	614		
		Temporary Edge Line Class 1		
		Lin. Ft.		
EL-2	88+00 TO 92+00	400		
TOTALS THIS SHEET		400		



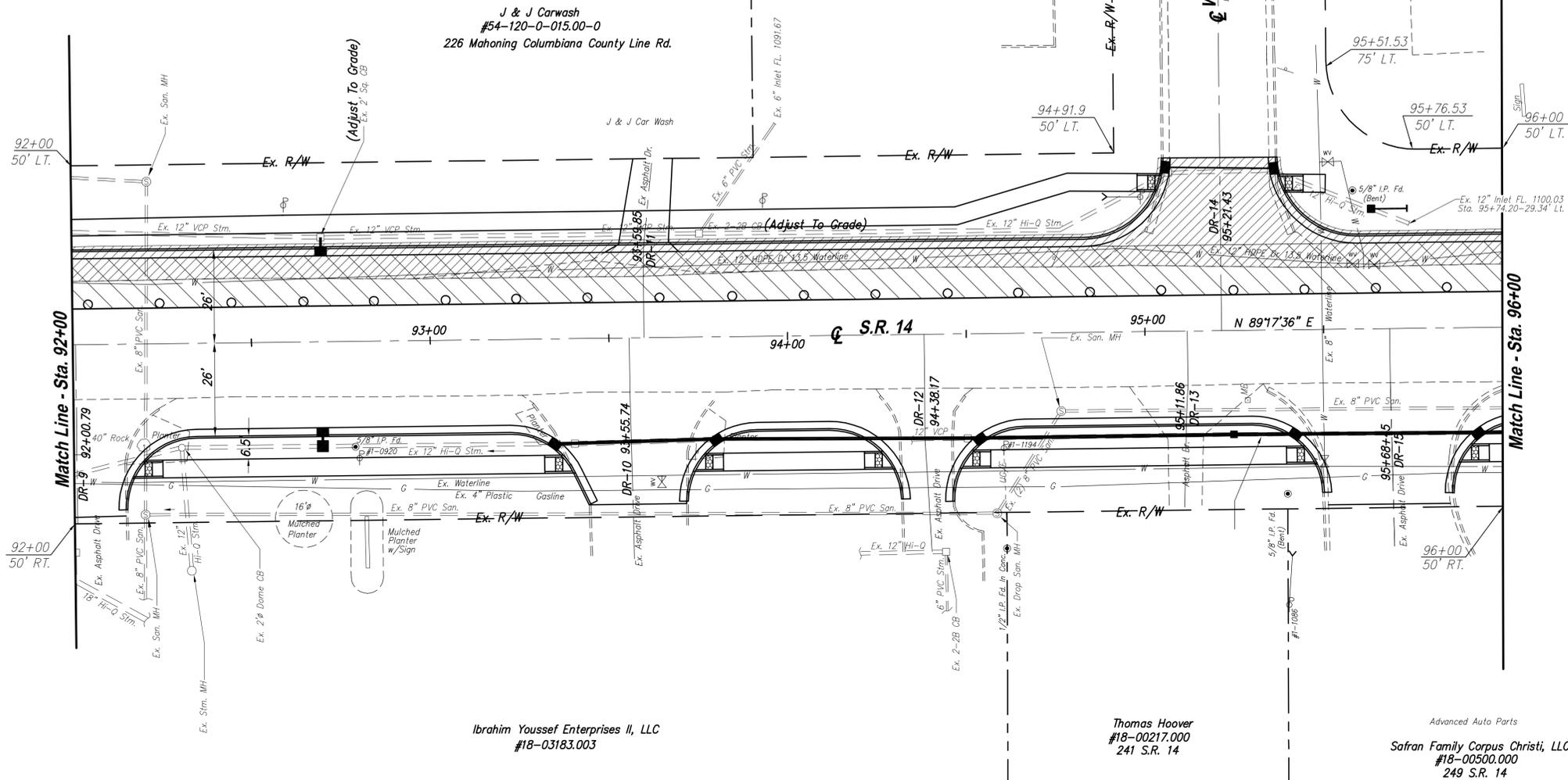
Control Cap (CP-1585)
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Control Cap (CP-1584)
 Sta. 85+89.44-33.78' Rt. (S.R. 14)
 Iron Pin Set w/Cap
 N 454493.9859
 E 2467315.5019
 Elev. 1080.26

J & J Carwash
 #54-120-0-016.00-0
 2200 Mahoning Columbiana County Line Rd.

Cocca Development, LTD
 #54-120-0-017.02-0
 258 Mahoning Columbiana County Line Rd.

J & J Carwash
 #54-120-0-015.00-0
 226 Mahoning Columbiana County Line Rd.



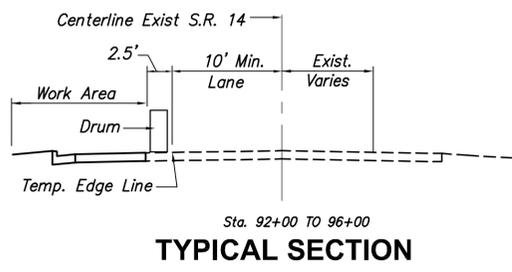
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**MAINTENANCE OF TRAFFIC
 PHASE TWO**

**ESTIMATED QUANTITIES PHASE TWO
 STA. 92+00 TO STA. 96+00**

REF. NO.	STATION TO STATION	614		
		Temporary Edge Line Class 1		
		Lin. Ft.		
EL-2	92+00 TO 96+00	400		
TOTALS CARRIED TO SHEET NO. 00		400		

- LEGEND**
- Plastic Safety Drum
 - Area To Be Constructed
 - Underground Utility To Be Constructed



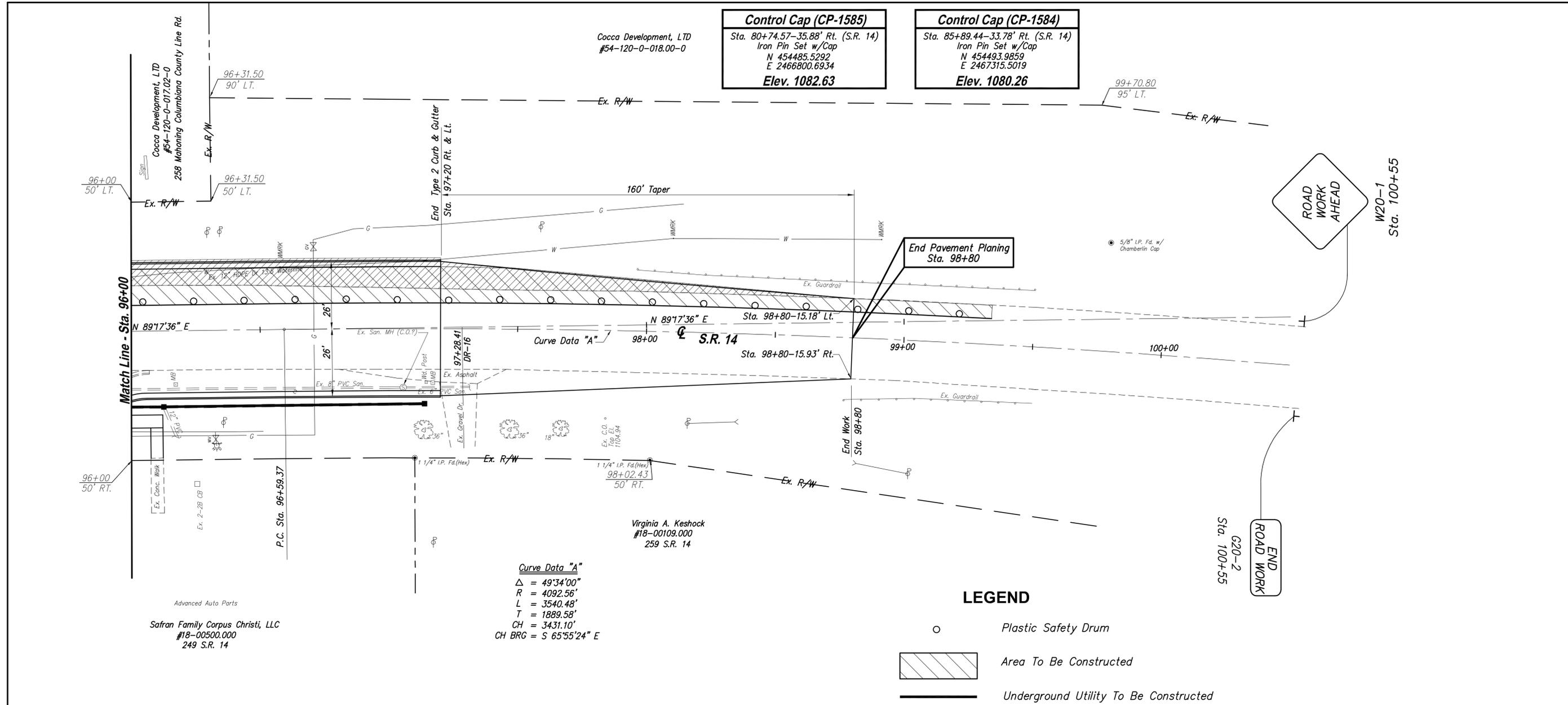
COL-SR14-9.02



CALCULATED: MSL
CHECKED: J/DV

**MAINTENANCE OF TRAFFIC
PHASE TWO**

COL-SR14-9.02



Curve Data "A"
 $\Delta = 49^{\circ}34'00''$
 $R = 4092.56'$
 $L = 3540.48'$
 $T = 1889.58'$
 $CH = 3431.10'$
 $CH BRG = S 65^{\circ}55'24'' E$

LEGEND

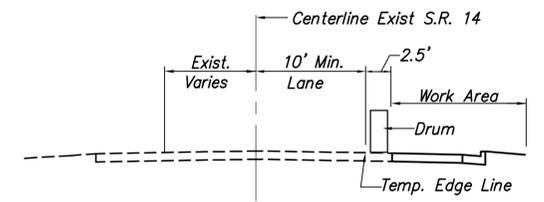
- Plastic Safety Drum
- Area To Be Constructed
- Underground Utility To Be Constructed

**ESTIMATED QUANTITIES PHASE TWO
STA. 96+00 TO STA. 98+80**

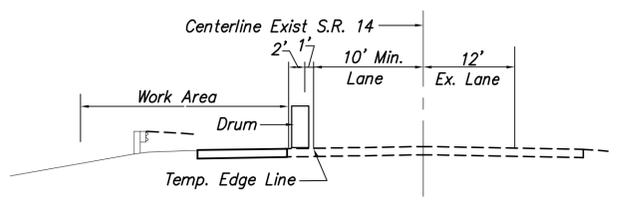
REF. NO.	STATION TO STATION	614	
		Temporary Edge Line Class 1	Lin. Ft.
EL-2	96+00 TO 99+35		335
TOTALS CARRIED TO SHEET NO. 00		335	

TOTAL ESTIMATED QUANTITIES PHASE TWO

SHEET NOS.	614	
	Temporary Edge Line Class 1	Lin. Ft.
TOTALS FROM SHEET 14	222	
TOTALS FROM SHEET 15	400	
TOTALS FROM SHEET 16	400	
TOTALS FROM SHEET 17	335	
TOTALS CARRIED TO SHEET NO. 18A	1357 FT.	0.26 MILE



TYPICAL SECTION



TYPICAL SECTION

SHEET NO.														ITEM	ITEM EXT.	GRAND TOTAL 01/S5K	UNIT	DESCRIPTION	SEE SHEET NO.
6	19	20	21	22	23	27	28	29	38										
														ROADWAY					
Lump														201	11000	Lump	Lump	Clearing & Grubbing	
						247								202	23000	247	S.Y.	Pavement Removed	
						1								202	98100	1	Each	Removal Misc.: 40"Ø Rock Removed	22
						1								202	98100	1	Each	Removal Misc.: Wood Post Removed And Replaced	23
						12								202	98200	12	FT.	Removal Misc.: Wood Wall Removed	21
						5								202	69050350	5	Each	Removal Misc.: Mailbox Removed And Reset	
						20								202	30000	20	S.F.	Walk Removed	
						241								202	32000	241	L.F.	Curb Removed	
						413								202	32500	413	L.F.	Curb And Gutter Removed	
						515								202	35100	515	L.F.	Pipe Removed, 24" Diameter And Under	
						10								202	58100	10	Each	Catch Basin Removed	
														203	10000	783	C.Y.	Excavation	
														203	20000	839	C.Y.	Embankment	
	1511							1767	728					204	10000	4006	S.Y.	Subgrade Compaction	
5														204	45000	5	Hour	Proof Rolling	
														DRAINAGE					
				0.2										602	20000	0.2	C.Y.	Concrete Masonry	
														605	11100	1882	FT.	6" Shallow Pipe Underdrain	
60														611	00900	60	FT.	6" Conduit, Type B	
100		26	64	303	12									611	04400	505	FT.	12" Conduit, Type "B" (707.33)	
				10	101									611	04600	111	FT.	12" Conduit, Type "C" (707.33)	
		4												611	07400	4	FT.	18" Conduit, Type "B" (707.33)	
		1												611	98150	1	Each	Standard No. 3 Catch Basin	
		1												611	98180	12	Each	Standard No. 3A Catch Basin	
2			2	9										611	98470	7	Each	Standard No. 2-2B Catch Basin	
			1	2	2									611	98510	1	Each	Standard No. 2-3 Catch Basin	
				1										611	98630	8	Each	Catch Basin Adjusted To Grade	
4		1	1	2										611	99900	1	Each	Conduit Misc.: 24"x24"x24" Tee (707.33) w/(2) 4' Lg. 24" Conduit & Masonry Collars	20
		1												Special	61199820	500	LB	Miscellaneous Metal	6
500																			
														PAVEMENT					
														254	01000	7214	S.Y.	Pavement Planing, Asphalt Concrete (T=3")	
140														254	01001	140	S.Y.	Pavement Planing, Asphalt Concrete (T=1.5"), As Per Plan	6
	284	3	5											301	56000	292	C.Y.	8" Asphalt Concrete Base, PG64-22 (449)	
														304	20000	115	C.Y.	4" Aggregate Base	
														304	20000	372	C.Y.	6" Aggregate Base	
														304	20000	111	C.Y.	8" Aggregate Base	
														407	10000	325	Gal.	Tack Coat, Applied At Rate Of 0.04 Gal./S.F.	
6		292												441	70100	288	C.Y.	1 1/4" Asphalt Concrete Surface Course Type 1, (449) PG70-22M	
		253												441	70300	372	C.Y.	1 3/4" Asphalt Concrete Intermediate Course Type 2, (449)	
		356												441	70301	31	C.Y.	2 1/2" Asphalt Concrete Intermediate Course Type 1, (449) (Driveways), As Per Plan	6
														602	97000	920	S.F.	Masonry Misc.: Modular Block Wall	7
														602	98100	275	FT.	Masonry Misc.: Cap Unit w/42"(h) Handrailing (517.06)	7
														608	10000	7938	S.F.	4" Concrete Walk	
														608	52000	685	S.F.	Curb Ramp, Type 2A	
														609	12000	2158	L.F.	Combination Concrete Curb & Gutter, Type 2	

