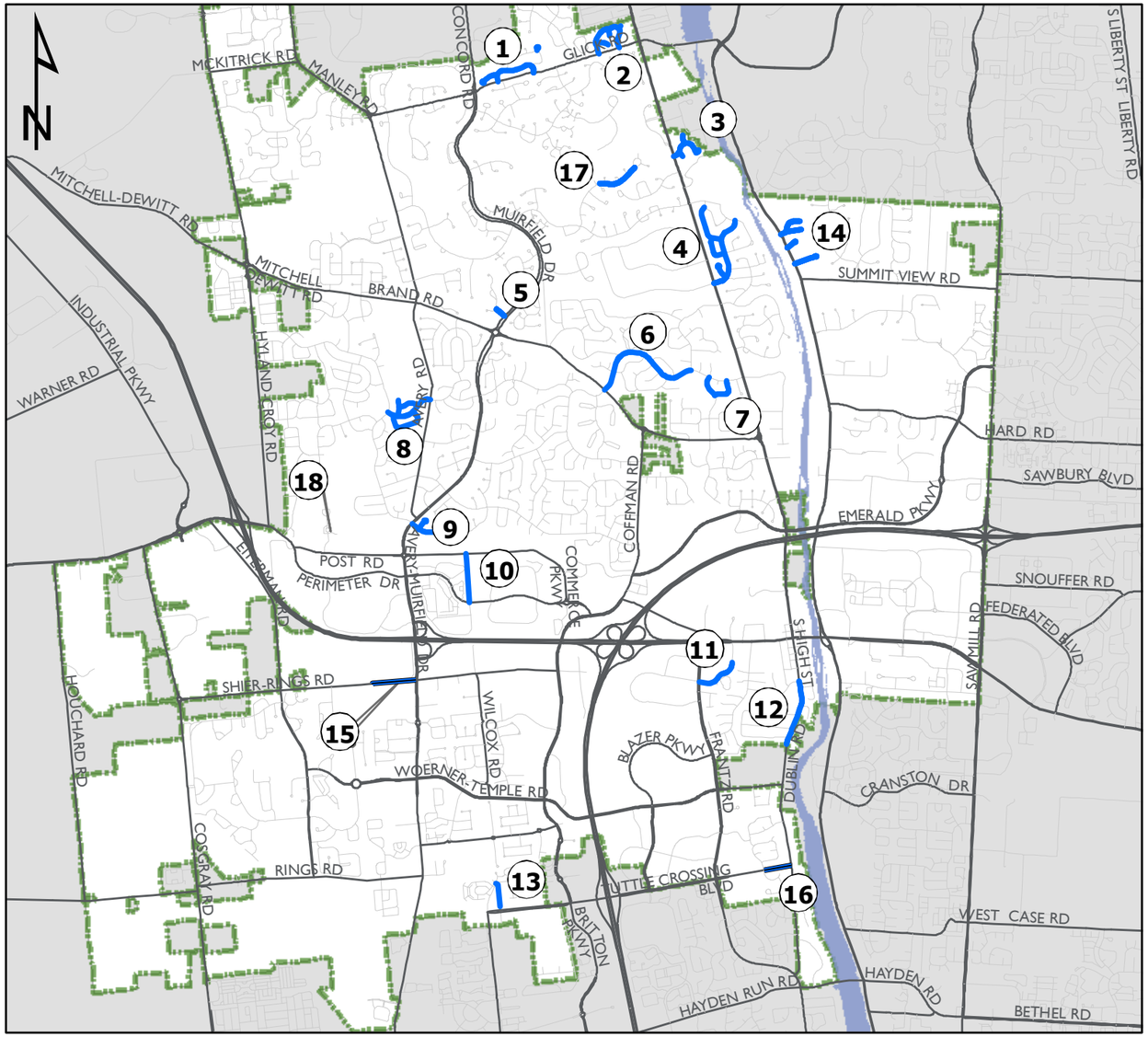
2016 STREET MAINTENANCE PROGRAM

City of Dublin



Date: 3/28/2016

Map No.	Location	Sheet Numbers			
		Roadway and Concrete Work	Curb Ramp Details	Traffic and Striping	Estimated Quantities and Construction Details
1	Rothesay Drive	2-3	-	2-3	6
1	Rothesay Court	4	-	-	7
1	Preswick Court	5	-	-	8
2	Muirkirk Drive	10-13	-	14	15
2	Laidon Court	10	-	-	16
2	Stratton Lane	11	-	-	17
3	Glenaire Drive	19-20	-	24	25
3	Glenamoy Court	19	22	-	26
3	Glenliven Court	21	22-23	-	27
4	Amberleigh Way	26-32	43, 45	38-41	47
4	Glencullen Court	33	43	-	48
4	Gillingham Way	30,34-35	44, 45	-	49
4	Autumnwood Way	31,35-37	44, 46	42	50
5	Moors Place (Entrance)	51	-	51	51
6	Brandonway Drive	52-58	52-58, 65	59-64	66-67
7	Coventry Woods Drive	68-69	71	-	73
7	Applecross Drive	70	71-72	-	74
8	Wynford Drive	75-77	82-83	-	91
8	Wismer Circle	75, 78-79	84-85	88-89	91
8	Worsham Way	75, 80	86	89-90	92
8	Whigham Court	75, 81	87	88	92
9	Valley Stream Drive	93-94	93	95-96	97
9	Running Deer Place	98	-	-	99
10	Holt Road	100	-	101	102
11	Corbins Mill Drive	103-104	-	105	106
12	Dublin Road / S. High St.	107-109	-	110-112	113
13	Old Wilcox Road	114	-		115
14	Arrowhead Drive	116-117, 122	-	121	117
14	Westbury Road	116, 118, 122	-	121	118
14	Forest Hill Road	116, 119, 122	-	121	120
14	Woodland Drive	116, 119, 122	-	121	120
15	Shier-Rings Road	123	-	124	125
16	Tuttle Road	126	-	127	128
17	Dunniker Park	129-130	-	-	131
18	Stillhouse Lane	132	-	-	132

STANDARD CONSTRUCTION DRAWINGS								SUPPLEMENTAL SPECIFICATIONS	
CITY OF DUBLIN		CITY OF DUBLIN		ODOT		CITY OF COLUMBUS			
MD-05	5/1/2014	RD-01	5/1/2014	TC-72.20	7/18/2014	AA-S120	7/9/2012	CITY OF DUBLIN	AS PROVIDED
PD-01	5/1/2014	RD-02	5/1/2014			AA-S121	7/9/2012		
PD-02	5/1/2014	RD-03	5/1/2014	MT-99.20	7/19/2013	AA-S123	8/8/2014	ODOT 800	1/21/2015
PD-03	5/1/2014	RD-05	5/1/2014	MT-97.12 **	7/18/2014	AA-S126	12/6/2013		
PD-04	5/1/2014	RD-06	5/1/2014	MT-97.11 *	7/18/2014	AA-S125A	8/8/2014		
PD-05	5/1/2014	RD-07	5/1/2014	MT-97.10	7/18/2014	AA-S133	8/8/2014		
PD-06	5/1/2014	RD-11	5/1/2014	MT-95.31***	7/18/2014	AA-S134	8/8/2014		
PD-07	5/1/2014	RD-12	5/1/2014	MT-95.61	7/19/2013	AA-S159	7/9/2012		
PD-08	5/1/2014	RD-14	5/1/2014	MT-95.60	7/19/2013	AA-S142	12/6/2013		
PD-09	5/1/2014								
PD-10	5/1/2014			BP-3.1	7/18/2014				
PD-11	5/1/2014								
PD-12	5/1/2014			CB-2.1	1/8/2013				
				CB-2.2	1/17/2014				
				* Residential					
				** Collector / Arterial					
				*** Arterial as Detailed in Plans					

CITY OF DUBLIN PROJECT NO. 16-001-CIP

OWNER

ALL REFERENCES TO THE "OWNER" OR THE "CITY" SHALL IDENTIFY THE CITY OF DUBLIN, OHIO.

GENERAL

THE REQUIREMENTS OF THE CITY OF DUBLIN, TOGETHER WITH THE CITY OF COLUMBUS CONSTRUCTION MATERIAL SPECIFICATIONS (CMS) 2012 EDITION, THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS (ODOTCMS) 2013 EDITION AS NOTED, AND , AND ANY SUPPLEMENTS THERETO (HEREAFTER REFERRED TO AS STANDARD SPECIFICATIONS), SHALL GOVERN ALL CONSTRUCTION ITEMS UNLESS OTHERWISE NOTED. THE FEDERAL HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS (FP-03) MAY BE REFERENCED ON SOME ITEMS.

IT IS THE INTENTION OF THE CONTRACT DOCUMENTS TO PROVIDE AND REQUIRE A COMPLETED PROJECT READY FOR OPERATION. ANY WORK ITEMS OMITTED FROM THE CONTRACT DOCUMENTS WHICH ARE CLEARLY NECESSARY FOR COMPLETION OF THE WORK AND ITS APPURTENANCES SHALL BE CONSIDERED A PART OF SUCH WORK, THOUGH NOT DIRECTLY SPECIFIED OR CALLED FOR IN THE CONTRACT DOCUMENTS. THIS INCLUDES, BUT IS NOT LIMITED TO, SUCH INCIDENTAL ITEMS AS RELOCATION OF MAIL BOXES, SAW CUTTING, AND REMOVAL AND/OR RELOCATION OF SIGNS, SPRINKLERS AND IRRIGATION COMPONENTS, OR OTHER MISCELLANEOUS ITEMS.

ALL ITEMS OF WORK CALLED FOR ON THE PLANS FOR WHICH NO SPECIFIC METHOD OF PAYMENT IS PROVIDED SHALL BE PERFORMED BY THE CONTRACTOR WITH THE COST TO BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS RELATED ITEMS.

THE CONTRACTOR INTENDING TO SUBMIT A BID FOR CITY OF DUBLIN CAPITAL IMPROVEMENT CONTRACTS SHALL BE PREQUALIFIED WITH THE OHIO DEPARTMENT OF TRANSPORTATION IN ACCORDANCE WITH SECTION 102 OF THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS, AND CHAPTER 5525 OF THE OHIO REVISED CODE CONCERNING CONSTRUCTION CONTRACTS.

THE CONTRACTOR SHALL NOTIFY THE CITY OF DUBLIN DIVISION OF ENGINEERING AT LEAST 10 WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION AND REQUESTING APPROVAL TO COMMENCE CONSTRUCTION.

THE CONTRACTOR SHALL COORDINATE TO FACILITATE WORK BY OTHERS IN THE RIGHT-OF-WAY AND OUTSIDE OF THE CONSTRUCTION LIMITS.

THE CITY ENGINEER IS NOT RESPONSIBLE FOR MEANS, METHODS, PROCEDURES, TECHNIQUES, OR SEQUENCES OF CONSTRUCTION THAT ARE NOT SPECIFIED HEREIN. THE CITY ENGINEER IS NOT RESPONSIBLE FOR SAFETY ON THE WORK SITE, OR FOR FAILURE BY THE CONTRACTOR TO PERFORM WORK ACCORDING TO THE CONTRACT DOCUMENTS.

THE CITY IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE AND LOCAL SAFETY REQUIREMENTS INCLUDING THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970. THE CONTRACTOR SHALL ALWAYS EXERCISE CAUTION FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT SHALL ALSO BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INITIATE, MAINTAIN, AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK, INCLUDING THE REQUIREMENTS FOR CONFINED SPACES PER 29 CFR 1910.146.

ANY MODIFICATIONS TO THE WORK AS SHOWN ON THESE APPROVED PLANS SHALL HAVE PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER.

THE CONTRACTOR SHALL RESTRICT CONSTRUCTION ACTIVITY TO PUBLIC RIGHT-OF-WAY, AREAS DEFINED AS PERMANENT AND/OR TEMPORARY CONSTRUCTION EASEMENTS, AND/OR THE LIMITS OF DISTURBANCE SHOWN.

PROPERTY BOUNDARIES, INCLUDING PROPERTY LINES AND ROAD RIGHTS-OF-WAY, ARE SHOWN FROM THE BEST INFORMATION AVAILABLE AND ARE NOT NECESSARILY COMPLETE OR CORRECT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING THE FINISHED WORK CONFORM TO THE LINES, GRADES, ELEVATIONS, AND DIMENSIONS CALLED FOR ON THE DRAWINGS AND TYPICAL SECTIONS. PAYMENT FOR CONSTRUCTION LAYOUT SHALL BE INCLUDED UNLESS ITEM 623, CONSTRUCTION LAYOUT STAKES, IS SPECIFIED.

NON-RUBBER TIRED VEHICLES SHALL NOT BE MOVED ON OR ACROSS PUBLIC STREETS OR HIGHWAYS WITHOUT THE WRITTEN PERMISSION OF THE CITY ENGINEER.

THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO EQUAL OR BETTER CONDITION THAT EXISTED BEFORE CONSTRUCTION. DRAINAGE DITCHES OR WATER COURSES THAT ARE DISTURBED BY CONSTRUCTION SHALL BE RESTORED TO THE GRADES AND CROSS-SECTIONS THAT EXISTED BEFORE CONSTRUCTION.
ALL NON-PAVEMENT AREAS DISTURBED WITHIN THE DESIGNATED EASEMENTS, RIGHTS-OF-WAY, AND LIMITS OF DISTURBANCE AS SHOWN, SHALL BE SEEDED AND MULCHED IN ACCORDANCE WITH ITEM 659, VEGETATION (SEED/MULCH), ALL AREAS DISTURBED OUTSIDE THESE LIMITS SHALL BE SEEDED AND MULCHED AT THE CONTRACTOR'S EXPENSE.

TRACKING OR SPILLING MUD, DIRT, OR DEBRIS UPON STREETS, RESIDENTIAL OR COMMERCIAL DRIVES, SIDEWALKS, OR BIKE PATHS IS PROHIBITED AND ANY SUCH OCCURRENCE SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR. IF THE CONTRACTOR FAILS TO REMOVE THE MUD, DIRT, DEBRIS, OR SPILLAGE, THE CITY OF DUBLIN RESERVES THE RIGHT TO REMOVE THESE MATERIALS AND CLEAN AFFECTED AREAS, THE COST OF WHICH (MULTIPLIED BY 2.5) SHALL BE WITHHELD FROM MONIES THAT ARE DUE OR MAY BECOME DUE THE CONTRACTOR.

CONSTRUCTION PERIOD

THE CONSTRUCTION PERIOD FOR THIS PROJECT MAY BEGIN ON OR AFTER MAY 9, 2016, AND AFTER RECEIPT OF NOTICE TO PROCEED, AND SHALL END ON THE COMPLETION DATE SEPTEMBER 30, 2016. THE CONSTRUCTION PERIOD INCLUDES AN ALLOCATION FOR INCLEMENT WEATHER. ANY REQUEST FOR EXTENSION OF THE CONSTRUCTION PERIOD DUE TO INCLEMENT WEATHER SHALL BE PRESENTED TO THE ENGINEER FOR CONSIDERATION AS SOON AS THE CONTRACTOR FORESEES THE NEED FOR AN EXTENSION TO THE CONSTRUCTION PERIOD. THIS REQUEST MUST BE SUPPORTED BY DOCUMENTATION SHOWING THE DAYS LOST DUE TO THE INCLEMENT WEATHER. ALL WORK INCLUDING ALL RESTORATION SHALL BE COMPLETED BY THE COMPLETION DATE.

WORKING HOURS AND RESTRICTIONS

IT IS THE INTENT OF THE CITY TO KEEP INCONVENIENCE AND DISTURBANCE TO PROPERTY OWNERS TO A MINIMUM. THE WORK DAY(S) SHALL BE FROM 7 AM UNTIL 6 PM, MONDAY THROUGH FRIDAY. IF THE CONTRACTOR DESIRES TO WORK ON SATURDAYS OR HOLIDAYS, OR OUTSIDE OF THESE HOURS, THE CONTRACTOR MUST PROVIDE SUCH REQUEST TO THE ENGINEER AT LEAST 48 HRS IN ADVANCE. THE CONTRACTOR SHALL SCHEDULE AND PLAN WORK SO THAT WORK AREAS ARE CLEAN AND SAFE FOR WEEKENDS, HOLIDAYS, AND COMMUNITY EVENTS. ALL WORK IS TO BE SCHEDULED TO MAINTAIN THE WORK AREA CLEAN AND SAFE AND FINAL RESTORATION SHALL FOLLOW AS SOON AS REASONABLY POSSIBLE. FINAL PAYMENT WILL NOT BE MADE FOR ANY ITEM UNTIL ALL WORK INCLUDING CLEANUP AND RESTORATION ASSOCIATED WITH THE ITEM IS COMPLETED. EQUIPMENT AND MATERIALS SHALL NOT BE STORED IN STREETS OR RIGHTS OF WAY WITHOUT APPROVAL OF THE ENGINEER.

SCHEDULE OF WORK

A MINIMUM OF 10 DAYS ADVANCE NOTICE OF WORK IS REQUIRED PRIOR OF COMMENCEMENT OF WORK.
A MINIMUM OF 14 DAYS ADVANCE NOTICE IS REQUIRED PRIOR TO PERMITTED ROAD CLOSURES. ADVANCE NOTICE MESSAGE BOARDS SHALL BE PLACED A MINIMUM OF 14 DAYS AHEAD OF ANY ROAD CLOSURE UNLESS OTHERWISE SPECIFIED.

CRITICAL SCHEDULE NOTES:

ALL WORK ON THE FOLLOWING STREETS SHALL COMMENCE AFTER JUNE 5, 2016 DUE TO THE MEMORIAL TOURNAMENT:
ROTHESAY DRIVE, ROTHESAY COURT, PRESWICK COURT
MUIRKIRK DRIVE, LAINDON COURT, STRATTON LANE
AMBERLEIGH WAY, GLENCULLEN COURT, GILLINGHAM WAY, AUTUMNWOOD WAY
GLENAIRE DRIVE, GLENAMOY COURT, GLENLIVEN COURT
DUNNIKER PARK DRIVE

(NOTE: THE CONTRACTOR MAY REQUEST TO WORK IN THE ABOVE AREAS PRIOR TO JUNE 5, 2016 IF ALL WORK IN THE AREA WILL BE COMPLETE PRIOR TO MAY 27, 2016. APPROVAL TO WORK IN THE ABOVE AREA PRIOR TO JUNE 5, 2016 IS AT THE DISCRETION OF THE ENGINEER.)

WORK ON MOORS PLACE MAY COMMENCE PRIOR TO JUNE 5, 2016 IF ALL WORK IS COMPLETE PRIOR TO MAY 27, 2016.

WORK ON DUBLIN ROAD AND S. HIGH STREET MUST BE SCHEDULED FOR COMPLETION AFTER AUGUST 7, 2016 DUE TO THE CONSTRUCTION OF THE SHARED-USE PATH AND THE DUBLIN IRISH FESTIVAL. THE WORK ON S. HIGH STREET AND DUBLIN ROAD WILL NEED TO BE COORDINATED WITH THE DUBLIN ROAD SOUTH SHARED-USE PATH PROJECT CURRENTLY UNDERWAY. THE CONTRACTOR FOR THIS PROJECT IS COLUMBUS ASPHALT PAVING, INC. THE WORK ON THE DUBLIN ROAD SOUTH SHARED-USE PATH PROJECT IS EXPECTED TO BE COMPLETE BY JULY 31, 2016.

WORK ON SHIER-RINGS ROAD SHOULD BE COMPETED BETWEEN JUNE 13, 2016 AND AUGUST 12, 2016 DUE TO INCREASED TRAFFIC FROM THE DUBLIN CITY SCHOOLS TRANSPORTATION FACILITY ON SHIER-RINGS ROAD. THE LAST DAY OF SCHOOL FOR THE 2015-2016 SCHOOL YEAR IS JUNE 6, 2016. THE FIRST DAY OF SCHOOL FOR THE 2016-2017 SCHOOL YEAR IS AUGUST 17, 2016

TABLE OF CURRENT CITY EVENTS		AREA(S) AFFECTED
ST. PATRICK'S DAY PARADE	March 12, 2016	BRIDGE ST. / HISTORIC DISTRICT, GROUNDS OF REMEMBRANCE
MEMORIAL PARADE	May 30, 2016	BRIDGE ST. / HISTORIC DISTRICT, GROUNDS OF REMEMBRANCE
FORE! MILER	May 26, 2016	MUIRFIELD AREA
THE MEMORIAL TOURNAMENT	MAY 30 - JUNE 5, 2016	MUIRFIELD AREA
DUBLIN CITY SCHOOLS, LAST DAY OF SCHOOL 2015-2016 YEAR	June 6, 2016	CITY WIDE
FOURTH OF JULY CELEBRATION	July 4, 2016	COFFMAN ROAD, EMERALD PARKWAY (COFFMAN TO DUBLIN ROAD), TARA HILL DRIVE, BRIDGE ST. / HISTORIC DISTRICT
ARTHRITIS CAR SHOW	JULY 7 - JULY 9, 2016	METRO PLACE / FRANTZ ROAD
MS BIKE RIDE TO MARYSVILLE	July 9, 2016	GLACIER RIDGE ELEMENTARY, HYLAND CROY, MCKITRICK RD.
DUBLIN IRISH FESTIVAL	AUGUST 5-7, 2016	COFFMAN PARK, TARA HILL DRIVE, COFFMAN ROAD, EMERALD PARKWAY (PERIMETER DRIVE TO COFFMAN ROAD), POST ROAD
DUBLIN CITY SCHOOLS, FIRST DAY OF SCHOOL 206-2017 YEAR	17-Aug-16	CITY WIDE
EMERALD CITY HALF MARATHON	August 28, 2016	PERIMETER DRIVE, HOSPITAL DRIVE, HYLAND CROY, MCKITRICK RD., MANLEY RD.
HALLOWEEN SPOOKTACULAR	October 20, 2016	COFFMAN PARK, DUBLIN REC. CENTER
HALLOWEEN TRICK OR TREAT	MONDAY, OCTOBER 31, 2016	CITY WIDE

SCHEDULE

THE CONTRACTOR SHALL SUBMIT A WORK SCHEDULE TO THE ENGINEER FOR REVIEW AND APPROVAL AT THE TIME OF THE PRE-CONSTRUCTION MEETING. THIS SCHEDULE WILL DETAIL THE TIMING OF THE WORK ACTIVITIES FOR THE VARIOUS SECTIONS OF THE PROJECT. THE CONSTRUCTION SCHEDULE SHALL BE UPDATED BI-MONTHLY (TWICE EACH MONTH), OR WHENEVER A SUBSTANTIAL CHANGE IN THE SCHEDULE HAS OCCURRED, AND FORWARDED TO THE ENGINEER. A REVISED SCHEDULE SHALL BE SUBMITTED WITH EACH REQUEST FOR PAYMENT. THE CONTRACTOR SHALL PROVIDE THE CITY WITH A MINIMUM OF 24 HOURS ADVANCE NOTICE TO SCHEDULED WORK.

THE CONTRACTOR SHALL PROVIDE THE ENGINEER AND INSPECTOR WITH A MINIMUM OF 24 HRS ADVANCE NOTICE FOR ALL WORK. ENGINEER WILL DETERMINE METHOD(S) OF COMMUNICATION.

MAINTENACE OF TRAFFIC, MOBILIZATION
PUBLIC SAFETY & PUBLIC CONVENIENCE

PUBLIC ACCESS MANAGEMENT:
IT IS THE INTENT OF THIS CONTRACT THAT ALL ITEMS OF STREET REPAIR BE SCHEDULED AND PERFORMED BY THE CONTRACTOR IN A MANNER AS TO MINIMIZE INCONVENIENCE TO PEDESTRIAN AND VEHICULAR TRAFFIC. IT IS ALSO THE INTENT TO PROVIDE FOR AND MAINTAIN ACCESS TO RESIDENTIAL, COMMERCIAL, INDUSTRIAL AND PUBLIC PROPERTIES TO THE MAXIMUM EXTENT REASONABLE DURING THE PERFORMANCE OF THE WORK. THE CONTRACTOR SHALL PHASE WORK AND PROVIDE AN ADEQUATE NUMBER OF STEEL PLATES IN ORDER TO MAINTAIN ACCESS TO DRIVEWAYS AS MUCH AS POSSIBLE. THE CONTRACTOR SHALL PROVIDE A SAFE AND UNOBSTRUCTED PEDESTRIAN ACCESS CORRIDOR ACROSS AREAS OF CURB EXCAVATION AT INTERVALS OF NO MORE THAN 200 FEET.

SIDEWALK CLOSINGS:
WARNING SIGNS AND BARRICADES SHALL BE POSTED IMMEDIATELY IN ADVANCE OF THE CLOSURE AND AT THE CLOSEST LEGAL CROSSWALK INDICATING THE CLOSURE AHEAD AND PROVIDE A DETOUR ROUTE AROUND THE WORK ZONE. THE WORK ON SIDEWALKS SHALL BE SCHEDULED AND COORDINATED SUCH THAT AN UNOBSTRUCTED DETOUR MAY BE PROVIDED AROUND THE WORK ZONE.
WORK ZONES SHALL BE ADEQUATELY SECURED DURING AND OUTSIDE OF WORKING HOURS.

DRAWN BY: DAL
REVISED 2/17/2016

STREET MAINTENANCE PROGRAM
GENERAL NOTES

16-001-CIP

NOTIFICATION OF ACCESS RESTRICTION TO PROPERTY OWNER:
THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 24 AND NO MORE THAN 48 HOURS WRITTEN NOTICE TO PROPERTY OWNERS AND RESIDENTS PRIOR TO CLOSING ANY DRIVEWAY OR PORTION THEREOF. CONFIRMATION OF THE WRITTEN NOTICES SHALL BE PROVIDED TO THE CITY ENGINEER BY THE CONTRACTOR ON A DAILY BASIS. NO DRIVEWAY IS TO BE CLOSED FOR A PERIOD OF MORE THAN SEVEN (7) DAYS. IN THE EVENT THAT THE SEVEN (7) DAY MAXIMUM IS EXCEEDED, THE CONTRACTOR WILL NOT BE PERMITTED TO CLOSE ANY MORE DRIVEWAYS OR PROCEED WITH OTHER UN-RELATED WORK ON THE PROJECT UNTIL COMPLIANCE IS ACHIEVED. THE CONTRACTOR SHALL BE ASSESSED AN ITEM SPECIFIC LIQUIDATED DAMAGE OF $100.00 PER DAY PER DRIVEWAY UNTIL THE DRIVEWAY(S) ARE OPENED. THE CONTRACTOR IS REQUIRED TO MAINTAIN ACCESS TO COMMERCIAL DRIVES AT ALL TIMES UNLESS PRIOR ARRANGEMENTS HAVE BEEN MADE WITH THE PROPERTY OWNER, PROPRIETOR, AND ENGINEER. THE CONTRACTOR MAY BE PERMITTED TO CLOSE A PORTION OF A COMMERCIAL ENTRANCE WITH THE PERMISSION OF THE ENGINEER AS LONG AS TRAFFIC IS MAINTAINED THROUGH THE REMAINING SECTION OF THE ENTRANCE.

MAINTENANCE OF TRAFFIC:
ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES CURRENT EDITION. THE LIMITS OF THE CONSTRUCTION WORK SHALL BE MARKED WITH THE APPROPRIATE SIGNAGE (ROAD WORK, AND END ROAD WORK) PRIOR TO THE COMMENCEMENT OF ANY WORK OR STAGING OF EQUIPMENT. SPECIAL DUTY POLICE OFFICERS HAVING JURISDICTION IN THE CITY OF DUBLIN SHALL BE SUBSTITUTED WHERE REFERENCE IS MADE TO "FLAGGER" FOR THE FOLLOWING: DURING MILLING, PAVING, RECYCLING OPERATIONS IN AREAS OF HEAVY TRAFFIC VOLUMES; WHEN WORK IS BEING DONE ON ARTERIAL STREETS; AND AS DIRECTED BY THE ENGINEER. ALL EXCAVATION AND WORK AREAS ARE TO BE ADEQUATELY MARKED AND SECURED WITH THE APPROPRIATE WARNING DEVICES. ALL NECESSARY TRAFFIC CONTROL DEVICES MUST BE ON SITE, ERECTED, AND MAINTAINED PRIOR TO BEGINNING ANY PHASE OF THE WORK.

THE COSTS FOR ERECTION, MAINTENANCE AND REMOVAL OF ALL DEVICES SHALL BE INCLUDED IN THE BID PRICE FOR EACH ITEM OF WORK. COSTS FOR SPECIAL DUTY POLICE OFFICERS SHALL BE PAID UNDER ITEM 614 "LEO W/ PATROL CAR". COSTS FOR "FLAGGERS" SHALL BE PAID UNDER ITEM 614 "FLAGGER". UNDER ITEM 614 FLAGGERS, FLAGGERS MUST BE USED SOLELY FOR TRAFFIC CONTROL OPERATIONS.

WORK PLAN:
THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE ENGINEER A WORK AND TRAFFIC CONTROL PLAN FOR THE PHASES OF WORK PLANNED FOR THE WORK AREAS AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF WORK. WORK PLAN SHALL INCLUDE AT A MINIMUM: THE VARIOUS SCOPES OF WORK AND PHASES, PLANNED START AND COMPLETION DATES FOR THE PHASES OF WORK, PLANNED ROUTE OR DIRECTION FOR WORK TO PROGRESS DURING PHASES, MAINTENANCE OF TRAFFIC DURING THE PHASES OF WORK, AND OTHER PERTINENT INFORMATION.
ACCESS TO ALL ADJOINING PROPERTIES AS WELL AS ACCESS FOR MAIL, WATER, SANITARY SERVICE AND EMERGENCY VEHICLES SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT. THE CONTRACTOR MAY SUBMIT ALTERNATIVE METHODS FOR THE MAINTENANCE OF TRAFFIC, PROVIDED THE INTENT OF THE PROVISIONS CONTAINED HEREIN ARE FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THEREFROM. THE MAINTENANCE OF TRAFFIC PLAN MUST INCORPORATE ANY TRAFFIC CONTROL DETAILS CONTAINED WITHIN THESE CONSTRUCTION DRAWINGS. THE MAINTENANCE OF TRAFFIC PLAN PROPOSED BY THE CONTRACTOR MUST BE APPROVED BY THE CITY ENGINEER PRIOR TO CONSTRUCTION.

PAYMENT FOR THIS AND ALL TRAFFIC MAINTENANCE ITEMS (UNLESS OTHERWISE SPECIFIED) SHALL BE INCLUDED IN THE INDIVIDUAL BID ITEMS.

THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE-LANE, TWO-WAY TRAFFIC AT ALL TIMES UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION PLANS.

IF THE CITY ENGINEER DETERMINES PROPER PROVISIONS FOR THE TRAFFIC CONTROL ARE NOT BEING PROVIDED BY THE CONTRACTOR, THE CITY ENGINEER MAY STOP WORK UNTIL MAINTENANCE OF TRAFFIC ISSUES ARE CORRECTED OR THE CITY ENGINEER MAY ASSIGN OFF-DUTY POLICE OFFICERS TO THE PROJECT AT THE CONTRACTORS EXPENSE.

STEADY-BURNING, TYPE "C" LIGHTS SHALL BE REQUIRED ON ALL DRUMS, BARRICADES AND SIMILAR TRAFFIC CONTROL DEVICES FOR NIGHT TIME WORK.

CONES ARE NOT APPROVED FOR NIGHT TIME LANE CLOSURES.

STREET CLOSINGS:

NO STREET MAY BE CLOSED NOR MAY ANY TRAFFIC MOVEMENTS BE RESTRICTED WITHOUT PRIOR APPROVAL BY THE ENGINEER.

THE FOLLOWING CLOSURE IS PERMITTED: NONE

THE CONTRACTOR SHALL PROVIDE THE CITY WITH 14 DAYS ADVANCE NOTICE REQUESTING APPROVAL BY THE ENGINEER PRIOR TO THE ABOVE ROAD CLOSURE.