GENERAL SUMMARY

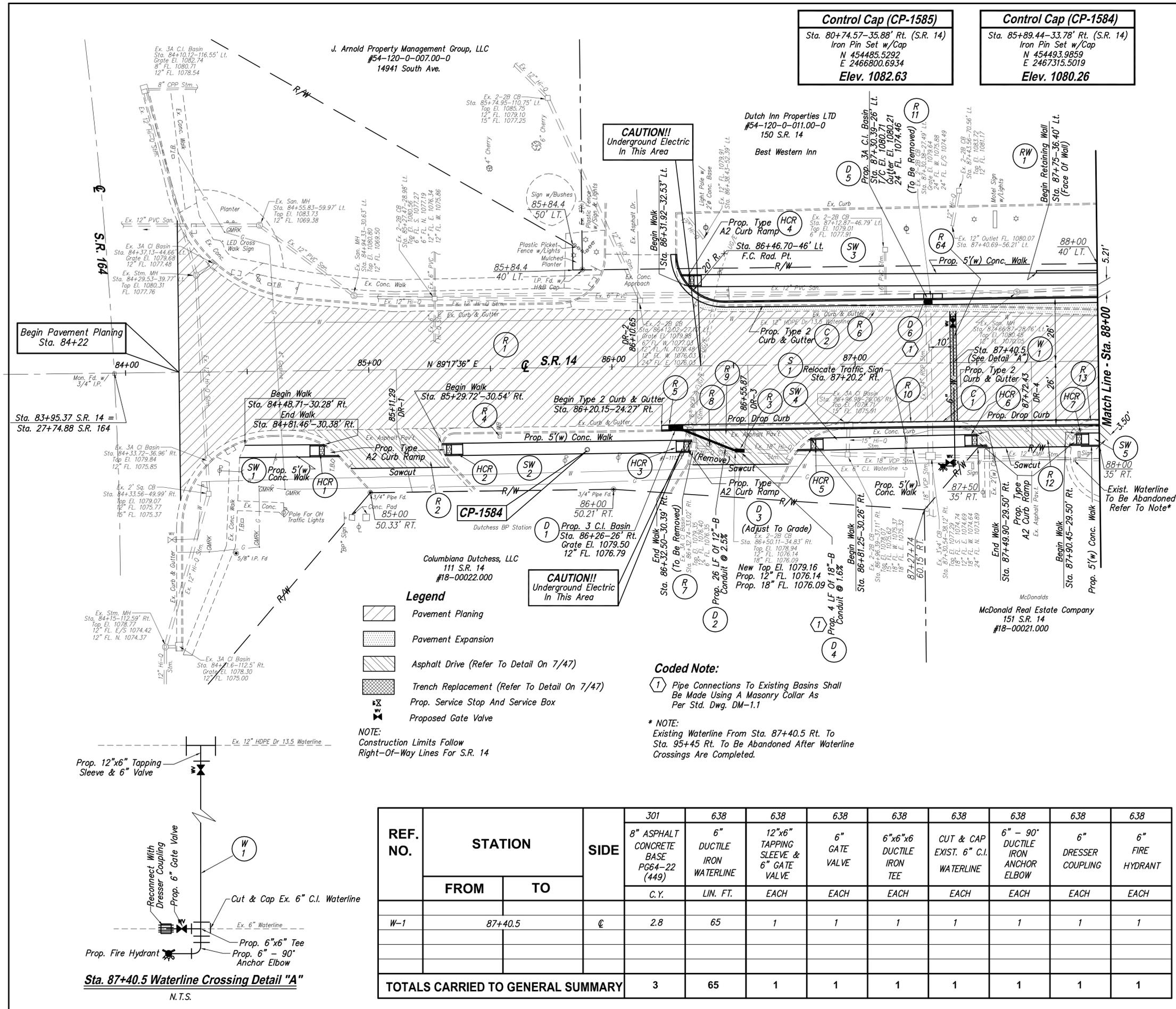
COL-SR14-9.02

SHEET NO.																		ITEM	ITEM EXT.	GRAND TOTAL 01/S5K	UNIT	DESCRIPTION	SEE SHEET NO.
6	8	9	13	17	19	20	21	22	23	27	28	29	38	47									
																		WATER WORK					
						65	76											638	20046	141	FT.	6" Ductile Iron Waterline	
						1												638	20536	1	Each	6" Gate Valve	
						1	1											638	20706	2	Each	12"x6" Tapping Sleeve & 6" Gate Valve	
						1												638	20750	1	Each	6" Fire Hydrant	7
							1											638	20754	1	Each	Fire Hydrant Removed And Reset	
											1							638	20760	1	Each	Fire Hydrant Removed And Disposed Of	
											26							638	20770	26	FT.	1" Type K Copper Service Waterline	6
											120							638	20778	323	FT.	2" Type K Copper Service Waterline	6
						1					1							638	98000	2	Each	Water Work, Misc.: Cut & Cap Exist. 6" C.I. Waterline	6
							1											638	98000	1	Each	Water Work, Misc.: Cut & Cap Exist. 8" C.I. Waterline	6
						1												638	98000	1	Each	Water Work, Misc.: 6"-90° Ductile Iron Anchor Elbow	6, 7
							1				2							638	98000	2	Each	Water Work, Misc.: 6"-45° Ductile Iron Elbow	6, 7
						1												638	98000	1	Each	Water Work, Misc.: 6"x6"x6" Ductile Iron Tee	6, 7
						1												638	98000	1	Each	Water Work, Misc.: 6" Dresser Coupling	6
							2				4							638	98000	6	Each	Water Work, Misc.: 2" Tapping Saddle And Corporation Stop	6
											1							638	98000	1	Each	Water Work, Misc.: 1" Tapping Saddle And Corporation Stop	6
							1				5							638	98000	6	Each	Water Work, Misc.: Service Stop And Service Box	6
																		SANITARY SEWER					
																		202	35101	34	FT.	Pipe Removed, 24" Diameter And Under, As Per Plan	6, 26
											1							202	58000	1	Each	Manhole Removed, Sanitary	6, 26
											34							611	01801	34	Each	8" Conduit, Type B, (707.45) As Per Plan	6, 26
											1							611	99575	1	Each	Manhole, No. 3, Sanitary, As Per Plan	6, 26
												1						611	99654	1	Each	Manhole, Adjust To Grade	
												1						611	99901	1	Each	Drainage Structure, Misc.: Manhole Coring & Link Seal, As Per Plan	26
																		TRAFFIC CONTROL					
						1	4	1										630	85100	6	Each	Removal Of Ground Mounted Sign And Re-Erection	
																		646	10000	0.5	Mile	Edge Line 4"	
																		646	10100	0.04	Mile	Lane Line 4"	
																		646	10200	0.2	Mile	Center Line (Double Yellow)	
																		646	10201	0.4	Mile	Center Line (Solid Single Yellow)	
																		646	10201	0.4	Mile	Center Line (Dashed Yellow)	
																		646	10400	52	Foot	Stop Line	
																		646	10510	194	Foot	Crosswalk Line 12"	
																		646	10520	91	Foot	Crosswalk Line 24"	
																		646	10601	228	Foot	Transverse/Diagonal Line (Yellow)	
																		646	20300	16	Each	Lane Arrow	
																		MAINTENANCE OF TRAFFIC					
																		614	11001	Lump		Maintaining Traffic, As Per Plan	8
																		614	11110	60	Hour	Law Enforcement Officer With Patrol Car For Assistance	
																		614	22000	0.52	Mile	Temporary Edge Line Class 1	
																		616	10000	2	M. Gal	Water	
																		INCIDENTALS					
																		619	16000	9	Month	Field Office, Type A	
																		623	10000	Lump		Construction Layout Stakes And Surveying	
																		624	10000	Lump		Mobilization	
																		EROSION CONTROL					
																		659	00500	2524	S.Y.	Seeding And Mulching, Class 1	
																		659	20000	0.23	Ton	Commercial Fertilizer	
																		659	31000	0.52	Ac.	Lime	
																		659	35000	6.8	M. Gal.	Water	
																		832	30000	10000	Each	Erosion Control	

GENERAL SUMMARY

COL-SR14-9.02

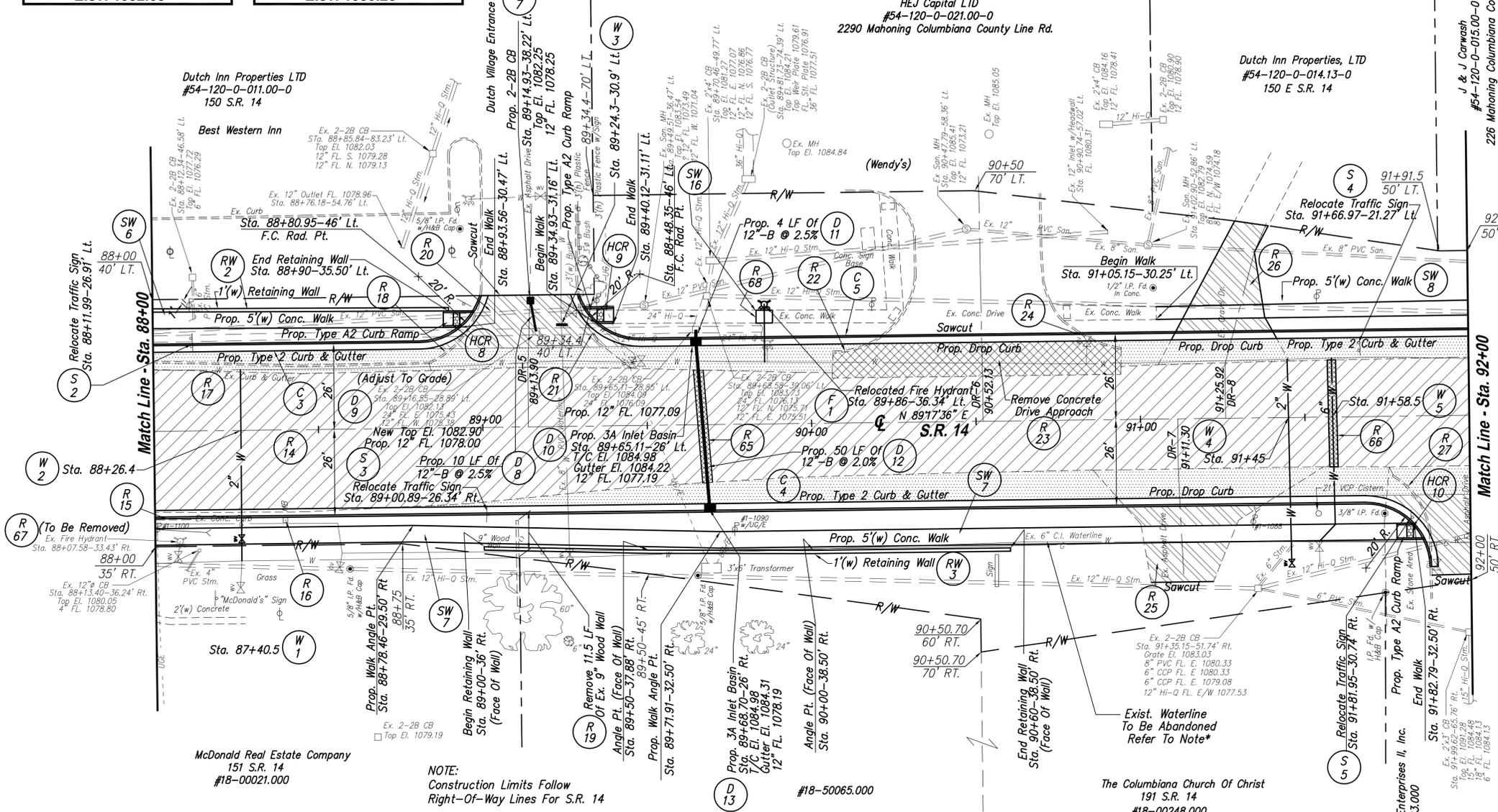
CALCULATED
MSL
CHECKED
JDV



REF. NO.	STATION	SIDE	STATION		QUANTITY	DESCRIPTION
			FROM	TO		
611	12" CONDUIT TYPE "B"	RT.	86+26	86+50	26	12" CONDUIT TYPE "B"
611	18" CONDUIT TYPE "B"	RT.	86+50	86+54.3	4	18" CONDUIT TYPE "B"
611	CATCH BASIN ADJUST TO GRADE	RT.	87+20.2	87+20.2	1	CATCH BASIN ADJUST TO GRADE
611	STD. NO. 2-2-B CATCH BASIN	RT.	87+30.4	87+30.4	1	STD. NO. 2-2-B CATCH BASIN
611	STD. NO. 3A CATCH BASIN	RT.	87+30.4	87+30.4	1	STD. NO. 3A CATCH BASIN
611	STD. NO. 3 CATCH BASIN	RT.	87+30.4	87+30.4	1	STD. NO. 3 CATCH BASIN
611	24"x24"x24" TEL. (707.33) w/(2) 4" LG. CONDUIT & MASONRY COLLARS	RT.	87+30.4	87+30.4	1	24"x24"x24" TEL. (707.33) w/(2) 4" LG. CONDUIT & MASONRY COLLARS
611	REMOVAL OF GROUND MOUNTED SIGN AND RECREATION	RT.	87+30.4	87+30.4	1	REMOVAL OF GROUND MOUNTED SIGN AND RECREATION
TOTALS CARRIED TO GENERAL SUMMARY					26	

Control Cap (CP-1585)
 Sta. 80+74.57-35.88' Rt. (S.R. 14)
 Iron Pin Set w/Cap
 N 454485.5292
 E 2466800.6934
 Elev. 1082.63

Control Cap (CP-1584)
 Sta. 85+89.44-33.78' Rt. (S.R. 14)
 Iron Pin Set w/Cap
 N 454493.9859
 E 2467315.5019
 Elev. 1080.26



- Legend**
- Pavement Planning
 - Pavement Expansion
 - Asphalt Drive (Refer To Detail On 7/47)
 - Trench Replacement (Refer To Detail On 7/47)
 - Prop. Service Stop And Service Box
 - Proposed Gate Valve

NOTE:
 Construction Limits Follow Right-Of-Way Lines For S.R. 14

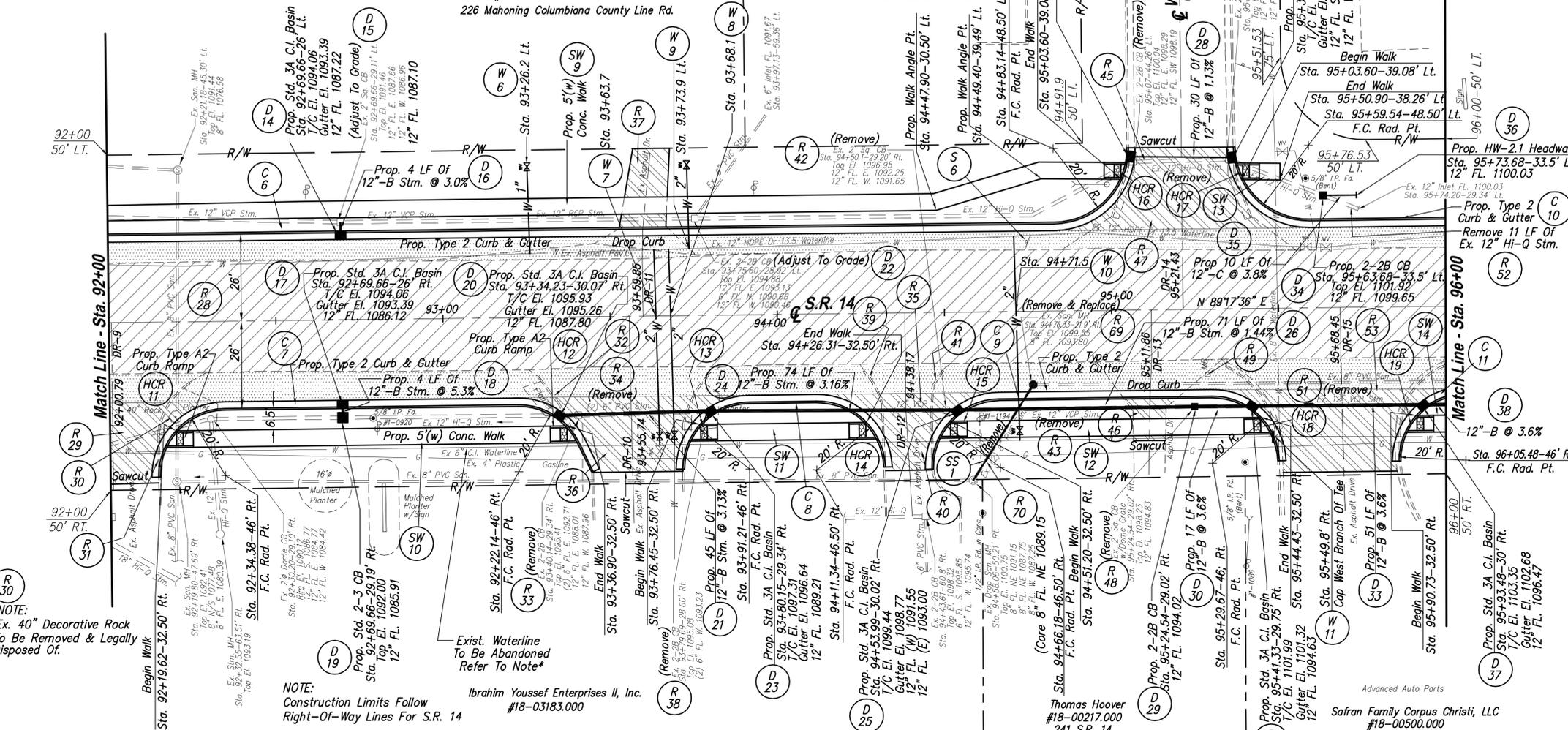
*** NOTE:**
 Existing Waterline From Sta. 87+40.5 Rt. To Sta. 95+45 Rt. To Be Abandoned After Waterline Crossings Are Completed.

REF. NO.	STATION		SIDE	ITEMS								
	FROM	TO		301	638	638	638	638	638	638		
				8" ASPHALT CONCRETE BASE PG64-22 (449)	6" DUCTILE IRON WATERLINE	12"x6" TAPPING SLEEVE & 6" GATE VALVE	2" TYPE K COPPER SERVICE WATERLINE	2" TAPPING SADDLE AND CORPORATION STOP	CUT & CAP EXIST. 8" WATERLINE	6" - 45' DUCTILE IRON ELBOW	SERVICE STOP AND SERVICE BOX	FIRE HYDRANT REMOVE AND RESET
				C.Y.	LIN. FT.	EACH	LIN. FT.	EACH	EACH	EACH	EACH	EACH
W-2	88+26.4		℄				58	1			1	
W-3	89+24.3		LT.				62.0	1			1	
W-4	91+45		℄	2.0	58	1				2		
W-5	91+58.5		℄									
F-1	89+86.81	89+86	LT.		18							1
TOTALS THIS TABULATION				2	76	1	120	2	1	2	2	1
TOTALS FIRST TABULATION (THIS SHT.)				3	-	-	-	-	-	-	-	-
TOTALS CARRIED TO GENERAL SUMMARY				5	76	1	120	2	1	2	2	1

REF. NO.	SIDE	STATION		ITEMS	QTY	UNIT	TOTALS
		FROM	TO				
611	611			18" CONDUIT TYPE "B"	1	LIN. FT.	64
611	611			CATCH BASIN ADJUST TO GRADE	1	EACH	1
611	611			STD. NO. 2-2-B CATCH BASIN	1	EACH	1
611	611			STD. NO. 3A CATCH BASIN	1	EACH	2
630	630			REMOVAL OF GROUND MOUNTED SIGN AND REERCTION	1	EACH	4
301	8" ASPHALT CONCRETE BASE PG64-22 (449)				2.6	C.Y.	3
S-2		88+12	89+00.9				
S-3		89+14.9	89+16.6				
D-7		89+14.9	89+16.6				
D-8		89+16.6	89+65.1				
D-9		89+65.1	89+65.1				
D-10		89+65.1	89+66.91				
D-11		89+66.91	89+68.7				
D-12							
D-13							
S-4		91+67	91+82				
S-5							
TOTALS CARRIED TO GENERAL SUMMARY							

Control Cap (CP-1585)
Sta. 80+74.57-35.88' Rt. (S.R. 14)
Iron Pin Set w/Cap
N 454485.5292
E 2466800.6934
Elev. 1082.63

Control Cap (CP-1584)
Sta. 85+89.44-33.78' Rt. (S.R. 14)
Iron Pin Set w/Cap
N 454493.9859
E 2467315.5019
Elev. 1080.26



NOTE:
Ex. 40" Decorative Rock
To Be Removed & Legally
Disposed Of.

NOTE:
Construction Limits Follow
Right-Of-Way Lines For S.R. 14
Ibrahim Youssef Enterprises II, Inc.
#18-03183.000

REF. NO.	STATION		SIDE	ITEMS												
	FROM	TO		CONCRETE MASONRY	12" CONDUIT TYPE "B"	12" CONDUIT TYPE "C"	CATCH BASIN ADJUST TO GRADE	STD. NO. 2-2-B CATCH BASIN	STD. NO. 2-3 CATCH BASIN	STD. NO. 3A CATCH BASIN	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION					
				C.Y.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	
D-26	94+54	95+24.5	RT		71											
D-27		95+05.7	LT									1				
D-28	95+05.7	95+37.3	LT		30											
D-29		95+24.5	RT						1							
D-30	95+24.5	95+41.3	RT		17											
D-31		95+37.3	LT								1					
D-32		95+41.3	RT								1					
D-33	95+41.3	95+93.5	RT		51											
D-34		95+63.7	LT													
D-35	95+63.7	95+73.7	LT			10										
D-36		95+73.7	LT	0.20												
D-37		95+93.5	RT								1					
D-38	95+93.5	96+00	RT		7											
S-6		94+75.2	LT									1				
TOTALS THIS TABULATION				0.20	176	10	-	2	-	4	1					
TOTALS FIRST TABULATION (THIS SHT.)				-	127	-	2	-	1	5	-					
TOTALS THIS SHEET CARRIED TO GENERAL SUMMARY				0.20	303	10	2	2	1	9	1					

*** NOTE:**
Existing Waterline From Sta. 87+40.5 Rt. To Sta. 95+45 Rt. To Be Abandoned After Waterline Crossings Are Completed.
NOTE:
Refer To Sheet 23/47 For Waterline Tabulations For This Sheet.

Legend
 Pavement Planing
 Pavement Expansion
 Asphalt Drive (Refer To Detail On 7/47)
 Prop. Service Stop And Service Box

REF. NO.	STATION		SIDE	ITEMS												
	FROM	TO		CONCRETE MASONRY	12" CONDUIT TYPE "B"	12" CONDUIT TYPE "C"	CATCH BASIN ADJUST TO GRADE	STD. NO. 2-2-B CATCH BASIN	STD. NO. 2-3 CATCH BASIN	STD. NO. 3A CATCH BASIN	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION					
				C.Y.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	
D-14	92+69.7		LT													
D-15	92+69.7		LT													
D-16	92+69.7		LT													
D-17	92+69.7		RT													
D-18	92+69.7		RT													
D-19	92+69.7		RT													
D-20	93+34.2	93+80.2	RT													
D-21	93+34.2	93+80.2	RT													
D-22	93+75.6		LT													
D-23	93+80.2		RT													
D-24	93+80.2	94+54	RT													
D-25	94+54		RT													
SS-1	94+58.06	94+76.33	RT													
TOTALS THIS TABULATION																

S.R. 14 PLAN SHEET
STA. 92+00 TO STA. 96+00

COL-SR14-9.02

22
47

CALCULATED: MSJ
CHECKED: JDV

HORIZONTAL SCALE IN FEET



S.R. 14 PLAN SHEET
STA. 96+00 TO STA. 98+80

COL-SR14-9.02

Control Cap (CP-1585)
Sta. 80+74.57-35.88' Rt. (S.R. 14)
Iron Pin Set w/Cap
N 454485.5292
E 2466800.6934
Elev. 1082.63

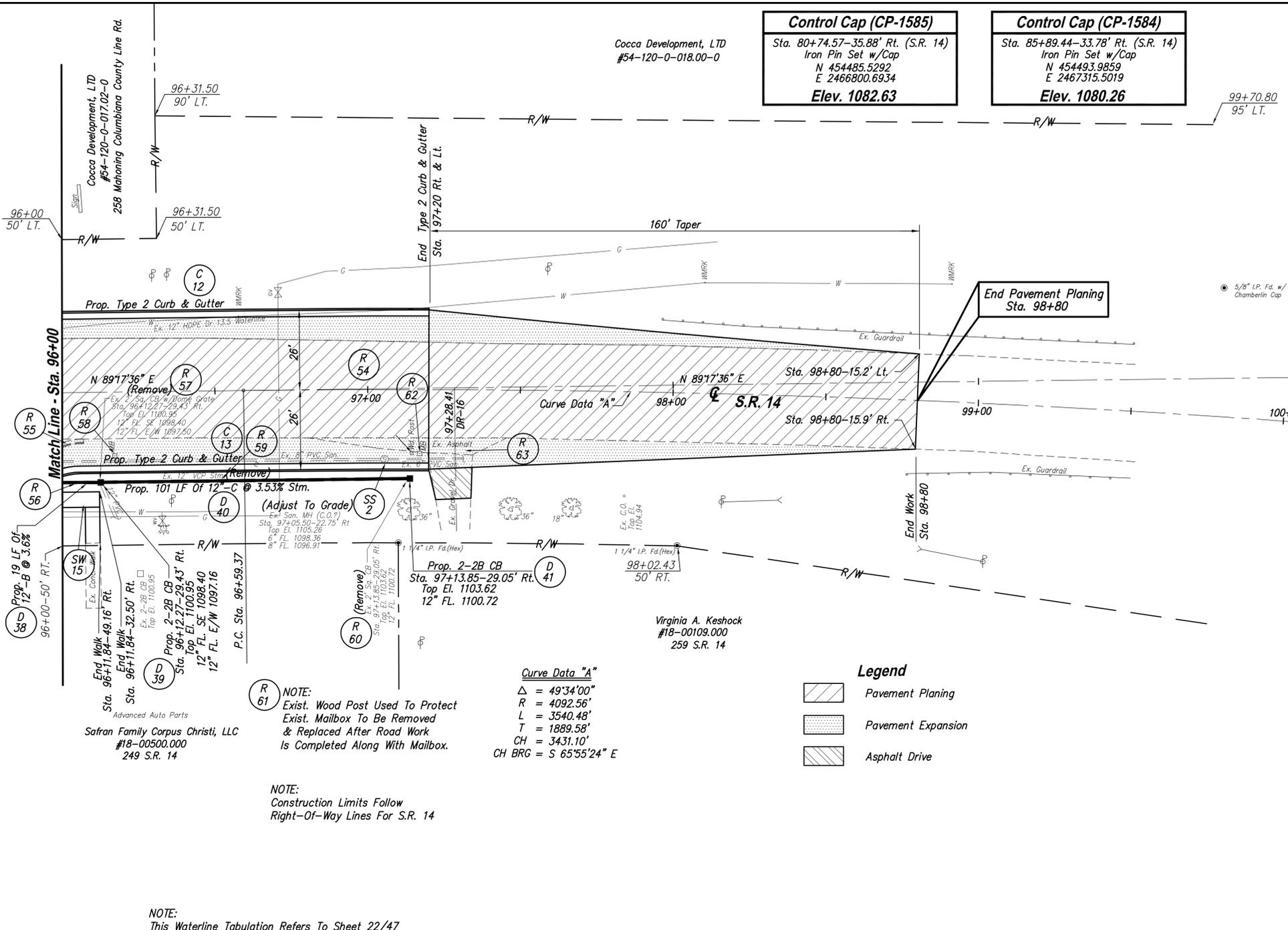
Control Cap (CP-1584)
Sta. 85+89.44-33.78' Rt. (S.R. 14)
Iron Pin Set w/Cap
N 454493.9859
E 2467315.5019
Elev. 1080.26

Cocca Development, LTD
#54-120-0-018.00-0

Virginia A. Keshock
#18-00109.000
259 S.R. 14

Cocca Development, LTD
#54-120-0-017.02-0
258 Mahoning Columbiana County Line Rd.

Safran Family Corpus Christi, LLC
#18-00500.000
249 S.R. 14



NOTE:
Exist. Wood Post Used To Protect
Exist. Mailbox To Be Removed
& Replaced After Road Work
Is Completed Along With Mailbox.

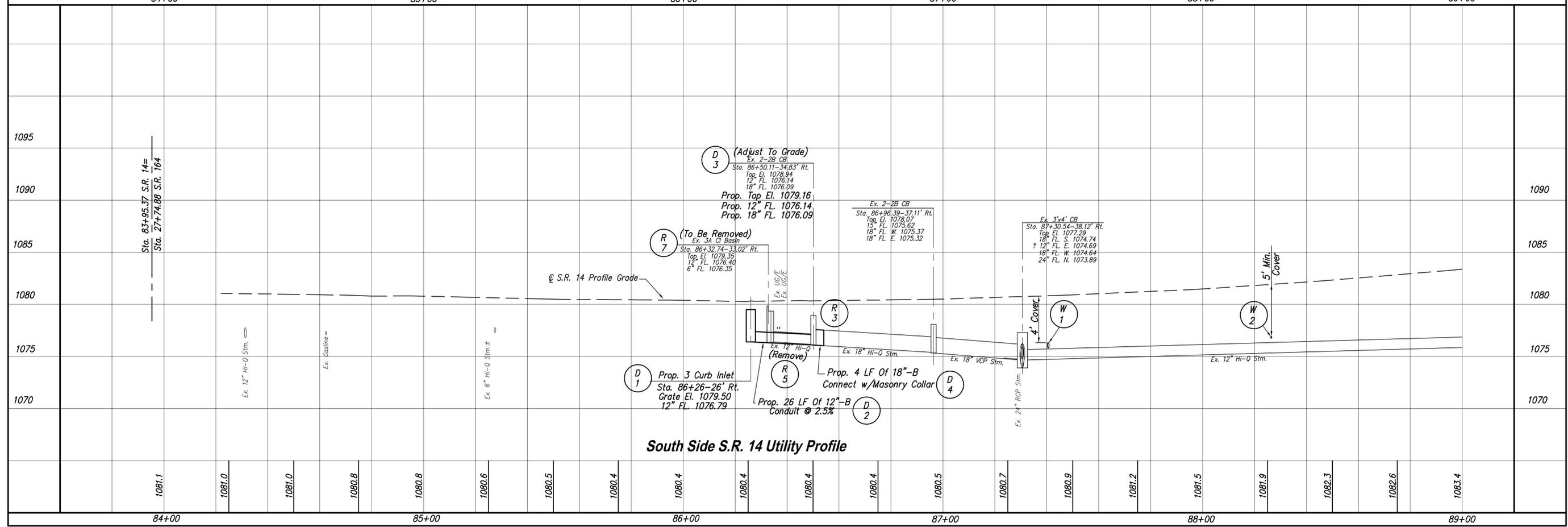
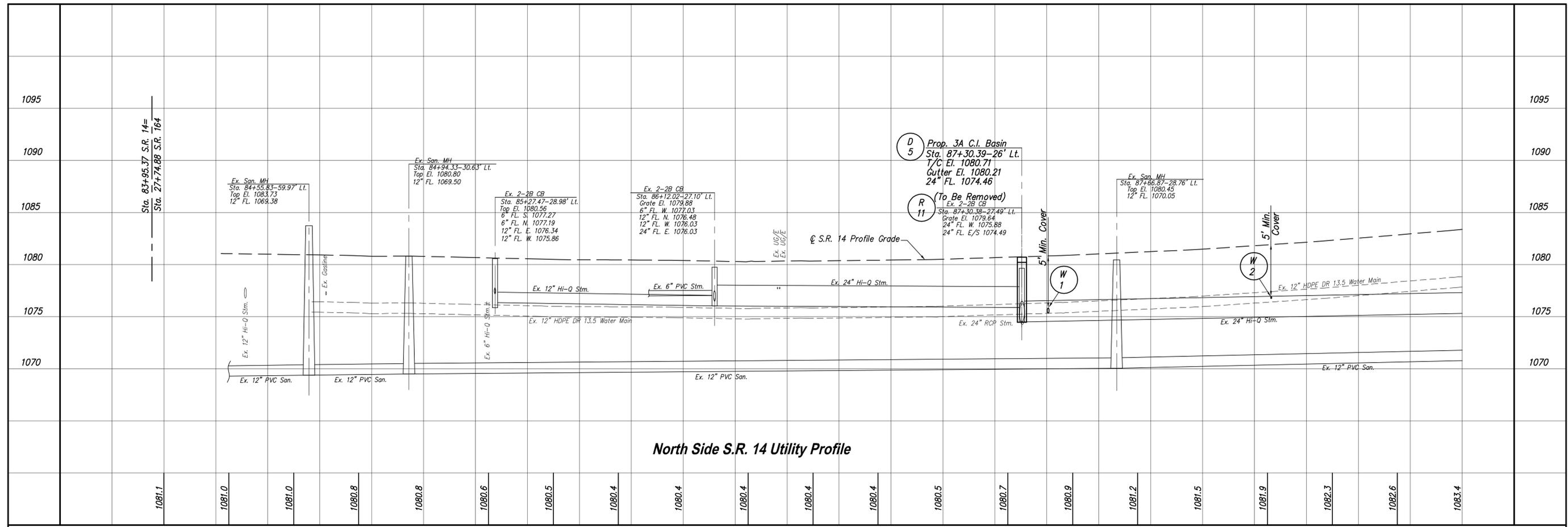
NOTE:
Construction Limits Follow
Right-Of-Way Lines For S.R. 14

NOTE:
This Waterline Tabulation Refers To Sheet 22/47

- Legend**
- Pavement Planing
 - Pavement Expansion
 - Asphalt Drive

REF. NO.	STATION		SIDE	638						
	FROM	TO		1" TYPE K COPPER SERVICE WATERLINE	2" TYPE K COPPER SERVICE WATERLINE	1" TAPPING SADDLE AND CORPORATION STOP	2" TAPPING SADDLE AND CORPORATION STOP	CUT & CAP EXIST. 6" C.I. WATERLINE	SERVICE STOP AND SERVICE BOX	
W-6	93+26.4		LT.	26		1			1	
W-7	93+63.7		℄		58.3		1		1	
W-8	93+68.1		℄		58.4		1		1	
W-9	93+73.9		LT.		25		1		1	
W-10	94+71.5		℄		61		1		1	
W-11	95+49.8		RT.					1		
TOTALS CARRIED TO GENERAL SUMMARY				26	203	1	4	1	5	