MAILBOX RELOCATION:

IF THE CONTRACTOR CHOOSES TO RELOCATE, OR REMOVE AND REPLACE MAILBOXES, THE CONTRACTOR SHALL PROVIDE A FUNCTIONAL AND ACCESSIBLE MAILBOX AT ALL TIMES. MAILBOXES RELOCATED OR REMOVED AND REPLACED BY THE CONTRACTOR FOR THE CONVENIENCE OR EFFICIENCY OF THE CONTRACTOR SHALL BE AT THE EXPENSE OF THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY THE CITY REPRESENTATIVE OF ANY STRUCTURAL DEFICIENCIES OF EXISTING MAILBOXES PRIOR TO REMOVAL OR RELOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE AS A RESULT OF THE REMOVAL/REPLACEMENT OR RELOCATION OF MAILBOXES. EXISTING MAILBOXES IN DISREPAIR MAY BE REPLACED AT THE DISCRETION OF THE ENGINEER. THE CONTRACTOR WILL BE REIMBURSED FOR THE COST OF THE MAILBOX AND OR POST IF THE ENGINEER AGREES TO THE REPLACEMENT PRIOR TO THE CONTRACTOR RELOCATING OR REMOVING AND REPLACING MAILBOX. MAILBOXES SHALL BE INSTALLED PLUMB AND SECURELY AND IN ACCORDANCE WITH USPS GUIDELINES.

MOBILIZATION:
BY NATURE OF THE SCOPE OF THIS CONTRACT THE CONTRACTOR WILL NEED TO MOBILIZE TO DIFFERENT AREAS AT DIFFERENT TIMES. THE COSTS ASSOCIATED WITH SUCH MOBILIZATION(S) SHALL BE INCLUDED WITH THE UNIT COSTS OF THE WORK PERFORMED AS A RESULT OF SAID MOBILIZATION.
MOBILIZATION FOR WORK TO CORRECT UNSUITABLE ROADWAY BASE MATERIAL ENCOUNTERED DURING CONSTRUCTION AS REQUESTED BY THE ENGINEER SHALL BE PAID FOR UNDER ITEM 624 MOBILIZATION - UNDERCUT/BASE REPAIR. PAYMENT FOR THIS MOBILIZATION WILL INCLUDE ALL MOBILIZATION NECESSARY FOR WORK ASSOCIATED WITH THE REMOVAL OF UNSUITABLE BASE MATERIAL AND PLACEMENT OF SUITABLE BASE MATERIAL AS DIRECTED BY THE ENGINEER. PAYMENT WILL BE MADE UNDER ITEM 624 MOBILIZATION - UNDERCUT/BASE REPAIR FOR SUCH REQUEST FOR BASE REPAIR BY THE ENGINEER THAT REQUIRES SUCH MOBILIZATION.

THE CONTRACTOR SHALL PROVIDE ADEQUATE TWENTY-FOUR (24) HOUR EMERGENCY TELEPHONE NUMBERS TO PERMIT NOTIFICATION BY THE CITY IN THE EVENT OF A PROBLEM OR EMERGENCY. SHOULD NOTIFICATION BE UNABLE TO BE MADE OR THE CONTRACTOR FAIL TO PERFORM REQUESTED CORRECTIVE WORK WITHIN THE TIME SPECIFIED BY THE CITY, THE CITY WILL BE REIMBURSED 2.5 TIMES THE COST TO PERFORM THE WORK.

ENVIROMENTAL REGULATION

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING DUST, AND CONTAINING DEBRIS RESULTING FROM SAW CUTTING, EXCAVATION, PAVEMENT PLANNING, DEMOLITION OR OTHER CONSTRUCTION RELATED ACTIVITIES. THE CONTRACTOR SHALL VERIFY THAT ALL STORM STRUCTURES AND PIPING ARE FREE OF CONSTRUCTION RELATED DEBRIS FOLLOWING EACH PHASE OF CONSTRUCTION ACTIVITY. THE ENGINEER MAY REQUEST ADDITIONAL OR OTHER MEASURES BE TAKEN BY THE CONTRACTOR IF THE ENGINEER DOES NOT BELIEVE THE CONTRACTORS CURRENT METHOD(S) ARE EFFECTIVE. THE COSTS FOR COMPLYING WITH ENVIRONMENTAL REGULATIONS ARE TO BE INCLUDED IN THE VARIOUS UNIT COSTS ASSOCIATED WITH THE CONSTRUCTION PROJECT. THIS INCLUDES ADDITIONAL MEASURES REQUESTED BY THE ENGINEER.

DUST CONTROL OPERATIONS SHALL BE PERFORMED BY THE CONTRACTOR AT THE DIRECTION OF THE ENGINEER.

CONSTRUCTION NOISE

ANY DEVICE SHALL NOT BE OPERATED AT ANY TIME IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

UTILITIES

THE CONTRACTOR SHALL NOTIFY THE OHIO UTILITIES PROTECTION SERVICE (811) AT LEAST TWO (2) WORKING DAYS PRIOR TO PERFORMING ANY EXCAVATION OR PAVEMENT OPERATIONS THAT REMOVE MORE THAN 3" OF PAVEMENT SURFACE. CARE SHALL BE TAKEN DURING EXCAVATION IN THE VICINITY OF UTILITIES SUCH AS: STREETLIGHTS, TRAFFIC CIRCUITS, IRRIGATION SYSTEMS, AND OTHER UTILITIES NOT EXPRESSLY NAMED, SO AS TO NOT DAMAGE UTILITIES. THE CONTRACTOR IS RESPONSIBLE TO UTILIZE CARE AND TO PROTECT ALL UTILITIES, PUBLIC AND PRIVATE. THE CONTRACTOR IS RESPONSIBLE TO SURVEY THE EXISTING CONDITIONS AND MARK THE LOCATIONS OF VISIBLE IRRIGATION SYSTEM COMPONENTS, ROOF DRAINS AND OTHER UTILITIES. THE CONTRACTOR IS TO UTILIZE CARE WHEN WORKING IN AREAS THAT CONTAIN IRRIGATION SYSTEMS. ANY DAMAGE TO IRRIGATION SYSTEMS DUE TO NEGLIGENCE ON THE PART OF THE CONTRACTOR SHALL BE REPAIRED AT THE EXPENSE OF THE CONTACTOR. ANY DAMAGE TO SUCH UTILITIES THAT THE ENGINEER DETERMINES TO BE DUE TO THE CONTRACTORS NEGLECT, SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR, WITHOUT ADDITIONAL COST TO THE OWNER. IRRIGATION SYSTEM REPAIRS AND REPAIRS TO UNDERGROUND DOG FENCE SHALL BE COMPLETED IN A TIMELY MANNER. IRRIGATION COMPONENTS IN CONFLICT WITH PROPOSED WORK WILL BE RELOCATED (AS DIRECTED BY THE ENGINEER) BY THE CONTRACTOR UNDER FORCE ACCOUNT, OR UNDER OTHER PROVISIONS MADE BY THE CITY. THE CONTRACTOR IS RESPONSIBLE FOR THE SUPPORT AND PROTECTION OF UTILITIES IN ANY EXCAVATION. THE COST FOR THIS WORK IS TO BE INCLUDED IN THE PRICE FOR EACH BID ITEM.

COORDINATING WITH UTILITIES

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THEIR WORK WITH THE PRIVATE UTILITIES AS REQUIRED. THE UTILITY OWNER MAY BE REQUIRED TO BRACE, TEMPORARILY SUPPORT, OR RELOCATE THEIR RESPECTIVE UTILITIES SO THAT THE PROPOSED ROADWAY WORK MAY PROCEED.

UTILITIES KNOWN TO BE LOCATED WITHIN THE LIMITS OF THIS PROJECT ARE LISTED BELOW WITH CONTACT INFORMATION.

COLUMBIA GAS OF OHIO
MATT MEYERS
FIELD ENGINEER
1600 DUBLIN ROAD
COLUMBUS, OHIO 43215
OFFICE: 614-818-2113
CELL: 614-315-3770

AMERICAN ELECTRIC POWER
PAUL PAXTON
REGION TECHNICIAN
850 TECH CENTER DRIVE
GAHANNA, OHIO 43230-6605
OFFICE: 614-883-6831
CELL: 614-949-8883

CITY OF COLUMBUS
DIVISION OF WATER.
910 DUBLIN ROAD
2ND FLOOR
COLUMBUS, OH 43215
OFFICE: 614-645-7677

CITY OF DUBLIN
DIVISION OF ENGINEERING
DARREN LEE, P.E.
5800 SHIER-RINGS ROAD
DUBLIN, OHIO 43016
OFFICE: 614-410-4625
CELL: 614-743-9973

DUBLINK DEVELOPMENTS
DEAN PENCE
1810 ARLINGTON LANE
COLUMBUS, OH 43228
OFFICE: 614-274-8100

AT&T (CABLE)
ROGER MIKESELL
111 NORTH FOURTH STREET
ROOM 802
COLUMBUS, OH 43215
OFFICE: 614-223-7162

AT&T (CONDUIT)
GARY VAN ALMSICK
111 NORTH FOURTH STREET
ROOM 802
COLUMBUS, OH 43215
OFFICE: 614-223-7276

TIME WARNER CABLE
RAY MAURER
CONSTRUCTION SUPERVISOR
3760 INTERCHANGE DRIVE
COLUMBUS, OHIO 43204
OFFICE: 614-481-5262
CELL: 614-348-2979

WIDE OPEN WEST
MARK FREY
CONSTRUCTION MANAGER
3675 CORPORATE DRIVE
COLUMBUS, OH 43231
OFFICE: 614-948-4653
CELL: 614-668-7632

TEAM FISHEL
JOE TEPPER
PROJECT ENGINEER
1600 WALCUTT ROAD
COLUMBUS, OH 43228
OFFICE: 614-921-4616
CELL: 614-323-8079

IN ADDITON TO CONTACTING THE OHIO UTILITIES PROTECTION SERVICE (TELEPHONE NUMBER 800-362-2764) THE CONTRACTOR SHALL GIVE NOTICE OF INTENT TO CONSTRUCT TO OWNERS OF UNDERGROUND UTILITIES THAT ARE NOT MEMBERS OF A REGISTERED UNDERGROUND PROTECTION SERVICE. NOTICE SHALL BE GIVEN AT LEAST 2 WORKING DAYS BEFORE START OF CONSTRUCTION.

THE CITY OF DUBLIN AND THE CITY ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR DEPTHS OF UNDERGROUND FACILITIES SHOWN ON THE PLANS. IF DAMAGE IS CAUSED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF THE SAME AND FOR ANY RESULTING CONTINGENT DAMAGE.

COORDINATION / MANAGEMENT AND OVERSIGHT

THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE SCHEDULING AND COORDINATION AND OVERSIGHT OF THE WORK PERFORMED BY THEIR PERSONNEL AS WELL AS THAT OF ALL SUBCONTRACTORS. THE CONTRACTOR SHALL HAVE, ONSITE AT ALL TIMES, A DESIGNATED PROJECT MANAGER DURING TIMES AT WHICH WORK IS PERFORMED BY THEIR PERSONNEL OR ANY SUBCONTRACTOR.
CONTRACTOR SHALL COORDINATE HIS WORK TO FACILITATE WORK BY OTHERS IN THE RIGHT-OF-WAY AND OUTSIDE OF THE CONSTRUCTION WORK LIMITS.

GEOTECHNICAL INFORMATION

NO SUBSURFACE EXPLORATION OF THE PROJECT WAS PERFORMED.

TEST HOLES

THE CONTRACTOR IS ENCOURAGED TO DIG TEST HOLES AT THE PROJECT SITE PRIOR TO MAKING THEIR BID TO FAMILIARIZE THEMSELVES WITH SITE SUBSURFACE CONDITIONS. THE BIDDER SHALL TAKE INTO ACCOUNT ANY DIFFICULTY THEY PERCEIVE IN CONSTRUCTING THE PROJECT DUE TO ACCESS, ROCK, GROUND WATER, WEAK SOILS, TOPSOIL, ETC.

ALL EXCAVATION SHALL BE CONSIDERED AS UNCLASSIFIED, INCLUDING ROCK.

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EXISTING ROADWAY SECTION INFORMATION

THE TABLE BELOW LISTS THE EXISTING PAVEMENT SECTIONS. THIS DATA IS FROM CORES OR HISTORICAL DATA, AND IS PROVIDED FOR THE CONTRACTOR'S CONVENIENCE. ACTUAL SECTIONS MAY VARY FROM THOSE LISTED.

ROADWAY	ASPHALT THICKNESS INCHES (+/-)	AGGREGATE BASE INCHES (+/-)
AMBERLEIGH WAY*	6"-7"	6.5"-7.5"
APPLECROSS DRIVE*	7.75"	8.25"
AUTUMNWOOD WAY*	6"-7"	4.5"-7.5"
BRANDONWAY DRIVE*	4.5"-7.75"	7.25"-10.5"
COVENTRY WOODS DRIVE*	9.75"	12.5"
DUBLIN ROAD*	6.12"-7.75"	10"
GILLINGHAM WAY*	7"	5.25"
GLENAIRE DRIVE*	5.25"	7"
GLENAMOY CIRCLE*	5.75"	9.25"
GLENLIVEN COURT*	4.75"	8.75"
HOLT ROAD*	3.25"	3.25", NO. 2 STONE BELOW
LAIDON COURT	5"	8"
MOORS PLACE*	6.25"	10.5"
MUIRKIRK DRIVE*	5"-5.25"	8"-9.5"
OLD WILCOX ROAD*	6"	6", NO. 2 STONE BELOW
PRESWICK COURT*	5"	4.5"
RUNNING DEER PLACE*	4"	5.25"
ROTHESAY COURT*	6"	11"
ROTHESAY DRIVE*	2.5"	12.5"
STRATTON LANE*	4.75"	9.75"
VALLEY STREAM DRIVE*	3.75"	8.25"
WYNFORD DRIVE*	9"-9.5"	6"-6.25"
* CORES PERFORMED IN 2016		

PROPOSAL

NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR BY REASON OF COMPLIANCE WITH ANY OF THE REQUIREMENTS INDICATED IN THE SPECIFICATIONS, BUT PAYMENT SHALL BE DEEMED TO BE INCLUDED AMONG THE ITEMS, AS BID UPON, UNLESS OTHERWISE SPECIFICALLY PROVIDED

INSPECTION

ALL INSPECTIONS SHALL BE PROVIDED BY THE CITY OF DUBLIN, UNLESS OTHERWISE PROVIDED HEREIN.

LAWN RESTORATION

THE COST FOR ALL GRADING AND RESTORATION OF DISTURBED AREAS RESULTING FROM CURB, OR CURB AND GUTTER REPLACEMENT SHALL BE INCLUDED IN EACH RESPECTIVE PAY ITEM, TOPSOIL PLACED SHALL BE PAID UNDER ITEM 653. BACKFILLING, SEEDING AND MULCHING SHALL BE COMPLETED AS SOON AS POSSIBLE AFTER FORMS ARE REMOVED. ALL RESTORATION SHALL BE COMPLETE WITHIN 10 DAYS OF RELATED WORK. WHERE SIDEWALKS ARE LOWERED GRASS BETWEEN THE BACK OF SIDEWALK AND THE RIGHT-OF-WAY LINE SHALL BE EVENLY GRADED TO THE LEAST POSSIBLE SLOPE. ALL DISTURBED AREAS SHALL BE RESTORED, SEEDED AND MULCHED AND MAINTAINED IN ACCORDANCE WITH ITEMS 653 AND 659.

CONSTRUCTION LAYOUT

ALL CONSTRUCTION SURVEY, ELEVATION, AND LAYOUT STAKES FOR THIS ROADWAY PROJECT SHALL BE PROVIDED BY THE CONTRACTOR. THE COSTS FOR SUCH SHALL BE INCLUDED IN THE ASSOCIATED PAY ITEMS UNLESS SPECIFICALLY NOTED OTHERWISE. THE CONTRACTOR SHALL VERIFY THE PROPOSED GRADES OF NEW WORK TO ENSURE PROPER DRAINAGE PRIOR TO THE PLACEMENT OF NEW WORK. THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAINING LINE AND GRADE INCLUDING ADJUSTMENT MADE THERETO BY THE ENGINEER IN ORDER TO IMPROVE OR CORRECT DRAINAGE PROBLEMS.

ALL CONSTRUCTION LAYOUT STAKES, EQUIPMENT AND MATERIALS FOR THIS PROJECT SHALL BE PROVIDED BY THE CONTRACTOR.

SUBMITTALS

CONTRACTOR SHALL FURNISH ENGINEER WITH SUBMITTALS DETAILING TYPE OF PIPE, FITTINGS, JOINTS, STRUCTURES, HYDRANTS, CULVERTS, ETC. FOR THEIR APPROVAL PRIOR TO BEGINNING FABRICATION.

PROPOSED CURB ELEVATION(S): THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH THE EXISTING AND PROPOSED CURB ELEVATIONS FOR WORK AREAS PRIOR TO COMMENCEMENT OF CURB REMOVAL AND REPLACEMENT. THE CONTRACTOR SHALL BRING TO THE ENGINEERS ATTENTION ANY PROBLEM AREAS THAT MAY NEED ADJUSTMENT THAT IMPACT ADJACENT AREAS NOT INCLUDED WITHIN THE PLANNED LIMITS.

SURVEY MONUMENTATION

THE CONTRACTOR SHALL CAREFULLY PRESERVE SURVEY REFERENCE POINTS (E.G. BENCH MARKS, PROPERTY CORNERS, REFERENCE POINTS, STAKES AND OTHER SURVEY REFERENCE MONUMENTS OR MARKERS). WHERE SURVEY REFERENCE POINTS ARE DISTURBED DUE TO NEGLECT OR CARELESS OPERATIONS BY THE CONTRACTOR, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESETTING THE SURVEY REFERENCE POINTS. RESETTING OF SURVEY REFERENCE POINTS SHALL BE PERFORMED BY AN OHIO PROFESSIONAL SURVEYOR, LICENSED BY THE STATE OF OHIO, AS APPROVED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

STAGING AREA

THE CONTRACTOR SHALL MAKE THEIR OWN PROVISIONS TO PROVIDE STAGING AREA(S) IF THAT AREA IS OUTSIDE THE RIGHT-OF-WAY. ALL AREAS DISTURBED SHALL BE FULLY RESTORED TO THEIR ORIGINAL CONDITIONS OR BETTER TO THE SATISFACTION OF THE CITY OF DUBLIN. THE CONTRACTOR AT HIS EXPENSE SHALL PERFORM ALL RESTORATION. WORK CLOSE TO EXISTING TREES SHALL REQUIRE THE INSTALLATION OF TREE PROTECTION FENCING.

SIDEWALK WORK ZONES: NO CONSTRUCTION MATERIALS ARE TO BE LEFT IN THE WORK ZONE UNLESS NEATLY STACKED, AND THE WORK ZONE IS ENCLOSED AND SECURED WITH CONSTRUCTION FENCING. CONCRETE FORM PINS LEFT IN PLACE AND UNATTENDED SHALL HAVE PROTECTION CAPS INSTALLED. CONCRETE FORMS, STAKES, AND DEBRIS SHALL BE REMOVED FROM THE SITE THE SAME DAY THAT THE FORMS ARE STRIPPED.

STORAGE OF MATERIALS

NO MATERIALS, INCLUDING PIPE, SHALL BE STORED WITHIN TWENTY (20) FEET OF ANY INTERSECTING STREET OR DRIVEWAY. DURING NON-WORKING HOURS, STORAGE OF EQUIPMENT SHALL COMPLY WITH THESE SAME REQUIREMENTS AND SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF THEIR LEGAL RESPONSIBILITIES OR LIABILITIES FOR THE SAFETY OF THE PUBLIC. NO MATERIAL SHALL BE STOCKPILED OR DUMPED WITHIN THE CITY RIGHT-OF-WAY OR ON CITY OWNED PROPERTY WITH OUT PRIOR APPROVAL FROM THE ENGINEER.
ALL TRAILERS OR EQUIPMENT PARKED IN ROADWAY SHALL BE CONED OFF FOR SAFETY. LUMINARIES SHALL BE UTILIZED AS REQUESTED.

DEWATERING

THE COST OF ANY DEWATERING OPERATIONS REQUIRED FOR THE CONSTRUCTION OF THE STORM SEWERS, CULVERTS, WATERLINES, AND/OR CONDUITS SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS.

DRAINAGE

THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS SO AS TO MAINTAIN AT ALL TIMES STORM SEWER, DRAIN, AND DITCH FLOWS THROUGH EXISTING FACILITIES UNTIL NEW FACILITIES ARE COMPLETED AND PUT INTO SERVICE. THE FLOW OF ALL STORM SEWERS, DRAINS, AND OTHER WATER COURSES ENCOUNTERED AND DISTURBED OR DESTROYED DURING THE PROSECUTION OF THE WORK SHALL BE RESTORED BY THE CONTRACTOR TO A CONDITION SATISFACTORY TO THE CITY ENGINEER. PAYMENT FOR THIS SHALL BE INCLUDED IN THE PRICES BID FOR THE VARIOUS ITEMS OF THE CONTRACT.

ALL FIELD TILE BROKEN OR ENCOUNTERED DURING EXCAVATION SHALL BE REPLACED OR REPAIRED IN LIKE KIND AND CONNECTED TO THE NEAREST STORM SEWER OR OPEN CHANNEL OUTLET, RESTORING NORMAL FUNCTION TO THE TILE, AS DIRECTED BY THE CITY ENGINEER. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICES BID FOR THE VARIOUS ITEMS OF THE CONTRACT.

WHERE THE WORK CALLS FOR RELOCATION OF EXISTING DITCHES OR STORM SEWER, THE CONTRACTOR SHALL REESTABLISH THE OUTLETS OF ALL PRIVATE DRAINS ENCOUNTERED; SUCH AS DOWNSPOUTS, FOUNDATION DRAINS, CATCH BASINS, YARD DRAINS, ETC., INTO THE NEAREST NEW DITCH OR STORM SEWER. THE COST FOR REESTABLISHING PRIVATE DRAIN OUTLETS SHALL BE INCLUDED IN THE VARIOUS STORM SEWER ITEMS.

CONDUIT END TREATMENT

DIRECTLY FOLLOWING PLACEMENT OF ANY CONDUITS, THE CONTRACTOR SHALL CONSTRUCT THE END TREATMENTS REQUIRED BY THE PLANS AT BOTH THE OUTLET AND INLET ENDS. THIS SHALL INCLUDE HEADWALLS, FLARED END SECTIONS, RIPRAP, ROCK CHANNEL PROTECTION, SEEDING, ETC.

ITEM 601 ROCK CHANNEL PROTECTION (BY TYPE) WITH FILTER FABRIC SHALL BE PROVIDED AT THE OUTLET END OF ALL STORM SEWERS AS ON ODOT STANDARD DRAWING HW-2.2M, AND THE LOCATIONS AND DIMENSIONS SHOWN ON THE PLANS. ITEM 601 MATERIALS SHALL CONSIST OF NATURAL, BROKEN, OR CRUSHED ROCK. BROKEN CONCRETE MATERIALS ARE UNACCEPTABLE. THE FILTER UNDERLYING ROCK CHANNEL PROTECTION SHALL BE FILTER FABRIC AS PER SECTION 601.08.

REVIEW OF DRINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT, AND AGAIN BEFORE FINAL ACCEPTANCE BY THE CITY, REPRESENTATIVES OF THE CITY AND THE CONTRACTOR SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS AND CATCH BASINS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE CITY. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING AND REMOVAL OF DEBRIS DUE TO CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHOULD DOCUMENT THE PRESENCE OF ANY DEBRIS PRESENT PRIOR TO CONSTRUCTION. ANY DEBRIS PRESENT THAT IS, IN THE ENGINEERS OPINION, RELATED TO THE CONSTRUCTION ACTIVITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY ENGINEER.

PAYMENT FOR ALL INSPECTIONS, CLEANING, AND MAINTENANCE OF EXISTING AND NEW STORM SEWER SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RELATED ITEMS.

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STORM SEWER

ALL STORM SEWERS SHALL BE REINFORCED CONCRETE PIPE CONFORMING TO ASTM DESIGNATION C76, WALL B, CLASS IV FOR PIPE DIAMETERS 12 INCHES TO 15 INCHES AND CLASS III FOR 18 INCHES AND LARGER, UNLESS OTHERWISE SHOWN ON THE PLANS.

ALL CONCRETE PIPE AND STRUCTURES ARE TO BE INSPECTED AT THE SUPPLIER BY THE CITY OF COLUMBUS, AND MARKED TO INDICATED APPROVAL FROM SUCH INSPECTION.

ALL INLETS, CATCH BASINS, AND MANHOLES SHALL BE CHANNELIZED.

ALL CATCH BASINS AND CURB INLETS MUST BE FURNISHED WITH BIKE SAFE GRATES.

ROADWAY UNDERDRAINS SHALL BE DISCHARGED INTO THE NEAREST STORM WATER STRUCTURE AVAILABLE ALONG THE LINE OF FLOW UNLESS SHOWN OTHERWISE ON THE PLANS.

HDPE FLARED ENDS CALLED FOR ON THE PLANS SHALL BE ADVANCED DRAINAGE SYSTEMS (ADS) "FLARED END SECTIONS", OR APPROVED EQUAL, WITH THREADED RODS AND WING NUTS. N-12 ADAPTER FITTINGS FOR CONNECTION TO CONCRETE PIPE SHALL BE INCLUDED IN THE PER EACH PRICE BID FOR THE FLARED END SECTIONS.

ALL NEW AND EXISTING CONDUITS, INLETS, CATCH BASINS AND MANHOLES WITHIN THE CONSTRUCTION LIMITS SHALL BE INSPECTED PRIOR TO ANY CONSTRUCTION ACTIVITIES. ANY DEBRIS PRESENT PRIOR TO CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER. ALL DEBRIS DISCOVERED DURING AND FOLLOWING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE. ALL EXISTING CONDUITS, INLETS, CATCH BASINS AND MANHOLES WITHIN THE CONSTRUCTION LIMITS SHALL BE INSPECTED FOLLOWING ALL CONSTRUCTION ACTIVITIES AND SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEANED CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE CITY.

PAYMENT FOR ALL INSPECTIONS, CLEANING, AND MAINTENANCE OF EXISTING AND NEW STORM SEWER SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RELATED ITEMS.

WHERE PLANS CALL FOR CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES FOR BOTH LINE AND GRADE PRIOR TO THE START OF PIPE LAYING. IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT OR EXISTING APPURTENANCE TO BE CONNECTED DIFFERS FROM THE PLAN ELEVATION, THE CITY ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF IT IS CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION ON ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

BACKFILL

BACKFILL WITHIN A 1:1 INFLUENCE LINE OF EXISTING STRUCTURES (PAVEMENTS, SIDEWALKS, CURBS, ETC.) SHALL BE ITEM 912, COMPACTED GRANULAR MATERIAL, OR ITEM 636, TYPE 2.

TRENCHES WITHIN 2 FEET OF PROPOSED PAVEMENT, CURB AND GUTTER, BERM, SHOULDERS, SIDEWALK, OR BIKE PATH, OR WHERE SPECIFICALLY CALLED FOR ON THE PLANS, SHALL BE BACKFILLED WITH COMPACTED GRANULAR MATERIAL ACCORDING TO ITEM 912 OF THE STANDARD SPECIFICATIONS.

GRANULAR BACKFILL SHALL BE COMPACTED GRANULAR MATERIAL ACCORDING TO ITEM 912 OF THE STANDARD SPECIFICATIONS OR CONTROLLED DENSITY BACKFILL ACCORDING TO ITEM 636, TYPE 2, OF THE STANDARD SPECIFICATIONS AS DIRECTED BY THE CITY ENGINEER. ITEM 912 MATERIAL SHALL CONSIST OF NATURAL, BROKEN, OR CRUSHED ROCK. SYNTHETIC OR MANMADE MATERIALS ARE UNACCEPTABLE.

ALL TRENCHES WITHIN PAVEMENT, BERM, AND SHOULDER LIMITS SHALL BE BACKFILLED OR SECURELY PLATED DURING NON-WORKING HOURS. TRENCHES OUTSIDE THESE AREAS SHALL BE BACKFILLED OR SHALL BE PROTECTED BY APPROVED TEMPORARY FENCING OR BARRICADES DURING NONWORKING HOURS. CLEAN UP SHALL FOLLOW CLOSELY BEHIND THE TRENCHING OPERATION.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONDITION OF THE TRENCHES FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE OF THE WORK, AND SHALL MAKE ANY NECESSARY REPAIRS AT NO COST TO THE CITY.

EROSION AND SEDIMENTATION CONTROL

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PROVIDING NECESSARY AND ADEQUATE MEASURES FOR PROPER CONTROL OF EROSION AND SEDIMENTATION RUNOFF FROM THE SITE.

PRIOR TO CONSTRUCTION OPERATIONS IN A PARTICULAR AREA, ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE IN PLACE. FIELD ADJUSTMENTS WITH RESPECT TO LOCATIONS AND DIMENSIONS MAY BE MADE BY THE ENGINEER AS REQUIRED.

CONTRACTOR SHALL PROVIDE, INSTALL, MAINTAIN AND REMOVE TEMPORARY EROSION CONTROL MEASURES AS NEEDED TO KEEP DEBRIS FROM ENTERING THE STORM SYSTEM DURING CONSTRUCTION ACTIVITIES.

TEMPORARY EROSION CONTROL FEATURES SHALL BE ADEQUATELY MAINTAINED AND SHALL BE REMOVED OR REPLACED WHEN DIRECTED BY THE CITY ENGINEER AT NO EXTRA COST TO THE CITY.

IMMEDIATELY AFTER PLACEMENT OF ANY CONDUITS, THE CONTRACTOR SHALL CONSTRUCT THE END TREATMENTS REQUIRED BY THE PLANS AT BOTH THE OUTLET AND INLET ENDS. THIS SHALL INCLUDE HEADWALLS, ROCK CHANNEL PROTECTION, SEEDING, ETC.

THE COSTS FOR EROSION AND SEDIMENT CONTROL SHALL BE INCLUDED AS A PART OF THE ASSOCIATED WORK ITEMS, UNLESS SPECIFICALLY DETAILED OTHERWISE IN THE CONSTRUCTION PLANS.

SUBGRADE COMPACTION

THE CITY SHALL PROVIDE AND PAY FOR ALL SOIL INSPECTION AND TESTING SERVICES BY A SOILS INSPECTOR DURING EARTHWORK OPERATIONS FOR PREPARATION OF THE SUBGRADE TO VERIFY THE COMPACTION REQUIREMENTS SET FORTH IN ITEM 203.07.

ALL SOIL SUBGRADES SHALL BE PREPARED AND COMPACTED IN ACCORDANCE WITH ITEM 204 TO A DEPTH OF 12-INCHES BELOW THE SUBGRADE SURFACE. SUBGRADE SHALL BE SCARIFIED AND CONTAIN SUFFICIENT MOISTURE TO MEET ITEM 203 COMPACTION REQUIREMENTS.

SUBGRADE COMPACTION SHALL BE REQUIRED UNDER PAVEMENT, SIDEWALKS AND BIKE PATHS, AND SHALL FOLLOW THE REQUIREMENTS FOR COMPACTION UNDER DRIVEWAYS AS DESCRIBED IN SECTION 204.03.
THE CONTRACTOR SHALL DEFINE THE LIMITS OF ANY WEAK SOILS ENCOUNTERED BY PROOF ROLLING. WHERE SOFT SUBGRADE IS ENCOUNTERED IN CUTS, DUE TO NO FAULT OF THE CONTRACTOR, AND SATISFACTORY COMPACTION CANNOT BE OBTAINED, THE UNSTABLE MATERIAL SHALL BE REMOVED AND REPLACED PER SECTION 204.04.

PAVEMENT
ASPHALT PAVEMENTS WILL FOLLOW THE REQUIREMENTS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, CONSTRUCTION AND MATERIAL SPECIFICATIONS, 2013 EDITION (ODOTCMS), ITEMS 301, 302, 401, 402, 403, 441 AND 448 ALONG WITH THE PROVISIONS LISTED BELOW.

PAVEMENTS SHALL BE CUT IN NEAT, STRAIGHT LINES TO THE FULL DEPTH OF THE PAVEMENT, OR AS REQUIRED BY THE CITY ENGINEER.

BUTT JOINTS BETWEEN EXISTING AND NEW PAVEMENT SHALL BE MADE WHERE INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER, IN ACCORDANCE WITH ODOT STD. CONSTRUCTION DWG. BP-3.1. ALL BUTT JOINTS SHALL BE RAMPED UP TO MEET ADJOINING SURFACES AS SOON AS POSSIBLE FOLLOWING PAVEMENT REMOVAL ACTIVITIES. THE CONTRACTOR SHALL SCHEDULE ALL PAVING WORK WHERE MORE THAN 3" OF PAVING SURFACE IS REMOVED TO PLACE THE ASPHALT BASE OR LEVELING COURSE THE SAME WORK DAY.