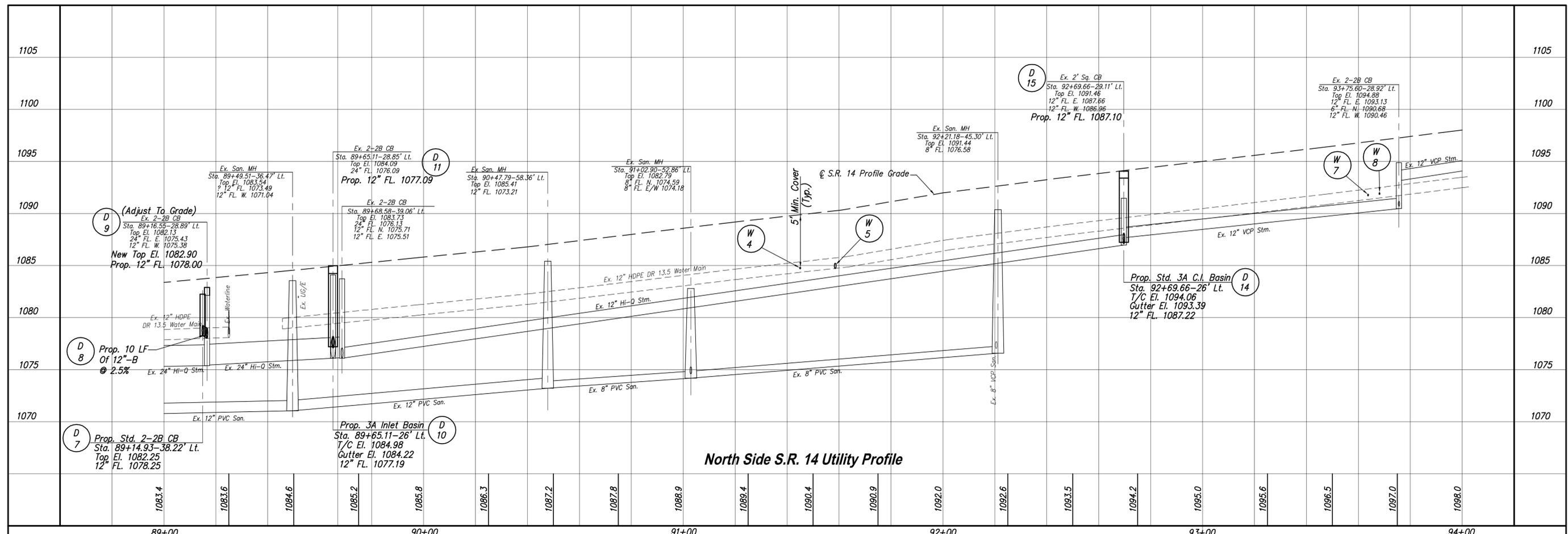
REF. NO.	STATION		SIDE	611				611		611		611	
	FROM	TO		12" CONDUIT TYPE "B"	12" CONDUIT TYPE "C"	STD. NO. 2-2-B CATCH BASIN	MANHOLE, ADJUST TO GRADE	LIN. FT.	EACH	LIN. FT.	EACH	LIN. FT.	EACH
D-38	96+00	96+11.8	RT	12									
D-39	96+12.3	96+12.3	RT		101			1					
D-40	96+12.3	97+13.9	RT										
D-41	97+13.9	97+13.9	RT										
SS-2		97+05.50	RT								1		
TOTALS CARRIED TO GENERAL SUMMARY				12	101	2	1						



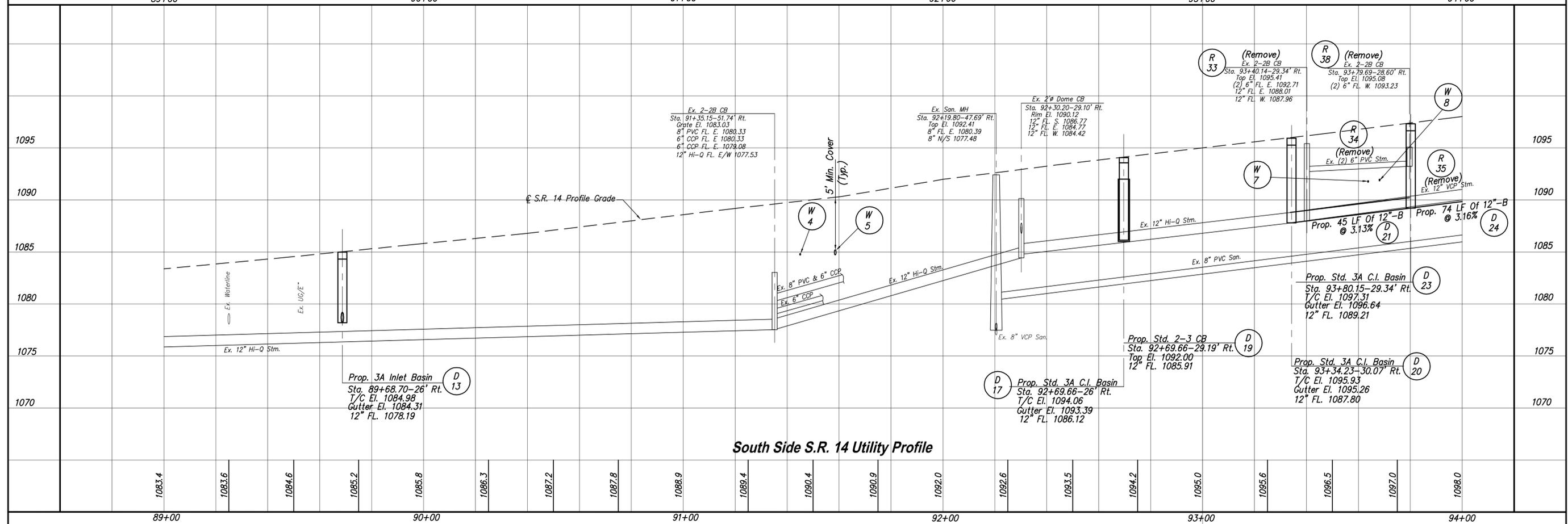
CALCULATED: MSL
 CHECKED: JDV

**S.R. 14 - UTILITY PROFILE
 STA. 84+00 TO STA. 89+00**

COL-SR14-9.02



North Side S.R. 14 Utility Profile



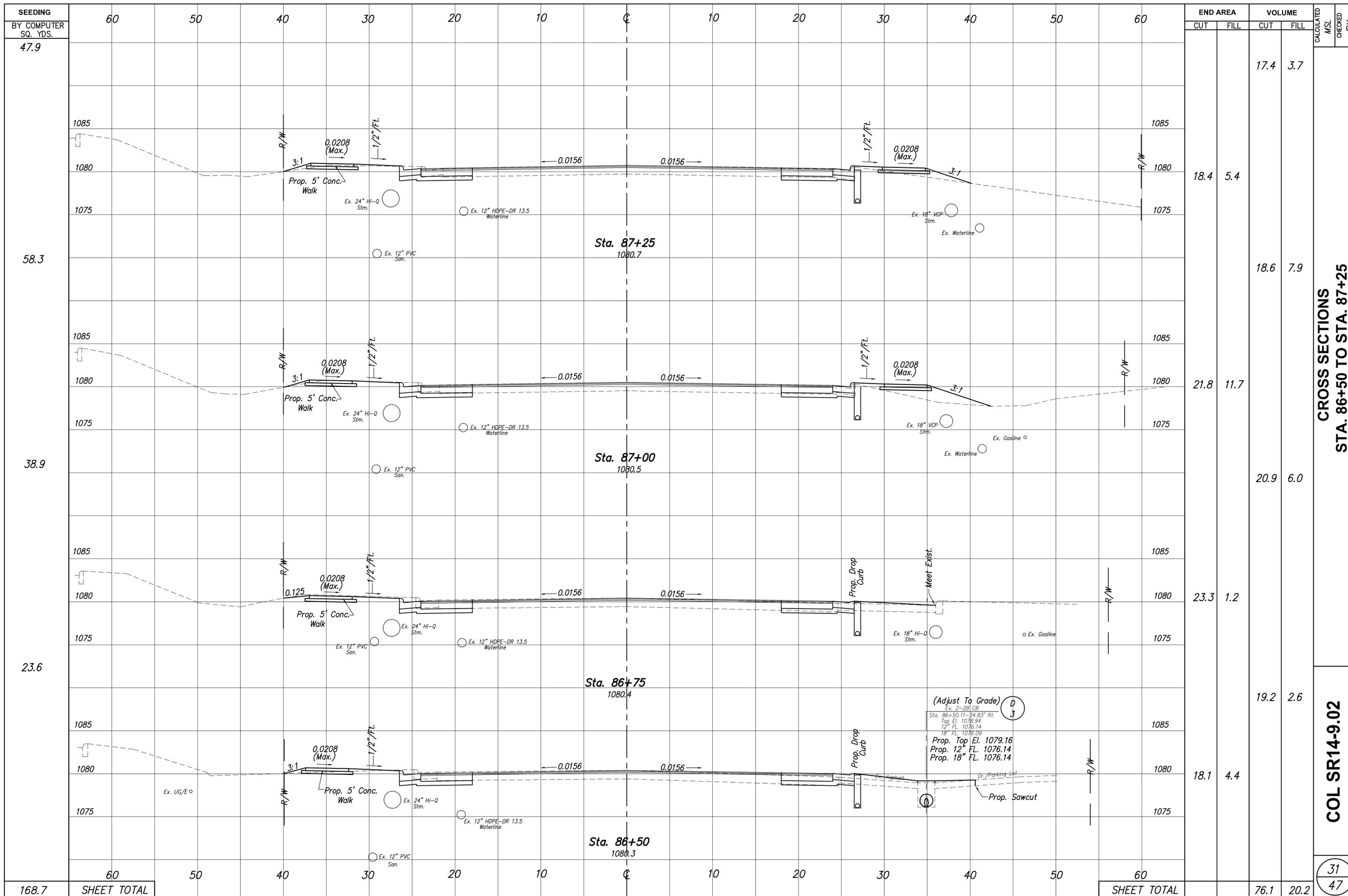
South Side S.R. 14 Utility Profile



CALCULATED: MSL
CHECKED: JDV

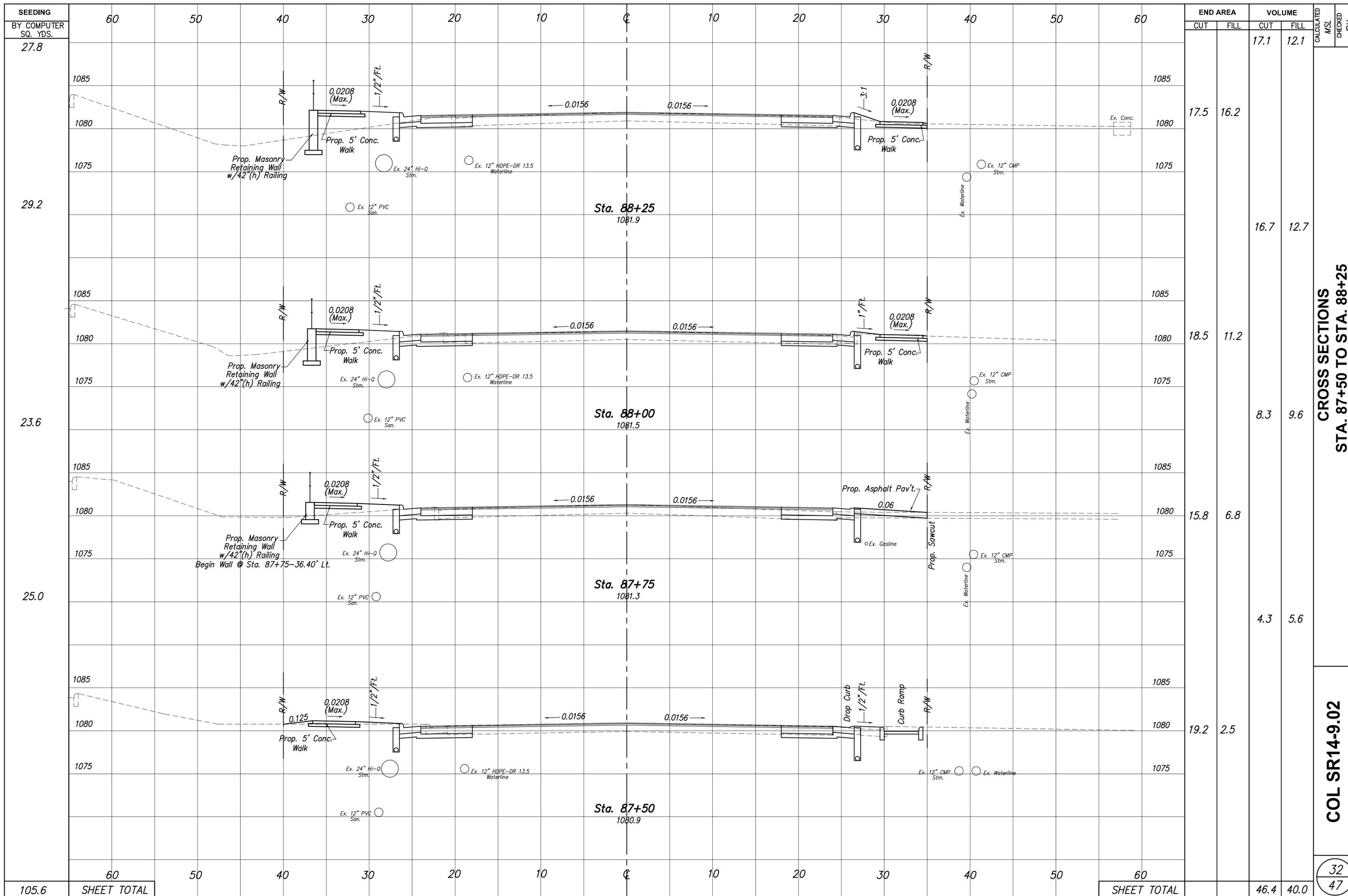
S.R. 14 - UTILITY PROFILE
STA. 89+00 TO STA. 94+00

COL-SR14-9.02



CROSS SECTIONS
STA. 86+50 TO STA. 87+25

COL SR14-9.02

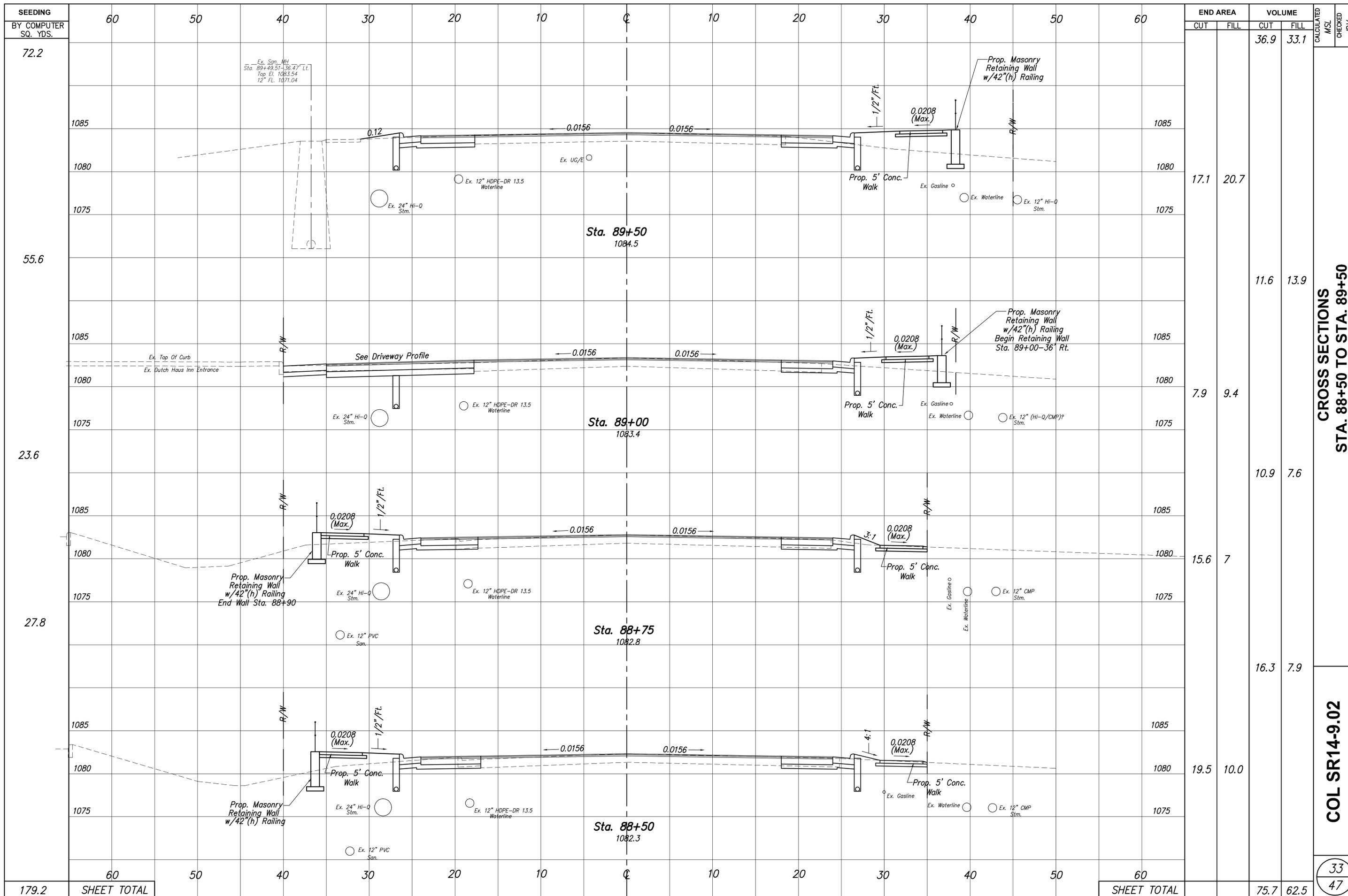


**CROSS SECTIONS
 STA. 87+50 TO STA. 88+25**

COL SR14-9.02

CALCULATED
 MSL
 CHECKED
 JCV

SEEDING BY COMPUTER SQ. YDS.															END AREA		VOLUME		CALCULATED MSL	CHECKED JCV	
	60	50	40	30	20	10	0	10	20	30	40	50	60	CUT	FILL	CUT	FILL				
27.8																17.5	16.2	17.1	12.1		
29.2																16.7	12.7	16.7	12.7		
23.6																8.3	9.6	8.3	9.6		
25.0																4.3	5.6	4.3	5.6		
																19.2	2.5	19.2	2.5		
105.6	60	50	40	30	20	10	0	10	20	30	40	50	60			SHEET TOTAL		46.4	40.0		