THE CONTRACTOR SHALL SUBMIT TO THE CITY ENGINEER AT THE PRE-CONSTRUCTION MEETING HIS PROPOSED DESIGN MIX FORMULA FOR ALL BITUMINOUS MIXTURES TO BE INCORPORATED ON THE PROJECT FOR REVIEW AND APPROVAL. A DESIGN MIX FORMULA SHALL BE SUBMITTED FOR EACH MIXTURE AND EACH PRODUCER AND SHALL PROVIDE GRADATION OF ALL COMPONENT AGGREGATES, PERCENTAGE OF BLENDING OF AGGREGATES, PERCENTAGE OF BITUMEN, ANY ADDITIVES AND APPLICATION RATE, NAMES AND ADDRESSES OF AGGREGATE SUPPLIERS, MARSHALL MIX DESIGN DATA, AND THE THEORETICAL LABORATORY DENSITY.

THE CONTRACTOR SHALL NOT USE ANY RECLAIMED MATERIALS IN ITEM 304.

RECLAIMED MATERIAL (AGGREGATE) IS PERMITTED TO BE INCORPORATED IN THE FOLLOWING, AND SUBJECT TO THE LISTED MAXIMUMS LIMITS. THE JMF MUST ACCOUNT FOR THE USE OF THE RECLAIMED MATERIAL IN THE MIX DESIGN PROCESS.

ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE-1, (448), PG64-22
MAXIMUM 20% RECLAIMED MATERIAL

ITEM 441 ASPHALTIC CONCRETE INTERMEDIATE COURSE, TYPE-2, (448), PG64-22
MAXIMUM 35% RECLAIMED MATERIAL

AGGREGATE SHALL CONSIST OF NATURAL, BROKEN OR CRUSHED ROCK. SYNTHETIC OR MAN-MADE MATERIALS ARE NOT PERMITTED.

ACCEPTANCE:
DENSITY ACCEPTANCE:
ITEM 441 ASPHALTIC CONCRETE SHALL BE SUBJECT TO THE PROVISIONS OF 448.03 DENSITY. TESTING WILL BE IN ACCORDING WITH SUPPLEMENT 1055 FOR DENSITY ACCEPTANCE REGARDLESS OF LENGTH OF PAVING OPERATIONS.

CONCRETE

ALL CONCRETE SHALL BE CLASS 'C' UNLESS OTHERWISE NOTED. MIX DESIGNS USING FLY ASH MUST BE PRE-APPROVED BY THE ENGINEER. ALL CONCRETE TICKETS SHALL BE LABELED WITH THE FOLLOWING INFORMATION: 1) THE LOCATION(S) WHERE THE LOAD(S) WERE PLACED, 2) TIME OF ARRIVAL AND TIME OF COMPLETION OF UNLOADING, 3) AMOUNT OF WATER ADDED TO LOAD, AND/OR PORTION OF LOAD 4) OTHER PERTINENT INFORMATION AS REQUESTED BY THE ENGINEER. ALL TICKETS SHALL BE DELIVERED TO THE ENGINEER OR THE ENGINEER'S REPRESENTATIVE WITHIN 24 HOURS OF PLACEMENT OF CONCRETE. CONCRETE SHALL BE SUBJECT TO FIELD TESTING AT ALL TIMES. COLD WEATHER PROTECTION FOR CONCRETE SHALL BE INCIDENTAL TO THE ASSOCIATED WORK.

FINISHING
SIDEWALK / FLATWORK WIDTH AND FINISH SHALL BE THE SAME AS THE ADJACENT EXISTING SECTIONS UNLESS DIRECTED BY THE ENGINEER. ALL JOINTS AND EDGES ARE TO BE TOOLED AND RETRACED. CONCRETE PLACED UNDER ITEM 452 CONCRETE BASE SHALL BE SAW CUT WITHIN 24-36 HOURS OF PLACEMENT.

CURING
ALL CONCRETE SHALL BE CURED IN ACCORDANCE WITH SECTION 451.10 (CMS) UTILIZING VOCOMP-20 WATER-BASED, ACRYLIC CONCRETE CURING AND SEALING COMPOUND, BY W.R. MEADOWS, INC.

WASHING OUT CONCRETE TRUCKS
WASHING OUT THE CONCRETE TRUCKS ON THE STREET OR SIDEWALK SHALL NOT BE ALLOWED. CONCRETE WASHED OUT INTO EXCAVATIONS SHALL REMOVED WITHIN 24 HOURS. PROVIDING PROVISIONS FOR CONCRETE WASHOUT IS THE RESPONSIBILITY OF THE CONTRACTOR.

REMOVAL OF CONSTRUCTION DEBRIS

THE CONTRACTOR SHALL REMOVE CONSTRUCTION DEBRIS ON A DAILY BASIS. NO CONSTRUCTION MATERIALS ARE TO BE STORED WITHIN ANY PUBLIC R.O.W. THE CONTRACTOR MUST BE DILIGENT IN MAINTAINING BARRICADES TO PROTECT THE WORK AREA. ALL EXCAVATED MATERIAL AND DEBRIS SHALL BE IMMEDIATELY PLACED INTO TRUCK OR OTHER VEHICLE FOR DISPOSAL. NO TRASH SHALL BE LEFT ON SITE OR BURIED IN EXCAVATIONS. TRASH SHALL BE IMMEDIATELY PLACED INTO PROPER RECEPTACLES OR CONTAINERS AND DISPOSED OF BY THE CONTRACTOR. PAVING AREAS SHALL BE SWEPT CLEAN OF DEBRIS WITHIN 48 HOURS OF COMPLETION OF THE PAVING OPERATIONS.

CONSTRUCTION MATERIALS

NO ALTERNATES OR DEVIATIONS SHALL BE PERMITTED FROM THOSE CONSTRUCTION MATERIALS SHOWN THE PLANS. BIDDERS SHALL NOT SUBMIT ALTERNATES WITH THEIR BID.

PAVEMENT MARKINGS

ALL TEMPORARY PAVEMENT MARKINGS SHALL BE REMOVED OR OBSCURED PRIOR TO THE APPLICATION OF PERMANENT PAVEMENT MARKINGS.

NO PERMANENT PAVEMENT MARKINGS SHALL BE INSTALLED WITHOUT PRIOR APPROVAL OF PRELIMINARY LAYOUT MARKINGS BY THE ENGINEER.

DRAWN BY: DAL
REVISED 2/17/2016

STREET MAINTENANCE PROGRAM
GENERAL NOTES

16-001-CIP

ADDITIONAL PROVISIONS

EXCESS EXCAVATED MATERIAL FROM THIS PROJECT SHALL BE HAULED OFF-SITE BY THE CONTRACTOR. COMPENSATION FOR HAULING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203.

ALL SIGNS, LANDSCAPING, STRUCTURES, OR OTHER APPURTENANCES DISTURBED OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED OR REPAIRED TO THE SATISFACTION OF THE CITY ENGINEER. THE COST OF THIS WORK SHALL BE PAID FOR BY THE CONTRACTOR.

EXISTING CONCRETE CURB AND CONCRETE CURB AND GUTTER SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR WHERE INDICATED ON THE PLANS IN ACCORDANCE WITH ITEM 202 AS SPECIFIED HEREIN.

THE COST OF ALL ASPHALT PAVEMENT REMOVAL AND DISPOSAL SHALL BE INCLUDED IN THE PRICE BID PER CUBIC YARD FOR ITEM 203, EXCAVATION UNESS SPECIFIED OTHERWISE IN THE PLANSET. THE COST OF CONCRETE PAVEMENT REMOVAL AND DISPOSAL WILL BE PAID AT THE UNIT PRICE BID PER SQUARE YARD FOR ITEM 202, CONCRETE PAVEMENT REMOVED AND DISPOSED OF.

THE CONTRACTOR'S CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED SO AS TO ELIMINATE ALL UNNECESSARY NOISE, DUST, AND ODORS. THE USE OF OIL OR OTHER MATERIAL FOR DUST CONTROL, WHICH MAY CAUSE TRACKING, IS NOT PERMITTED.

TRENCH EXCAVATION SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF TRENCH OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO THE APPROVAL OF THE CITY ENGINEER.

IN THE EVENT THAT IT BECOMES NECESSARY FOR THE CITY TO PERFORM WORK OF AN IMMEDIATE NATURE (SUCH AS THE PLACEMENT OF BARRICADES OR REPLACEMENT OF SIGNS AND OTHER WARNING OR PROTECTIVE DEVICES) BECAUSE OF FAILURE OR REFUSAL OF THE CONTRACTOR TO PERFORM SUCH WORK AS REQUIRED BY THE CONTRACT, THE CONTRACTOR SHALL REIMBURSE THE CITY AT THE RATE OF 2.5 TIMES THE ACTUAL COST OF LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO PERFORM SUCH WORK. THE CITY SHALL BE REQUIRED TO NOTIFY OR ATTEMPT TO NOTIFY THE DESIGNATED REPRESENTATIVE OF THE CONTRACTOR OF THE NECESSITY TO PERFORM SUCH WORK. IF THE CONTRACTOR REFUSES OR FAILS WITHIN A REASONABLE TIME TO PERFORM OR CAUSE THE PERFORMANCE OF SUCH WORK, THE CITY SHALL BE REIMBURSED BY THE CONTRACTOR IN THE AMOUNT PROVIDED HEREIN BY WAY OF A DEDUCTION FROM THE CONTRACTOR'S NEXT PAYMENT UNDER THE CONTRACT. REASONABLE TIME FOR ALL STREETS AND WORK AREAS INVOLVED ON THIS CONTRACT IS 1 HOUR FROM THE TIME OF NOTIFICATION BY THE CITY.

PARTIAL PAYMENTS AND TIMELY SUBMISSION OF DOCUMENTATION.
IN ADDITION TO THE PROVISIONS OF SECTION 109.07 ESTIMATES/REQUESTS (PARTIAL PAYMENTS) OF THE CITY OF DUBLIN GENERAL CONDITIONS SECTION 100.
THE CONTRACTOR SHALL SUBMIT, TO THE ENGINEER, BACK-UP DOCUMENTATION FOR MATERIALS, TIME SHEETS, FORCE ACCOUNT WORK AND OTHER ITEMS SUBJECT TO PAYMENT UNDER THE AGREEMENT IN A TIMELY MANNER, NOT TO EXCEED 30 DAYS. IT IS PREFERRED THAT MATERIAL TICKETS, TIME SHEETS AND OTHER DOCUMENTS SUPPORTING PAYMENT FOR WORK ITEMS BE PROVIDED WITHIN 24 HOURS FOLLOWING WORK ACTIVITIES.

IF THE CONTRACTOR FEELS THAT THERE ARE DISCREPANCIES BETWEEN THE WORK SHOWN ON THE PAY REQUEST PROVIDED BY THE ENGINEER AND THE WORK COMPLETED DURING THAT TIME PERIOD, THE CONTRACTOR SHALL PROVIDE A NOTICE OF DISCREPANCY TO THE ENGINEER WITHIN THIRTY (30) DAYS OF RECEIPT OF THE PAY REQUEST. THE NOTICE OF DISCREPANCY SHALL BE IN WRITING AND DETAIL ANY DISCREPANCIES BETWEEN THE ITEMS LISTED ON THE PAY REQUEST AND THE WORK THAT HAS BEEN PERFORMED DURING THE TIME PERIOD FOR SUCH PAY REQUEST FOR WHICH THE CONTRACTOR BELIEVES THEY ARE ENTITLED TO PARTIAL PAYMENT.

WITHIN THIRTY (30) DAYS FOLLOWING THE NOTICE OF DISCREPANCY, THE CONTRACTOR SHALL PROVIDE ANY OUTSTANDING DOCUMENTATION (MATERIAL TICKETS, TIME SHEETS, MEASUREMENTS AND LOCATION DETAILS, ETC.) TO THE ENGINEER REGARDING WORK THAT HAS BEEN INCORPORATED INTO THE PROJECT DURING THE PERIOD FOR SUCH PAY REQUEST. DOCUMENTATION NOT RECEIVED WITHIN THIRTY (30) DAYS MAY RESULT IN NON-PAYMENT FOR THAT PORTION OF THE WORK IN WHICH DOCUMENTATION WAS NOT SUBMITTED IN A TIMELY MANNER. A TIMELY MANNER FOR THE PURPOSES OF THIS PROVISION IS DEFINED AS: 1) WITHIN THIRTY (30) DAYS FOLLOWING NOTICE OF DISCREPANCY.

WORK ITEMS

ITEM 202 BIKE PATH REMOVED AND DISPOSED OF, A.P.P.

THIS ITEM CONSISTS OF THE REMOVAL AND DISPOSAL OF EXISTING ASPHALT PAVEMENT, (2" – 4"), AS DIRECTED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE TO SAWCUT AND PROTECT ADJACENT PAVEMENT SECTIONS INTENDED TO REMAIN. IN THE EVENT THAT ADJACENT PAVEMENT SECTIONS BECOME DAMAGED, THE DAMAGED SECTIONS WILL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE CITY. REMOVED MATERIALS SHALL BE PLACED IMMEDIATELY IN A VEHICLE FOR REMOVAL WITH NO MATERIAL PLACED OR STORED ON THE SITE.

THE BID PRICE FOR THIS ITEM INCLUDES ALL COSTS FOR TRAFFIC CONTROL DEVICES, REMOVAL AND DISPOSAL, NO PAYMENT WILL BE MADE FOR ANY SECTION OF THE WORK UNTIL ALL ITEMS ASSOCIATED WITH THE SECTION ARE COMPLETE. NO PAYMENT WILL BE MADE UNDER THIS SECTION FOR WORK DESIGNATED TO BE PERFORMED UNDER ITEM 202 EXCAVATION, OR UNDER ITEM 254 PAVEMENT PLANING. WORK IS TO BE PAID PER SQUARE YARD (SY) OF BIKEPATH ASPHALT PAVEMENT REMOVED AND DISPOSED OF.

ITEM 202 ASPHALT DRIVE PAVEMENT REMOVED AND DISPOSED OF, A.P.P.

THIS ITEM CONSISTS OF THE REMOVAL AND DISPOSAL OF EXISTING ASPHALT PAVEMENT, (~4"), AS DIRECTED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE TO SAWCUT AND PROTECT ADJACENT PAVEMENT SECTIONS INTENDED TO REMAIN. IN THE EVENT THAT ADJACENT PAVEMENT SECTIONS BECOME DAMAGED, THE DAMAGED SECTIONS WILL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE CITY.
UNLESS ADDITIONAL EXCAVATION IS SPECIFIED, THIS ITEM SHALL ALSO INCLUDE NECESSARY EXCAVATION AND HAULING OF SPOILS NECESSARY TO MEET REQUIRED GRADE ELEVATIONS PER PLAN. REMOVED MATERIALS SHALL BE PLACED IMMEDIATELY IN A VEHICLE FOR REMOVAL WITH NO MATERIAL PLACED OR STORED ON THE SITE.

THE BID PRICE FOR THIS ITEM INCLUDES ALL COSTS FOR TRAFFIC CONTROL DEVICES, REMOVAL AND DISPOSAL, NO PAYMENT WILL BE MADE FOR ANY SECTION OF THE WORK UNTIL ALL ITEMS ASSOCIATED WITH THE SECTION ARE COMPLETE. NO PAYMENT WILL BE MADE UNDER THIS SECTION FOR WORK DESIGNATED TO BE PERFORMED UNDER ITEM 202 EXCAVATION, OR UNDER ITEM 254 PAVEMENT PLANING. WORK IS TO BE PAID PER SQUARE YARD (SY) OF ASPHALT PAVEMENT REMOVED AND DISPOSED OF.

ITEM 202 ASPHALT PAVEMENT REMOVED AND DISPOSED OF, A.P.P.

THIS ITEM CONSISTS OF THE REMOVAL AND DISPOSAL OF EXISTING ASPHALT PAVEMENT, (4" – 8"), AS DIRECTED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE TO SAWCUT AND PROTECT ADJACENT PAVEMENT SECTIONS INTENDED TO REMAIN. IN THE EVENT THAT ADJACENT PAVEMENT SECTIONS BECOME DAMAGED, THE DAMAGED SECTIONS WILL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE CITY.
UNLESS ADDITIONAL EXCAVATION IS SPECIFIED, THIS ITEM SHALL ALSO INCLUDE NECESSARY EXCAVATION AND HAULING OF SPOILS NECESSARY TO MEET REQUIRED GRADE ELEVATIONS PER PLAN. REMOVED MATERIALS SHALL BE PLACED IMMEDIATELY IN A VEHICLE FOR REMOVAL WITH NO MATERIAL PLACED OR STORED ON THE SITE.

THE BID PRICE FOR THIS ITEM INCLUDES ALL COSTS FOR TRAFFIC CONTROL DEVICES, REMOVAL AND DISPOSAL, NO PAYMENT WILL BE MADE FOR ANY SECTION OF THE WORK UNTIL ALL ITEMS ASSOCIATED WITH THE SECTION ARE COMPLETE. NO PAYMENT WILL BE MADE UNDER THIS SECTION FOR WORK DESIGNATED TO BE PERFORMED UNDER ITEM 202 EXCAVATION, OR UNDER ITEM 254 PAVEMENT PLANING. WORK IS TO BE PAID PER SQUARE YARD (SY) OF ASPHALT PAVEMENT REMOVED AND DISPOSED OF.

ITEM 202 CONCRETE REMOVED AND DISPOSED OF, A.P.P.

THIS ITEM CONSISTS OF THE REMOVAL AND DISPOSAL OF EXISTING CONCRETE OR BRICK PAVEMENT, CURB RAMPS, DRIVE APRONS (4" – 8" THICK) OR OTHER WORK AS DIRECTED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE TO SAW CUT AND PROTECT ADJACENT WALK/PAVEMENT SECTIONS INTENDED TO REMAIN. IN THE EVENT THAT ADJACENT WALK/PAVEMENT SECTIONS BECOME DAMAGED, THE DAMAGED SECTIONS WILL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE CITY. THIS ITEM SHALL ALSO INCLUDE NECESSARY EXCAVATION AND HAULING OF SPOILS NECESSARY TO MEET REQUIRED GRADE ELEVATIONS FOR THE INSTALLATION OF NEW ADA COMPLIANT CURB RAMPS AND ADJACENT WALKS, CURBING, AND RETAINING WALLS. REMOVED MATERIALS SHALL BE PLACED IMMEDIATELY IN A VEHICLE FOR REMOVAL WITH NO MATERIAL PLACED OR STORED ON THE SITE.

TREE ROOTS ENCOUNTERED DURING EXCAVATION SHALL BE REMOVED IN LOCATIONS WHERE THEY INTERFERE WITH THE PLACEMENT OF THE WALK, RAMP OR APRON. ROOTS SHALL BE NEATLY SAWED (FREE OF SPLINTERS, SPLITS, AND BURNS) AND REMOVED TO A DEPTH OF AT LEAST FOUR (4) INCHES BELOW THE BOTTOM OF THE CONCRETE. IF THE CONTRACTOR ENCOUNTERS ROOTS LARGER THAN 2" IN DIAMETER, THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR DIRECTION ON HOW TO PROCEED.

THE BID PRICE FOR THIS ITEM INCLUDES ALL COSTS FOR TRAFFIC CONTROL DEVICES, REMOVAL AND DISPOSAL, NO PAYMENT WILL BE MADE FOR ANY SECTION OF THE WORK UNTIL ALL ITEMS ASSOCIATED WITH THE SECTION ARE COMPLETE. NO PAYMENT WILL BE MADE UNDER THIS SECTION FOR WORK DESIGNATED TO BE PERFORMED UNDER ITEM 202 EXCAVATION. WORK IS TO BE PAID PER SQUARE YARD (SY) OF CONCRETE /PAVEMENT REMOVED AND DISPOSED OF.

ITEM 202 CURB / CURB AND GUTTER REMOVED / DISPOSED OF, A.P.P.

THIS ITEM CONSISTS OF REMOVAL AND DISPOSAL OF EXISTING COMBINATION CURB AND GUTTER IN ACCORDANCE WITH ITEM 202 OF THE CMSC AS AMENDED IN VARIOUS LOCATIONS THROUGHOUT THE CITY AS DIRECTED BY THE ENGINEER.

THE EXISTING CURB AND GUTTER SHALL BE REMOVED IN SUCH A MANNER AS TO CAUSE NO DAMAGE TO THE ADJACENT PAVEMENT, DRIVEWAY APPROACH, ADJOINING SIDEWALK, AND/OR CURB AND GUTTER AND MINIMIZE DAMAGE TO THE TREE LAWN STRIP BETWEEN THE CURB AND SIDEWALK. THE CONTRACTOR SHALL SAW CUT AROUND CURB & GUTTER SECTIONS PRIOR TO REMOVAL. ALL ADJOINING PAVEMENT SHALL BE SAW CUT PRIOR TO REMOVAL OF CURB/ CURB & GUTTER. REMOVED MATERIALS SHALL BE PLACED IMMEDIATELY IN A VEHICLE FOR REMOVAL AND DISPOSAL WITH NO MATERIAL PLACED OR STORED ON THE SITE. IN THE EVENT THAT DAMAGE SHOULD OCCUR TO THE PAVEMENT, EXISTING CURB AND GUTTER OR THE GRASS STRIP, REPAIRS SHALL BE COMPLETED IN A MANNER APPROVED BY THE ENGINEER AS SOON AS POSSIBLE AT NO COST TO THE CITY.

CURB AND GUTTER THAT HAS BEEN REMOVED, AND IS TO BE REPLACED, SHALL BE REPLACED AS SOON AS POSSIBLE.

THE BID PRICE FOR THIS ITEM INCLUDES ALL COSTS FOR TRAFFIC CONTROL DEVICES, REMOVAL AND DISPOSAL, NO PAYMENT WILL BE MADE FOR ANY SECTION OF THE WORK UNTIL ALL ITEMS ASSOCIATED WITH THE SECTION ARE COMPLETE. WORK IS TO BE PAID PER LINEAR FOOT (LF) OF CURB & GUTTER REMOVED AND DISPOSED OF.

ITEM 203 EXCAVATION, A.P.P

ALL EXCAVATION SHALL BE CONSIDERED AS UNCLASSIFIED, INCLUDING ROCK.

THIS ITEM INCLUDES ALL WORK AS OUTLINED IN THE CMSC, AS AMENDED HEREIN. THIS ITEM CONSISTS OF ALL NECESSARY EQUIPMENT AND LABOR TO EXCAVATE AND HAUL SPOILS FROM DESIGNATED AREAS, RE–GRADE DISTURBED AREAS IN ORDER TO MEET NEWLY ESTABLISHED GRADES, AND CLEAR ROADWAY DITCHES TO RE–ESTABLISH UNIFORM FLOW CHANNEL.

THIS ITEM IS NOT TO BE USED WHERE WORK IS DESIGNATED BY THE ENGINEER TO BE DONE UNDER ITEM 254 PAVEMENT PLANNING. ADDITIONAL COMPENSATION WILL NOT BE MADE WHERE ITEM 203 IS TO BE INCLUDED IN THE UNIT COST OF OTHER ITEMS SUCH AS ITEM 202 CONCRETE /PAVEMENT REMOVED AND DISPOSED OF, ITEM 608 CONC. FLATWORK / WALK W/ AGG BASE, A.P.P. (ANY THICKNESS), ITEM 609 CURBING.
PAYMENT FOR THIS ITEM IS PER CUBIC YARD EXCAVATED AND HAULED AWAY.

ITEM 203 EXCAVATION, ROADWAY UNDERCUT, A.P.P.

ALL EXCAVATION SHALL BE CONSIDERED AS UNCLASSIFIED, INCLUDING ROCK.

THIS ITEM INCLUDES ALL WORK AS OUTLINED IN THE CMSC, AS AMENDED HEREIN. THIS ITEM CONSISTS OF ALL NECESSARY EQUIPMENT AND LABOR TO EXCAVATE AND HAUL UNSUITABLE REMAINING PAVEMENT AND BASE MATERIAL FROM DESIGNATED AREAS, RE–GRADE DISTURBED AREAS AND COMPACT SUBGRADE PER ITEM 204 PRIOR TO PLACING COMPACTED AGGREGATE BASE MATERIAL OR NO. 2 STONE. THIS ITEM INCLUDES SAW CUTTING OF ADJOINING PAVEMENT IF NEEDED IN ORDER TO PROVIDE A CLEAN NEAT PAVEMENT EDGE FOR THE PAVEMENT AREA SURROUNDING THE REPAIR AREA.

THIS ITEM IS NOT TO BE USED WHERE WORK IS DESIGNATED BY ENGINEER TO BE DONE UNDER ITEM 254 PAVEMENT PLANNING.
PAYMENT FOR THIS ITEM IS PER CUBIC YARD EXCAVATED MATERIAL, HAULED AWAY AND DISPOSED OF.

ITEM 251 PARTIAL DEPTH PAVEMENT REPAIR – DRIVEWAY, (DEPTH)" A.P.P.

THIS ITEM CONSISTS OF REPAIRS TO THE ASPHALT AS OUTLINED UNDER ITEM 251 PARTIAL DEPTH PAVEMENT REPAIR, ODOTCMS AS AMENDED. THIS ITEM CONSISTS OF THE SPOT REMOVAL AND DISPOSAL OF THE EXISTING ASPHALT PAVEMENT AND BASE TO A DEPTH AS SPECIFIED ON THE PLANS. ALL FACES BORDERING THE REPAIR AREA SHALL BE VERTICAL. THE SURFACE MAY BE MILLED AND/OR SAW CUT IN ORDER TO INSURE CLEAN VERTICAL FACES. BEFORE PLACING ASPHALT CONCRETE CLEAN ALL VERTICAL FACES AND SUB–SURFACE OF PAVEMENT AND COAT WITH ASPHALT MATERIAL ACCORDING TO ODOTCMS 401.14. THE SUB–BASE SHALL BE RE–COMPACTED AS NEEDED.

FOR 3.5" DEPTH OF REPAIRS:
REPLACEMENT WITH TWO (2) INCHES OF ITEM 441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), PG64–22 PER THE ODOTCMS.
AND
ONE AND ONE–HALF (1.5) INCHES OF ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE I, (448), PG64–22 PER THE ODOTCMS.

FOR 4" DEPTH OF REPAIRS:
REPLACEMENT WITH TWO (2 1/2) INCHES OF ITEM 441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), PG64–22 PER THE ODOTCMS.
ONE AND ONE–HALF (1.5) INCHES OF ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE I, (448), PG64–22 PER THE ODOTCMS.

FOR 6" INCH DEPTH OF REPAIRS:
REPLACEMENT WITH FOUR (4) INCHES OF 301 ASPHALT CONCRETE BASE AND TWO (2) INCHES OF ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE I, (448), PG64–22 PER THE ODOTCMS.

ASPHALT LOADS UTILIZED FOR PARTIAL DEPTH PATCHING SHALL HAVE THE TICKETS MARKED ACCORDINGLY.
ALL PATCHES MUST BE BROUGHT TO GRADE AND COMPLETED THE SAME DAY AS EXCAVATION IS PERFORMED PROVIDING ADJOINING PAVEMENT PLACEMENT IS COMPLETE. WHEN THE PAVEMENT HAS BEEN REMOVED AND THE CONTRACTOR IS UNABLE TO COMPLETE THE REQUIRED REPLACEMENT IN TIME THE EXCAVATION SHALL BE FILLED WITH PATCH MATERIAL WITH A DURABLE SURFACE OR PLATED. IF PLATES ARE USED THEY MUST BE HELD IN PLACE BY COLD PATCH PLACED AND COMPACTED ALONG THE ENTIRE PERIMETER. THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN THESE PATCHES OR PLATES WHILE IN SERVICE. THE COST FOR PLACING, MAINTAINING, REMOVING, AND DISPOSING OF THE TEMPORARY PATCHES OR PLATES WILL BE AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRAFFIC AND PROTECTING THE REPAIRED AREA UNTIL IT HAS COOLED SUFFICIENTLY TO RE–OPEN TO TRAFFIC.

THE UNIT PRICE FOR THIS ITEM SHALL INCLUDE ALL LABOR EQUIPMENT AND MATERIALS FOR THE WORK INCLUDING SAW CUTTING, EXCAVATING, TACK COATING THE EXISTING SURFACE, ASPHALT PLACEMENT, SEALING THE EDGES UPON COMPLETION, ALL TRAFFIC CONTROL DEVICES AND OTHER INCIDENTALS. WORK IS TO BE PAID PER SQUARE YARD (SY) OF PARTIAL DEPTH PAVEMENT REPAIR.

ITEM 251 PARTIAL DEPTH PAVEMENT REPAIR, (DEPTH)" A.P.P.

THIS ITEM CONSISTS OF REPAIRS TO THE ASPHALT AS OUTLINED UNDER ITEM 251 PARTIAL DEPTH PAVEMENT REPAIR, ODOTCMS AS AMENDED. THIS ITEM CONSISTS OF THE SPOT REMOVAL AND DISPOSAL OF THE EXISTING ASPHALT PAVEMENT AND BASE TO A DEPTH AS SPECIFIED ON THE PLANS. ALL FACES BORDERING THE REPAIR AREA SHALL BE VERTICAL. THE SURFACE MAY BE MILLED AND/OR SAW CUT IN ORDER TO INSURE CLEAN VERTICAL FACES. BEFORE PLACING ASPHALT CONCRETE CLEAN ALL VERTICAL FACES AND SUB–SURFACE OF PAVEMENT AND COAT WITH ASPHALT MATERIAL ACCORDING TO ODOTCMS 401.14. THE SUB–BASE SHALL BE RE–COMPACTED AS NEEDED.

FOR NINE INCH DEPTH OF REPAIRS:
REPLACEMENT WITH SEVEN (7 ½) INCHES OF ASPHALT CONCRETE BASE IN TWO LIFTS AND ONE AND ONE–HALF (1 ½) INCHES OF ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE I, (448), PG64–22 PER THE ODOTCMS.

FOR SIX (6) INCH DEPTH OF REPAIRS:
REPLACEMENT WITH FOUR AND ONE–HALF (4 ½) INCHES OF 301 ASPHALT CONCRETE BASE AND ONE AND ONE–HALF (1 ½) INCHES OF ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE I, (448), PG64–22 PER THE ODOTCMS.

FOR THREE (3) INCH DEPTH OF REPAIRS:
REPLACEMENT WITH ONE AND THREE–QUARTERS (1 ¾) INCHES ITEM 441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), PG64–22 AND ONE AND ONE–HALF (1 ¼) INCHES ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE I, (448), PG64–22 PER THE ODOTCMS.

ASPHALT LOADS UTILIZED FOR PARTIAL DEPTH PATCHING SHALL HAVE THE TICKETS MARKED ACCORDINGLY.
ALL PATCHES MUST BE BROUGHT TO GRADE AND COMPLETED THE SAME DAY AS EXCAVATION IS PERFORMED. WHEN THE PAVEMENT HAS BEEN REMOVED AND THE CONTRACTOR IS UNABLE TO COMPLETE THE REQUIRED REPLACEMENT IN TIME THE EXCAVATION SHALL BE FILLED WITH PATCH MATERIAL WITH A DURABLE SURFACE OR PLATED. IF PLATES ARE USED THEY MUST BE HELD IN PLACE BY COLD PATCH PLACED AND COMPACTED ALONG THE ENTIRE PERIMETER. THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN THESE PATCHES OR PLATES WHILE IN SERVICE. THE COST FOR PLACING, MAINTAINING, REMOVING, AND DISPOSING OF THE TEMPORARY PATCHES OR PLATES WILL BE AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRAFFIC AND PROTECTING THE REPAIRED AREA UNTIL IT HAS COOLED SUFFICIENTLY TO RE–OPEN TO TRAFFIC.

THE UNIT PRICE FOR THIS ITEM SHALL INCLUDE ALL LABOR EQUIPMENT AND MATERIALS FOR THE WORK INCLUDING SAW CUTTING, EXCAVATING, TACK COATING THE EXISTING SURFACE, ASPHALT PLACEMENT, SEALING THE EDGES UPON COMPLETION, ALL TRAFFIC CONTROL DEVICES AND OTHER INCIDENTALS. WORK IS TO BE PAID PER SQUARE YARD (SY) OF PARTIAL DEPTH PAVEMENT REPAIR.

WORK ITEMS

ITEM 254 PATCHING PLANED SURFACE, A.P.P.

THIS ITEM CONSISTS OF REPAIRS THE ASPHALT SURFACE IN ACCORDANCE WITH ODOTCMSC ITEM 254.04 SURFACE PATCHING AND THE FOLLOWING:

ITEM 254 PATCHING PLANED SURFACE– TYPE 1, A.P.P.
THE TYPICAL DEPTH SHALL BE 1.75" FOR THE REPAIRS
THE PATCHING MATERIAL SHALL BE ITEM 441, TYPE 1

ITEM 254 PATCHING PLANED SURFACE– TYPE 2, A.P.P.
THE TYPICAL DEPTH SHALL BE 3" FOR THE REPAIRS
THE PATCHING MATERIAL SHALL BE ITEM 301 OR ITEM 441, TYPE 2

ITEM 254 PAVEMENT PLANING, (DEPTH)", A.P.P.

THIS ITEM CONSISTS OF PLANING THE ASPHALT SURFACE IN ACCORDANCE WITH ODOTCMS ITEM 254. THE PAVEMENT SHALL BE PLANED TO A DEPTH AS SPECIFIED BELOW THE FACE OF GUTTER, OR BELOW THE CURRENT MAIN LINE SURFACE IN AREAS WITHOUT CURB AND GUTTER, AND AT A CONSISTENT DEPTH ACROSS THE SECTION IN ORDER TO MAINTAIN THE EXISTING PAVEMENT PROFILE (UNLESS THE ENGINEER DICTATES OTHERWISE). ANY EXISTING ASPHALT OR SLURRY SEAL ON THE GUTTER SHALL BE REMOVED AS A PART OF THIS ITEM. ALL BUTT JOINTS, DRIVE ENTRANCES, ADJOINING STREETS, AND STRUCTURES SHALL BE TEMPORARILY "RAMPED UP" BEFORE THE CONTRACTOR LEAVES EACH STREET. IN AREAS WHERE THE PLANING DEPTH RESULTS IN COMPLETE REMOVAL OF THE PAVEMENT SECTION, TYPICALLY 4 ½" AND 6", THE SUB–GRADE SHALL BE RE–COMPACTED AS NEEDED AND DIRECTED BY THE ENGINEER.
TEMPORARY RAMPS SHALL BE PLACED AS DIRECTED AND MAINTAINED AS NEEDED FOR ACCESS TO DRIVES AND INTERSECTIONS.
THE STREET SHALL BE SWEPT CLEAN AS WELL AS ANY DRIVEWAYS AND SIDEWALKS CLEANED OFF PRIOR TO THE END OF THE WORK DAY.

THE UNIT PRICE FOR THIS ITEM SHALL INCLUDE ALL LABOR EQUIPMENT AND MATERIALS FOR THE WORK INCLUDING SAWCUTTING, REMOVAL OF RPM'S, SUB–GRADE COMPACTION, SITE CLEAN UP, PLACEMENT OF TEMPORARY RAMPS, ALL TRAFFIC CONTROL DEVICES AND OTHER INCIDENTALS. PAYMENT WILL BE MADE PER SQUARE YARD (SY) OF PLANED SURFACE FOR ACTUAL AREAS.

ITEM 604 – STRUCTURE–ADJUST MANHOLES, A.P.P.
ITEM 604 – STRUCTURE–ADJUST INLET, A.P.P
ITEM 604 – STRUCTURE–ADJUST CATCH BASINS, A.P.P.

THE CONTRACTOR WILL MAKE ALL FINAL GRADE ADJUSTMENT OF MANHOLE, CATCH BASIN AND INLET COVERS, AA–S125, AA–S12 AND SIMILAR FRAME ASSEMBLIES USING INJECTION MOLDED HIGH DENSITY POLYETHYLENE (HDPE) ADJUSTMENT RINGS WHERE PRACTICAL. THE ADJUSTMENT RINGS SHALL BE MANUFACTURED FROM POLYETHYLENE PLASTIC AS IDENTIFIED IN ASTM DESIGNATION D–1248 (STANDARD SPECIFICATION FOR POLYETHYLENE PLASTIC MOLDING AND EXTRUSION MATERIALS).
THE GRADE ADJUSTMENTS AND REPAIRS FOR INLET COVERS (AA–S124) AND SIMILAR SHALL BE MADE WITH THE USE OF CLAY BRICK AND MORTAR OR CONCRETE.
DAMAGED CASTINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND, IF DIRECTED, SHALL BE REPLACED. THE COST OF THE CASTING(S) REPLACED SHALL BE IN ADDITION AS PROVIDED FOR THE GENERAL SPECIFICATIONS.

INSTALLATION SHALL BE PER MANUFACTURE'S RECOMMENDATIONS ONLY. THE STRUCTURE SHALL BE PROPERLY PREPARED PRIOR TO INSTALLATION OF ADJUSTMENT RINGS AND SHALL BE CLEAN AND FREE OF UNSOUND MATERIAL OR LOOSE DEBRIS. THE CASTING SHALL BE REMOVED, ALL BRICKS SHALL BE REMOVED AND DOWN TO THE ELEVATION OF THE FIRST SOLID COURSE. THE CONTRACTOR SHALL LAY NEW CLAY BRICK AS NEEDED TO LEVEL STRUCTURE AND PROVIDE LEVEL SEAT FOR INSTALLATION OF ADJUSTMENT RINGS. STRUCTURE SHALL BE PARGED AFTER INSTALLATION OF ADJUSTMENT RINGS. THE ANNULAR SPACE BETWEEN THE RINGS AND CONE BASIN, THE RINGS, AND THE RINGS AND COVER FRAME SHALL BE SEALED UTILIZING AN APPROVED BUTYL SEALANT. THE OVERDIG AROUND THE STRUCTURE, AFTER BEING CLEANED OF LOOSE DEBRIS AND EXCESS CONCRETE, SHALL BE FILLED WITH LSM, TYPE 2 .THE WORK PERFORMED UNDER THIS SECTION IS PER STRUCTURE REGARDLESS OF NUMBER OF CASTINGS SITUATED ON STRUCTURE. LEVELING OF CASTING OR STRUCTURE AND THE FILLING OF VOIDS WITH CONCRETE SHALL NOT CONSTITUTE WORK FOR PAYMENT UNDER THIS SECTION, BUT RATHER BE INCIDENTAL TO CURB PLACEMENT.

ITEM 604 – STRUCTURE– COVER SLAB REPLACE AND ADJUST (SIZE), A.P.P.

THE EXISTING CONCRETE COVER SLAB SHALL BE REMOVED, ALL BRICKS OR BLOCK SHALL BE REMOVED DOWN TO THE ELEVATION OF THE FIRST SOLID COURSE. DAMAGED OR DETERIORATED CONCRETE STRUCTURE WALLS SHALL BE CUT AND REMOVED TO PROVIDE A SOLID FOUNDATION TO REBUILD DETERIORATED PORTIONS OF THE STRUCTURE. THE STRUCTURE SHALL BE PROPERLY PREPARED PRIOR TO INSTALLATION OF NEW BLOCK AND COVER SLAB AND SHALL BE CLEAN AND FREE OF UNSOUND MATERIAL OR LOOSE DEBRIS. THE CONTRACTOR SHALL LAY NEW BLOCK AS NEEDED TO LEVEL STRUCTURE AND PROVIDE LEVEL SEAT FOR INSTALLATION NEW COVER SLAB. STRUCTURE SHALL BE PARGED FOLLOWING MASONRY WORK. THE CONTRACTOR WILL REMOVE AND DISPOSE OF EXISTING CONCRETE SLABS AND DEBRIS FROM AA–S123, AA–S124 INLETS. TYPE S MORTAR SHALL BE USED FOR MASONRY WORK. EXPANSION MATERIAL ONE HALF (1/2) INCHES THICK CONFORMING TO ASTM D1752 SHALL BE PLACED BETWEEN THE COVER SLAB AND ADJACENT CURB.

THE OVERDIG AROUND THE STRUCTURE IN THE PAVEMENT AREA, AFTER BEING CLEANED OF LOOSE DEBRIS AND EXCESS CONCRETE, SHALL BE FILLED WITH LSM, TYPE 2 OR CONCRETE. THE WORK PERFORMED UNDER THIS SECTION IS PER STRUCTURE. LEVELING OF COVER SLAB OR STRUCTURE AND THE FILLING OF VOIDS WITH CONCRETE OR MORTAR SHALL NOT CONSTITUTE WORK FOR PAYMENT UNDER THIS SECTION, BUT RATHER BE INCIDENTAL TO CURB PLACEMENT.

ITEM 604 – STRUCTURE–RECONSTRUCT/ADJUST CB /INLET, A.P.P.

WORK SHALL BE PERFORMED UNDER THIS SECTION AS DIRECTED TO RECONSTRUCT EXISTING STORM STRUCTURES. THE WORK SHALL INCLUDE ALL NECESSARY LABOR AND MATERIALS TO COMPLETELY RECONSTRUCT THE STRUCTURES WHEN REPAIRS ARE REQUIRED GREATER THAN FOUR (4) FEET BELOW THE TOP OF THE STRUCTURE (NOT INCLUDING THE TOP OR CASTING.

THE CONTRACTOR SHALL REMOVE AND STORE THE TOP OR CASTING FOR RE–INSTALLATION. EXCAVATE AS REQUIRED AROUND THE STRUCTURE IN ORDER TO REMOVE EXISTING BRICK WALLS OR DETERIORATED CONCRETE DOWN TO THE FOUNDATION OF THE STRUCTURE OR AS DIRECTED BY THE ENGINEER. THE STRUCTURE SHALL BE PROPERLY PREPARED PRIOR TO INSTALLATION OF NEW BRICK AND SHALL BE CLEAN AND FREE OF LOOSE DEBRIS
THE CONTRACTOR SHALL LAY NEW CLAY BRICK WALLS UTILIZING TYPE S MORTAR, ENSURING PLUMB AND LEVEL COURSES. THE STRUCTURE SHALL BE PARGED INSIDE AND OUT, PRIOR TO BACKFILL. THE OVERDIG AROUND THE STRUCTURE, AFTER BEING CLEANED OF LOOSE DEBRIS AND EXCESS CONCRETE, AND SHALL BE FILLED WITH LSM, TYPE 2 OR OTHER MATERIAL SUITABLE TO THE ENGINEER. THE CASTING SHALL BE INSTALLED AND LEVELED USING INJECTION MOLDED HIGH DENSITY POLYETHYLENE (HDPE) ADJUSTMENT RINGS WHERE PRACTICAL. THESE ADJUSTMENT RINGS SHALL BE MANUFACTURED FROM POLYETHYLENE PLASTIC AS IDENTIFIED IN ASTM DESIGNATION D–1248 (STANDARD SPECIFICATION FOR POLYETHYLENE PLASTIC MOLDING AND EXTRUSION MATERIALS). INSTALLATION SHALL BE PER MANUFACTURE'S RECOMMENDATIONS ONLY.

PAYMENT FOR THIS ITEM WILL BE MADE PER EACH (EA) STRUCTURE RECONSTRUCTED TO GRADE. THE WORK PERFORMED UNDER THIS SECTION IS PER STRUCTURE REGARDLESS OF NUMBER OF CASTINGS SITUATED ON THE STRUCTURE.

ITEM 608 CURB RAMP, 6" CONCRETE W/ AGG. BASE A.P.P.
THIS ITEM CONSISTS OF THE PLACEMENT OF A (6) INCH THICK CURB RAMP AS PER THE STANDARD DRAWINGS OF THE CITY OF DUBLIN CONSTRUCTED IN ACCORDANCE WITH ITEM 608 OF THE CMSC. RAMPS ALONG ARTERIAL STREETS, WHEN DIRECTED BY THE ENGINEER SHALL BE 8" THICK. THE STANDARD RAMP LENGTH IS 7', CHANGES IN THE RAMP LENGTH DUE TO EXISTING SITE CONDITIONS MUST BE APPROVED BY THE ENGINEER.

FULL DEPTH EXPANSION MATERIAL ONE HALF (1/2) INCHES THICK CONFORMING TO ASTM D 1752, TYPE 1 (RUBBER EXPANSION MATERIAL) SHALL BE UTILIZED WHERE THE WORK MEETS EXISTING WALKS, CURBS OR STRUCTURES. FIBEROUS TYPE EXPANSION MATERIAL IS NOT TO BE USED. THE CONTRACTOR IS RESPONSIBLE TO SAWCUT AND PROTECT ADJACENT WALK SECTIONS INTENDED TO REMAIN. IN THE EVENT THAT ADJACENT WALK SECTIONS BECOME DAMAGED, THEY WILL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE CITY.

AREAS TO BE PAID UNDER THIS ITEM SHALL INCLUDE THE RAMP SECTION DIRECTLY ADJACENT AND SLOPING PERPENDICULAR TO THE CURB. THE LANDING DIRECTLY ADJACENT TO THE RAMP SHALL BE PAID UNDER ITEM 608 CONCRETE WALK. THE TRANSITION RAMP SLOPING PARALLEL TO THE CURB WITH SLOPE EXCEEDING 1:20 SHALL BE PAID UNDER ITEM 608– 4" CONCRETE WALK.

PAYMENT FOR THE ARTERIAL RAMPS CONSTRUCTED AT 8" THICK SHALL BE MADE AT THE UNIT COST FOR 608 CURB RAMP. THE ACTUAL AREA OF THESE RAMPS (SF) WILL BE ADJUSTED BY TWENTY PERCENT (SF*1.2).

TREE ROOTS ENCOUNTERED DURING EXCAVATION SHALL BE REMOVED IN LOCATIONS WHERE THEY INTERFERE WITH THE PLACEMENT OF THE WALK, RAMP OR APRON. ROOTS SHALL BE NEATLY SAWED (FREE OF SPLINTERS, SPLITS, AND BURNS) AND REMOVED TO A DEPTH OF AT LEAST FOUR (4) INCHES BELOW THE BOTTOM OF THE CONCRETE. IF THE CONTRACTOR ENCOUNTERS ROOTS LARGER THAN 2" IN DIAMETER, THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR DIRECTION ON HOW TO PROCEED.

THE CONTRACTOR SHALL KEEP THE AREAS DISTURBED ADJACENT TO THE CONCRETE WALKS TO A MINIMUM.

THIS ITEM INCLUDES ALL MATERIAL AND LABOR AND OTHER INCIDENTALS INCLUDING, BUT NOT LIMITED TO, EXCAVATION AND HAULING OF SPOILS, SETTING GRADES, FORMWORK, FINISHING, AND RESTORATION AS DETAILED UNDER ITEM 653 AND ITEM 659.

WORK IS PAID PER SQUARE FOOT (SF) OF CURB RAMP PLACED, FINISHED, AND ACCEPTED.

ITEM 608 4" CONCRETE WALK W/ AGG. BASE, A.P.P.
ITEM 608 6" CONCRETE WALK W/ AGG. BASE, A.P.P.

THIS ITEM CONSISTS OF THE PLACEMENT OF NEW FOUR (4) AND SIX (6) INCH THICK CONCRETE SIDEWALKS AND DRIVEWAY APRONS AND OTHER INCIDENTAL FLATWORK OVER 4" COMPACTED AGGREGATE BASE. THE AGGREGATE BASE SHALL BE PLACED UPON PROPERLY PREPARED AND COMPACTED SUB–GRADE. CONCRETE SHALL BE PLACED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER AND CONSTRUCTED IN ACCORDANCE WITH ITEM 608 OF THE CMSC AND THE STANDARD DRAWINGS OF THE CITY OF DUBLIN.

FULL DEPTH EXPANSION MATERIAL ONE HALF (1/2) INCHES THICK CONFORMING TO ASTM D 1752, TYPE 1 (RUBBER EXPANSION MATERIAL) SHALL BE UTILIZED WHERE THE WORK MEETS EXISTING WALKS, CURBS OR STRUCTURES. FIBROUS TYPE EXPANSION MATERIAL IS NOT TO BE USED. THE CONTRACTOR IS RESPONSIBLE TO SAW CUT AND PROTECT ADJACENT WALK SECTIONS INTENDED TO REMAIN. IN THE EVENT THAT ADJACENT WALK SECTIONS BECOME DAMAGED, THEY WILL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE CITY.

THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 24 AND NO MORE THAN 48 HOURS WRITTEN NOTICE TO RESIDENTS PRIOR TO CLOSING ANY DRIVEWAY. CONFIRMATION OF THE WRITTEN NOTICES SHALL BE PROVIDED TO THE CITY ENGINEER BY THE CONTRACTOR ON A DAILY BASIS. NO DRIVEWAY IS TO BE CLOSED FOR A PERIOD OF MORE THAN FIVE (5) DAYS. IN THE EVENT THAT THE FIVE (5) DAY MAXIMUM IS EXCEEDED, THE CONTRACTOR WILL NOT BE PERMITTED TO CLOSE ANY MORE DRIVEWAYS ON THE PROJECT UNTIL COMPLIANCE IS ACHIEVED. DRIVEWAYS CLOSED LONGER THAN FIVE DAYS ARE SUBJECT TO PENALTY OF ONE HUNDRED DOLLARS ($100.) PER LOCATION PER CALENDAR DAY.

THE CONTRACTOR SHALL KEEP THE AREAS DISTURBED ADJACENT TO THE CONCRETE WALKS TO A MINIMUM.
THIS ITEM INCLUDES ALL MATERIAL AND LABOR AND OTHER INCIDENTALS INCLUDING, BUT NOT LIMITED TO, EXCAVATION AND HAULING OF SPOILS, SETTING GRADES, FORMWORK, FINISHING, AND RESTORATION AS DETAILED UNDER ITEM 653 AND ITEM 659.
WORK IS TO BE PAID PER SQUARE FOOT (SF) OF:
FOUR (4) INCH CONCRETE PLACED, FINISHED AND ACCEPTED.
SIX (6) INCH CONCRETE PLACED, FINISHED AND ACCEPTED.
FOR WALK/FLATWORK THAT WAS PLACED AT 8" THICK AT THE DIRECTION OF THE ENGINEER, THE CONTRACTOR WILL BE PAID THE CONTRACT UNIT COST FOR 608 6" CONCRETE WALK W/ AGG. BASE, WITH THE SQUARE FOOT MEASUREMENT OF THE 8" THICK WALK ADJUSTED BY TWENTY PERCENT, (SF*1.2).

DRAWN BY: DAL
REVISED 2/17/2016

STREET MAINTENANCE PROGRAM
GENERAL NOTES

16-001-CIP

WORK ITEMS

ITEM 608 PAVER WALK REMOVE & RELAY (TYPE), A.P.P.

THIS ITEM CONSISTS OF THE REMOVAL AND REPLACEMENT OF EXISTING BRICK OR CONCRETE MODULAR PAVER WALKS. THE PAVERS SHALL BE REMOVED IN A MANNER TO PREVENT DAMAGE TO PAVERS SO THEY MAY BE RE-INSTALLED. THE REMOVED PAVERS SHALL BE NEATLY STACKED AT A LOCATION DESIGNATED BY THE ENGINEER. THE PAVERS SHALL BE INSTALLED AS FOLLOWS DEPENDING ON THE TYPE OF PAVER SYSTEM INSTALLED:

TYPE 1: MODULAR PAVERS ON SAND BED, OVER COMPACTED AGGREGATE.
THE PAVER WALK SHALL BE PLACED ON A 1-INCH BASE OF COMPACTED AND LEVELED SAND OVER A 4-INCH SUBGRADE OF COMPACTED 304. STEEL EDGING SHALL BE INSTALLED ALONG THE EDGES OF THE REPLACED WALKWAY.
TYPE 2: MODULAR PAVERS ON BITUMINOUS SETTING BED ON CONCRETE BASE.
THE PAVERS SHALL BE INSTALLED AS DETAILED IN ITEM SPECIAL - PROVIDE/INSTALL MODULAR PAVERS ON BITUMINOUS BED. PLACEMENT OF CONCRETE BASE SHALL BE PAID UNDER ITEM 452.
TYPE 3: MODULAR PAVERS ON SAND BED, OVER CONCRETE BASE.
THE PAVER WALK SHALL BE PLACED ON A 1-INCH BASE OF COMPACTED AND LEVELED SAND OVER A POURED CONCRETE BASE. INSTALLATION OF THE CONCRETE BASE SHALL BE PAID UNDER ITEM 452. STEEL EDGING SHALL BE INSTALLED ALONG THE EDGES OF THE REPLACED WALKWAY.

PAVERS SHALL BE INSTALLED SO THE WALKING SURFACE IS SMOOTH AND INLINE WITH THE ADJACENT WALK SECTIONS. INDIVIDUAL PAVERS SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO EACH OTHER IN PLANE, WITHOUT UNNECESSARY DIFFERENTIAL BETWEEN ADJACENT PAVERS.

PAVER WALKS REMOVE AND RELAYED SHALL BE PAID UNDER THIS ITEM; PAVER WALKS REMOVE AND NOT RELAYED SHALL BE PAID UNDER ITEM 202.

PAYMENT FOR 608 PAVER WALK REMOVE & RELAY SHALL BE PAID BY THE SQUARE FOOT AND INCLUDE, MATERIAL, LABOR, EDGING, SAND, 304 AGGREGATE, POLYMERIC JOINT SAND, EXCAVATION, ITEM 204 COMPACTION OF SUBGRADE, ROOT REMOVAL AND PRUNING, AND OTHER INCIDENTALS NECESSARY FOR REMOVAL AND REPLACEMENT OF PAVER WALKS.

ITEM 609 COMBINATION CURB & GUTTER, A.P.P
ITEM 609 COMBINATION CURB & GUTTER, HEAVY DUTY, A.P.P

THIS ITEM CONSISTS OF INSTALLATION OF NEW COMBINATION CURB AND GUTTER IN ACCORDANCE WITH ITEM 609 OF THE CMSC AS AMENDED IN VARIOUS LOCATIONS THROUGHOUT THE CITY AS DIRECTED BY THE ENGINEER. ALL CURBING SHALL BE PLACED ON GRADED AND COMPACTED AGGREGATE BASE. ALL DEBRIS SHALL BE REMOVED FROM EXCAVATED AREA(S) PRIOR TO GRADING AND COMPACTING OF AGGREGATE BASE. ALL CURBING SHALL BE INSTALLED USING FRONT AND BACK FORMS UNLESS DIRECTED OTHERWISE BY THE ENGINEER.

THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING LINE AND GRADE.

THE CONTRACTOR SHALL IDENTIFY, MARK AND RESTORE ALL DRAIN OPENINGS IN THE CURB. DRAIN OPENINGS IN THE CURB ARE TO BE CORED, AND NOT FORMED IN PLACE. PAYMENT FOR CORING THE DRAIN OPENINGS WILL BE UNDER ITEM "SPECIAL- CURB CAN HOLES" DRAIN LEADERS SHALL BE REPLACED UP TO TWO (2) FOOT BEHIND THE CURB AND RECONNECTED IN A MANNER APPROVED BY THE ENGINEER AS SOON AS POSSIBLE AFTER CURB FORMS ARE REMOVED. PAYMENT WILL BE MADE UNDER ITEM 618 "DRAIN LEADER PIPE" FOR ADDITIONAL PIPE INSTALLED WHERE DIRECTED BY THE ENGINEER.

THE EXCAVATION BEHIND THE CURB SHALL BE BACKFILLED WITH COMPACTED TOPSOIL TO A POINT ONE (1) INCH ABOVE THE CURB AS SOON AS POSSIBLE AFTER CURB FORMS AND OTHER DEBRIS ARE REMOVED. THE TOP ONE (1) INCH OF TOPSOIL SHALL BE PREPARED FOR SEED APPLICATION. THE EXISTING GROUND SHALL BE ROLLED OR GRADED TO PROVIDE A CONSISTANT GRADE BEHIND THE CURB FREE OF HIGH AND LOW AREAS DUE TO EXCAVATION, CURB REPLACEMENT AND RELATED WORK. DISTURBED AREAS SHALL BE SEEDED AND MULCHED IN ACCORDANCE WITH ITEM 659.

THE OVERDIG IN FRONT OF THE CURB, AFTER BEING CLEANED OF LOOSE DEBRIS AND EXCESS CONCRETE, SHALL BE FILLED WITH LSM, TYPE 2 , AND LEVELED UNIFORMLY TO 1 ½ " BELOW FACE OF GUTTER OR ADJOINING PAVEMENT. CLASS C CONCRETE MAY ALSO BE USED PROVIDED THE CONCRETE IS PROPERLY CONSOLIDATED TO AVOID VOIDS AND LEVELED UNIFORMLY. ON STREETS WHERE THE REMAINING PAVEMENT SECTION IS BEING REMOVED AND REPLACED COMPACTED GRANULAR MATERIAL MAY BE USED FOR TEMPORARY FILL OF THE OVERDIG AREA(S). THE OVERDIG SHALL BE FILLED WITHIN 24 HOURS OF REMOVAL OF FRONT FORMS OR PLACEMENT OF CURB USING CURB MACHINE.

DRIVEWAY DROPPED CURBS SHALL BE CONSTRUCTED UTILIZING CLASS MS CONCRETE CONFORMING WITH SECTION 499 OF THE CMSC. IF THE DROPPED CURB AREAS ARE PLACED IN CONJUNCTION WITH ADJOINING CURBING UTILIZING A SLIP FORM MACHINE, THE CONTRACTOR WILL NOT BE REQUIRED TO UTILIZE MS CONCRETE, HOWEVER THE CONTRACTOR WILL STILL BE REQUIRED TO OPEN THE DRIVEWAYS TO TRAFFIC WITHIS THE SPECIFIED TIMEFRAME. FULL DEPTH EXPANSION MATERIAL ONE HALF (1/2) INCHES THICK CONFORMING TO ASTM D1752, TYPE 1 SHALL BE UTILIZED WHERE THE NEW WORK MEETS EXISTING CONCRETE. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 24 AND NO MORE THAN 48 HOURS WRITTEN NOTICE TO RESIDENTS PRIOR TO CLOSING ANY DRIVEWAY. THE CONTRACTOR ON A DAILY BASIS SHALL PROVIDE CONFIRMATION OF THE WRITTEN NOTICES TO THE CITY ENGINEER. NO DRIVEWAY IS TO BE CLOSED FOR A PERIOD OF MORE THAN FIVE (5) DAYS. IN THE EVENT THAT THE FIVE (5) DAY MAXIMUM IS EXCEEDED, THE CONTRACTOR WILL NOT BE PERMITTED TO CLOSE ANY MORE DRIVEWAYS ON THE PROJECT UNTIL COMPLIANCE IS ACHIEVED. DRIVEWAYS CLOSED LONGER THAN FIVE DAYS ARE SUBJECT TO PENALTY OF ONE HUNDRED DOLLARS ($100.) PER LOCATION PER CALENDAR DAY.

THE GUTTER PAN FOR THE HEAVY DUTY CURB AND GUTTER SHALL BE A MINIMUM OF 10 INCHES THICK.

CURB REPLACEMENT IS TO BE COMPLETED PRIOR TO THE START OF ASPHALT SURFACE OVERLAYS ON ANY STREET INCLUDED IN THIS CONTRACT.

THE BID PRICE FOR THIS ITEM INCLUDES ALL COSTS FOR TRAFFIC CONTROL DEVICES, REMOVAL AND DISPOSAL, SETTING OF GRADE STAKES, CURB AND GUTTER INSTALLATION, DRAIN LEADER CONNECTION, SAW CUTTING, AND FINAL RESTORATION. NO PAYMENT WILL BE MADE FOR ANY SECTION OF THE WORK UNTIL ALL ITEMS ASSOCIATED WITH THE SECTION ARE COMPLETE. WORK IS TO BE PAID PER LINEAR FOOT (LF) OF CURB & GUTTER INSTALLED AND ACCEPTED.

ITEM 609 CURB, ODOT TYPE 6, A.P.P.

THIS ITEM CONSISTS OF INSTALLATION OF NEW TYPE 6 CURB IN ACCORDANCE WITH ITEM 609 OF THE ODOTCMS AS AMENDED IN VARIOUS LOCATIONS THROUGHOUT THE CITY AS DIRECTED BY THE ENGINEER. ALL CURBING SHALL BE PLACED ON GRADED AND COMPACTED AGGREGATE BASE. ALL DEBRIS SHALL BE REMOVED FROM EXCAVATED AREA(S) PRIOR TO GRADING AND COMPACTING OF AGGREGATE BASE. ALL CURBING SHALL BE INSTALLED USING FRONT AND BACK FORMS UNLESS DIRECTED OTHERWISE BY THE ENGINEER.

THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING LINE AND GRADE.

THE CONTRACTOR SHALL IDENTIFY, MARK AND RESTORE ALL DRAIN OPENINGS IN THE CURB. DRAIN OPENINGS IN THE CURB ARE TO BE CORED, AND NOT FORMED IN PLACE. PAYMENT FOR CORING THE DRAIN OPENINGS WILL BE UNDER ITEM "SPECIAL- CURB CAN HOLES" DRAIN LEADERS SHALL BE REPLACED UP TO TWO (2) FOOT BEHIND THE CURB AND RECONNECTED IN A MANNER APPROVED BY THE ENGINEER AS SOON AS POSSIBLE AFTER CURB FORMS ARE REMOVED. PAYMENT WILL BE MADE UNDER ITEM 618 "DRAIN LEADER PIPE" FOR ADDITIONAL PIPE INSTALLED WHERE DIRECTED BY THE ENGINEER.

THE EXCAVATION BEHIND THE CURB SHALL BE BACKFILLED WITH COMPACTED TOPSOIL TO A POINT ONE (1) INCH ABOVE THE CURB AS SOON AS POSSIBLE AFTER CURB FORMS AND OTHER DEBRIS ARE REMOVED. DISTURBED AREAS SHALL BE SEEDED AND MULCHED IN ACCORDANCE WITH ITEM 659.

THE OVERDIG IN FRONT OF THE CURB, AFTER BEING CLEANED OF LOOSE DEBRIS, SHALL BE FILLED WITH LSM, TYPE 2 , AND LEVELED UNIFORMLY TO 1 ½ " BELOW THE SURFACE OF THE ADJOINING PAVEMENT. CLASS C CONCRETE MAY ALSO BE USED PROVIDED THE CONCRETE IS PROPERLY CONSOLIDATED TO AVOID VOIDS AND LEVELED UNIFORMLY. ON STREETS WHERE THE REMAINING PAVEMENT SECTION IS BEING REMOVED AND REPLACED COMPACTED GRANULAR MATERIAL MAY BE USED FOR TEMPORARY FILL OF THE OVERDIG AREA(S). THE OVERDIG SHALL BE FILLED WITHIN 24 HOURS OF REMOVAL OF FRONT FORMS OR PLACEMENT OF CURB USING CURB MACHINE.

DRIVEWAY DROPPED CURBS SHALL BE CONSTRUCTED UTILIZING CLASS MS CONCRETE. CONFORMING WITH SECTION 499 OF THE ODOTCMS. IF THE DROPPED CURB AREAS ARE PLACED IN CONJUNCTION WITH ADJOINING CURBING UTILIZING A SLIP FORM MACHINE, THE CONTRACTOR WILL NOT BE REQUIRED TO UTILIZE MS CONCRETE, HOWEVER THE CONTRACTOR WILL STILL BE REQUIRED TO OPEN THE DRIVEWAYS TO TRAFFIC WITHIS THE SPECIFIED TIMEFRAME. FULL DEPTH EXPANSION MATERIAL ONE HALF (1/2) INCHES THICK CONFORMING TO ASTM D1752, TYPE 1 SHALL BE UTILIZED WHERE THE NEW WORK MEETS EXISTING CONCRETE. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 24 AND NO MORE THAN 48 HOURS WRITTEN NOTICE TO RESIDENTS PRIOR TO CLOSING ANY DRIVEWAY. THE CONTRACTOR ON A DAILY BASIS SHALL PROVIDE CONFIRMATION OF THE WRITTEN NOTICES TO THE CITY ENGINEER. NO DRIVEWAY IS TO BE CLOSED FOR A PERIOD OF MORE THAN FIVE (5) DAYS. IN THE EVENT THAT THE FIVE (5) DAY MAXIMUM IS EXCEEDED, THE CONTRACTOR WILL NOT BE PERMITTED TO CLOSE ANY MORE DRIVEWAYS ON THE PROJECT UNTIL COMPLIANCE IS ACHIEVED. DRIVEWAYS CLOSED LONGER THAN FIVE DAYS ARE SUBJECT TO LIQUIDATED DAMAGES OF ONE HUNDRED DOLLARS ($100.) PER LOCATION PER CALENDAR DAY.