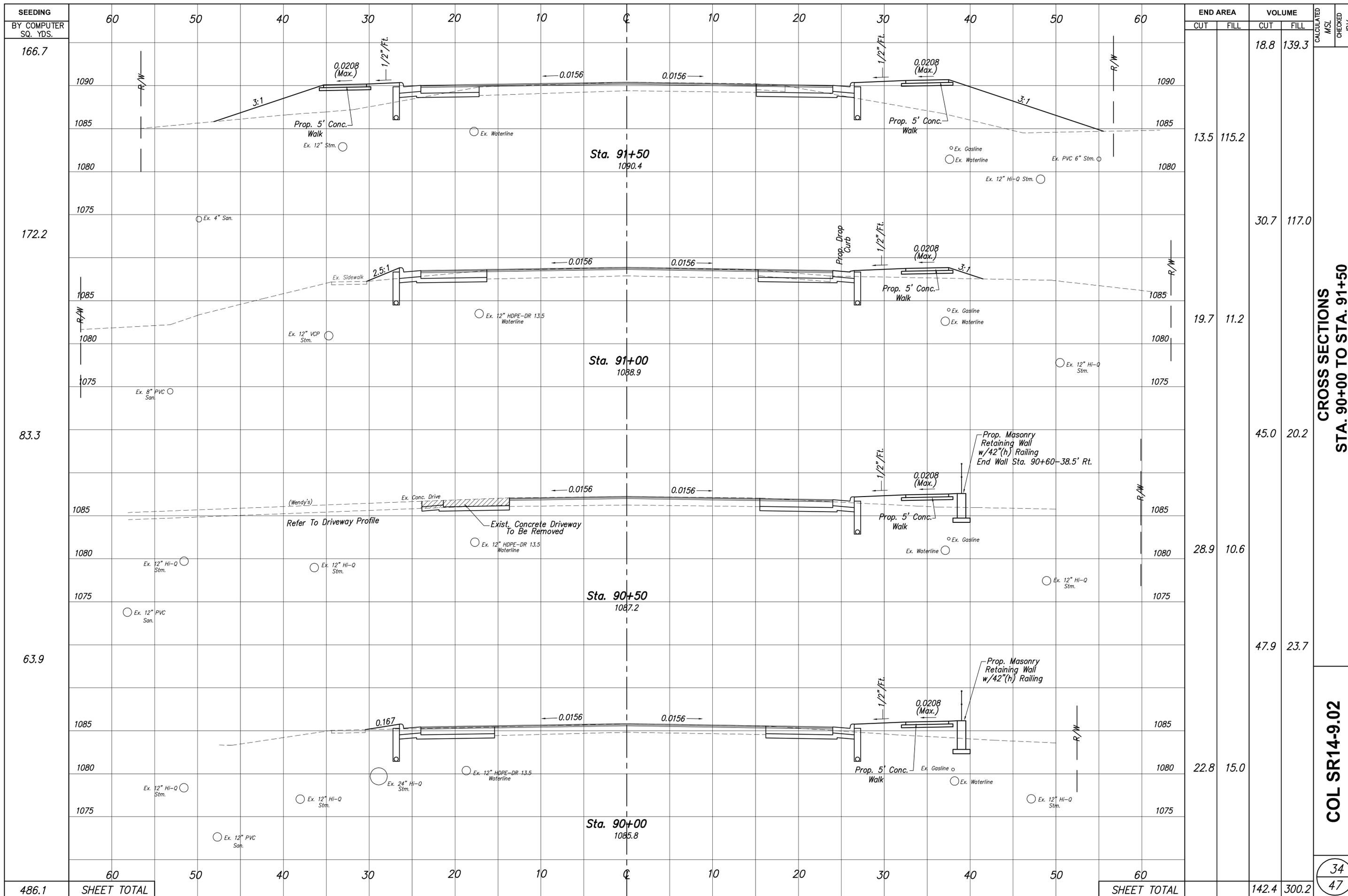


SEEDING BY COMPUTER SQ. YDS.	60 50 40 30 20 10 0 10 20 30 40 50 60												END AREA		VOLUME		CALCULATED MSL	CHECKED JDV
													CUT	FILL	CUT	FILL		
72.2													17.1	20.7	36.9	33.1		
55.6													7.9	9.4	11.6	13.9		
23.6													15.6	7	10.9	7.6		
27.8													16.3	7.9	16.3	7.9		
179.2	SHEET TOTAL														75.7	62.5		

**CROSS SECTIONS
 STA. 88+50 TO STA. 89+50**

COL SR14-9.02

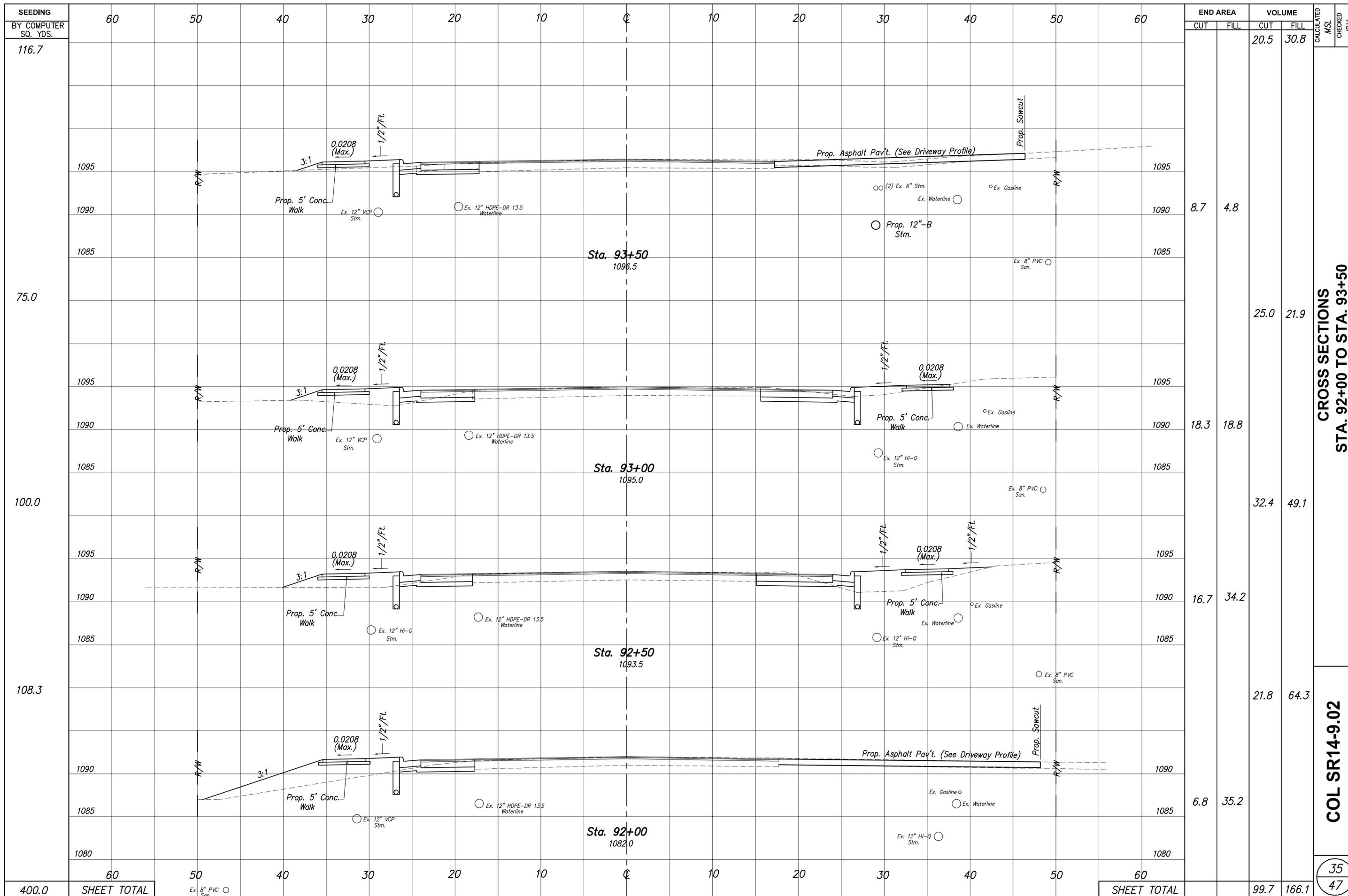
33
 47



**CROSS SECTIONS
 STA. 90+00 TO STA. 91+50**

COL SR14-9.02

34
 47



SEEDING

BY COMPUTER
SQ. YDS.

116.7

75.0

100.0

108.3

400.0

60	50	40	30	20	10	0	10	20	30	40	50	60
<p>1095</p> <p>1090</p> <p>1085</p> <p>1095</p> <p>1090</p> <p>1085</p> <p>1095</p> <p>1090</p> <p>1085</p> <p>1095</p> <p>1090</p> <p>1085</p> <p>1090</p> <p>1085</p> <p>1090</p> <p>1085</p> <p>1080</p>												
<p>Prop. Asphalt Pav't. (See Driveway Profile)</p> <p>Prop. 5' Conc. Walk</p> <p>Ex. 12" VCP Stm.</p> <p>Ex. 12" HDPE-DR 13.5 Waterline</p> <p>Ex. 12" HI-Q Stm.</p> <p>Ex. 8" PVC San.</p> <p>Ex. Gasline</p> <p>Ex. Waterline</p> <p>Prop. 12"-B Stm.</p> <p>Ex. 12" HI-Q Stm.</p> <p>Ex. 12" HI-Q Stm.</p> <p>Ex. 8" PVC San.</p> <p>Ex. Gasline</p> <p>Ex. Waterline</p> <p>Prop. Asphalt Pav't. (See Driveway Profile)</p> <p>Prop. 5' Conc. Walk</p> <p>Ex. 12" VCP Stm.</p> <p>Ex. 12" HDPE-DR 13.5 Waterline</p> <p>Ex. 12" HI-Q Stm.</p> <p>Ex. 8" PVC San.</p> <p>Ex. Gasline</p> <p>Ex. Waterline</p> <p>Prop. Asphalt Pav't. (See Driveway Profile)</p> <p>Prop. 5' Conc. Walk</p> <p>Ex. 12" VCP Stm.</p> <p>Ex. 12" HDPE-DR 13.5 Waterline</p> <p>Ex. 12" HI-Q Stm.</p> <p>Ex. 8" PVC San.</p> <p>Ex. Gasline</p> <p>Ex. Waterline</p>												
<p>Sta. 93+50 1096.5</p> <p>Sta. 93+00 1095.0</p> <p>Sta. 92+50 1093.5</p> <p>Sta. 92+00 1082.0</p>												
<p>Prop. Sawcut</p> <p>Prop. Sawcut</p> <p>Prop. Sawcut</p> <p>Prop. Sawcut</p>												
<p>8.7</p> <p>4.8</p> <p>25.0</p> <p>21.9</p> <p>18.3</p> <p>18.8</p> <p>32.4</p> <p>49.1</p> <p>16.7</p> <p>34.2</p> <p>21.8</p> <p>64.3</p> <p>6.8</p> <p>35.2</p>												
<p>20.5</p> <p>30.8</p> <p>99.7</p> <p>166.1</p>												

SHEET TOTAL

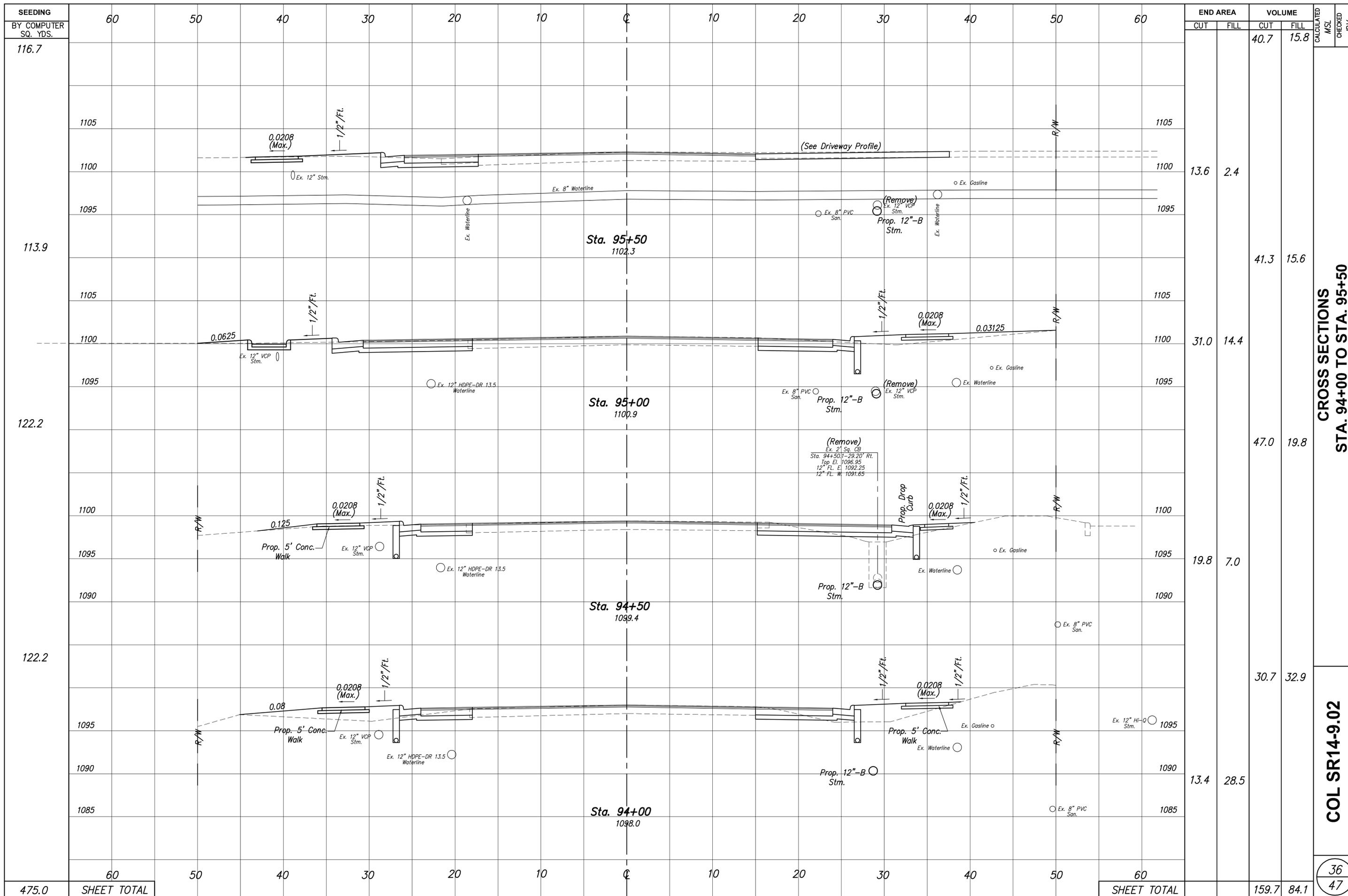
Ex. 8" PVC San.

SHEET TOTAL

CROSS SECTIONS
STA. 92+00 TO STA. 93+50

COL SR14-9.02

35
47



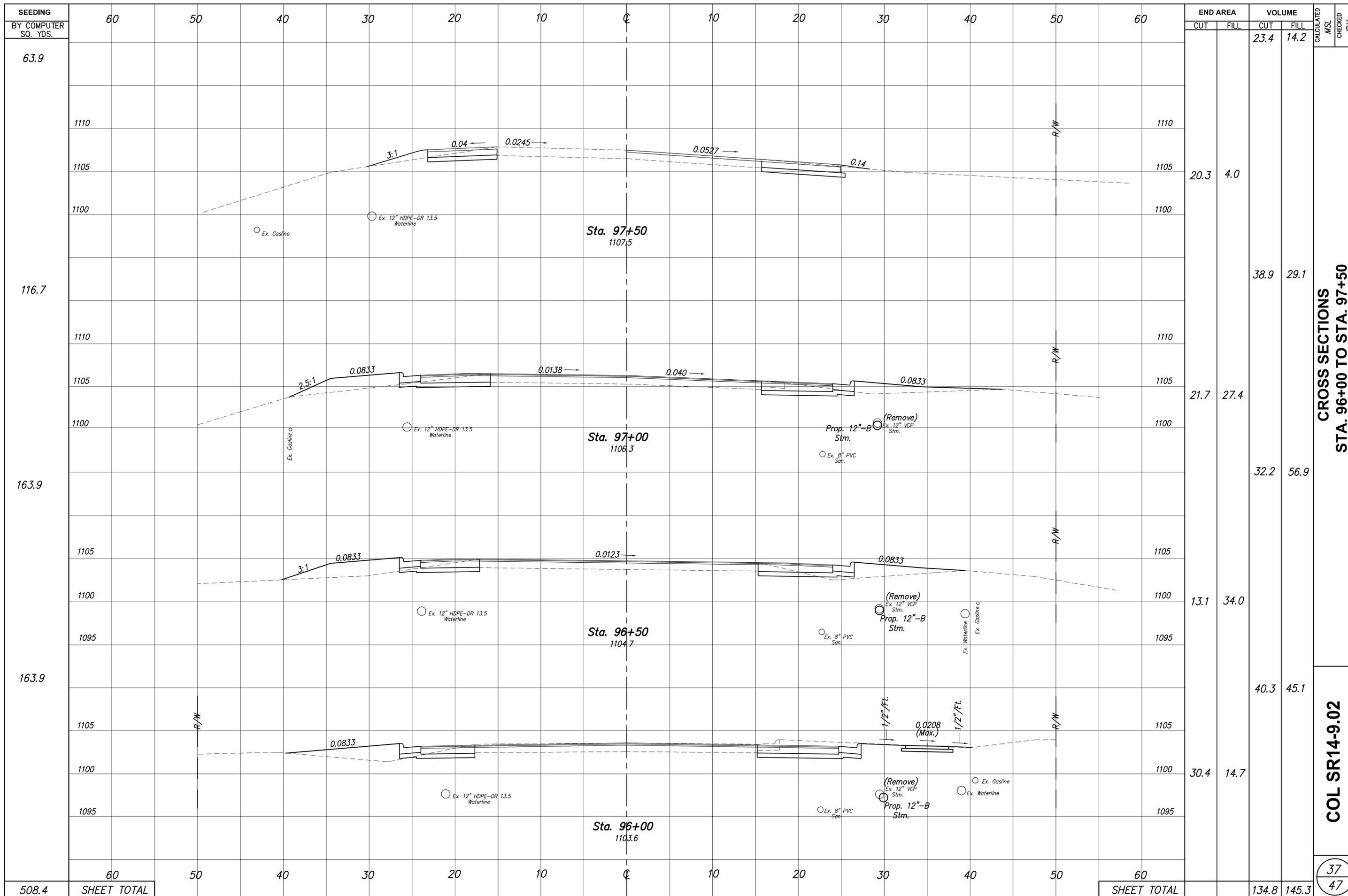
CROSS SECTIONS
 STA. 94+00 TO STA. 95+50

COL SR14-9.02

CALCULATED
 MSL
 CHECKED
 JCV

SEEDING BY COMPUTER SQ. YDS.	60 50 40 30 20 10 0 10 20 30 40 50 60														END AREA		VOLUME		CALCULATED MSL	CHECKED JCV
															CUT	FILL	CUT	FILL		
116.7															13.6	2.4	40.7	15.8		
113.9															31.0	14.4	41.3	15.6		
122.2															19.8	7.0	47.0	19.8		
122.2															13.4	28.5	30.7	32.9		
475.0	SHEET TOTAL																159.7	84.1		

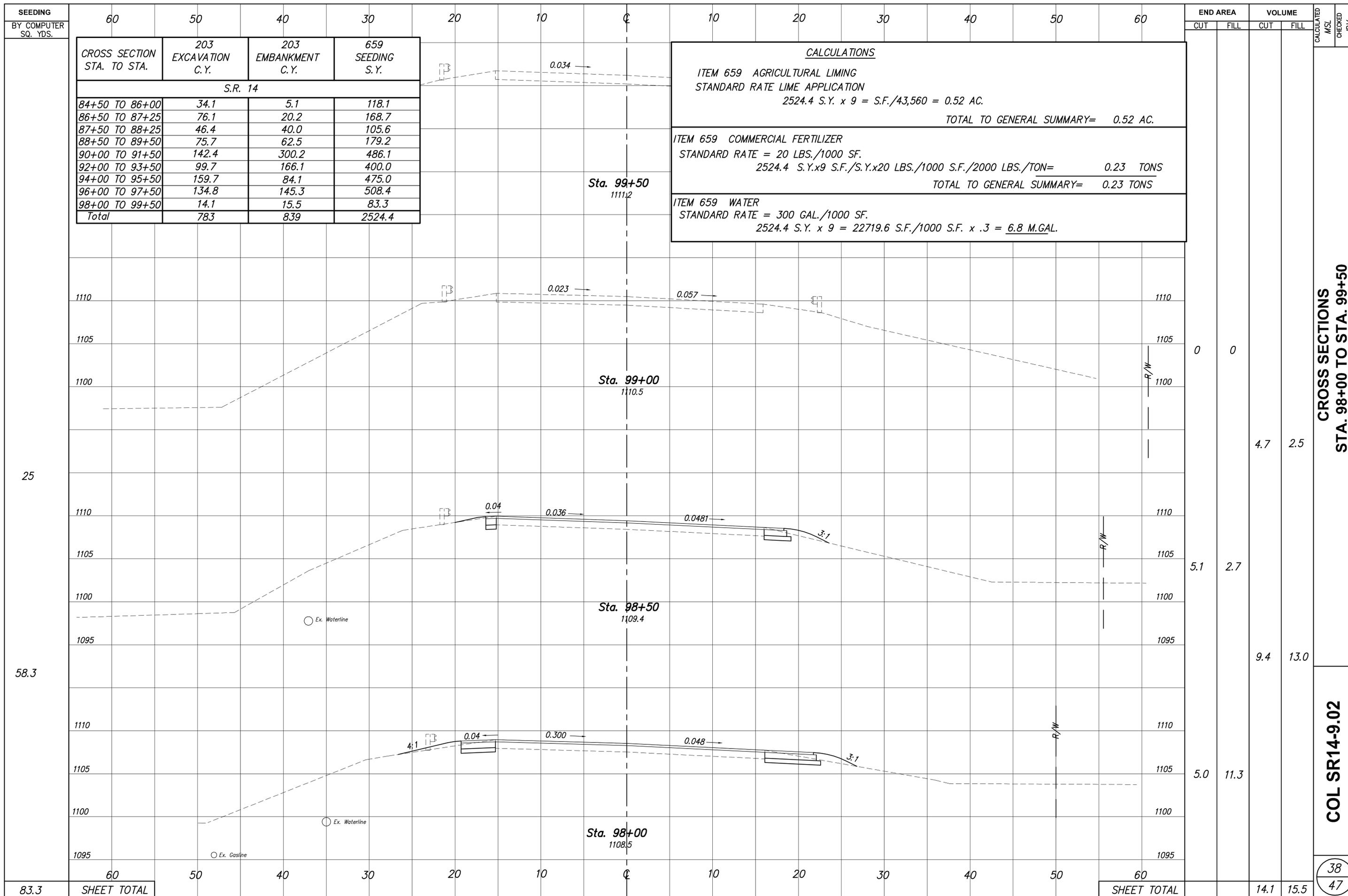
36
47



**CROSS SECTIONS
 STA. 96+00 TO STA. 97+50**

COL SR14-9.02

SEEDING BY COMPUTER SQ. YDS.	STATIONING														END AREA		VOLUME		CALCULATED MSL	CHECKED JDV		
	60	50	40	30	20	10	0	10	20	30	40	50	60	CUT	FILL	CUT	FILL					
63.9															20.3	4.0						
116.7															21.7	27.4	38.9	29.1				
163.9															13.1	34.0	32.2	56.9				
163.9															30.4	14.7	40.3	45.1				
508.4	SHEET TOTAL																134.8	145.3				



CROSS SECTION STA. TO STA.	203 EXCAVATION C.Y.	203 EMBANKMENT C.Y.	659 SEEDING S.Y.
S.R. 14			
84+50 TO 86+00	34.1	5.1	118.1
86+50 TO 87+25	76.1	20.2	168.7
87+50 TO 88+25	46.4	40.0	105.6
88+50 TO 89+50	75.7	62.5	179.2
90+00 TO 91+50	142.4	300.2	486.1
92+00 TO 93+50	99.7	166.1	400.0
94+00 TO 95+50	159.7	84.1	475.0
96+00 TO 97+50	134.8	145.3	508.4
98+00 TO 99+50	14.1	15.5	83.3
Total	783	839	2524.4

CALCULATIONS

ITEM 659 AGRICULTURAL LIMING
 STANDARD RATE LIME APPLICATION
 $2524.4 \text{ S.Y.} \times 9 = \text{S.F.}/43,560 = 0.52 \text{ AC.}$
 TOTAL TO GENERAL SUMMARY= 0.52 AC.

ITEM 659 COMMERCIAL FERTILIZER
 STANDARD RATE = 20 LBS./1000 SF.
 $2524.4 \text{ S.Y.} \times 9 \text{ S.F./S.Y.} \times 20 \text{ LBS./1000 S.F.} / 2000 \text{ LBS./TON} = 0.23 \text{ TONS}$
 TOTAL TO GENERAL SUMMARY= 0.23 TONS

ITEM 659 WATER
 STANDARD RATE = 300 GAL./1000 SF.
 $2524.4 \text{ S.Y.} \times 9 = 22719.6 \text{ S.F.} / 1000 \text{ S.F.} \times .3 = 6.8 \text{ M.GAL.}$

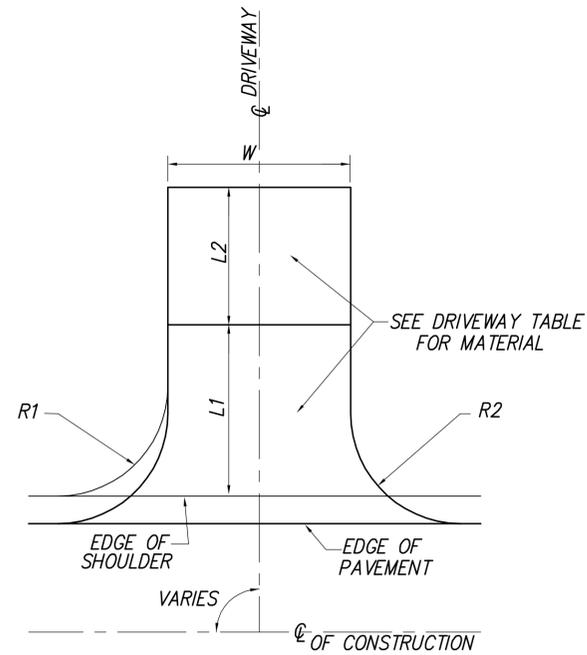
END AREA		VOLUME		CALCULATED MSL	CHECKED JDV
CUT	FILL	CUT	FILL		
0	0	0	0		
		4.7	2.5		
5.1	2.7	9.4	13.0		
5.0	11.3				
		14.1	15.5		

CROSS SECTIONS
STA. 98+00 TO STA. 99+50

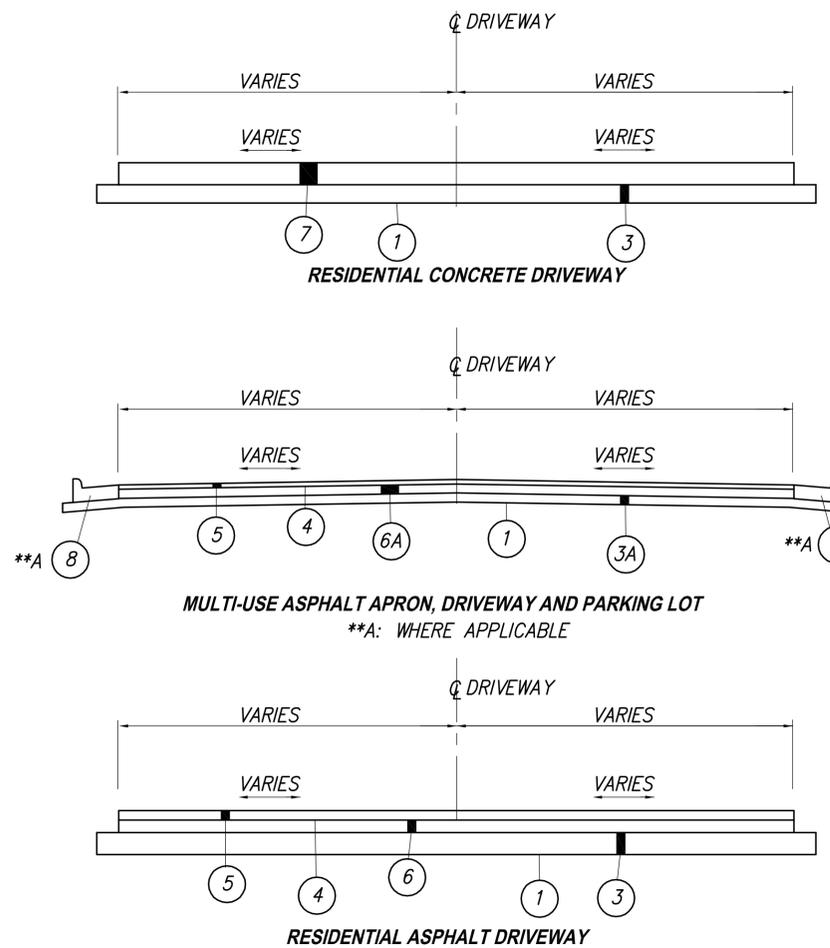
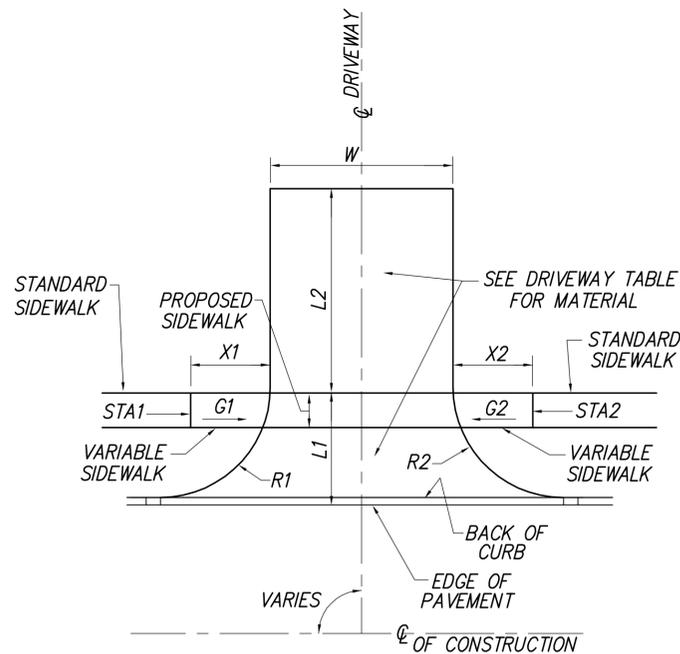
COL SR14-9.02