CURB REPLACEMENT IS TO BE COMPLETED PRIOR TO THE START OF ASPHALT SURFACE OVERLAYS ON ANY STREET INCLUDED IN THIS CONTRACT.

THE BID PRICE FOR THIS ITEM INCLUDES ALL COSTS FOR TRAFFIC CONTROL DEVICES, REMOVAL AND DISPOSAL, SETTING OF GRADE STAKES, CURB INSTALLATION, DRAIN LEADER CONNECTION, SAW CUTTING, AND FINAL RESTORATION. NO PAYMENT WILL BE MADE FOR ANY SECTION OF THE WORK UNTIL ALL ITEMS ASSOCIATED WITH THE SECTION ARE COMPLETE. WORK IS TO BE PAID PER LINEAL FOOT (LF) OF TYPE 6 CURB INSTALLED AND ACCEPTED.

WORK ITEMS CONTINUED:

ITEM 617 RECONDITION SHOULDERS, A.P.P.

THIS ITEM CONSISTS OF RECONDITIONING SHOULDERS IN ACCORDANCE WITH ODOTCMS ITEM 617 RECONDITIONING SHOULDERS INCLUDING THE FOLLOWING PROVISIONS:

THE SHOULDERS SHALL BE GRADED AND PREPARED PRIOR TO PLACING COMPACTED AGGREGATE MATERIAL. ALL UNSUITABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF. THE SHOULDERS SHALL BE GRADED AND COMPACTED AS DIRECTED OR SPECIFIED IN THE PLANS.

THE BID PRICE FOR THIS ITEM SHALL INCLUDE ALL MATERIAL, LABOR AND INCIDENTALS NECESSARY TO COMPLETE THE RECONDITIONING OF SHOULDERS USING ITEM 411 COMPACTED AGGREGATE AS DETAILED.

ITEM 411 AGGREGATE SHALL BE COVERED WITH 1.5" OF ITEM 653 PULVERIZED TOPSOIL TO PROVIDE FOR SEED BED. SEEDING AND MULCHING SHALL FOLLOW AS OUTLINED UNDER ITEM 659 VEGETATION (SEED/MULCH), A.P.P.
WATER FOR COMPACTION SHALL BE CONSIDERED INCIDENTAL TO ITEM 617 RECONDITION SHOULDERS, A.P.P.
WORK IS TO BE PAID BY:
FOR AREAS PREPARED AND GRADED PRIOR TO ADDITIONAL MATERIAL BEING PLACED:
ITEM 617 RECONDITION SHOULDERS, A.P.P. (SY)
FOR ADDITIONAL MATERIAL PLACED:
ITEM 617 RECONDITION SHOULDERS, A.P.P. (ITEM 411 AGGREGATE), (CY)
ITEM 617 RECONDITION SHOULDERS, A.P.P. (ITEM 653 PULVERIZED TOPSOIL, A.P.P), (CY)

ITEM 618 DRAIN LEADER PIPE, A.P.P.

THIS ITEM CONSISTS OF THE REMOVAL AND REPLACEMENT OF EXISTING ROOF DRAIN PIPES PERFORMED IN CONJUNCTION WITH SIDEWALK AND CURB AND GUTTER REPLACEMENT OR OTHER WORK AS DIRECTED BY THE ENGINEER AND IN ACCORDANCE WITH THE CMSC.

ALL DOWNSPOUT DRAIN TILE AND STORM SEWERS DAMAGED, DISTURBED, OR REMOVED AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED WITH SCHEDULE 40 PIPE OR BETTER, MAINTAINING THE SAME GRADIENT AS EXISTING. REPLACED DRAIN TILE SHALL BE LAID ON COMPACTED BEDDING EQUAL DENSITY TO SURROUNDING STRATUM. REPLACEMENT SHALL BE DONE AT THE TIME OF THE BACKFILL OPERATION. PIPE SIZE IS 3" DIAMETER FOR RESIDENTIAL AND 4" DIAMETER FOR COMMERCIAL, OR AS SPECIFIED.

THE COST OF THIS WORK IS TO BE INCLUDED IN THE UNIT PRICE BID FOR THE CURB REPLACEMENT ITEMS AS DETAILED UNDER ITEM 608 CONCRETE CURB AND GUTTER, AND ITEM 608 TYPE 6 CONCRETE CURB.

THE UNIT PRICE FOR THIS ITEM SHALL INCLUDE ALL LABOR, MATERIALS INCLUDING APPROVED CONNECTORS, EQUIPMENT AND OTHER INCIDENTALS. WORK IS TO BE PAID PER LINEAL FOOT (LF) OF DRAIN LEADER PIPE REPLACED WHERE NOT INCLUDED UNDER OTHER PAY ITEM(S).

ITEM 632 DETECTOR LOOP– A.P.P.

THIS ITEM CONSISTS OF INSTALLING TRAFFIC DETECTION LOOP, PER PLAN AND ORIENTED AS DIRECTED BY ENGINEER. THIS WORK SHALL BE AS OUTLINED IN ITEM 632.10 PER THE ODOTCMS, AS AMENDED. THIS ITEM INCLUDES PAVEMENT CUTTING OF SLOTS FOR INSTALLATION OF LOOP WIRE.
THE LOOPS SHALL BE INSTALLED IN THE INTERMEDIATE ASPHALT COURSE, PRIOR TO THE APPLICATION OF THE SURFACE COURSE.
LOOPS MAY ONLY BE INSTALLED IN THE SURFACE COURSE WITH THE PERMISSION OF THE ENGINEER. SLOTS SHALL BE CUT TO A DEPTH THAT SHALL ALLOW WINDINGS OF LOOP WIRE TO BE INSTALLED AND THE TOP OF THE WINDINGS SHALL BE A MINIMUM OF 3 INCHES BELOW THE FINISH PAVEMENT GRADE. BACKER ROD SHALL BE USED CONTINUOUSLY TO ENSURE CONSISTENT DEPTH OF LOOP WIRE.
CONDUIT SHALL BE INSTALLED FROM THE NEAREST CORNER OF THE CUT SQUARE TO THE NECESSARY PULL BOX FOR CONNECTION TO THE LOOP LEAD IN WIRE. COST OF CONDUIT, DRILLING AND PULLING AND INSTALLATION IS TO BE INCLUDED IN THIS PAY ITEM. PRIOR TO INSTALLATION OF THE LOOP DETECTION WIRE, SLOTS SHALL BE BLOWN CLEAN DEBRIS. THE WIRE SHALL BE INSTALLED IN CONJUNCTION WITH 632.23, WITH THE EXCEPTION THAT WIRE SHALL BE ROUTED THROUGH CONDUIT TO PULL BOX. THE SLOTS IN THE PAVEMENT SHALL BE SEALED WITH A FLEXIBLE EMBEDDING SEALANT PREQUALIFIED IN ACCORDANCE WITH ODOT SUPPLEMENT 1048.

THE UNIT PRICE FOR THIS ITEM SHALL INCLUDE ALL NECESSARY MATERIAL AND LABOR TO PROVIDE, INSTALL, CONNECT AND ADJUST LOOP DETECTOR AT GIVEN LOCATION. ITEM IS TO BE PAID FOR EACH (EA) TRAFFIC LOOP INSTALLED, CONNECTED, ADJUSTED, COMPLETE AND IN PLACE.

ITEM SPECIAL: DETECTABLE WARNING PANEL

DESCRIPTION.
THIS WORK SHALL CONSIST OF FURNISHING ALL MATERIAL, EQUIPMENT, AND LABOR NECESSARY FOR THE PLACEMENT OF DETECTABLE WARNING DEVICES AT CURB RAMPS OR OTHER WALKING SURFACES DETAILED ON THE PLANS OR SPECIFICATIONS. ALL WORK SHALL BE IN ACCORDANCE WITH SECTION 1108 OF THE ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD'S "DRAFT GUIDELINES FOR ACCESSIBLE PUBLIC RIGHTS–OF–WAY", DATED JUNE 17, 2002 AS AMENDED, SUPPLEMENTED AND ADOPTED.

MATERIALS.
ALL PRODUCTS SHALL RECEIVE PRIOR WRITTEN APPROVAL BY THE ENGINEER. DETECTABLE WARNING SURFACES SHALL BE TEXTURED TO PROVIDE SLIP RESISTANCE AND SHALL CONTRAST VISUALLY WITH ADJACENT WALKING SURFACES – EITHER LIGHT–ON–DARK, OR DARK–ON–LIGHT. THE PREFERRED COLOR FOR A LIGHT BACKGROUND (CONCRETE) SHALL BE BRICK RED. THE PREFERRED COLOR FOR A BRICK BACKGROUND SHALL BE BLACK. COLOR SHALL BE INTEGRAL WITH THE DETECTABLE WARNING DEVICE AND SHALL NOT BE SURFACE APPLIED. PAINTS OR OTHER SURFACE COATINGS SHALL NOT BE USED UNLESS INTEGRAL TO THE SYSTEM BEING APPLIED. CAST IRON DETECTABLE WARNING PANELS SHALL BE FACTORY POWDER COATED. DETECTABLE WARNING SURFACES SHALL BE CLASSIFIED BY TYPE OF MATERIAL AND/OR APPLICATION METHOD:

TYPE A:
– REPLACEABLE CAST IN PLACE PANELS –
SYSTEM SHALL BE TUFTILE CAST IRON REPLACEABLE CAST IN PLACE ADA TILES
24"X24" PANELS: PART NUMBER: TTCI2424–WS–(COLOR ID)
24"X30" PANELS PART NUMBER: TTCI2430–WS–(COLOR ID)
TILE CONNECTOR: PART NUMBER: TT–CONNECTOR
MANUFACTURER: TUFTILE
1200 FLEX CT.
LAKE ZURICH, IL
888–960–8897
APPROVED FOR NEW CONSTRUCTION INSTALLATIONS ONLY.

TYPE B:
– SURFACE–APPLIED PANELS –
SYSTEM SHALL BE ADA SOLUTIONS SURFACE APPLIED PANELS, OR OTHER APPROVED EQUAL.
2'X4' PANELS: PART NUMBER: 2448IDRET2
2'X5' PANELS: PART NUMBER: 2460IDRET2
MANUFACTURER: ADA SOLUTIONS
PO BOX 3
NORTH BILLERICA, MA 08162
800–372–0519
APPROVED FOR RETROFIT TO PRE–EXISTING RAMP ONLY.

DIMENSIONS.
TRUNCATED DOMES IN A DETECTABLE WARNING SURFACE SHALL HAVE A BASE DIAMETER OF 0.9 INCHES (23 MM) MINIMUM TO 1.4 INCHES (36 MM) MAXIMUM, A TOP DIAMETER OF 50% OF THE BASE DIAMETER MINIMUM TO 65% OF THE BASE DIAMETER MAXIMUM, AND A HEIGHT OF 0.2 INCHES (5 MM).
TRUNCATED DOMES IN A DETECTABLE WARNING SURFACE SHALL HAVE A CENTER–TO–CENTER SPACING OF 2.35 INCHES. DETECTABLE WARNING SURFACES SHALL EXTEND 24 INCHES (610 MM) MINIMUM IN THE DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE CURB RAMP, LANDING, OR BLENDED TRANSITION. THE DETECTABLE WARNING SURFACE SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 3 INCHES (75 MM) MINIMUM AND 8 INCHES (205 MM) MAXIMUM FROM THE CURB LINE.
DOMES SHALL BE ALIGNED ON A SQUARE GRID, ALIGNED IN ROWS PARALLEL AND PERPENDICULAR TO THE PREDOMINANT DIRECTION OF TRAVEL. DOMES MUST BE NOT BE SKEWED DIAGONALLY TO THE DIRECTION OF TRAVEL.

APPLICATION.

DETECTABLE WARNING DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND IN ACCORDANCE WITH THIS SPECIFICATION, OR AS OTHERWISE SPECIFIED ON THE PLANS.
THE FINISHED SURFACE SHALL BE UNIFORMLY PROFILED TO MATCH THE ADJOINING SURFACES WITHOUT LIPS, OBSTRUCTIONS AND SHALL DRAIN COMPLETELY.
PANEL SIZES AND PLACEMENT:

4.5' WIDE RAMPS: 4' DETECTABLE WARNING PANELS
TYPE A PANELS: 2 24"X24" PANELS WITH MENDING PLATES
TYPE B PANELS: 1 2'X4' PANEL
5.5' WIDE RAMPS: 5' DETECTABLE WARNING PANELS
TYPE A PANELS: 2 24"X30" PANELS WITH MENDING PLATES
TYPE B PANELS: 1 2'X5' PANEL
8.5' WIDE RAMPS: 8' DETECTABLE WARNING PANELS
TYPE A PANELS: 4 24"X24" PANELS WITH MENDING PLATES
TYPE B PANELS: 2 2'X4' PANELS

DETECTABLE WARNING PANELS SHALL BE PLACED 3" – 4" BEHIND BACK OF CURB TO ALLOW FOR EDGING AND TOOLING OF FRONT EDGE OF RAMP BETWEEN DETECTABLE WARNING PANEL AND BACK OF CURB

THE CONTRACTOR AND MANUFACTURER SHALL JOINTLY WARRANT THE INSTALLED SURFACE TO LAST NO LESS THAN FIVE YEARS WITHOUT LOSING MORE THAN TWO PERCENT OF THE TRUNCATED DOMES DUE TO DELAMINATING AS A RESULT OF PRODUCT FAILURE, AND SHALL FURTHER WARRANT THE SURFACE FOR A MINIMUM OF FIVE YEARS AGAINST FADING, CHIPPING, PEELING, CRACKING, OR LOSS OF ORIGINAL SHADE DUE TO SUNLIGHT, SALT OR EXPOSURE TO WEATHERING.

– SURFACE–APPLIED PANELS–

PANELS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AS APPROVED BY THE ENGINEER. AFTER INSTALLATION THE WARNING PANEL SHALL BE FLUSH AROUND THE EDGE WITH THE CONCRETE SURFACE. A SEALANT AND ADHESIVE SHALL BE APPLIED TO THE UNDERSIDE AND PERIMETER OF THE PANEL. THE PERIMETER SEALANT SHALL FLOW INTO PERIMETER CUT TO SEAL EDGE. THE PANEL SHALL BE MECHANICALLY ANCHORED TO THE SUBSTRATE.

– CAST IN PLACE PANELS–

PANELS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AS APPROVED BY THE ENGINEER. AFTER INSTALLATION THE WARNING PANEL SHALL BE FLUSH AROUND THE EDGE WITH THE CONCRETE SURFACE. THE PANEL SHALL BE ANCHORED SECURELY TO THE SUBSTRATE WITHOUT VOIDS OR AIR POCKETS UNDER THE PANEL.

METHOD OF MEASUREMENT.
THE NUMBER OF DETECTABLE WARNING DEVICES SHALL BE THE ACTUAL PANEL (EA) INSTALLED IN PLACE, COMPLETE AND ACCEPTED. THIS ITEM SHALL BE COMPLETE AND INCLUDE ALL WORK NECESSARY TO PROVIDE A COMPLETE AND USEABLE DETECTABLE WARNING DEVICE. THIS SHALL INCLUDE BUT NOT BE LIMITED TO: LAYOUT, SAW–CUTTING, REMOVALS, CONCRETE AND CEMENT BASE MATERIALS, BEDDING, SURFACE PREPARATION, SURFACE SEALANT, AND REPAIR OF ADJOINING AREAS DISTURBED BY THE INSTALLATION OF THE DETECTABLE WARNING SURFACE.

BASIS OF PAYMENT.
UNLESS SPECIFICALLY INCLUDED UNDER OTHER ITEMS ON THE PLANS, PAYMENT FOR ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT UNIT PRICE FOR:

ITEM SPECIAL
DETECTABLE WARNING PANEL (EA)
NOTE:
PAYMENT SHALL INCLUDE ALL COSTS OF FURNISHING MATERIAL, EQUIPMENT, AND LABOR NECESSARY FOR THE INSTALLATION OF DETECTABLE WARNING DEVICES, AND SHALL BE IN ADDITION TO ANY OVERLAPPING PAYMENTS FOR SQUARE FOOT OF SIDEWALK / CURB RAMP.

WORK ITEMS CONTINUED:

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DRAWN BY: DAL
REVISED 2/17/2016

STREET MAINTENANCE PROGRAM
GENERAL NOTES

16-001-CIP

WORK ITEMS CONTINUED:

ITEM SPECIAL: FULL DEPTH STABILIZATION (TYPE) – (DEPTH)

PART 1 GENERAL

1.01 SECTION INCLUDES

A. THE WORK SHALL CONSIST OF FURNISHING ALL LABOR, EQUIPMENT AND MATERIAL NECESSARY TO PULVERIZE/RECYCLE EXISTING PAVEMENT AND DESIGNATED BASE DEPTH INCLUDING BUT NOT LIMITED TO THOSE ITEMS LISTED UNDER 1.02 A.
B. RE–MIX WITH ASPHALT EMULSION, PORTLAND CEMENT AND VIRGIN AGGREGATE, PLACE, GRADE AND COMPACT TO CORRECT PROFILE AND REQUIRED DENSITY.

1.02 DESCRIPTION OF WORK:

A. WORK INCLUDED:
a. MILLING/PULVERIZING THE EXISTING ASPHALT PAVEMENT TO THE WIDTH AND DEPTH SPECIFIED IN THE CONTRACT DOCUMENTS.
b. MIXING THE MILLED BITUMINOUS MATERIAL WITH ASPHALT EMULSION AND/OR PORTLAND CEMENT AS DETERMINED BY THE MIX DESIGN.
c. PLACING AND COMPACTING THE MIXTURE TO THE PROPER PAVEMENT PROFILE, ELEVATION, AND REQUIRED DENSITY.
d. ADDITION OF VIRGIN AGGREGATE IF REQUIRED BY EXISTING GRADATION.
e. CLEAN UP OF DEBRIS.
f. HAULING AND DISPOSAL OF MILLINGS NOT NEEDED FOR RECYCLING.
g. TEMPORARY RAMPING OF INTERSECTING STREETS AND DRIVES.

B. TYPE OF STABILIZATION (AS SPECIFIED IN THE PLANS):
a. CEMENT
b. ASPHALT EMULSION
c. ASPHALT EMULSION / CEMENT
d. LIME

C. RELATED WORK:
a. SURFACE MILLING AFTER RECYCLING FOR SURFACE OVERLAY, ADJOINING AREAS
b. RAMPING OF DRIVES AND INTERSECTING STREETS, ADJOINING AREAS
c. MAINTENANCE OF TRAFFIC

1.03 MEASUREMENT AND PAYMENT
A. METHOD OF MEASUREMENT
A. FULL DEPTH RECLAMATION OF ASPHALT PAVEMENT.
THE CONTRACTOR WILL BE PAID FOR THE AMOUNT OF WORK DONE IN SQUARE YARDS MEETING THE SPECIFICATIONS DEFINED HEREIN.
B. BASIS OF PAYMENT
a. FULL DEPTH RECLAMATION OF ASPHALT PAVEMENT.
THE CONTRACTOR WILL BE PAID THE CONTRACT UNIT PRICE PER SQUARE YARD FOR FULL DEPTH RECLAMATION. THIS PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIAL INCLUDING MIXING WATER, CORRECTIVE MATERIALS, AND EQUIPMENT NECESSARY FOR MILLING, MIXING, SPREADING, PLACING, SHAPING, AND COMPACTION OF THE COMPLETED FULL DEPTH RECLAMATION OF ASPHALT PAVEMENT.

1.04 ADDITIONAL INFORMATION

A. FULL DEPTH RECLAMATION OF ASPHALT PAVEMENT SHALL INCLUDE A MINIMUM CUT DEPTH OF 12", UNLESS OTHERWISE SPECIFIED. THE RECYCLED MATERIAL SHALL BE PLACED AT A DEPTH OF 12" GRADED AND COMPACTED IN PLACE, UNLESS OTHERWISE SPECIFIED.

a. FOR CURB AND CURB/GUTTER STREETS: RECYCLING SHALL BE DONE FULL WIDTH OF PAVEMENT SECTION BETWEEN THE CONCRETE CURBING. THE CONTRACTOR SHALL USE CARE NOT TO DAMAGE THE CONCRETE CURBING DURING THE RECYCLING OPERATIONS.
b. FOR NON CURBED STREETS: UNLESS OTHERWISE STIPULATED, RECYCLING SHALL INCLUDE PAVEMENT PLANNING AND DISPOSAL OF A VARIABLE WIDTH OF ASPHALT CONCRETE AT THE ROADWAY EDGES (SHOULDER WIDENING), AND RECYCLING TO A MINIMUM DEPTH OF 12" TO RESULT IN A NET PLACEMENT OF 8–11" OF RECYCLED PAVEMENT TO MEET DESIRED PLAN GRADE.
c. FOR NON CURBED STREETS WHERE CURBING IS BEING ADDED, EXCAVATION FOR PAVEMENT WIDENING AND EXCAVATION FOR CURBING SHALL BE PAID UNDER ITEM 254 PLANNING / EXCAVATION (12" DEPTH).
d. SHAPE AND COMPACT THE EXPOSED UNDERLYING MATERIAL AS THE ENGINEER DIRECTS AT THE ROADWAY EDGES. DEPTHS OF PLACED MATERIAL MAY VARY SLIGHTLY IN ORDER TO ACHIEVE THE PLAN CROSS SLOPES.

PART 2 – MATERIALS

2.01 MATERIALS:

A. PORTLAND CEMENT ADDITIVE.
a. PORTLAND CEMENT:
i. THE PORTLAND CEMENT SHALL BE DISTRIBUTED AT A RATE OF 4% TO 6% BY WEIGHT/ SY.
1. THE PLANNED RATE WILL BE PROVIDED AND MAY BE ADJUSTED DEPENDING ON FIELD CONDITIONS.

B. ASPHALT STABILIZING AGENT.
a. ASPHALT EMULSION:
i. THE ASPHALT EMULSION SHALL BE A HIGH FLOAT RECYCLING ASPHALT EMULSION AND SHALL BE MIXED AT THE NOMINAL RATE OF 2 GAL/SY. THIS RATE MAY VARY DEPENDING ON FIELD CONDITIONS, SAMPLE TESTS AND RESIDUAL ASPHALT CONTENT, GRADATION, AND AGGREGATE ADDITION, AND MIX DESIGN.
1. THE ACTUAL RATE SHALL BE ESTABLISHED THOUGH THE TESTING OF THE PAVEMENT SAMPLES EXTRACTED FROM THE SECTIONS TO BE RECYCLED AND MAY BE ADJUSTED AS NEEDED DEPENDING ON FIELD CONDITIONS.
2. THE ASPHALT EMULSION SHALL BE SELECTED ACCORDING TO THE REQUIREMENTS OF THE MATERIALS EVALUATED FOR THE MIX DESIGN AND THE DESIRED PAVEMENT SECTION STRENGTH.

C. PULVERIZED BITUMINOUS MATERIAL.
a. THE PROCESSED MILLED BITUMINOUS MATERIAL SHALL CONFORM TO THE FOLLOWING GRADATION. THE GRADATION MAY BE REVISED WITH THE APPROVAL OF THE ENGINEER, BUT THE TOP SIZE OF THE MATERIAL SHALL NOT EXCEED 50% OF THE DEPTH OF THE COMPACTED RECYCLED MAT OR 1 ½", WHICHEVER IS LESS.

SIEVE SIZE	% PASSING
2 INCH	100
1 ½ INCH (37.5 MM)	80 TO 100
1 INCH (25 MM)	55 TO 65
#4	30 TO 60
#200	5 TO 20

2.02 MIX DESIGN (FOR PROJECTS INCLUDING THE ADDITION OF ASPHALT EMULSION):

A. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REMOVE SAMPLES OF THE EXISTING PAVEMENT TO BE RECYCLED AND PERFORM THE HEREINAFTER DESCRIBED TESTING TO ESTABLISH A MIX DESIGN TO BE SUBMITTED FOR APPROVAL AND TO BE USED FOR THE WORK DETAILED UNDER THIS ITEM OF WORK. THE CONTRACTOR IS RESPONSIBLE FOR PRODUCING THE MIX DESIGN FOR THE FULL DEPTH RECLAMATION OF ASPHALT PAVEMENT.

B. A REPRESENTATIVE SAMPLE SHALL BE EXTRACTED FOR EACH 2,000 SY OF PAVEMENT TO BE RECYCLED OR AT EACH VISIBLE CHANGE IN PAVEMENT MIX TYPE. NO LESS THAN 4 SAMPLES SHALL BE UTILIZED.

C. THE COMPLETED MIX DESIGN SHALL BE SUBMITTED TO THE ENGINEER A MINIMUM OF ONE WEEK PRIOR TO THE START OF THE FULL DEPTH RECLAMATION OF ASPHALT PAVEMENT.

PHYSICAL REQUIREMENTS

PROPERTY	MINIMUM REQUIREMENT
DRY TENSILE STRENGTH (KPA)	300WET
TENSILE STRENGTH (KPA)	200
TENSILE STRENGTH RATIO (TSR %)	70

a. ASPHALT EMULSION:
i. THE AGGREGATE AND ASPHALT BINDER SHALL BE SEPARATED AND ANALYSIS OF THE AGGREGATE GRADATION AND AMOUNT, PENETRATION VALUE AND VISCOSITY OF THE RESIDUAL ASPHALT SHALL BE PERFORMED. THE BASIC PROPERTIES OF THE PAVEMENT TO BE RECYCLED SHALL BE DETERMINED AS FOLLOWS:
1. A REPRESENTATIVE SAMPLE OF PAVEMENT TO BE RECYCLED, (ABOUT 5 KG) FOR EACH TEST AREA SHALL BE HEATED AT 140 DEG F. FOR ONE–HALF HOUR AND THEN CRUMBLED TAKING CARE NOT TO CRUSH THE AGGREGATE.
2. THE RESIDUAL ASPHALT SHALL BE EXTRACTED FROM A 4 KG SAMPLE FROM THE CRUMBLED PAVEMENT SAMPLE BY THE ABSON RECOVERY METHOD (ASTM D1856).
3. THE RECOVERED ASPHALT SHALL BE EVALUATED FOR PERCENT OF TOTAL PAVEMENT SAMPLE BY WEIGHT, PENETRATION VALUE AT 77 DEG F. AND VISCOSITY AT 140 DEG F.
4. THE SAMPLE AGGREGATE SHALL BE DRIED AND A SIEVE ANALYSIS PERFORMED TO DETERMINE THE PERCENT RETAINED ON A NO. 8 SIEVE AND PERCENT RETAINED ON A NO. 200 SIEVE AND THE PERCENT PASSING THE NO. 200 SIEVE.
5. FROM THE GRADATION DATA, THE OPTIMUM ASPHALT DEMAND OF THE AGGREGATE SAMPLE SHALL BE DETERMINED.
ii. OTHER SAMPLING EVALUATION PROCEDURES MAY BE UTILIZED WITH THE APPROVAL OF THE ENGINEER.
iii. A EXAMINATION OF THE MOISTURE CONTENT OF THE PAVEMENT TO BE RECYCLED SHALL BE PREFORMED:
1. A MINIMUM MOISTURE CONTENT OF 4% IS TO BE MAINTAINED DURING THE BLENDING AND COMPACTION OPERATIONS.
2. SHOULD ADDITIONAL MOISTURE BE NECESSARY, THEN ADDITIONAL WATER SHALL BE ADDED TO AGENT TO SATISFY THE MOISTURE REQUIREMENT.
iv. ADDITIONAL ADDITIVES:
1. TO PROVIDE ADDITIONAL STABILITY AND TO FACILITATE OPENING TO TRAFFIC PORTLAND CEMENT SHALL BE MIXED INTO THE RECYCLED MAT.
i. THE APPLICATION RATE SHALL BE DETERMINED THROUGH THE MIX DESIGN ANALYSIS.
v. FIELD CONDITIONS MAY VARY:
1. THE ACTUAL FIELD CONDITIONS MAY REQUIRE ADJUSTMENTS TO THE PRELIMINARY DESIGN.
a. ADJUSTMENTS TO THE TREATMENT DEPTH, AMOUNT OF EMULSION, CEMENT AND ADDITIONAL WATER SHALL BE MADE IN CONCERT BY THE CONTRACTOR AND THE ENGINEER.

3 EXECUTION:

3.01 CONSTRUCTION REQUIREMENTS:

A. CONSTRUCTION REQUIREMENTS AND AMBIENT CONDITIONS.
a. EXCEPT IN SPECIFIC CASES WHEN PERMITTED BY THE ENGINEER, THE CONTRACTOR SHALL PERFORM FULL DEPTH RECLAMATION OF ASPHALT PAVEMENT BETWEEN MAY 1 AND OCTOBER 1.
b. IF REQUESTED, THE CONTRACTOR SHALL PERFORM A TEST STRIP ON THE FIRST DAY OF PRODUCTION. THE TEST STRIP SHALL NOT EXCEED 5,000 SY OR 20% OF AREA TO BE RECYCLED, WHICHEVER IS LESS. THE CONTRACTOR WILL NOT CONTINUE PRODUCTION UNTIL DIRECTED BY THE ENGINEER.
c. FULL DEPTH RECLAMATION OF ASPHALT PAVEMENT INCLUDING MIXING, PAVING, AND COMPACTING SHALL BE COMPLETED ACROSS THE ENTIRE LANE WIDTH, INCLUDING ANY ADJACENT SHOULDER, EACH DAY.
B. MILLING EXISTING PAVEMENT:
a. THE CONTRACTOR SHALL MILL THE EXISTING PAVEMENT AS DIRECTED BELOW THE EDGE OF THE CONCRETE GUTTER PAN AFTER COMPLETION OF THE RECYCLING OPERATION. THE MILLED PAVEMENT SHALL BE DISPOSED OF PROPERLY.
b. THE CONTRACTOR SHALL MILL THE EXISTING PAVEMENT TO THE SPECIFIED CONSTANT DEPTH AND WIDTH USING AS FEW PASSES AS POSSIBLE (NO MORE THAN TWO PASSES PER LANE WIDTH). ANY EXCESS MATERIAL SHALL BE REMOVED FROM THE PROJECT.
C. MAINTENANCE OF TRAFFIC:
a. TEMPORARY RAMPS:
i. THE CONTRACTOR SHALL USE MILLINGS OR OTHER APPROVED MATERIAL TO RAMP INTERSECTING ROADWAYS AND DRIVE ENTRANCES. THE CONTRACTOR SHALL MAINTAIN TEMPORARY RAMPS UNTIL THE SURFACE COURSE IS PLACED.
ii. THE CONTRACTOR SHALL WEDGE COLD MIX AROUND MANHOLES AND WATER VALVES, AND MAINTAIN THE WEDGES UNTIL THE SURFACE COURSE IS PLACED.
b. THE WORK ZONE SHALL BE OPENED TO TWO–WAY TRAFFIC AT THE COMPLETION OF EACH DAYS CONSTRUCTION ACTIVITY, UNLESS OTHERWISE SPECIFIED IN THE PLANS.
D. MIXING OF RECYCLED MATERIAL:
a. DURING RECYCLING OPERATIONS, THE CONTRACTOR SHALL APPLY THE ADDITIVES TO THE PULVERIZED BITUMINOUS MATERIAL AND AGGREGATE BASE AT A RATE THAT WILL ACHIEVE THE DESIGN STRENGTHS AS INDICATED AND ESTABLISHED BY THE MIX DESIGN. THE ENGINEER MAY ALLOW THE CONTRACTOR TO VARY THE APPLICATION RATE OF THE ADDITIVES CONTENT ESTABLISHED BY THE MIX DESIGN OR SPECIFICATION AS REQUIRED BY EXISTING SITE CONDITIONS.
b. THE APPLICATION OF ADDITIONAL AGGREGATE TO THE RECYCLED MATERIAL SHALL BE PLACED AHEAD OF THE PULVERIZING PROCESS BY MEANS OF A DROP SPREADER, OR SELF PROPELLED AGGREGATE SPREADER. APPLICATION BY GRAVITY AND OR TAILGATE SPREADING IS NOT ACCEPTABLE.
c. DRY ADDITIVE SPREADING AND APPLICATION:
i. THE DRY ADDITIVE SHALL BE APPLIED AT THE RATE DETERMINED THROUGH THE MIX DESIGN. THE ADDITIVE SHALL BE SPREAD UNIFORMLY ONTO THE SURFACE UTILIZING A ELECTRONICALLY CONTROLLED VOLUMETRIC SCREW OR VANE TYPE APPLICATION UNIT.
ii. THE APPLICATION RATE SHALL BE CHECKED USING A SQUARE YARD OF CANVAS SUPPLIED BY THE CONTRACTOR, AND THE WEIGHT OF THE DRY ADDITIVE DISCHARGED ONTO THE CANVAS VERIFIED.
iii. THE CONTRACTOR MUST USE CAUTION IN THE APPLICATION OF THE DRY ADDITIVES SO THAT DRIFTING OF THE DUST IS MINIMIZED. THE APPLICATION VEHICLE SHALL USE SKIRTING TO GRADE TO MINIMIZE DUST. THE CONTRACTOR SHALL CEASE APPLICATION IS DUST CONTROL IS A PROBLEM UNTIL CORRECTIVE MEASURES ARE TAKEN.
iv. CLEANUP DUE TO DUSTING IS THE RESPONSIBILITY OF THE CONTRACTOR.
d. THE CONTRACTOR SHALL DETERMINE THE AMOUNT OF ADDITIONAL WATER NEEDED TO FACILITATE COMPACTION TO ACHIEVE A STABLE PAVEMENT LAYER HIGHER THAN THE MINIMUM SPECIFIED DENSITY.
e. THE MOISTURE CONTENT IN THE ASPHALT TO BE RECYCLED SHALL BE VERIFIED. IT IS REQUIRED THAT A MINIMUM MOISTURE CONTENT OF 4% BE MAINTAINED THROUGHOUT THE BLENDING AND COMPACTION OPERATION.
E. PLACEMENT OF RECYCLED MATERIAL:
a. THE CONTRACTOR SHALL PLACE AND FINISH THE RECYCLED MATERIAL IN ONE CONTINUOUS PASS, WITHOUT SEGREGATION TO A THICKNESS THAT WILL PROVIDE A UNIFORM SLOPE AND THE DESIRED PROFILE.
b. DO NOT EXCEED 3/8" IN SURFACE VARIATION OVER THE LENGTH OF A 10 FOOT STRAIGHT EDGE. CORRECT VARIATIONS IN EXCESS OF SLOPE OR SURFACE TOLERANCES BY ADDING OR REMOVING MATERIAL IN A MANNER SATISFACTORY TO THE ENGINEER AND AT NO COST TO THE CITY.