83.3 SHEET TOTAL

SHEET TOTAL

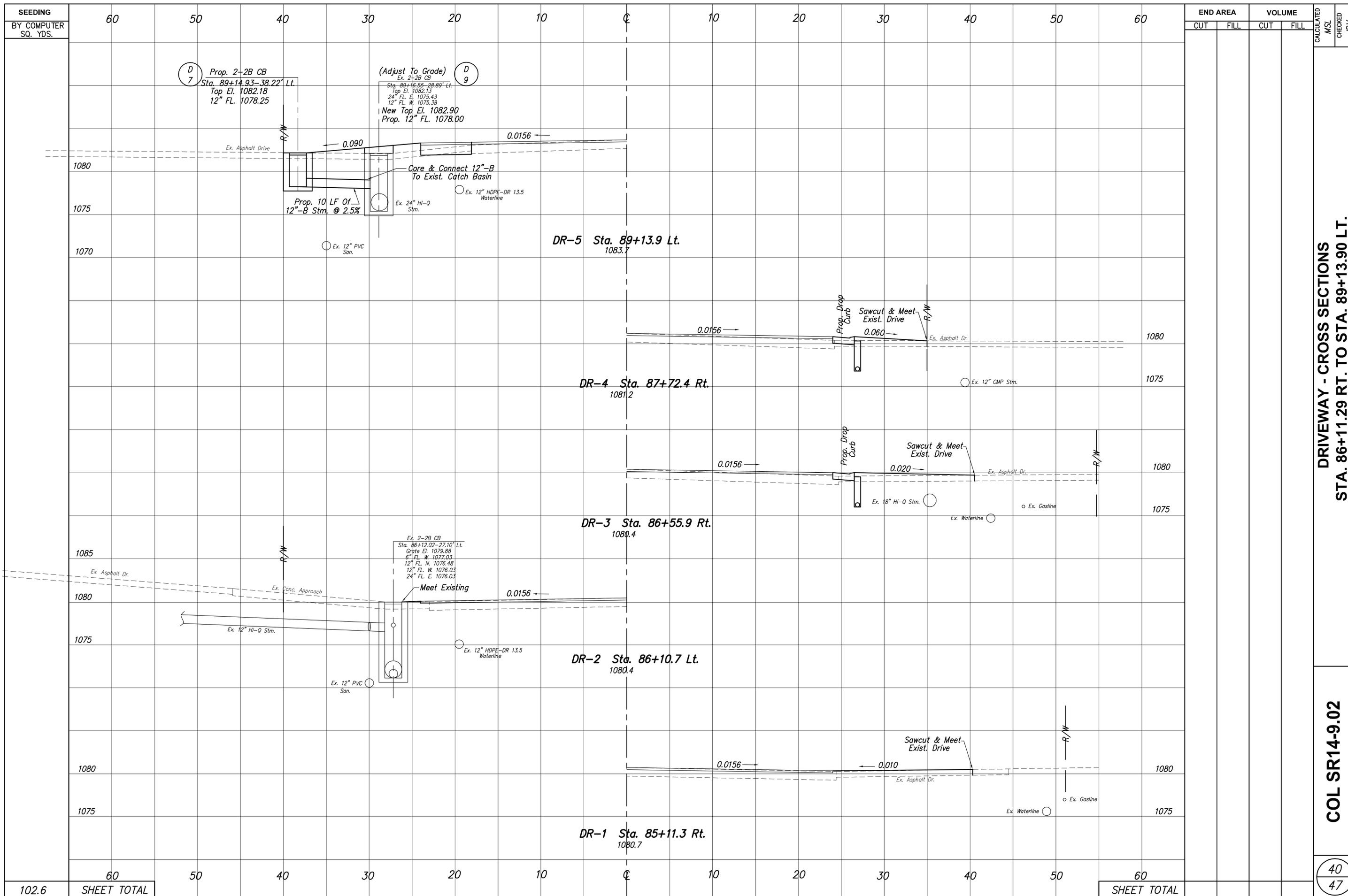


REFERENCE NO.	STATION	SIDE	DRIVE TYPE	APRON MATERIAL	DRIVE MATERIAL	ANGLE	APRON LENGTH "L1"	WIDTH "W"	R1 (LEFT SIDE RADIUS OF DRIVE LOOKING FROM CL)	R2 (RIGHT SIDE RADIUS OF DRIVE LOOKING FROM CL)	F1 (LEFT SIDE FLARE WIDTH DRIVE LOOKING FROM CL)	F2 (RIGHT SIDE FLARE WIDTH DRIVE LOOKING FROM CL)	SURFACE AREA A A = BY CADD S.F.
DR-1	85+11.3	RT.	COMM.	ASPH.	ASPH.	77°	16'	44'	7'	31'			707
DR-2	86+10.7	LT.	COMM.	CONC.	ASPH.	90°	∅	29'	20'	22'			∅
DR-3	86+55.9	RT.	COMM.	ASPH.	ASPH.	101°	13'	46'	27.5'	7'			594
DR-4	87+72.4	RT.	COMM.	ASPH.	ASPH.	90°	8.5'	34'	13.5'	17'			291
DR-5	89+13.9	LT.	COMM.	ASPH.	ASPH.	90°	16'	36'	22'	22'			579
DR-6	90+52.1	LT.	COMM.	CONC.	CONC.	90°	∅	38'	16'	25'			
DR-7	91+11.3	RT.	COMM.	ASPH.	ASPH.	92°	23'	21'			11.4'	6.7'	473
DR-8	91+25.9	LT.	RES.	GRAVEL	GRAVEL	74°	36'	13'			3.5'	3.5'	467
DR-9	92+00.8	RT.	COMM.	ASPH.	ASPH.	90°	24'	31.5'	22'	22'			756
DR-10	93+55.7	RT.	COMM.	ASPH.	ASPH.	89°	23'	34'	22'	22'			789
DR-11	93+59.9	LT.	COMM.	ASPH.	ASPH.	84°	23'	10'			2.8'	3.9'	228
DR-12	94+38.2	RT.	COMM.	ASPH.	ASPH.	87°	23'	19.5'	22.5'	22.5'			448
DR-13	95+11.9	RT.	RES.	ASPH.	ASPH.	90°	12.5'	6.5'			6.2'	4.4'	82
DR-14	95+21.4	LT.	PUBLIC	ASPH.	ASPH.	90°	24'	38.5'	24.5'	24.5'			924
DR-15	95+68.5	RT.	COMM.	ASPH.	ASPH.	90°	24'	41'	22'	22'			983
DR-16	97+28.4	RT.	RES.	ASPH.	GRAVEL	90°	10'	13'			0.5'	2.0'	129



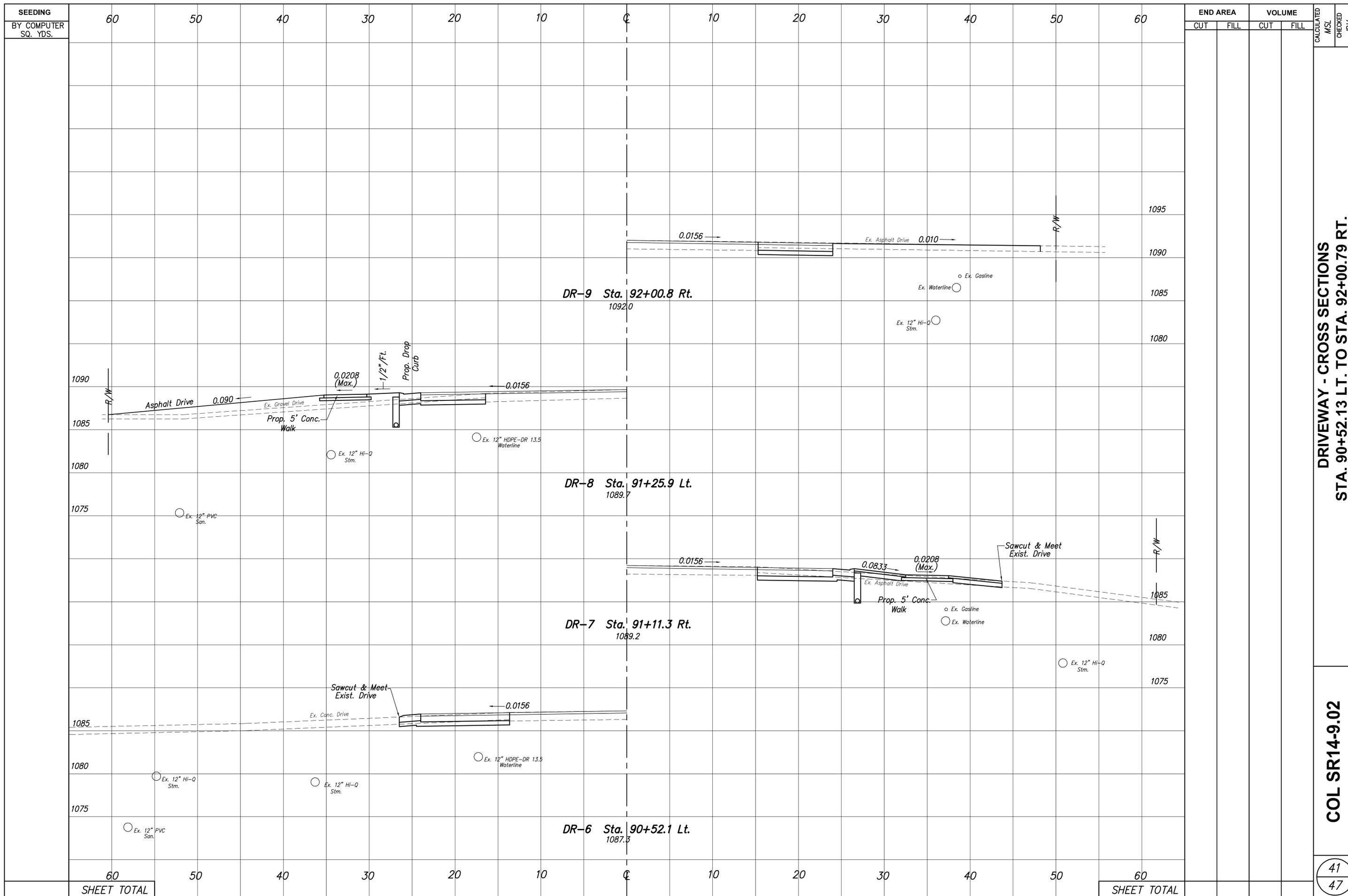
PROPOSED LEGEND

- ① ITEM 204 SUBGRADE COMPACTION
- ② ITEM 301 8" ASPHALT CONCRETE BASE, PG64-22, (449)
- ③ ITEM 304 6" AGGREGATE BASE
- ③A ITEM 304 8" AGGREGATE BASE
- ④ ITEM 407 TACK COAT (0.04 GAL./SQ. YD.) (INCLUDE WITH ITEM 441 ASPHALT SURFACE COURSE)
- ⑤ ITEM 441 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG70-22M
- ⑥ ITEM 441 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449)
- ⑥A ITEM 441 2 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449) (DRIVEWAYS), AS PER PLAN
- ⑦ ITEM 452 8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC MS
- ⑧ ITEM 609 COMBINATION CURB AND GUTTER, TYPE 2



DRIVEWAY - CROSS SECTIONS
STA. 86+11.29 RT. TO STA. 89+13.90 LT.

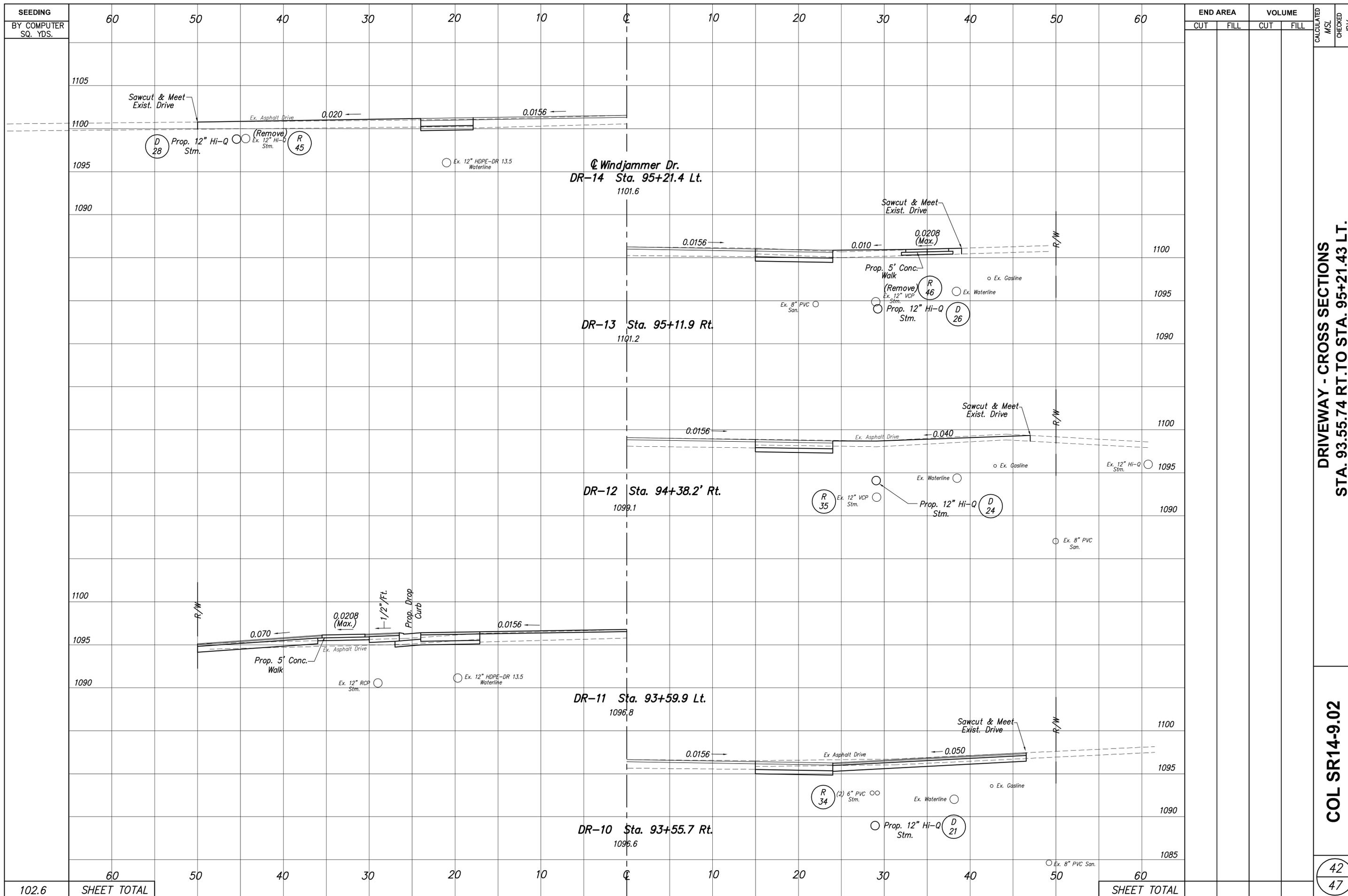
COL SR14-9.02



DRIVEWAY - CROSS SECTIONS
STA. 90+52.13 LT. TO STA. 92+00.79 RT.

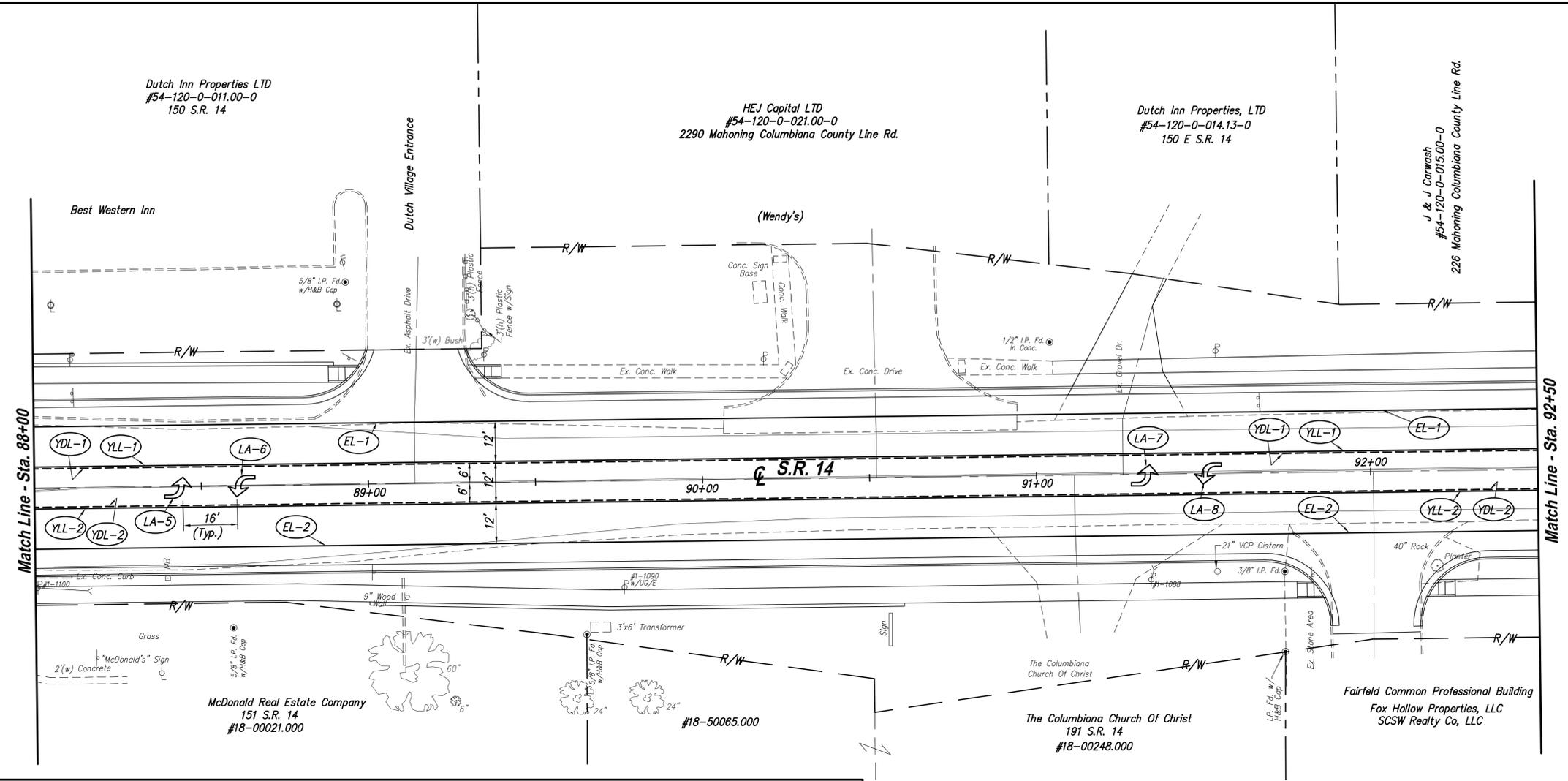
COL SR14-9.02

41
47



SEEDING BY COMPUTER SQ. YDS.	STATIONING												END AREA		VOLUME		CALCULATED MSL	CHECKED JDV	
	60	50	40	30	20	10	0	10	20	30	40	50	60	CUT	FILL	CUT			FILL
102.6	60	50	40	30	20	10	0	10	20	30	40	50	60					42	47
SHEET TOTAL																			

DRIVEWAY - CROSS SECTIONS
STA. 93.55.74 RT. TO STA. 95+21.43 LT.
COL SR14-9.02



- Marking Legend**
- (YLL) Yellow Lane Line
 - (YDL) Yellow Dashed Line
 - (TYL) Transverse Yellow Line
 - (WLL) White Lane Line
 - (DYL) Double Yellow Line
 - (SL) Stop Line
 - (CWL) Cross Walk Line
 - (LA) Lane Arrow
 - (EL) Edge Line

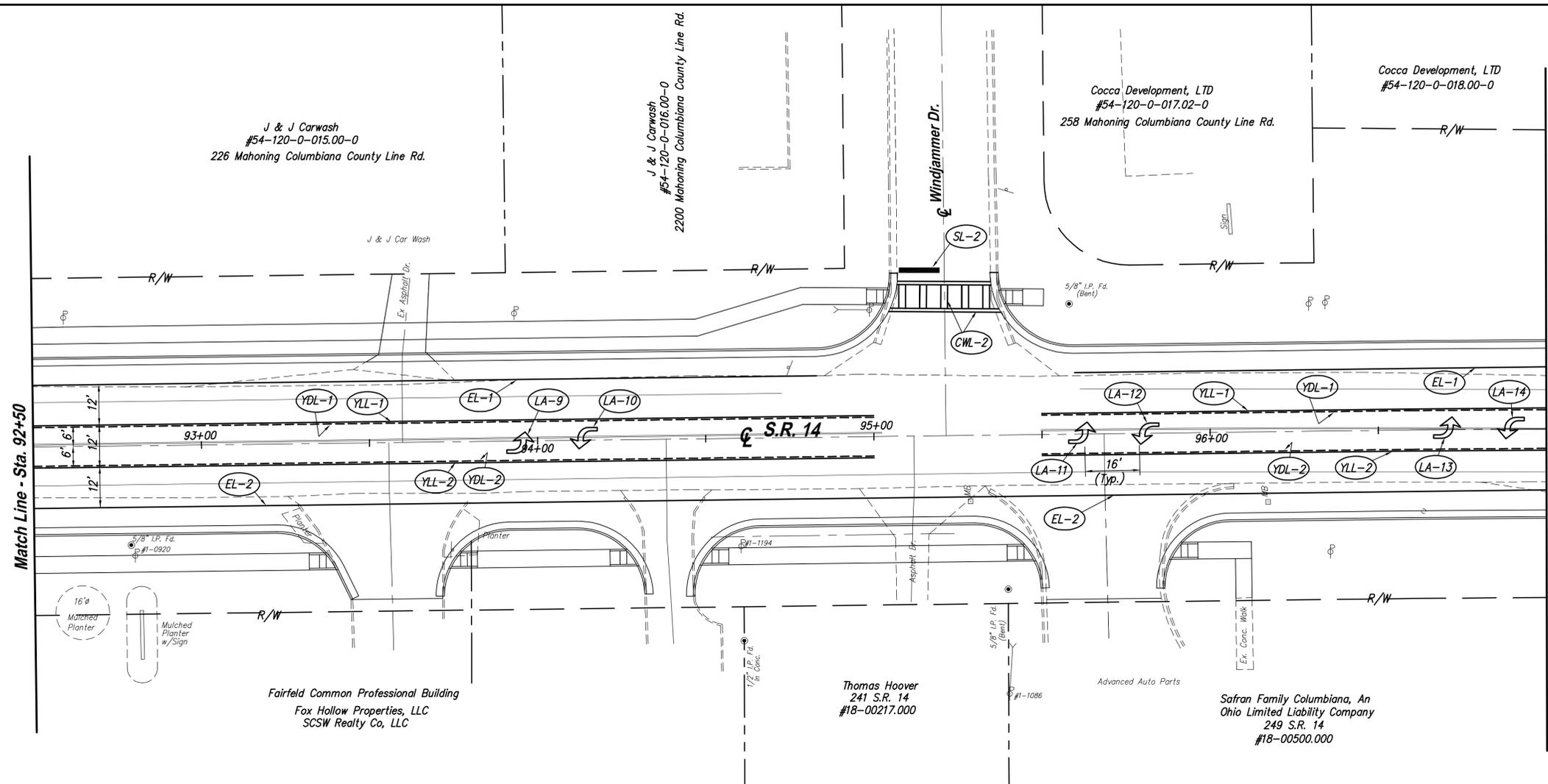


PAVEMENT MARKING PLAN
STA. 88+00 TO STA. 92+50

TRAFFIC CONTROL SUBSUMMARY

REF. NO.	STATION		646										COMMENTS		
			SIDE	EDGE LINE 4"	LANE LINE 4"	CENTER LINE (DOUBLE YELLOW)	CENTER LINE (SOLID SINGLE YELLOW)	CENTER LINE (DASHED YELLOW)	STOP LINE	CROSSWALK LINE 12"	CROSSWALK LINE 24"	TRANSVERSE/DIAGONAL LINE (YELLOW)		LANE ARROW	
				RT/LT	MI.	MI.	MI.	MI.	MI.	FT.	FT.	FT.		FT.	EA.
EL-1	88+00	92+50	LT	0.09											
EL-2	88+00	92+50	RT	0.09											
YLL-1	88+00	92+50	LT				0.09								
YLL-2	88+00	92+50	RT				0.09								
YDL-1	88+00	92+50	LT					0.09							
YDL-2	88+00	92+50	RT					0.09							
LA-5	88+39		RT										1		
LA-6	88+66		LT										1		
LA-7	91+28		RT										1		
LA-8	91+55		LT										1		
TOTAL THIS SHEET				0.18	-	-	0.18	0.18	-	-	-	-	4		

COL-SR14-9.02



Marking Legend

- (YLL) Yellow Lane Line
- (YDL) Yellow Dashed Line
- (TYL) Transverse Yellow Line
- (WLL) White Lane Line
- (DYL) Double Yellow Line
- (SL) Stop Line
- (CWL) Cross Walk Line
- (LA) Lane Arrow
- (EL) Edge Line



CALCULATED:
CHECKED:

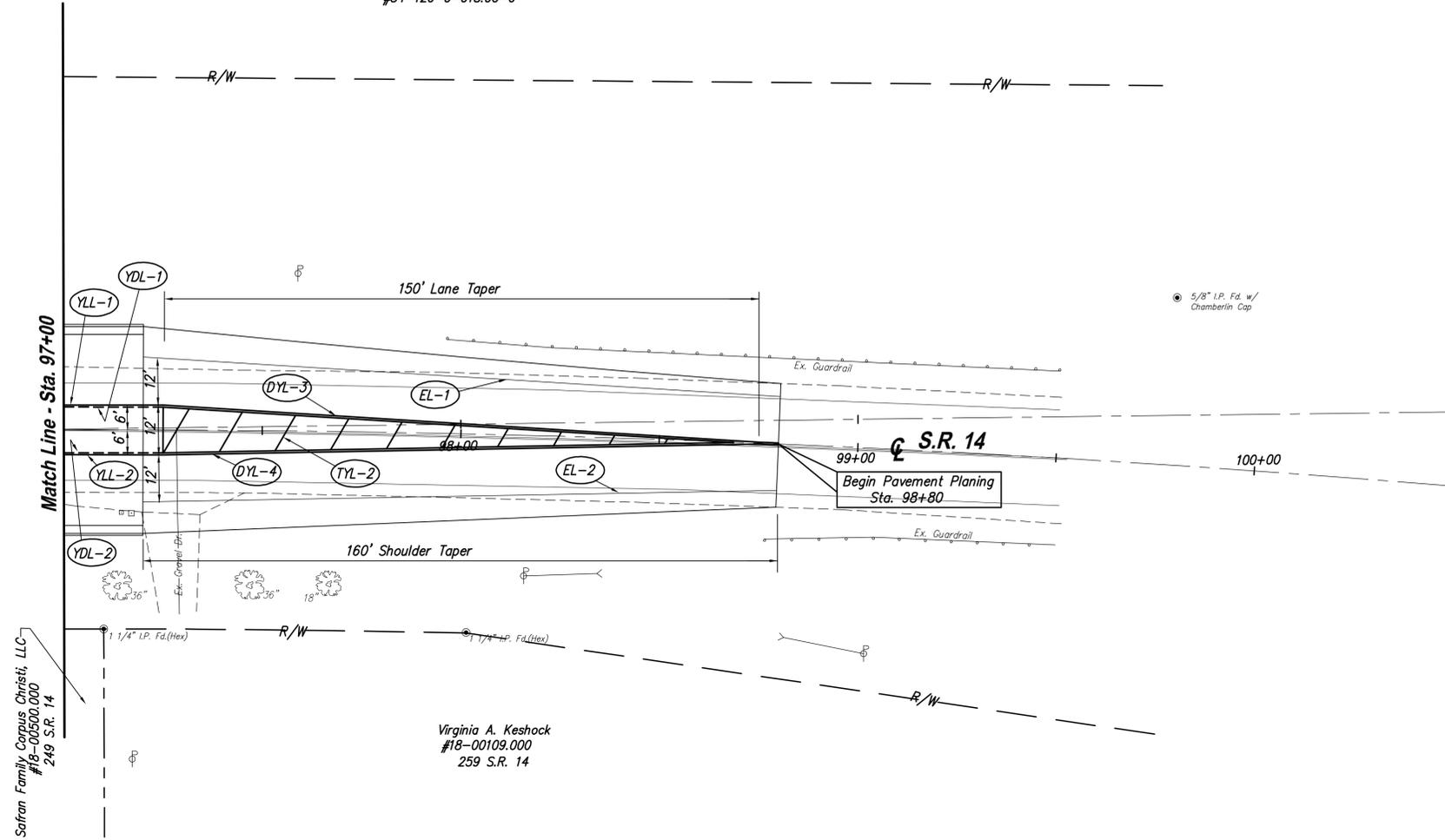
TRAFFIC CONTROL SUBSUMMARY

REF. NO.	STATION		SIDE	646										COMMENTS	REF. NO.	STATION		SIDE	646										COMMENTS
				EDGE LINE 4"	LANE LINE 4"	CENTER LINE (DOUBLE YELLOW)	CENTER LINE (SOLID SINGLE YELLOW)	CENTER LINE (DASHED YELLOW)	STOP LINE	CROSSWALK LINE 12"	CROSSWALK LINE 24"	TRANSVERSE/DIAGONAL LINE (YELLOW)	LANE ARROW						EDGE LINE 4"	LANE LINE 4"	CENTER LINE (DOUBLE YELLOW)	CENTER LINE (SOLID SINGLE YELLOW)	CENTER LINE (DASHED YELLOW)	STOP LINE	CROSSWALK LINE 12"	CROSSWALK LINE 24"	TRANSVERSE/DIAGONAL LINE (YELLOW)	LANE ARROW	
	FROM	TO	LT/RT	MI.	MI.	MI.	MI.	MI.	FT.	FT.	FT.	FT.	EA.		FROM	TO	RT/LT.	MI.	MI.	MI.	MI.	MI.	FT.	FT.	FT.	FT.	EA.		
EL-1	92+50	94+82.2	LT	0.04											LA-11	95+57.9		RT										1	
EL-2	92+50	97+00	RT	0.09											EL-1	95+60	97+00	LT	0.03										
YLL-1	92+50	95+00	LT			0.05									LA-12	95+84.8		LT										1	
YLL-2	92+50	95+00	RT			0.05									LA-13	96+66.5		RT										1	
YDL-1	92+50	95+00	LT				0.05								LA-14	96+93.4		LT										1	
YDL-2	92+50	95+00	RT				0.05																						
LA-9	93+90.8		RT										1		CWL-2	95+04.8	95+38.2	LT					61.7	35					
LA-10	94+17.8		LT										1		SL-2	95+08.1	95+20.1	LT					12						
YLL-1	95+50	97+00	LT			0.02																							
YLL-2	95+50	97+00	RT			0.02																							
YDL-1	95+50	97+00	LT				0.02																						
YDL-2	95+50	97+00	RT				0.02																						
TOTAL THIS COLUMN				0.13	-	-	0.14	0.14	-	-	-	-	2		TOTAL THIS COLUMN				0.03	-	-	-	-	12	61.7	35	-	4	
															TOTAL FIRST COLUMN				0.13	-	-	0.14	0.14	-	-	-	-	2	
															TOTAL THIS SHEET				0.16	-	-	0.14	0.14	12	61.7	35	-	6	

**PAVEMENT MARKING PLAN
STA. 92+50 TO STA. 97+00**

COL-SR14-9.02

Cocca Development, LTD
#54-120-0-018.00-0



Safraan Family Corpus Christi, LLC
#18-00150.000
249 S.R. 14

Virginia A. Keshock
#18-00109.000
259 S.R. 14

Marking Legend

- Yellow Lane Line
- Yellow Dashed Line
- Transverse Yellow Line
- White Lane Line
- Double Yellow Line
- Stop Line
- Cross Walk Line
- Lane Arrow
- Edge Line



TRAFFIC CONTROL SUBSUMMARY

REF. NO.	STATION		SIDE	646																	
				EDGE LINE 4"	LANE LINE 4"	CENTER LINE (DOUBLE YELLOW)	CENTER LINE (SOLID SINGLE YELLOW)	CENTER LINE (DASHED YELLOW)	STOP LINE	CROSSWALK LINE 12"	CROSSWALK LINE 24"	TRANSVERSE/DIAGONAL LINE (YELLOW)	LANE ARROW								
				MI.	MI.	MI.	MI.	MI.	FT.	FT.	FT.	FT.	EA.								
YLL-1	97+00	97+25	LT				0.05														
YLL-2	97+00	97+25	RT				0.05														
YDL-1	97+00	97+25	LT					0.05													
YDL-2	97+00	97+25	RT					0.05													
DYL-3	97+25	98+80	LT			0.03															
DYL-4	97+25	98+75	RT			0.03															
TYL-2	97+25	98+75	LT/RT									83.8									
EL-1	97+25	98+80	LT	0.03																	
EL-2	97+25	98+80	RT	0.03																	
TOTAL THIS SHEET				0.06	-	0.06	0.1	0.1	-	-	-	83.8	-								

TRAFFIC CONTROL SUBSUMMARY TOTALS

SHEET NOS.	646									
	EDGE LINE 4"	LANE LINE 4"	CENTER LINE (DOUBLE YELLOW)	CENTER LINE (SOLID SINGLE YELLOW)	CENTER LINE (DASHED YELLOW)	STOP LINE	CROSSWALK LINE 12"	CROSSWALK LINE 24"	TRANSVERSE/DIAGONAL LINE (YELLOW)	LANE ARROW
	MI.	MI.	MI.	MI.	MI.	FT.	FT.	FT.	FT.	EA.
TOTALS FROM SHEET 44	0.06	0.04	0.09	0.02	0.02	39.6	132	56	144.5	6
TOTALS FROM SHEET 45	0.18	-	-	0.18	0.18	-	-	-	-	4
TOTALS FROM SHEET 46	0.16	-	-	0.14	0.14	12	61.7	35	-	6
TOTALS FROM SHEET 47	0.06	-	0.06	0.1	0.1	-	-	-	83.8	-
TOTAL	0.46	0.04	0.15	0.44	0.44	51.6	193.7	91	228.3	16
TOTALS CARRIED TO GENERAL SUMMARY	0.5	0.04	0.2	0.4	0.4	52	194	91	228	16

**PAVEMENT MARKING PLAN
STA. 97+00 TO STA. 98+80**

COL-SR14-9.02