WORK ITEMS CONTINUED:

ITEM SPECIAL: FULL DEPTH STABILIZATION (TYPE) – (DEPTH)– CONTINUED:

COMPACTION AND DENSITY:

c. AT THE START OF PRODUCTION AND EVERY THIRD PRODUCTION DAY THEREAFTER, THE TARGET DRY DENSITY SHALL BE DETERMINED BY THE CONTRACTOR FROM SAMPLES TAKEN FROM THE ROAD. THIS WILL BE THE TARGET DENSITY FOR THE DAILY DENSITY TESTS. THE ENGINEER SHALL BE INFORMED OF THE TARGET DRY DENSITY EACH TIME THERE IS A CHANGE.

d. THE MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE TARGET DRY DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM D698. THE CONTRACTOR SHALL PERFORM TEN NUCLEAR GAUGE MOISTURE AND DENSITY TESTS AT LOCATIONS DETERMINED BY THE ENGINEER AT THE END OF EVERY DAY'S PRODUCTION. THE RESULTS OF THESE TESTS WILL BE PROVIDED TO THE ENGINEER PRIOR TO THE NEXT WORKING DAY.

e. IF MORE THAN TWO OF THE INDIVIDUAL TEN DRY DENSITY RESULTS ARE LESS THAN 95%, THE CONTRACTOR SHALL INVESTIGATE WHY DENSITY WAS NOT OBTAINED AT THESE AREAS. IF THE AVERAGE DENSITY IS LESS THAN 95%, PRODUCTION WILL NOT CONTINUE UNTIL THE ENGINEER IS SATISFIED WITH A CORRECTIVE PLAN PROVIDED BY THE CONTRACTOR. THE CONTRACTOR WILL CORRECT ANY INDIVIDUAL AREAS HAVING DENSITY BELOW 92%.

i. THOSE AREAS THAT CANNOT BE CORRECTED TO THE SATISFACTION OF THE ENGINEER WILL BE TREATED AND MIXED WITH ADDITIONAL CHEMICAL STABILIZATION, RESHAPED, GRADED AND COMPACTED AND RETESTED TO ASSURE THAT THE DENSITY OF THE MAT MEETS THE MINIMUM STATED REQUIREMENTS.

ii. THERE WILL BE NO ADDITIONAL COMPENSATION FOR THE ADDITIONAL WORK TO CORRECT THE DEFICIENT AREAS.

f. WITH THE EXCEPTION OF REPAIRS FOR SURFACE TOLERANCE, THE MINIMUM WIDTH OF REPAIRS SHALL BE THE FULL WIDTH OF THE RECLAIMER–STABILIZING EQUIPMENT. THE MINIMUM LENGTH SHALL BE SUFFICIENT FOR THE REPAIR TO BE COMPLETED. MAKE ALL REPAIRS USING THE SAME EQUIPMENT AS WAS USED DURING INITIAL PRODUCTION AND PLACEMENT.

g. UNACCEPTABLE FULL DEPTH RECLAMATION, INCLUDING ANY AREA DAMAGED OR CONTAMINATED BY TRAFFIC OR BY NATURAL OR ADDED WATER SHALL BE RE–PROCESSED AND IF REQUIRED, ASPHALT EMULSION OR OTHER ADDITIVE ADDED AT NO ADDITIONAL COST TO THE CITY.

h. CARE SHOULD BE TAKEN TO CONTROL COMPACTION ENERGY TO AVOID BREAKING DOWN THE SHOULDER STRUCTURE OR CAUSING DAMAGE TO THE CONCRETE CURBING.

i. PERFORM FINAL ROLLING TO ELIMINATE PNEUMATIC TIRE MARKS BY USING STEEL WHEEL ROLLERS, EITHER IN STATIC OR VIBRATORY MODE.

j. DISCONTINUE ANY TYPE OF ROLLING THAT RESULT IN CRACKING, MOVEMENT, OR OTHER TYPES OF PAVEMENT DISTRESS UNTIL SUCH TIME THAT THE PROBLEM CAN BE RESOLVED.

k. IF THERE IS SIGNIFICANT CHANGE IN MIX PROPORTIONS, WEATHER CONDITIONS, OR OTHER CONTROLLING FACTORS THE ENGINEER MAY REQUIRE CONSTRUCTION OF ADDITIONAL TEST STRIPS TO VERIFY DENSITY OR OTHER REQUIREMENTS

3.02 CONSTRUCTION EQUIPMENT:

A. EQUIPMENT.

a. GENERAL:

i. THE CONTRACTOR SHALL FURNISH A SELF–PROPELLED MACHINE CAPABLE OF MILLING THE EXISTING BITUMINOUS MATERIAL TO THE DEPTH SHOWN IN THE CONTRACT DOCUMENTS IN ONE PASS, WITH THE ADDITION OF CORRECTIVE MATERIALS IF NECESSARY, THAT PRODUCES A UNIFORM MIXTURE. THE MACHINE SHALL BE EQUIPPED WITH AUTOMATIC DEPTH CONTROL. IT ALSO WILL MAINTAIN A CONSTANT CUTTING DEPTH AND WIDTH, UNIFORM GRADE, AND A UNIFORM CROSS SLOPE. THE RECYCLER SHALL ALSO BE CAPABLE OF PRODUCING THE PROPERLY SIZED MILLED BITUMINOUS MATERIAL THROUGH AN INTEGRAL GRID OR SCREENING APPARATUS.

ii. THE CONTRACTOR SHALL FURNISH EQUIPMENT CAPABLE OF MIXING THE MILLED BITUMINOUS MATERIAL AND ASPHALT STABILIZING AGENT, PORTLAND CEMENT, VIRGIN AGGREGATE AND ADDITIONAL WATER INTO A HOMOGENOUS MIXTURE. THE EQUIPMENT SHALL PROVIDE A POSITIVE MEANS FOR ACCURATELY CONTROLLING THE RATE OF FLOW AND TOTAL DELIVERY OF THE ASPHALT–STABILIZING AGENT INTO THE MIXTURE IN RELATION TO THE SPEED AND QUANTITY OF MATERIAL BEING RECYCLED. THE ASPHALT STABILIZER APPLICATION SYSTEM SHALL BE CAPABLE OF ADJUSTING FOR THE WIDTH OF RECYCLING SUCH THAT OVERLAPPED MIXTURE MAINTAINS THE DESIGNED RESIDUAL ASPHALT CONTENT.

iii. IF CORRECTIVE MATERIALS ARE REQUIRED FOR THE COLD IN–PLACE RECYCLING PROCESS, IT IS TO BE ADDED TO THE ROAD PRIOR TO STABILIZING. THE ADDITIONAL MATERIALS SHALL BE PLACED RELATIVELY CLOSE TO THE RECYCLING UNIT TO MINIMIZE THE LENGTH OF THE RECYCLING OPERATION. THE EQUIPMENT PLACING THE MATERIAL SHALL HAVE A SYSTEM FOR CONTROLLING THE APPLICATION OF THE CORRECTIVE MATERIAL.

iv. THE CONTRACTOR SHALL HAVE ON SITE, AT A MINIMUM, A SELF–PROPELLED DOUBLE DRUM VIBRATORY STEEL ROLLER AND A SELF–PROPELLED PNEUMATIC TIRE ROLLER. THE VIBRATORY ROLLER MAY BE USED IN THE STATIC OR VIBRATORY MODE. THE COMPACTION EQUIPMENT SHALL BE SIZED ADEQUATELY IN ORDER TO ACHIEVE THE REQUIRED DENSITY IN THE RECYCLED MAT.

b. ASPHALT EMULSION:

i. THE LIQUID ASPHALT EMULSION METERING SYSTEM SHALL HAVE AN ELECTRONIC CONTROL UNIT FOR SELECTING AND MEASURING THE REQUIRED AMOUNT OF ASPHALTIC EMULSION. THE CONTROL UNIT SHALL MONITOR THE AMOUNT OF EMULSION THAT THE VOLUMETRICALLY CONTROLLABLE PUMP SENDS TO THE INJECTION NOZZLES. IT SHALL HAVE A PROGRAMMABLE CONTROLLER THAT COMPENSATES FOR VARIABLES SUCH AS FORWARD SPEED OF THE MACHINE, MILLING DEPTH AND WIDTH, MATERIAL DENSITY IN ORDER TO PROVIDE THE CORRECT PERCENTAGE OF EMULSION ADDITIVE TO THE RAP. THE RECYCLING WIDTH SHALL VARY BE THE OPENING AND CLOSING OF THE INJECTION NOZZLES AS REQUIRED FOR PARTIAL PASSES AND THE WIDTH OF THE AREA DICTATES.

ii. THE CONTROL SYSTEM SHALL ALSO REGULATE THE ADDITION OF WATER AS NECESSARY FOR OPTIMUM MOISTURE CONTENT.

3.03 QUALITY CONTROL:

A. DENSITY AND AC CONTENT:

a. FOLLOW THE TESTING PROCEDURES AS OUTLINED IN SECTION 3.01 F COMPACTION AND DENSITY.

b. CONTROL THE RESIDUAL ASPHALT CONTENT WITHIN +/– 0.5% OF THE TARGET ESTABLISHED BY THE DESIGN. PROVIDE DAILY VERIFICATION AND SUPPORTING CALCULATIONS TO THE ENGINEER PRIOR TO THE NEXT WORKING DAY.

a. WHEN THE CONTRACTOR TAKES SAMPLES FOR DETERMINING THE TARGET DENSITY, THEY SHALL ALSO MAKE SAMPLES AND TEST FOR DRY TENSILE STRENGTH, WET TENSILE STRENGTH, AND TENSILE STRENGTH RATIO IN ACCORDANCE WITH ASTM D4867 (MODIFIED IN THE MIX DESIGN SECTION).

i. PRIOR TO MAKING THE SPECIMENS, THE COLD RECYCLED MATERIAL SHALL BE MOISTURE CONDITIONED TO MATCH THE FIELD MOISTURE CONTENT. THE AVERAGE DRY TENSILE STRENGTH SHALL MEET THE REQUIREMENTS IN THE MIX DESIGN SECTION, WITH NO INDIVIDUAL SPECIMEN BEING BELOW 270 KPA. THE AVERAGE WET TENSILE STRENGTHS WILL MEET THE REQUIREMENTS IN THE MIX DESIGN SECTION, WITH NO INDIVIDUAL SPECIMEN BEING BELOW 170 KPA. IF THESE CRITERIA ARE NOT MET, THE CONTRACTOR SHALL CEASE PRODUCTION UNTIL THE ENGINEER IS SATISFIED. MATERIAL NOT MEETING ANY OF THE TENSILE REQUIREMENTS SHALL BE ANALYZED AND A MODIFICATION MADE TO THE MIX DESIGN. THE ADJUSTMENTS SHALL BE USED TO RE–STABILIZE, GRADE AND COMPACT THE RECYCLED MAT.

b. PROVIDE SISTER SAMPLES TO THE CITY AT THE TIME OF SAMPLING IN AIRTIGHT CONTAINERS FOR QUALITY ASSURANCE PURPOSES.

B. SURFACE TREATMENT:

a. DO NOT PLACE ANY SUBSEQUENT SURFACE TREATMENT OR OVERLAY UNTIL A MINIMUM OF THREE DAYS HAVE PASSED. ADDITIONALLY, THE MOISTURE CONTENT OF THE RECYCLED MIXTURE IS TO BE NO MORE THAN 0.3% ABOVE THE RESIDUAL MOISTURE CONTENT OR 2.0%, WHICHEVER IS GREATER. THE ENGINEER MAY ADJUST THIS CURING PERIOD DEPENDING ON FIELD CONDITIONS. UNLESS THE RESIDUAL MOISTURE CONTENT OR THE ENGINEER DICTATES OTHERWISE, THE ITEM 442 (19MM OR 9.5MM) INTERMEDIATE COURSE OR ITEM 301 ASPHALT CONCRETE BASE COURSE MUST BE PLACED WITHIN 5 DAYS OF THE RECYCLING PROCESS.

b. TO PREVENT RAVELING OF THE RECYCLED MAT THE CONTRACTOR SHALL APPLY A FOG SEAL OR OTHER TYPE OF SEAL COAT APPROVED BY THE ENGINEER PRIOR TO OPENING THE AREA TO TRAFFIC.

C. ADDITIVES:

c. GENERAL:

i. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING, HANDLING AND INCORPORATING THE ASPHALT EMULSION, PORTLAND CEMENT, REJUVENATOR, AGGREGATE, WATER AND ANY OTHER ADDITIVES.

WORK ITEMS CONTINUED:

ITEM SPECIAL: ASPHALT REJUVENATING AGENT
RECLAMITE OR APPROVED EQUAL

SCOPE

THIS WORK SHALL CONSIST OF FURNISHING ALL LABOR, EQUIPMENT, MATERIAL TO PERFORM ALL OPERATIONS NECESSARY FOR THE REJUVENATION AND IN–DEPTH SEALING OF ASPHALTIC–CONCRETE SURFACE COURSE BY SPRAY APPLICATION OF PETROLEUM OIL AND RESINS EMULSIFIED WITH WATER, COMPLETE, IN ACCORDANCE WITH THE SPECIFICATIONS, THE APPLICABLE DRAWINGS AND SUBJECT TO TERMS AND CONDITIONS OF THE CONTRACT.

1. SUBMITTAL MATERIALS

THE ASPHALT REJUVENATING AGENT SHALL BE COMPOSED OF A PETROLEUM RESIN OIL BASE UNIFORMLY EMULSIFIED WITH WATER. THE CONTRACTOR SHALL SUBMIT A CERTIFIED STATEMENT FROM ASPHALT REJUVENATING MANUFACTURER SHOWING THAT THE ASPHALT REJUVENATING EMULSION CONFORMS TO THE FOLLOWING PHYSICAL AND CHEMICAL REQUIREMENTS.

2. SPECIFICATION

DESIGNATION	TEST METHOD	REQUIREMENTS
VISCOSITY, S.F. AT 77 F, SEC	ASTM D244–60	15–40
RESIDUE, % MIN. (A)	ASTM D244–60 (MOD.)	60–65
MISCIBILITY TEST (B)	ASTM D244–60 (MOD.)	NO COAGULATION
SIEVE TEST, % MAX.	ASTM D244–60 (MOD.)	0.10
PARTICLE CHARGE TEST	ASTM D244–60	POSITIVE
TESTS ON RESIDUE	ASTM D244–60 (MOD).	
VISCOSITY CS, 140 F	ASTM–D445	100–200
ASPHALTENES, % MAX.	ASTM–D2006–65–T	0.75
MALTENES DIST. RATIO	ASTM–D2006–65–T	0.3–0.5

$$\frac{PC + A1}{S + A2} \quad (D)$$

ASTM D244 MODIFIED EVAPORATION TEST FOR PERCENT OF RESIDUE IS MADE BY HEATING 50 GRAM SAMPLE TO 3,000 F UNTIL FOAMING CEASES, THEN COOL IMMEDIATELY AND CALCULATE RESULTS.

TEST PROCEDURE IDENTICAL WITH ASTM D244–60 EXCEPT THAT 0.02 NORMAL CALCIUM CHLORIDE SOLUTION SHALL BE USED IN PLACE OF DISTILLED WATER.

TEST PROCEDURE IDENTICAL WITH ASTM D244 EXCEPT THAT DISTILLED WATER SHALL BE USED IN PLACE OF 2 % SODIUM OLEATE SOLUTION.

IN THE MALTENES DISTRIBUTION RATIO TEST BY ASTM METHOD D2006–65–T;

PC – POLAR COMPOUNDS A1 – FIRST ACIDAFFINS

A2 – SECOND ACIDAFFINS S – SATURATES

THE MATERIAL SHALL HAVE A RECORD OF AT LEAST FIVE YEARS OF SATISFACTORY SERVICE AS AN ASPHALT REJUVENATING AGENT AND IN–DEPTH SEALER; SUCH SATISFACTORY SERVICE BEING BASED ON THE CAPABILITY OF THE MATERIAL TO INCREASE THE DUCTILITY AND PENETRATION VALUE OF THE ASPHALT BINDER IN THE PAVEMENT SURFACE AND TO SEAL THE PAVEMENT IN–DEPTH TO THE INTRUSION OF AIR AND WATER.

THE CONTRACTOR SHALL FURNISH THE MANUFACTURERS CERTIFICATION THAT THE MATERIAL PROPOSED FOR USE IS IN COMPLIANCE WITH THE SPECIFICATION REQUIREMENTS AND INCLUDE COPIES OF SUPPORTING TESTS AND PREVIOUS USE DOCUMENTATION. THE PRODUCT RECLAMITE, OR APPROVED EQUAL, IS ACCEPTABLE.

3. APPLICATION TEMPERATURE

THE TEMPERATURE OF THE EMULSION AT THE TIME OF APPLICATION SHALL BE THAT AS RECOMMENDED BY THE MANUFACTURER.

4. HANDLING OF ASPHALT REJUVENATING AGENT

CONTENTS IN TANK CARS OR STORAGE TANKS SHALL BE CIRCULATED AT LEAST TEN MINUTES BEFORE WITHDRAWING ANY MATERIAL FOR APPLICATION. WHEN LOADING THE DISTRIBUTOR, THE ASPHALT REJUVENATING AGENT CONCENTRATE SHALL BE LOADED FIRST AND THEN THE REQUIRED AMOUNT OF WATER SHALL BE ADDED. THE WATER SHALL BE INTRODUCED INTO THE DISTRIBUTOR WITH ENOUGH FORCE TO CAUSE AGITATION AND THOROUGH MIXING OF THE TWO MATERIALS. TO PREVENT FOAMING, THE DISCHARGE END OF THE WATER HOSE OR PIPE SHALL BE KEPT BELOW THE SURFACE OF THE MATERIAL IN THE DISTRIBUTOR TANK.

5. EQUIPMENT

ALL TOOLS, MACHINES AND EQUIPMENT USED IN THE PERFORMANCE OF THE WORK SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER AND SHALL BE MAINTAINED IN A SAFE AND SATISFACTORY WORKING CONDITION AT ALL TIMES.

6. CLEAN EQUIPMENT

EQUIPMENT USED FOR THE APPLICATION OF THE PETROLEUM OIL AND RESIN EMULSIONS SHALL BE CLEAN OF ALL FOREIGN AND OBJECTIONABLE MATERIAL. AN ASPHALT DISTRIBUTOR WHICH SHALL BE USED AS A SPREADER WILL BE CLEANED OF ALL OF ITS ASPHALT MATERIALS AND WASHED OUT TO THE EXTENT THAT NO DISCOLORATION OF THE EMULSION MAY BE PERCEPTIBLE. CLEANLINESS OF THE SPREADING EQUIPMENT SHALL BE SUBJECT TO THE APPROVAL AND SATISFACTION OF THE ENGINEER.

THE DISTRIBUTOR FOR SPREADING THE EMULSION SHALL BE SELF–PROPELLED AND SHALL HAVE PNEUMATIC TIRES. THE DISTRIBUTOR SHALL BE DESIGNED AND EQUIPPED TO DISTRIBUTE THE EMULSION UNIFORMLY ON VARIABLE WIDTHS OF SURFACE AT READILY DETERMINED AND CONTROLLED RATES FROM 0.05 TO 0.5 GALLONS PER SQUARE YARD OF SURFACE AND WITH AN ALLOWABLE VARIATION FROM ANY SPECIFIED RATE NOT TO EXCEED FIVE PERCENT. DISTRIBUTOR EQUIPMENT SHALL INCLUDE FULL CIRCULATION SPRAY BARS, PUMP, ACHOMETER, VOLUME MEASURING DEVICE AND A HARD HOSE ATTACHMENT SUITABLE FOR APPLICATION OF THE EMULSION MANUALLY TO COVER AREAS OR PATCHES INACCESSIBLE TO THE DISTRIBUTOR. THE DISTRIBUTOR SHALL BE EQUIPPED TO CIRCULATE AND AGITATE THE EMULSION WITHIN THE TANK.
A CHECK OF DISTRIBUTOR RATE AND UNIFORMITY OF DISTRIBUTION SHALL BE MADE WHEN DIRECTED BY THE ENGINEER.

7. WEATHER LIMITATIONS

THE EMULSION SHALL BE APPLIED ONLY WHEN THE EXISTING SURFACE TO BE TREATED IS THOROUGHLY DRY AND WHEN THE WEATHER IS CLEAR AND IS NOT THREATENING RAIN. THE EMULSION SHALL NOT BE APPLIED WHEN THE ATMOSPHERIC TEMPERATURE IS BELOW 40 F.

8. APPLICATION

FOLLOWING PRE–CLEANING OF THE ASPHALTIC SURFACE, THE ASPHALT REJUVENATING AGENT SHALL BE APPLIED BY DISTRIBUTOR AT THE TEMPERATURE RECOMMENDED BY THE MANUFACTURER AND AT THE PRESSURE REQUIRED FOR THE PROPER DISTRIBUTION. THE EMULSION SHALL BE SO APPLIED THAT UNIFORM DISTRIBUTION IS OBTAINED AT ALL POINTS OF THE AREAS TO BE TREATED. DISTRIBUTION SHALL BE COMMENCED WITH A RUNNING START TO INSURE FULL RATE OF SPREAD OVER THE ENTIRE AREA TO BE TREATED. AREAS INADVERTENTLY MISSED SHALL RECEIVE ADDITIONAL TREATMENT AS MAY BE REQUIRED BY HAND SPRAYER APPLICATION.

APPLICATION OF ASPHALT REJUVENATING AGENT SHALL BE ON ONE–HALF WIDTH OF THE PAVEMENT AT A TIME.

WHEN APPLICATION IS MADE UNDER TRAFFIC AND/OR A PREVIOUSLY CLOSED ROAD MUST BE OPENED TO TRAFFIC AND SLOW PENETRATION OCCURS AND IN THE OPINION OF THE CITY ENGINEER, A HAZARD EXISTS TO THE TRAVELING PUBLIC, A LIGHT COATING OF DRY, GRITTY SAND SHALL BE APPLIED TO THE SURFACE IN SUFFICIENT AMOUNTS TO PROTECT THE TRAVELING PUBLIC. SAND SHALL BE APPLIED AT THE RATE OF ONE POUND PER SQUARE YARD.

BEFORE SPREADING, THE ASPHALT REJUVENATING AGENT SHALL BE BLENDED WITH WATER AT THE RATE OF TWO (2) PARTS OF REJUVENATING AGENT TO ONE (1) PART WATER, BY VOLUME OR AS SPECIFIED BY THE MANUFACTURER. THE COMBINED MIXTURE OF ASPHALT REJUVENATING AGENT AND WATER SHALL BE SPREAD AT THE RATE OF 0.05 TO 0.08 GALLONS PER SQUARE YARD, OR AS APPROVED BY THE ENGINEER.

EXCESS SAND, POST–TREATMENT AND STREET CLEANING SHALL OCCUR WITHIN TWO DAYS FOLLOWING APPLICATION.

WHEN MORE THAN ONE APPLICATION IS TO BE MADE, SUCCEEDING APPLICATIONS SHALL BE MADE AS SOON AS PENETRATION OF THE PRECEDING APPLICATION HAS BEEN COMPLETED AND APPROVAL IS GRANTED FOR ADDITIONAL APPLICATIONS BY THE ENGINEER.

GRADES OR SUPER ELEVATIONS OF SURFACES THAT MAY CAUSE EXCESSIVE RUNOFF, IN THE OPINION OF THE ENGINEER, SHALL HAVE THE REQUIRED AMOUNTS APPLIED IN TWO OR MORE APPLICATIONS AS DIRECTED.

THE REJUVENATING AGENT SHALL BE APPLIED BY AN EXPERIENCED APPLICATOR OF SUCH MATERIAL. THE APPLICATOR SHALL HAVE A MINIMUM OF THREE YEARS EXPERIENCE IN APPLYING THE PRODUCT PROPOSED FOR USE. THEY SHALL SUBMIT A LIST OF THE LAST FIVE PROJECTS ON WHICH THEY APPLIED SAID REJUVENATOR.

9. TRAFFIC

THE CONTRACTOR SHALL SCHEDULE THEIR OPERATIONS AND CARRY OUT THE WORK IN A MANNER TO CAUSE THE LEAST DISTURBANCE AND/OR INTERFERENCE WITH THE NORMAL FLOW OF TRAFFIC OVER THE AREAS TO BE TREATED. TREATED PORTIONS OF THE BITUMINOUS SURFACES SHALL BE KEPT CLOSED AND FREE FROM TRAFFIC UNTIL PENETRATION HAS BECOME COMPLETE AND THE AREA IN THE OPINION OF THE ENGINEER, IS SUITABLE FOR TRAFFIC. SUITABLE METHODS SUCH AS PENNANTS, BARRICADES, FLAGMEN, PILOT CARS, ETC., SHALL BE USED TO PROTECT THE UNCURED SURFACE FROM ALL TYPES OF TRAFFIC. ANY DAMAGE TO THE UNCURED SURFACE WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE ENGINEER SHALL GIVE FINAL APPROVAL AS TO THE METHOD USED. IF DAMAGE OCCURS WHERE SUITABLE MEANS HAVE BEEN MADE TO PROTECT THE UNCURED SURFACE, VIOLATORS WILL BE PROSECUTED AND THE CONTRACTOR WILL BE REIMBURSED FOR THE AMOUNT OF DAMAGES.

RESIDENTS AFFECTED BY THE WORK SHALL BE NOTIFIED BY THE CONTRACTOR IN WRITING, THE DAY BEFORE THE WORK IS TO BE DONE.

10. METHOD OF MEASUREMENT

CONSTRUCTION SEALING WITH REJUVENATING AGENT WILL BE MEASURED BY THE SQUARE YARD AS PROVIDED FOR IN THE CONTRACT DOCUMENTS.
A.

WORK ITEMS CONTINUED:
RESTORATION:

ITEM 653 PULVERIZED TOPSOIL, A.P.P.

PART 1 GENERAL

1.01 SECTION INCLUDES

A. THE WORK SHALL CONSIST OF FURNISHING ALL LABOR, EQUIPMENT AND MATERIAL NECESSARY TO PLACE AND GRADE TOPSOIL FOR PREPARATION FOR VEGETATION.

1.02 MEASUREMENT & PAYMENT

A. THE TOPSOIL AREA WILL BE MEASURED BY THE CUBIC YARD (CY), DELIVERED, PLACED, AND GRADED FOR:
   a. AREAS DESIGNATED FOR PAYMENT UNDER THIS SECTION IN THE PLANS AND SPECIFICATIONS.
   b. MATERIAL USED OUTSIDE OF THE WORK LIMITS WILL NOT BE MEASURED.

B. PAYMENT WILL BE MADE UNDER THIS SECTION FOR ADDITIONAL PULVERIZED TOPSOIL PLACED AT THE DIRECTION OF THE ENGINEER OUTSIDE OF ORIGINAL PROPOSED WORK AREAS DESIGNATED FOR THE INSTALLATION OF CURB RAMPS AND CONCRETE WALK (ITEM 608), CURBING (609), AND ASSOCIATED UTILITY WORK.

1.03 SUBMITTALS

A. THE CONTRACTOR SHALL SUBMIT A COMPLETE MATERIALS COMPOSITION DESCRIPTION OF THE PULVERIZED TOPSOIL, WHICH INCLUDES A MINIMUM OF THE MAKEUP OF THE TOPSOIL INCLUDING BUT NOT LIMITED TO THE ORGANIC MATERIALS, SILTS, CLAY, AND MOISTURE CONTENTS EXPRESSED AS A PERCENTAGE RANGE. PULVERIZED TOPSOIL CONTAINING NON-DECOMPOSED ORGANIC MATTER WILL NOT BE ACCEPTED.

1.04 DELIVERY, STORAGE AND HANDLING

A. DELIVER PULVERIZED TOPSOIL IN COVERED VEHICLE AND IN IMMEDIATE WORKABLE CONDITION SHOWING ANALYSIS OF CONTENT AS SPECIFIED ABOVE.

B. THE PERSON WHOM DELIVERS AND/OR PLACES TOPSOIL SHALL MAKE NOTE OF LOCATION AND AMOUNT OF PULVERIZED TOPSOIL PLACED AT EACH LOCATION.

C. THE TOPSOIL MAY BE PLACED MY MECHANICAL MEANS, BUT SHALL NOT BE PLACED BY MEANS OF A BLOWER TYPE OF APPLICATION, (EXCEPT FOR THE TOP ONE AND ONE-HALF INCHES, WHICH MAY BE PLACED BY MEANS OF A BLOWER TYPE OF APPLICATION.)

1.05 MAINTENANCE

A. MAINTAIN TOPSOIL AREAS AND SUPPLY ADDITIONAL TOPSOIL WHERE NECESSARY, INCLUDING AREAS AFFECTED BY EROSION.

PART 2 PRODUCTS

2.01 SOIL MIXTURE

A. THE PULVERIZED TOPSOIL MIXTURE SHALL ME LOAMY, LOOSE, AND FREE OF NON-COMPOSTED ORGANIC MATTER AND RUBBISH. NO SOLID MATERIAL OVER 19 MM, ¾ INCH.
B. COMPOSITION: (%)
   a. ORGANIC MATERIAL 5-8
   b. SILT 30-50
   c. CLAY 15-25
   d. SAND 20-35

   e. PH 5.4-7.6
   f. SOLUBLE SALTS 580 PPM MAXIMUM
   g. MOISTURE 14-26

PART 3 EXECUTION

3.01 EXAMINATION

A. THE CONTRACTOR SHALL NOT BEGIN WORK IN THIS SECTION UNTIL THE ENGINEER HAS APPROVED THE LANDSCAPE GRADING.

3.02 APPLICATION

A. THE TOPSOIL PLACEMENT SHALL BE COMPLETED WITHIN FIVE DAYS AFTER COMPLETION OF ASSOCIATED CONCRETE FLATWORK.
   a. THE CONTRACTOR SHALL TAKE CARE TO NOT DISTURB ANY LARGER AREA THAN NECESSARY IN ORDER TO MINIMIZE POST CONSTRUCTION RESTORATION.
   b. THE CONTRACTOR SHALL RE-ESTABLISH FINISH GRADE TO GRADUALLY AND EVENLY MEET EXISTING ADJACENT GRADE AND ADJACENT CURBING, SIDEWALK, RAMPS, ROADWAY, AND OTHER UTILITY STRUCTURES.

3.03 INSTALLATION

A. PULVERIZED TOPSOIL
1. SHALL BE COMPACTED IN LIFTS OF NOT MORE THAN 6 INCHES AT ONE TIME.
2. ALL TOPSOIL PLACED SHALL BE COMPACTED TO AT LEAST 85% COMPACTION, WITH THE EXCEPTION OF THE TOP TWO (2) INCHES.
3. THE TOP TWO INCHES OF PULVERIZED TOPSOIL SHALL BE PLACED LOOSE FOR USE AS SEED BED.
4. THE FINISHED ELEVATION OF PLACED AND GRADED PULVERIZED TOPSOIL SHALL BE 1 INCH ABOVE EDGE OF IMPERVIOUS SURFACES TO ALLOW FOR SETTLEMENT.

3.04 ADJUSTING

A. ANY VEGETATED AREAS, WHICH ARE FOUND TO NOT HAVE AN ADEQUATE AMOUNT OF TOPSOIL DURING THE FIRST YEAR, SHALL HAVE ADDITIONAL PULVERIZED TOPSOIL PLACED AS SOON AS WEATHER CONDITIONS PERMIT, AT NO ADDITIONAL COST TO THE OWNER.

3.05 PROTECTION

A. THE CONTRACTOR SHALL SECURE THE WORK AREA AND PROTECT THE GRADED AREAS FROM ANY TRAFFIC, DISTURBANCES, WILDLIFE OR PUBLIC USE UNTIL VEGETATION IS ESTABLISHED.

ITEM 659 VEGETATION (SEED/MULCH), A.P.P.

PART 1 GENERAL

1.01 SECTION INCLUDES

A. THE WORK SHALL CONSIST OF FURNISHING ALL LABOR, EQUIPMENT AND MATERIAL NECESSARY TO SEED, MULCH, STABILIZE, FERTILIZE, MAINTAIN AND ESTABLISH VEGETATION FOR THE AREAS AS SPECIFIED HEREIN.

1.02 MEASUREMENT & PAYMENT

A. THE VEGETATED AREA WILL BE MEASURED TO THE NEAREST SQUARE YARD (SY). AREAS OUTSIDE OF THE WORK LIMITS WILL NOT BE MEASURED.

B. PAYMENT FOR ALL WORK PERFORMED UNDER THIS SECTION RELATING TO CONCRETE CURBING SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR INSTALLATION OF CONCRETE CURBING (ITEM 609).
   a. THE CONTRACTOR SHALL TAKE CARE TO NOT DISTURB ANY LARGER AREA THAN NECESSARY IN ORDER TO MINIMIZE POST CONSTRUCTION RESTORATION.

C. PAYMENT WILL BE MADE UNDER THIS SECTION FOR AREAS DESIGNATED TO BE PAID FOR UNDER ITEM 659 VEGETATION (SEED/MULCH), A.P.P.

D. PAYMENT WILL BE MADE UNDER THIS SECTION FOR ADDITIONAL SEEDING AT THE DIRECTION OF THE ENGINEER OUTSIDE OF THE ORIGINAL WORK LIMITS.

1.03 SUBMITTALS

A. THE CONTRACTOR SHALL SUBMIT A COMPLETE MATERIALS LIST OF ITEMS PROPOSED FOR THE WORK AND A DESCRIPTION OF HOW THE WORK WILL BE COMPLETED.

B. THE CONTRACTOR SHALL SUBMIT SEED AND FERTILIZER CERTIFICATIONS FOR ALL BAGS USED IN THE PROJECT.

1.04 DELIVERY, STORAGE AND HANDLING

A. DELIVER GRASS SEED IN ORIGINAL CONTAINERS SHOWING ANALYSIS OF SEED MIXTURE, PERCENTAGE OF PURE SEED, YEAR OF PRODUCTION, NET WEIGHT, DATE OF PACKAGING, AND LOCATION OF PACKAGING. DAMAGED PACKAGES ARE NOT ACCEPTABLE.

B. DELIVER FERTILIZER IN WATERPROOF BAGS SHOWING WEIGHT, CHEMICAL ANALYSIS, AND NAME OF MANUFACTURER.

1.05 MAINTENANCE

A. MAINTAIN VEGETATED SURFACES AND SUPPLY ADDITIONAL TOPSOIL WHERE NECESSARY, INCLUDING AREAS AFFECTED BY EROSION.

B. REPLANT DAMAGED GRASS AREAS SHOWING ROOT GROWTH FAILURE, DETERIORATION, BARE OR THIN SPOTS, AND ERODED AREAS.

C. MAINTAIN ADEQUATE MOISTURE FOR VEGETATION AS OUTLINED IN 3.02, G.

D. MOWING AND WEED REMEDIATION:
THE CONTRACTOR SHALL MAINTAIN THE SEEDED AREAS UNTIL FINAL ACCEPTANCE. MOWING, WEED TREATMENT AND REMOVAL MAY BE REQUIRED UNTIL SEEDED AREAS ARE FULLY ESTABLISHED AND ACCEPTED.

PART 2 PRODUCTS

2.01 GROWING MEDIA

A. FERTILIZER: STARTER FERTILIZER 20-27-5 (NITROGEN-PHOSPHOROUS-POTASSIUM)

2.02 SEED MIXTURE
A. THE FOLLOWING SEED MIXTURE SHALL BE USED:
SITE ONE LANDSCAPE SUPPLY, 50/50 MIX, ITEM NO. 20-13-250, OR APPROVED EQUAL

1. TURF-TYPE PERENNIAL RYEGRASS 50%
2. KENTUCKY BLUEGRASS 50%

B. THE SEE MIX MUST CONTAIN AT LEAST 2 DIFFERENT CULTIVARS OF EACH SEED TYPE.
C.
D. THE SEED PURITY (AMOUNT FREE FROM INERT MATTER OR UNDESIRED NOXIOUS WEEDS) SHALL BE AT LEAST 98%.

E. THE GERMINATION RATE OF THE APPLIED SEED SHALL BE AT LEAST 90%.

2.03 MULCH

A. MULCHING MATERIAL: OAT OR WHEAT STRAW, REASONABLY FREE FROM WEEDS, FOREIGN MATTER DETRIMENTAL TO PLANT LIFE, AND IN DRY CONDITION. HAY OR CHOPPED CORNSTALKS IS NOT ACCEPTABLE. HYDRO MULCH IS NOT PERMITTED AS SURFACE MULCH.

B. ESTABLISHMENT BLANKET: UNIFORM OPEN WEAVE EXCELSIOR MATTING; EROSION CONTROL MULCHING FABRIC CONSISTING OF KNITTED CONSTRUCTION OF YARD INTERWOVEN WITH STRIPS OF BIODEGRADABLE PAPER

PART 3 EXECUTION

3.01 EXAMINATION

A. THE CONTRACTOR SHALL NOT BEGIN WORK IN THIS SECTION UNTIL THE ENGINEER HAS APPROVED THE LANDSCAPE GRADING.

3.02 APPLICATION

A. THE SEEDING SHALL BE COMPLETED WITHIN THREE DAYS AFTER COMPLETION OF LANDSCAPE GRADING OR AS SOON THEREAFTER AS CONDITIONS ARE FAVORABLE. SEEDING SHALL OCCUR BETWEEN MARCH 15TH AND OCTOBER 1ST. SHOULD WEEDS PROPAGATE PRIOR TO SEEDING OR RE-SEEDING THEY SHALL BE TREATED OR REMOVED IN A MANNER SATISFACTORY TO THE ENGINEER.
B. THE SEEDBED SHALL BE PREPARED BY PULVERIZING AND BREAKING UP THE SOIL TO A MINIMUM DEPTH OF TWO INCHES WITH A DISK HARROW, DRAG HARROW, SPIKE TOOTH HARROW OR SIMILAR TOOL. ALL ROCKS OVER THREE-QUARTER INCH IN DIAMETER, CLODS AND UNDESIRABLE MATERIAL THAT WOULD INTERFERE WITH SEEDING OPERATIONS SHALL BE REMOVED. IMMEDIATELY AFTER SEEDBED PREPARATION, THE CONTRACTOR SHALL APPLY THE FERTILIZER UNIFORMLY OVER THE AREA TO BE SEEDED AT A RATE OF: 1.5 LBS NITROGEN PER 1000 FT2 .

DESIRED RATE IN LBS N/1000 FT2/% NUTRIENT=TOTAL FERTILIZER NEEDED/1000 FT2 TOTAL FERTILIZER NEEDED/1000 FT2XAREA TO BE TREATED IN FT2=LBS FERTILIZER NEEDED TO TREAT THE AREA

C. THE SEED SHALL BE DRILLED, BROADCAST OR HYDRO SEEDED UNIFORMLY OVER THE SEEDBED AT A RATE OF 10 LBS PER 100 SY (480LB PER ACRE) USING METHODS AND EQUIPMENT ACCEPTABLE TO THE ENGINEER. THE SEEDED AREA SHALL BE PASSED OVER WITH A HAND RAKE TO HELP COVER MORE SEED AND IMPROVE SEEDING ESTABLISHMENT. APPLICATION OF GRASS SEED AND FERTILIZER AT THE SAME TIME, IN THE SAME MACHINE IS NOT PERMITTED EXCEPT WHEN HYDRO-SEEDING. SEED MAY BE PLACED WITH THE TOP 1 INCH OF PULVERIZED TOPSOIL IF THE TOPSOIL IS PLACED WITH THE MEANS OF A BLOWER.

D. SEED SOWING IS NOT PERMITTED IMMEDIATELY FOLLOWING RAIN, WHEN THE GROUND IS TOO DRY, OR DURING WINDY PERIODS.

DRAWN BY: DAL
REVISED 2/17/2016

STREET MAINTENANCE PROGRAM
GENERAL NOTES

16-001-CIP

WORK ITEMS CONTINUED:

E. THE CONTRACTOR SHALL SEED AND MULCH ALL DISTURBED ACCESS AREAS, SLOPES, DITCHES, SPOIL AREAS AND ALL OTHER AREAS DISTURBED BY CONSTRUCTION.
F. THE CONTRACTOR SHALL PLACE ESTABLISHMENT BLANKET ON AREAS WITH SLOPES EQUAL TO AND EXCEEDING 3:1, AND IN ALL AREAS OF DIRECT CHANNEL FLOW.

G. AREAS SHALL BE WATERED AS NECESSARY TO PROMOTE GOOD GROWTH DURING THE GERMINATION AND ESTABLISHMENT PERIOD. DURING THE ESTABLISHMENT PERIOD THE CONTRACTOR SHALL WATER A MINIMUM OF ONE–HALF (1/2) INCH OVER THE SEEDED AREA TWO TIMES PER WEEK. IN DRY WEATHER, MORE FREQUENT WATERING WILL BE REQUIRED. WATERING SHALL CONTINUE AS REQUIRED DEPENDING ON WEATHER UNTIL AREA(S) ARE ACCEPTED. CONTRACTOR SHALL LOG ALL WATERING OPERATIONS NOTING AT A MINIMUM: THE DATES, TIMES, LOCATIONS AND THE AMOUNT OF WATER UTILIZED. WATERING LOGS SHALL BE SENT TO THE ENGINEER PROMPTLY FOLLOWING WATERING OPERATIONS. THE CONTRACTOR WILL BE PAID FOR WATERING UNDER ITEM 659 WATER FOR IRRIGATION, A.P.P.

3.03 INSTALLATION

A. STRAW MULCH
1. THE APPROVED MULCH SHALL BE APPLIED OVER THE SEEDED AREA AT A RATE OF 3/4 POUND PER SY WITH A MAXIMUM THICKNESS OF ½–INCH WHEN COMPRESSED BETWEEN THE THUMB AND FOREFINGER. HYDRO MULCHING WILL NOT BE PERMITTED AS SURFACE MULCH.
2. THE STRAW MULCH SHALL BE SECURED IN PLACE WITH TACIFIER.

B. ESTABLISHMENT BLANKET:
1. COVER SEEDED SLOPES WHERE GRADE IS 3:1 OR GREATER WITH EXCELSIOR MATTING. ROLL MATTING DOWN OVER SLOPES WITHOUT STRETCHING OR PULLING.
2. LAY MATTING SMOOTHLY ON SOIL SURFACE, BURYING TOP END OF EACH SECTION IN A NARROW 6–INCH TRENCH. LEAVE 12–INCH OVERLAP FROM TOP ROLL OVER BOTTOM ROLL. LEAVE 4–INCH OVERLAP OVER ADJACENT SECTION.
3. STAPLE OUTSIDE EDGES AND OVERLAPS AT 36–INCH INTERVALS.
4. LIGHTLY DRESS SLOPES WITH TOPSOIL TO ENSURE CLOSE CONTACT BETWEEN MATTING AND SOIL.

3.04 ADJUSTING

A. ANY VEGETATED AREAS, WHICH ARE FOUND TO NOT HAVE AN ADEQUATE GROWTH OF COVER DURING THE FIRST YEAR, SHALL BE RE–SEEDED AS SOON AS WEATHER CONDITIONS PERMIT, AT NO ADDITIONAL COST TO THE CITY. ADEQUATE COVER IS PURE FESCUE AND RYE VEGETATION COVER OF AT LEAST 90%. WEEDS SHALL BE REMOVED AND SOIL PREPARED FOR PROPER SEEDING.

3.05 PROTECTION

A. THE CONTRACTOR SHALL SECURE THE WORK AREA AND PROTECT THE VEGETATED AREAS FROM ANY TRAFFIC, DISTURBANCES, WILDLIFE OR PUBLIC USE UNTIL VEGETATION IS ACCEPTED.

ITEM 659 WATER FOR IRRIGATION, AP.P.

THIS WORK CONSISTS OF WATERING SEEDED AREAS TO ESTABLISH AND MAINTAIN QUALITY VEGETATIVE COVER.

SEEDED AREAS SHOULD BE WATERED A MINIMUM OF TWO TIMES PER WEEK, DEPENDING ON ADEQUATE NATURAL RAINFALL. THE CONTRACTOR SHALL PROVIDE FOR A MINIMUM OF 1" OF WATER PER WEEK FOR SEEDED AREAS (APPROXIMATELY ½" TWO TIMES PER WEEK). ADDITONAL WATERING MAY BE REQUESTED BY THE ENGINEER. WATER FOR IRRIGATION WILL BE PAID FOR ACCEPTABLE WORK COMPLETED BY THE CONTRACTOR THAT IS VERIFIED WITH THE WATERING LOGS SUBMITTED BY THE CONTRACTOR. THE UNIT OF MEASURE FOR WATER FOR IRRIGATION IS M GALLONS (MGAL), (M=1000)

OVERALL GENERAL CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE CITY ENGINEER.

THE FOLLOWING OVERALL GENERAL CONTINGENCY QUANTITIES HAVE BEEN INCLUDED FOR USE AS NEEDED AND AS DIRECTED BY THE ENGINEER. ADDITIONAL CONTINGENCY QUANTITIES MAY BE INCLUDED WITH SPECIFIC WORK AREAS (LISTED IN ESTIMATED QUANTITIES FOR SPECIFIC AREAS):

ITEM	DESCRIPTION	QTY	UNIT
ITEM 202	CURB/CURB AND GUTTER REMOVED / DISPOSED OF, A.P.P.	500	LF
ITEM 202	CONCRETE REMOVED AND DISPOSED OF, A.P.P	150	SY
ITEM 202	ASPHALT DRIVE PAVEMENT REMOVED AND DISPOSED A.P.P.	125	SY
ITEM 203	EXCAVATION, A..P.P.	45	CY
ITEM 204	EXCAVATION, ROADWAY UNDERCUT, A.P.P.	700	CY
ITEM 204	NO 2 STONE (703) IN PLACE	500	CY
ITEM 251	PARTIAL DEPTH PAVEMENT REPAIR – DRIVEWAY 3.5" A.P.P.	30	SY
ITEM 301	ASPHALTIC CONCRETE BASE	30	TN
ITEM 304	AGGREGATE BASE	200	CY
ITEM 441	ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, PG64–22	50	TN
ITEM 608	4" CONCRETE WALK w/ AGG. BASE, A.P.P.	200	SF
ITEM 608	6" CONCRETE WALK w/ AGG. BASE, A.P.P.	1300	SF
ITEM 614	FLAGGER	75	HR
ITEM 614	LEO w/ PATROL CAR	45	HR
ITEM 618	DRAIN LEADER PIPE	250	LF
ITEM 609	CURB, ODOT TYPE 6, A.P.P.	75	LF
ITEM 624	MOBILIZATION – UNDERCUT / BASE REPAIR	3	EA
ITEM 653	PULVERIZED TOPSOIL, A.P.P.	200	CY
ITEM 659	VEGETATION (SEED/MULCH), A.P.P.	600	SY
ITEM 659	WATER FOR IRRIGATION, A.P.P.	300	MGAL
ITEM 802	VALVE BOX – ADJUST TO GRADE	2	EA
ITEM 802	WATER SERVICE BOX – ADJUST TO GRADE	6	EA

DRAWN BY: DAL
REVISED 2/17/2016

STREET MAINTENANCE PROGRAM
GENERAL NOTES

16-001-CIP

XV / XV

16-001-CIP 2016 STREET MAINTENANCE PROGRAM			SHEETS:	2-6	4,7	5,8	10-15	10,16	11,17	19-25	19,22,26	21-27
REFERENCE NUMBER	ITEM	DESCRIPTION	ESTIMATED TOTAL QUANTITY	ROTHESAY DR	ROTHESAY CT	PRESWICK CT	MUIRKIRK DR	LAIDON CT	STRATTON LN	GLENAIRE DR	GLENAMOY CR	GLENLIVEN CT
		Excavation and Removal										
1	202	Bike Path Removed and Disposed of, A.P.P. (SY)	371.5	13.5		4.5	4.5					35
2	202	Concrete Parking Block Removed and Disposed of (EA)	16.0									
3	202	Concrete Removed & Disposed of, A.P.P. (SY)	1,498.0	14.5							64	47.5
4	202	Curb / Curb and Gutter Removed / Disposed of, A.P.P. (LF)	29,322.0	3375	1297	333	4141	894	503	900	304	121
5	203	Excavation, A.P.P. (CY)	49.0									
		Pavement and Related										
6	202	Asphalt Drive Pavement Removed and Disposed of, A.P.P. (SY)	125.0									
7	204*	Excavation, Roadway Undercut, A.P.P. (CY)	800.0									
8	204*	No. 2 Stone (703)	570.0									
9	251*	Asphalt Surface Patch - Miscellaneous, 2" (SY)	41.8									
10	251*	Partial Depth Pavement Repair - Driveway, 3.5" (SY)	500.0		5		300	70	40			
11	251*	Partial Depth Pavement Repair, 3" A.P.P. (SY)	575.0									
12	254*	Patching Planed Surface- Type 2, A.P.P. (SY)	200.0									
13	254*	Pavement Planing, 1.5", A.P.P.(SY)	21,439.0				5206					
14	254*	Pavement Planing, 3",A.P.P. (SY)	36,295.0									
15	254*	Pavement Planing, 4.5",A.P.P. (SY)	27,637.0	3984	1569	545	732	1546	890	3855	785	1029
16	254*	Pavement Planing, 5",A.P.P. (SY)	3,799.0									
17	254*	Pavement Planing, 6", A.P.P.(SY)	11,280.0									
18	254*	Pavement Planing, Variable Depth (1.5"-3"), (SY)	520.0									
19	301*	Asphalt Concrete Base (TN)	7,361.0	670	265	94	124	260	152	650	136	176
20	304*	Aggregate Base (CY)	234.0									
21	407*	NTSS-1HM TracklessTack Coat (GAL)	13,364.0	700	275	94	575	250	155	290	60	75
22	441*	(Bikepath) Asphaltic Concrete Surface Course, Type-1, (448), PG64-22 (TN)	56.4	2		0.7	0.7					6
23	441*	Asphaltic Concrete Intermediate Course, Type-2, (448), PG64-22 (TN)	4,742.0									
24	441*	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22 (TN)	8,644.0	340	134	47	500	130	76	325	66	90
25	512*	Membrane Waterproofing, Type 3 (SY)	180.0									
26	617*	Recondition Shoulders, A.P.P. (SY)	400.0									
27	617*	Recondition Shoulders A.P.P. (Item 411 Aggregate), (CY)	50.0									
28	617*	Recondition Shoulders: (Item 653 Pulverized Topsoil, A.P.P.), (CY)	84.0									
29	802	Valve Box - Adjust to Grade	2.0									
30	Special	Asphalt Rejuvenating Agent (SY)	76,973.0	3984	1569	545	5938	1442	890	3855	785	1029
31	Special	Full Depth Stabilization (Cement Stab.)- 12" Depth (SY)	4,161.0									
32	Special	Polymer Modified Asphalt Expansion Joint (LF)	68.0									
33	Special	Portland Cement Additive (TN)	115.0									

* DENOTES REFERENCE TO ODOT CMS

16-001-CIP 2016 STREET MAINTENANCE PROGRAM			SHEETS:	2-6	4,7	5,8	10-15	10,16	11,17	19-25	19,22,26	21-27
REFERENCE NUMBER	ITEM	DESCRIPTION	ESTIMATED TOTAL QUANTITY	ROTHESAY DR	ROTHESAY CT	PRESWICK CT	MUIRKIRK DR	LAIDON CT	STRATTON LN	GLENAIRE DR	GLENAMOY CR	GLENLIVEN CT
		Concrete and Concrete Structures										
34	608	4" Conc. Walk w/ Agg. Base, A.P.P. (SF)	7,400.0								178	314
35	608	6" Conc. Walk w/ Agg. Base, A.P.P. (SF)	4,240.0	130							360	
36	608	Curb Ramp, 6" Conc. w/Agg. Base, A.P.P.(SF)	1,941.0								42	290
37	608	Paver Walk Remove & Relay, Type 1, A.P.P. (SF)	200.0									
38	609	Combination Curb and Gutter, A.P.P. (LF)	28,527.0	3375	1297	333	4024	894	503	900	304	121
39	609	Combination Curb and Gutter, Heavy Duty, A.P.P. (LF)	295.0				117					
40	609*	Curb, ODOT Type 6, AP.P.(LF)	75.0									
41	618	Drain Leader Pipe (LF)	250.0									
42	802	Water Service Box, Adjust to Grade	6.0									
43	Special	Curb Can Holes (Ea)	545.0	48	23	7	112	28	20	20	9	4
44	Special	Detectable Warning Panel, Type A (EA)	90.0								2	6
45	Special	Detectable Warning Panel, Type B, (EA)	30.0									
		Pavement Marking*										
46	644*	4" Edge Line (white), (mile)	1.9									
47	644*	Center Line- Double-(Yellow, Solid or Dashed), (mile)	1.2									
48	644*	Channelizing Line, 8" (LF)	568.0									
49	644*	Crosswalk Line, 12" (LF)	2,191.0									
50	644*	Lane Arrow, 72" (EA)	5.0									
51	644*	Stop Bar, 24" (LF)	658.0	45			29			12		
52	644*	School Symbol	1.0									
53	644*	Text on Pavemet, "DO NOT BLOCK" (72")	1.0									
		Storm Sewer and Structures										
54	604*	ODOT CB-3/3A Grate	1.0									
55	604*	ODOT CB-3/3A Pre-cast Adjust to Grade(EA)	2.0									
56	604	Structure- Adjust Inlet , A.P.P. (EA)	63.0	5	2		7	2	2	5	1	1
57	604	Structure- Adjust, MH Pavement Ring, (EA)	1.0									
58	604	Structure- Reconstruct/Adjust CB/Inlet, A.P.P. (EA)	3.0				1					

* DENOTES REFERENCE TO ODOT CMS

16-001-CIP 2016 STREET MAINTENANCE PROGRAM			SHEETS:	2-6	4,7	5,8	10-15	10,16	11,17	19-25	19,22,26	21-27
REFERENCE NUMBER	ITEM	DESCRIPTION	ESTIMATED TOTAL QUANTITY	ROTHESAY DR	ROTHESAY CT	PRESWICK CT	MUIRKIRK DR	LAIDON CT	STRATTON LN	GLENAIRE DR	GLENAMOY CR	GLENLIVEN CT
		Landscaping and Restoration										
59	653	Pulverized Topsoil, A.P.P. (CY)	1,526.0	105	48	20	177	34	19	35	16	13
60	659	Vegetation (Seed/Mulch), A.P.P., (SY)	3,874.0								40	40
61	659	Water For Irrigation, A.P.P. (MGAL)	300.0									
		Electrical										
62	632	Detector Loop- A.P.P. (EA)	2.0									
		Maintenance of Traffic / Miscellaneous Items										
63	614	Flagger (HR)	874.0	24	8		60	9	9	24	9	9
64	614	LEO w/ Patrol Car (HR)	232.0									
65	614	Maintenance of Traffic - Oshaughnessy Hills / SR 257	1.0									
66	623	Construction Layout Staking- Oshaughnessy Hills (LS)	1.0									
67	624	Mobilization - Undercut/Base Repair (EA)	4.0									

* DENOTES REFERENCE TO ODOT CMS

16-001-CIP 2016 STREET MAINTENANCE PROGRAM			SHEETS:	26-47	33,43,48	30,34-35, 44-45, 49	31,35-37,42, 44,46, 50	51	62-67	68-69, 71, 73	70, 71-72, 74
REFERENCE NUMBER	ITEM	DESCRIPTION	ESTIMATED TOTAL QUANTITY	AMBERLEIGH WY	GLENCULLEN CT	GILLINGHAM WY	AUTUMNWOOD WY	MOORS PL	BRANDONWAY DR	COVENTRY WOODS DR	APPLECROSS DR
		Excavation and Removal									
1	202	Bike Path Removed and Disposed of, A.P.P. (SY)	371.5				18		296		
2	202	Concrete Parking Block Removed and Disposed of (EA)	16.0								
3	202	Concrete Removed & Disposed of, A.P.P. (SY)	1,498.0	270	48	102	170		131		
4	202	Curb / Curb and Gutter Removed / Disposed of, A.P.P. (LF)	29,322.0	1396	275	485	1041		4710	230	150
5	203	Excavation, A.P.P. (CY)	49.0								
		Pavement and Related									
6	202	Asphalt Drive Pavement Removed and Disposed of, A.P.P. (SY)	125.0								
7	204*	Excavation, Roadway Undercut, A.P.P. (CY)	800.0	100							
8	204*	No. 2 Stone (703)	570.0	70							
9	251*	Asphalt Surface Patch - Miscellaneous, 2" (SY)	41.8								
10	251*	Partial Depth Pavement Repair - Driveway, 3.5" (SY)	500.0								
11	251*	Partial Depth Pavement Repair, 3" A.P.P. (SY)	575.0					575			
12	254*	Patching Planed Surface- Type 2, A.P.P. (SY)	200.0								
13	254*	Pavement Planing, 1.5", A.P.P.(SY)	21,439.0	598		1186	2460		1870		
14	254*	Pavement Planing, 3",A.P.P. (SY)	36,295.0	9192	1830	1250	1868		180	2384	2027
15	254*	Pavement Planing, 4.5",A.P.P. (SY)	27,637.0								
16	254*	Pavement Planing, 5",A.P.P. (SY)	3,799.0								
17	254*	Pavement Planing, 6", A.P.P.(SY)	11,280.0						11280		
18	254*	Pavement Planing, Variable Depth (1.5"-3"), (SY)	520.0						520		
19	301*	Asphalt Concrete Base (TN)	7,361.0	20					1890		
20	304*	Aggregate Base (CY)	234.0	30					4		
21	407*	NTSS-1HM TracklessTack Coat (GAL)	13,364.0	1670	320	340	326		2000	417	354
22	441*	(Bikepath) Asphaltic Concrete Surface Course, Type-1, (448), PG64-22 (TN)	56.4				3		44		
23	441*	Asphaltic Concrete Intermediate Course, Type-2, (448), PG64-22 (TN)	4,742.0	915	180	125	190		1170	235	200
24	441*	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22 (TN)	8,644.0	820	154	205	375		1160	200	170
25	512*	Membrane Waterproofing, Type 3 (SY)	180.0						180		
26	617*	Recondition Shoulders, A.P.P. (SY)	400.0								
27	617*	Recondition Shoulders A.P.P. (Item 411 Aggregate), (CY)	50.0								
28	617*	Recondition Shoulders: (Item 653 Pulverized Topsoil, A.P.P.), (CY)	84.0								
29	802	Valve Box - Adjust to Grade	2.0								
30	Special	Asphalt Rejuvenating Agent (SY)	76,973.0	9790	1830	2436	4508		13850	2384	2027
31	Special	Full Depth Stabilization (Cement Stab.)- 12" Depth (SY)	4,161.0								
32	Special	Polymer Modified Asphalt Expansion Joint (LF)	68.0						68		
33	Special	Portland Cement Additive (TN)	115.0								

* DENOTES REFERENCE TO ODOT CMS

16-001-CIP 2016 STREET MAINTENANCE PROGRAM			SHEETS:	26-47	33,43,48	30,34-35, 44-45, 49	31,35-37,42, 44,46, 50	51	62-67	68-69, 71, 73	70, 71-72, 74
REFERENCE NUMBER	ITEM	DESCRIPTION	ESTIMATED TOTAL QUANTITY	AMBERLEIGH WY	GLENCULLEN CT	GILLINGHAM WY	AUTUMNWOOD WY	MOORS PL	BRANDONWAY DR	COVENTRY WOODS DR	APPLECROSS DR
		Concrete and Concrete Structures									
34	608	4" Conc. Walk w/ Agg. Base, A.P.P. (SF)	7,400.0	1664	356	760	1160		520		
35	608	6" Conc. Walk w/ Agg. Base, A.P.P. (SF)	4,240.0	460			220		450		
36	608	Curb Ramp, 6" Conc. w/Agg. Base, A.P.P.(SF)	1,941.0	336	84	168	301		250		
37	608	Paver Walk Remove & Relay, Type 1, A.P.P. (SF)	200.0								
38	609	Combination Curb and Gutter, A.P.P. (LF)	28,527.0	1396	275	485	985		4648	230	150
39	609	Combination Curb and Gutter, Heavy Duty, A.P.P. (LF)	295.0				56		62		
40	609*	Curb, ODOT Type 6, AP.P.(LF)	75.0								
41	618	Drain Leader Pipe (LF)	250.0								
42	802	Water Service Box, Adjust to Grade	6.0								
43	Special	Curb Can Holes (Ea)	545.0	16	8	7	17		56	7	2
44	Special	Detectable Warning Panel, Type A (EA)	90.0	16	4	8	16		16		
45	Special	Detectable Warning Panel, Type B, (EA)	30.0	4					16	4	2
		Pavement Marking*									
46	644*	4" Edge Line (white), (mile)	1.9								
47	644*	Center Line- Double-(Yellow, Solid or Dashed), (mile)	1.2	0.044							
48	644*	Channelizing Line, 8" (LF)	568.0	98							
49	644*	Crosswalk Line, 12" (LF)	2,191.0	122					818	106	150
50	644*	Lane Arrow, 72" (EA)	5.0	1							
51	644*	Stop Bar, 24" (LF)	658.0	117			13	22	136	16	24
52	644*	School Symbol	1.0								
53	644*	Text on Pavemet, "DO NOT BLOCK" (72")	1.0								
		Storm Sewer and Structures									
54	604*	ODOT CB-3/3A Grate	1.0				1				
55	604*	ODOT CB-3/3A Pre-cast Adjust to Grade(EA)	2.0			1	1				
56	604	Structure- Adjust Inlet , A.P.P. (EA)	63.0	6	1	3	4		3	1	
57	604	Structure- Adjust, MH Pavement Ring, (EA)	1.0								
58	604	Structure- Reconstruct/Adjust CB/Inlet, A.P.P. (EA)	3.0				1		1		

* DENOTES REFERENCE TO ODOT CMS

16-001-CIP 2016 STREET MAINTENANCE PROGRAM			SHEETS:	26-47	33,43,48	30,34-35, 44-45, 49	31,35-37,42, 44,46, 50	51	62-67	68-69, 71, 73	70, 71-72, 74
REFERENCE NUMBER	ITEM	DESCRIPTION	ESTIMATED TOTAL QUANTITY	AMBERLEIGH WY	GLENCULLEN CT	GILLINGHAM WY	AUTUMNWOOD WY	MOORS PL	BRANDONWAY DR	COVENTRY WOODS DR	APPLECROSS DR
		Landscaping and Restoration									
59	653	Pulverized Topsoil, A.P.P. (CY)	1,526.0	125	17	16	55		210	9	6
60	659	Vegetation (Seed/Mulch), A.P.P., (SY)	3,874.0	280	6	140	200		200		
61	659	Water For Irrigation, A.P.P. (MGAL)	300.0								
		Electrical									
62	632	Detector Loop- A.P.P. (EA)	2.0								
		Maintenance of Traffic / Miscellaneous Items									
63	614	Flagger (HR)	874.0	50	12	24	24	14	162	18	16
64	614	LEO w/ Patrol Car (HR)	232.0						30		
65	614	Maintenance of Traffic - Oshaughnessy Hills / SR 257	1.0								
66	623	Construction Layout Staking- Oshaughnessy Hills (LS)	1.0								
67	624	Mobilization - Undercut/Base Repair (EA)	4.0	1							

* DENOTES REFERENCE TO ODOT CMS

16-001-CIP 2016 STREET MAINTENANCE PROGRAM			SHEETS:	75-77, 82-83, 91	75, 78-79, 84-85, 88-89, 91	75, 80, 86, 89-90, 92	75,81, 87, 88, 92	93-97	98-99	100-102	103-106	107-113	114-115
REFERENCE NUMBER	ITEM	DESCRIPTION	ESTIMATED TOTAL QUANTITY	WYNFORD DR	WISMER CR	WORSHAM WY	WHIGHAM CT	VALLEY STREAM DR	RUNNING DEER PL	HOLT RD	CORBINS MILL DR	DUBLIN ROAD / S. HIGH STREET	OLD WILCOX RD
		Excavation and Removal											
1	202	Bike Path Removed and Disposed of, A.P.P. (SY)	371.5										
2	202	Concrete Parking Block Removed and Disposed of (EA)	16.0										16
3	202	Concrete Removed & Disposed of, A.P.P. (SY)	1,498.0		150	173	48	70	27			33	
4	202	Curb / Curb and Gutter Removed / Disposed of, A.P.P. (LF)	29,322.0	1700	1932	600	545	1335	775		1250	280	
5	203	Excavation, A.P.P. (CY)	49.0									4	
		Pavement and Related											
6	202	Asphalt Drive Pavement Removed and Disposed of, A.P.P. (SY)	125.0										
7	204*	Excavation, Roadway Undercut, A.P.P. (CY)	800.0										
8	204*	No. 2 Stone (703)	570.0										
9	251*	Asphalt Surface Patch - Miscellaneous, 2" (SY)	41.8										
10	251*	Partial Depth Pavement Repair - Driveway, 3.5" (SY)	500.0					10	45				
11	251*	Partial Depth Pavement Repair, 3" A.P.P. (SY)	575.0										
12	254*	Patching Planed Surface- Type 2, A.P.P. (SY)	200.0									200	
13	254*	Pavement Planing, 1.5", A.P.P.(SY)	21,439.0					154				6462	110
14	254*	Pavement Planing, 3",A.P.P. (SY)	36,295.0	5804	3584	1544	1724						1696
15	254*	Pavement Planing, 4.5",A.P.P. (SY)	27,637.0					2320	1182	4158	4470		
16	254*	Pavement Planing, 5",A.P.P. (SY)	3,799.0										
17	254*	Pavement Planing, 6", A.P.P.(SY)	11,280.0										
18	254*	Pavement Planing, Variable Depth (1.5"-3"), (SY)	520.0										
19	301*	Asphalt Concrete Base (TN)	7,361.0					390	205	800	750		
20	304*	Aggregate Base (CY)	234.0										
21	407*	NTSS-1HM TracklessTack Coat (GAL)	13,364.0	1015	630	270	300	190	100	415	335	646	311
22	441*	(Bikepath) Asphaltic Concrete Surface Course, Type-1, (448), PG64-22 (TN)	56.4										
23	441*	Asphaltic Concrete Intermediate Course, Type-2, (448), PG64-22 (TN)	4,742.0	570	350	152	170						170
24	441*	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22 (TN)	8,644.0	490	300	130	145	208	102	410	380	545	150
25	512*	Membrane Waterproofing, Type 3 (SY)	180.0										
26	617*	Recondition Shoulders, A.P.P. (SY)	400.0										
27	617*	Recondition Shoulders A.P.P. (Item 411 Aggregate), (CY)	50.0										
28	617*	Recondition Shoulders: (Item 653 Pulverized Topsoil, A.P.P.), (CY)	84.0							32			15
29	802	Valve Box - Adjust to Grade	2.0										
30	Special	Asphalt Rejuvenating Agent (SY)	76,973.0	5804	3584	1544	1724	2474	1182				
31	Special	Full Depth Stabilization (Cement Stab.)- 12" Depth (SY)	4,161.0										
32	Special	Polymer Modified Asphalt Expansion Joint (LF)	68.0										
33	Special	Portland Cement Additive (TN)	115.0										

* DENOTES REFERENCE TO ODOT CMS

16-001-CIP 2016 STREET MAINTENANCE PROGRAM			SHEETS:	75-77, 82-83, 91	75, 78-79, 84-85, 88-89, 91	75, 80, 86, 89-90, 92	75,81, 87, 88, 92	93-97	98-99	100-102	103-106	107-113	114-115
REFERENCE NUMBER	ITEM	DESCRIPTION	ESTIMATED TOTAL QUANTITY	WYNFORD DR	WISMER CR	WORSHAM WY	WHIGHAM CT	VALLEY STREAM DR	RUNNING DEER PL	HOLT RD	CORBINS MILL DR	DUBLIN ROAD / S. HIGH STREET	OLD WILCOX RD
		Concrete and Concrete Structures											
34	608	4" Conc. Walk w/ Agg. Base, A.P.P. (SF)	7,400.0		712	652	620					264	
35	608	6" Conc. Walk w/ Agg. Base, A.P.P. (SF)	4,240.0		450			630	240				
36	608	Curb Ramp, 6" Conc. w/Agg. Base, A.P.P.(SF)	1,941.0		168	170	84					48	
37	608	Paver Walk Remove & Relay, Type 1, A.P.P. (SF)	200.0										
38	609	Combination Curb and Gutter, A.P.P. (LF)	28,527.0	1700	1932	600	545	1335	775		1190	280	
39	609	Combination Curb and Gutter, Heavy Duty, A.P.P. (LF)	295.0								60		
40	609*	Curb, ODOT Type 6, AP.P.(LF)	75.0										
41	618	Drain Leader Pipe (LF)	250.0										
42	802	Water Service Box, Adjust to Grade	6.0										
43	Special	Curb Can Holes (Ea)	545.0	24	45	12	13	37	25		5		
44	Special	Detectable Warning Panel, Type A (EA)	90.0		8	8	4					2	
45	Special	Detectable Warning Panel, Type B, (EA)	30.0					4					
		Pavement Marking*											
46	644*	4" Edge Line (white), (mile)	1.9							0.61		0.71	
47	644*	Center Line- Double-(Yellow, Solid or Dashed), (mile)	1.2							0.31	0.06	0.4	
48	644*	Channelizing Line, 8" (LF)	568.0								232		
49	644*	Crosswalk Line, 12" (LF)	2,191.0	130	120	130	65	153		100	85		
50	644*	Lane Arrow, 72" (EA)	5.0								2		
51	644*	Stop Bar, 24" (LF)	658.0	32	24	23	12	24		22	25		
52	644*	School Symbol	1.0										
53	644*	Text on Pavemet, "DO NOT BLOCK" (72")	1.0										
		Storm Sewer and Structures											
54	604*	ODOT CB-3/3A Grate	1.0										
55	604*	ODOT CB-3/3A Pre-cast Adjust to Grade(EA)	2.0										
56	604	Structure- Adjust Inlet , A.P.P. (EA)	63.0	7	2	1	3	2			4		
57	604	Structure- Adjust, MH Pavement Ring, (EA)	1.0								1		
58	604	Structure- Reconstruct/Adjust CB/Inlet, A.P.P. (EA)	3.0										

* DENOTES REFERENCE TO ODOT CMS

16-001-CIP 2016 STREET MAINTENANCE PROGRAM			SHEETS:	75-77, 82-83, 91	75, 78-79, 84-85, 88-89, 91	75, 80, 86, 89-90, 92	75,81, 87, 88, 92	93-97	98-99	100-102	103-106	107-113	114-115
REFERENCE NUMBER	ITEM	DESCRIPTION	ESTIMATED TOTAL QUANTITY	WYNFORD DR	WISMER CR	WORSHAM WY	WHIGHAM CT	VALLEY STREAM DR	RUNNING DEER PL	HOLT RD	CORBINS MILL DR	DUBLIN ROAD / S. HIGH STREET	OLD WILCOX RD
		Landscaping and Restoration											
59	653	Pulverized Topsoil, A.P.P. (CY)	1,526.0	62	99	49	26	50	30		50		
60	659	Vegetation (Seed/Mulch), A.P.P., (SY)	3,874.0		140	140	70			600			180
61	659	Water For Irrigation, A.P.P. (MGAL)	300.0										
		Electrical											
62	632	Detector Loop- A.P.P. (EA)	2.0								2		
		Maintenance of Traffic / Miscellaneous Items											
63	614	Flagger (HR)	874.0	32	24	18	12	26	9	32	32	48	
64	614	LEO w/ Patrol Car (HR)	232.0							64	20	48	
65	614	Maintenance of Traffic - Oshaughnessy Hills / SR 257	1.0										
66	623	Construction Layout Staking- Oshaughnessy Hills (LS)	1.0										
67	624	Mobilization - Undercut/Base Repair (EA)	4.0										

* DENOTES REFERENCE TO ODOT CMS

16-001-CIP 2016 STREET MAINTENANCE PROGRAM			SHEETS:	116-117, 121-122	116, 118, 121-122	116, 119-122	116, 119-122	123-125	126-128	129-131	132	N/A
REFERENCE NUMBER	ITEM	DESCRIPTION	ESTIMATED TOTAL QUANTITY	ARROWHEAD RD	WESTBURY RD	FOREST HILL RD	WOODLAND DR	SHIER-RINGS ROAD	TUTTLE ROAD	DUNNIKER PARK	STILLHOUSE LN	GENERAL and CONTINGENCY QUANTITIES
		Excavation and Removal										
1	202	Bike Path Removed and Disposed of, A.P.P. (SY)	371.5									
2	202	Concrete Parking Block Removed and Disposed of (EA)	16.0									
3	202	Concrete Removed & Disposed of, A.P.P. (SY)	1,498.0									150
4	202	Curb / Curb and Gutter Removed / Disposed of, A.P.P. (LF)	29,322.0								250	500
5	203	Excavation, A.P.P. (CY)	49.0									45
		Pavement and Related										
6	202	Asphalt Drive Pavement Removed and Disposed of, A.P.P. (SY)	125.0									125
7	204*	Excavation, Roadway Undercut, A.P.P. (CY)	800.0									700
8	204*	No. 2 Stone (703)	570.0									500
9	251*	Asphalt Surface Patch - Miscellaneous, 2" (SY)	41.8								41.8	
10	251*	Partial Depth Pavement Repair - Driveway, 3.5" (SY)	500.0									30
11	251*	Partial Depth Pavement Repair, 3" A.P.P. (SY)	575.0									
12	254*	Patching Planed Surface- Type 2, A.P.P. (SY)	200.0									
13	254*	Pavement Planing, 1.5", A.P.P.(SY)	21,439.0						1829	1564		
14	254*	Pavement Planing, 3",A.P.P. (SY)	36,295.0					3212				
15	254*	Pavement Planing, 4.5",A.P.P. (SY)	27,637.0						572			
16	254*	Pavement Planing, 5",A.P.P. (SY)	3,799.0	1135	710	990	964					
17	254*	Pavement Planing, 6", A.P.P.(SY)	11,280.0									
18	254*	Pavement Planing, Variable Depth (1.5"-3"), (SY)	520.0									
19	301*	Asphalt Concrete Base (TN)	7,361.0	200	122	165	165		97			30
20	304*	Aggregate Base (CY)	234.0									200
21	407*	NTSS-1HM TracklessTack Coat (GAL)	13,364.0	90	54	75	75	562	239	156		
22	441*	(Bikepath) Asphaltic Concrete Surface Course, Type-1, (448), PG64-22 (TN)	56.4									
23	441*	Asphaltic Concrete Intermediate Course, Type-2, (448), PG64-22 (TN)	4,742.0					315				
24	441*	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22 (TN)	8,644.0	100	63	92	92	260	203	132		50
25	512*	Membrane Waterproofing, Type 3 (SY)	180.0									
26	617*	Recondition Shoulders, A.P.P. (SY)	400.0							400		
27	617*	Recondition Shoulders A.P.P. (Item 411 Aggregate), (CY)	50.0							50		
28	617*	Recondition Shoulders: (Item 653 Pulverized Topsoil, A.P.P.), (CY)	84.0						12	25		
29	802	Valve Box - Adjust to Grade	2.0									2
30	Special	Asphalt Rejuvenating Agent (SY)	76,973.0	1135	710	990	964					
31	Special	Full Depth Stabilization (Cement Stab.)- 12" Depth (SY)	4,161.0	1235	740	1100	1086					
32	Special	Polymer Modified Asphalt Expansion Joint (LF)	68.0									
33	Special	Portland Cement Additive (TN)	115.0	35	20	30	30					

* DENOTES REFERENCE TO ODOT CMS

16-001-CIP 2016 STREET MAINTENANCE PROGRAM			SHEETS:	116-117, 121-122	116, 118, 121-122	116, 119-122	116, 119-122	123-125	126-128	129-131	132	N/A
REFERENCE NUMBER	ITEM	DESCRIPTION	ESTIMATED TOTAL QUANTITY	ARROWHEAD RD	WESTBURY RD	FOREST HILL RD	WOODLAND DR	SHIER-RINGS ROAD	TUTTLE ROAD	DUNNIKER PARK	STILLHOUSE LN	GENERAL and CONTINGENCY QUANTITIES
		Concrete and Concrete Structures										
34	608	4" Conc. Walk w/ Agg. Base, A.P.P. (SF)	7,400.0									200
35	608	6" Conc. Walk w/ Agg. Base, A.P.P. (SF)	4,240.0									1300
36	608	Curb Ramp, 6" Conc. w/Agg. Base, A.P.P.(SF)	1,941.0									
37	608	Paver Walk Remove & Relay, Type 1, A.P.P. (SF)	200.0	200								
38	609	Combination Curb and Gutter, A.P.P. (LF)	28,527.0								250	
39	609	Combination Curb and Gutter, Heavy Duty, A.P.P. (LF)	295.0									
40	609*	Curb, ODOT Type 6, AP.P.(LF)	75.0									75
41	618	Drain Leader Pipe (LF)	250.0									250
42	802	Water Service Box, Adjust to Grade	6.0									6
43	Special	Curb Can Holes (Ea)	545.0									
44	Special	Detectable Warning Panel, Type A (EA)	90.0									
45	Special	Detectable Warning Panel, Type B, (EA)	30.0									
		Pavement Marking*										
46	644*	4" Edge Line (white), (mile)	1.9					0.22	0.34			
47	644*	Center Line- Double-(Yellow, Solid or Dashed), (mile)	1.2					0.23	0.17			
48	644*	Channelizing Line, 8" (LF)	568.0					238				
49	644*	Crosswalk Line, 12" (LF)	2,191.0					120	92			
50	644*	Lane Arrow, 72" (EA)	5.0					2				
51	644*	Stop Bar, 24" (LF)	658.0	11	12	13		30	16			
52	644*	School Symbol	1.0						1			
53	644*	Text on Pavemet, "DO NOT BLOCK" (72")	1.0					1				
		Storm Sewer and Structures										
54	604*	ODOT CB-3/3A Grate	1.0									
55	604*	ODOT CB-3/3A Pre-cast Adjust to Grade(EA)	2.0									
56	604	Structure- Adjust Inlet , A.P.P. (EA)	63.0								1	
57	604	Structure- Adjust, MH Pavement Ring, (EA)	1.0									
58	604	Structure- Reconstruct/Adjust CB/Inlet, A.P.P. (EA)	3.0									

* DENOTES REFERENCE TO ODOT CMS

16-001-CIP 2016 STREET MAINTENANCE PROGRAM			SHEETS:	116-117, 121-122	116, 118, 121-122	116, 119-122	116, 119-122	123-125	126-128	129-131	132	N/A
REFERENCE NUMBER	ITEM	DESCRIPTION	ESTIMATED TOTAL QUANTITY	ARROWHEAD RD	WESTBURY RD	FOREST HILL RD	WOODLAND DR	SHIER-RINGS ROAD	TUTTLE ROAD	DUNNIKER PARK	STILLHOUSE LN	GENERAL and CONTINGENCY QUANTITIES
		Landscaping and Restoration										
59	653	Pulverized Topsoil, A.P.P. (CY)	1,526.0	15	5	15	20					200
60	659	Vegetation (Seed/Mulch), A.P.P., (SY)	3,874.0	178	100	150	150		260	400		600
61	659	Water For Irrigation, A.P.P. (MGAL)	300.0									300
		Electrical										
62	632	Detector Loop- A.P.P. (EA)	2.0									
		Maintenance of Traffic / Miscellaneous Items										
63	614	Flagger (HR)	874.0	9	5	12	8	16	24	20		75
64	614	LEO w/ Patrol Car (HR)	232.0					16	9			45
65	614	Maintenance of Traffic - Oshaughnessy Hills / SR 257	1.0	0.25	0.25	0.25	0.25					
66	623	Construction Layout Staking- Oshaughnessy Hills (LS)	1.0	0.25	0.25	0.25	0.25					
67	624	Mobilization - Undercut/Base Repair (EA)	4.0									3

NOTE:
ASPHALT DRIVE REPAIR
SAW CUT EX. ASPHALT DRIVE 2' BEHIND CURB AND GUTTER
REMOVE EXISTING ASPHALT DRIVE ADJACENT TO CURB AND
REPLACE ASPHALT DRIVE ACCORDING TO
ITEM 251 PARTIAL DEPTH PAVEMENT REPAIR - DRIVEWAY, (3.5"), A.P.P.

4.5" PAVEMENT PLANING,
GRADE AND COMPACT EX. AGGREGATE BASE
3" 301 ASPHALT CONCRETE BASE
TACK COAT (.075 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

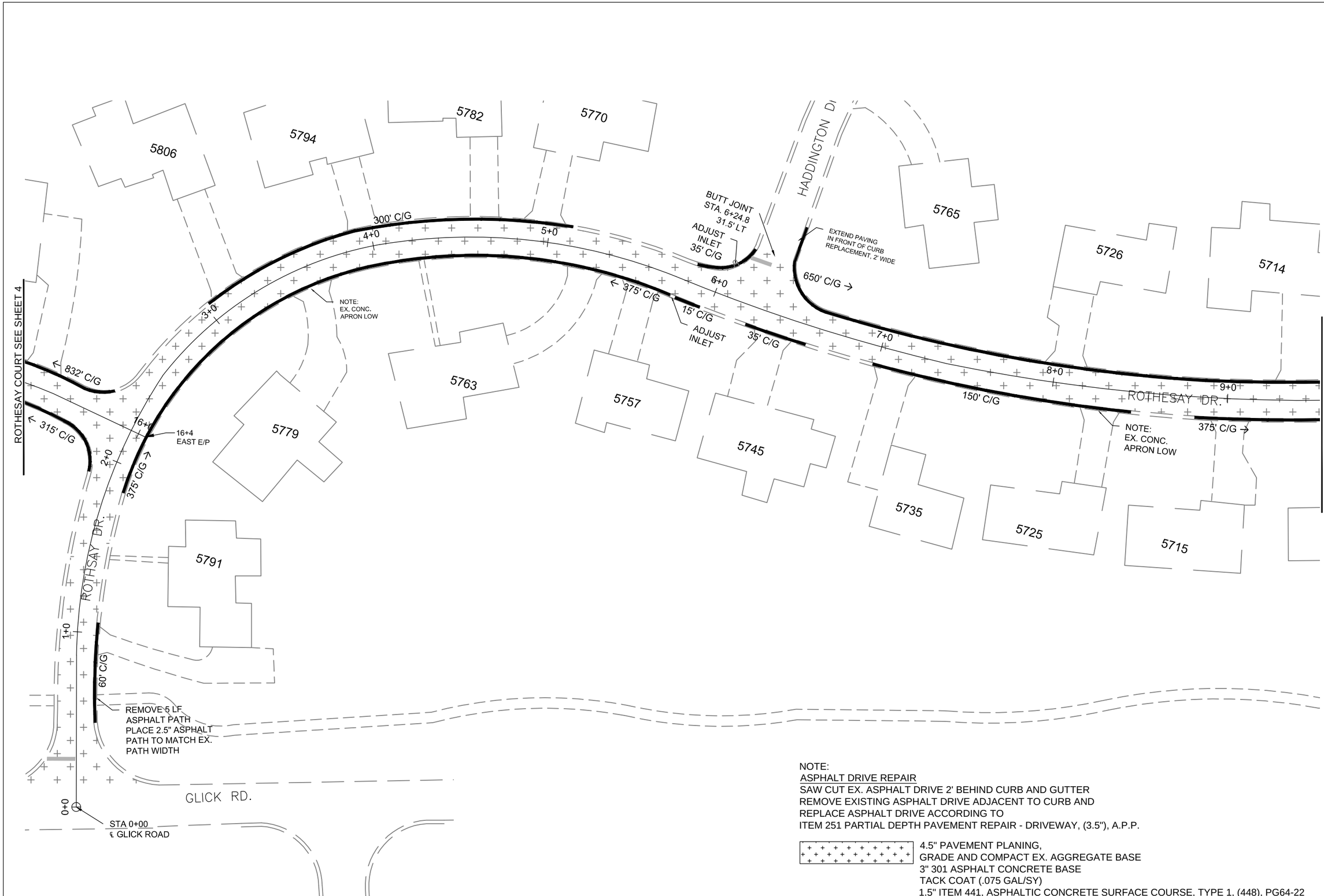
N

0 NONE

DRAWN BY: DAL
REVISED NONE

ROTHESAY DRIVE AREA OVERVIEW MAP
OVERALL MAP

16-001-CIP



NOTE:
ASPHALT DRIVE REPAIR
SAW CUT EX. ASPHALT DRIVE 2' BEHIND CURB AND GUTTER
REMOVE EXISTING ASPHALT DRIVE ADJACENT TO CURB AND
REPLACE ASPHALT DRIVE ACCORDING TO
ITEM 251 PARTIAL DEPTH PAVEMENT REPAIR - DRIVEWAY, (3.5"), A.P.P.

4.5" PAVEMENT PLANING,
GRADE AND COMPACT EX. AGGREGATE BASE
3" 301 ASPHALT CONCRETE BASE
TACK COAT (.075 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

DRAWN BY: DAL
REVISED
NONE

ROTHESAY DRIVE
ROADWAY

16-001-CIP

2 / 8

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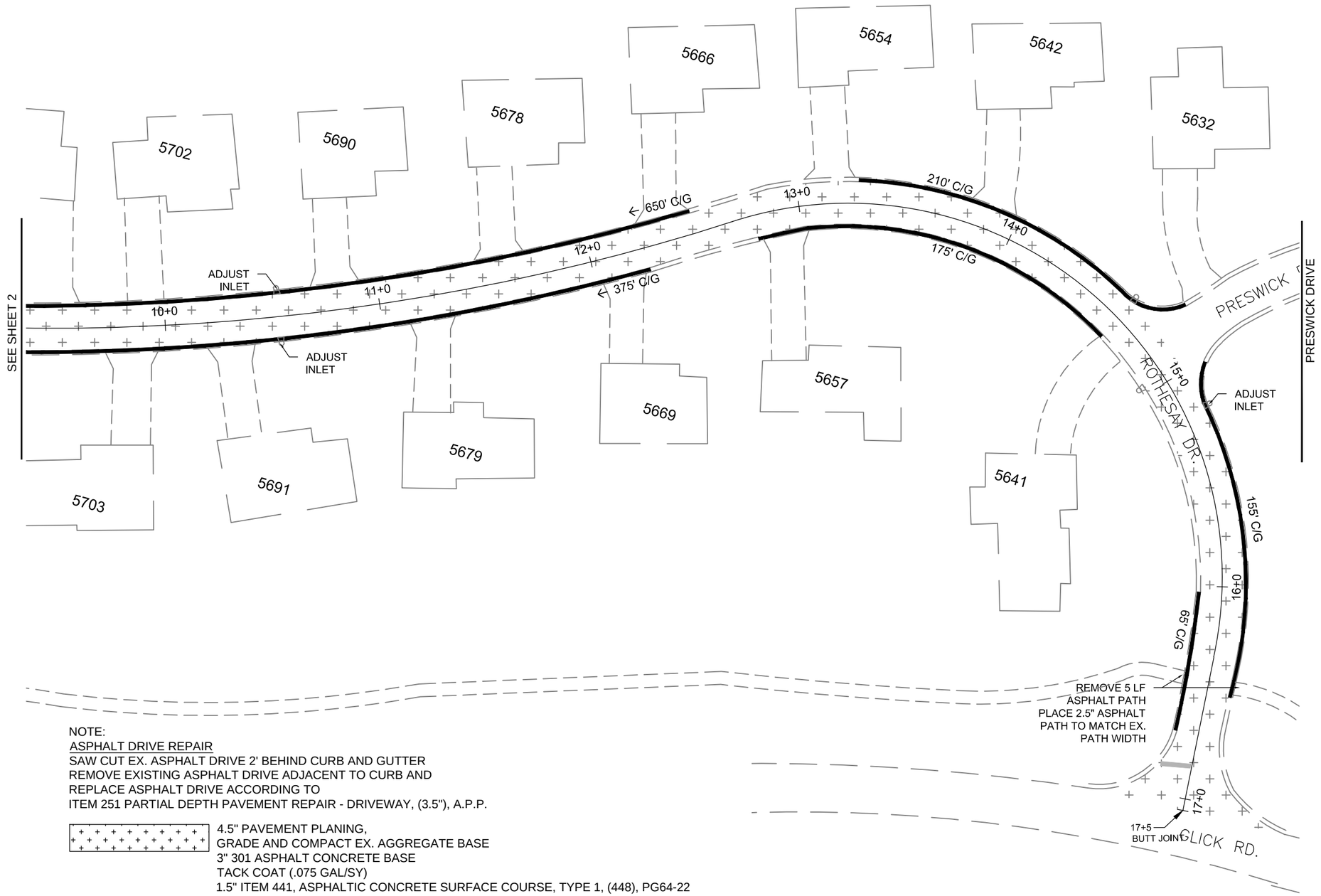

NOTE:
ASPHALT DRIVE REPAIR
SAW CUT EX. ASPHALT DRIVE 2' BEHIND CURB AND GUTTER
REMOVE EXISTING ASPHALT DRIVE ADJACENT TO CURB AND
REPLACE ASPHALT DRIVE ACCORDING TO
ITEM 251 PARTIAL DEPTH PAVEMENT REPAIR - DRIVEWAY, (3.5"), A.P.P.

4.5" PAVEMENT PLANING,
GRADE AND COMPACT EX. AGGREGATE BASE
3" 301 ASPHALT CONCRETE BASE
TACK COAT (.075 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

N

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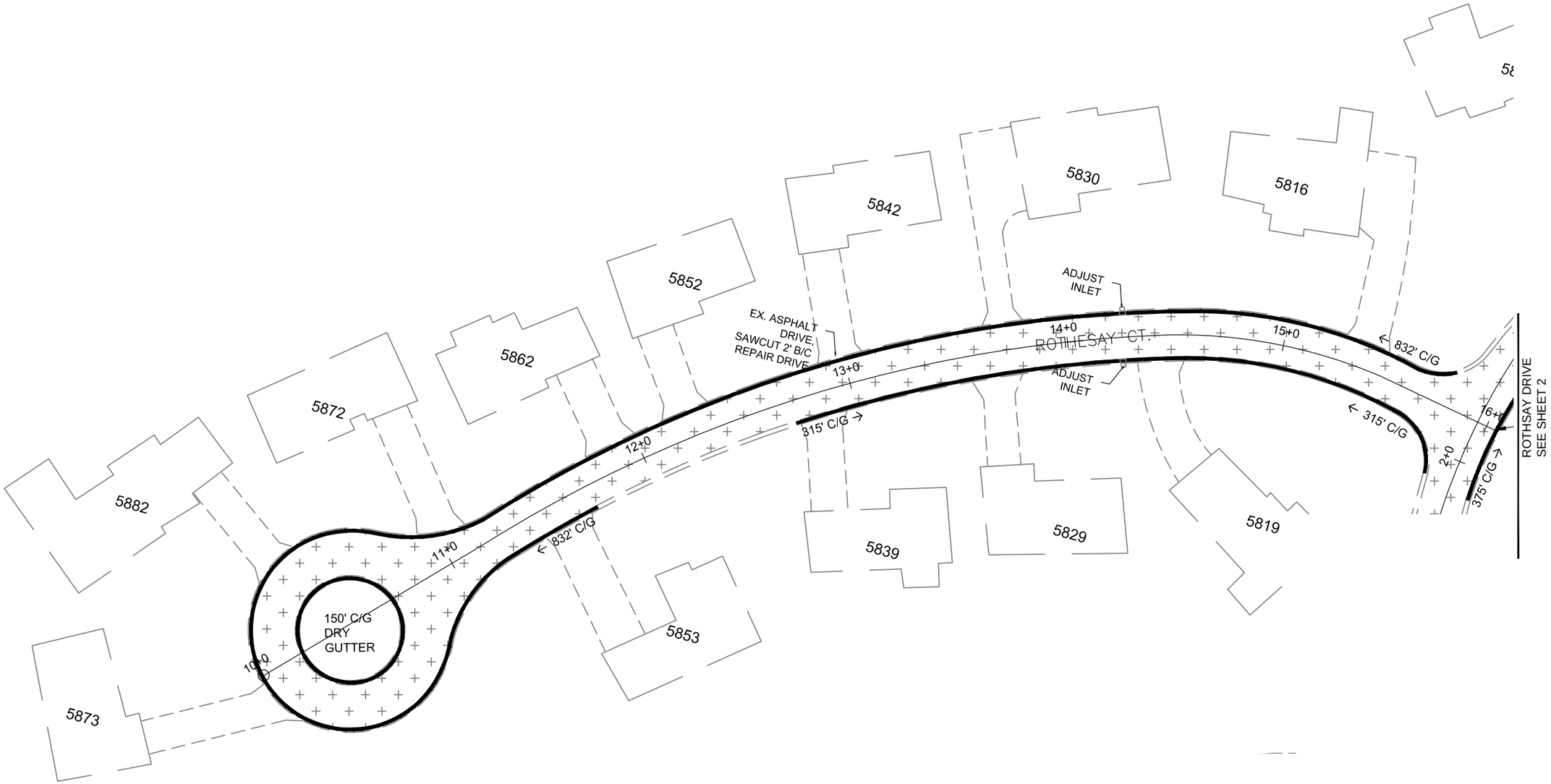
SCALE IN FEET

DRAWN BY DAL
REVISED NONE

ROTHESAY DRIVE
ROADWAY

16-001-CIP



NOTE:
ASPHALT DRIVE REPAIR
SAW CUT EX. ASPHALT DRIVE 2' BEHIND CURB AND GUTTER
REMOVE EXISTING ASPHALT DRIVE ADJACENT TO CURB AND
REPLACE ASPHALT DRIVE ACCORDING TO
ITEM 251 PARTIAL DEPTH PAVEMENT REPAIR - DRIVEWAY, (3.5"), A.P.P.

4.5" PAVEMENT PLANING,
GRADE AND COMPACT EX. AGGREGATE BASE
3" 301 ASPHALT CONCRETE BASE
TACK COAT (.075 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

N

0 25 50
SCALE IN FEET

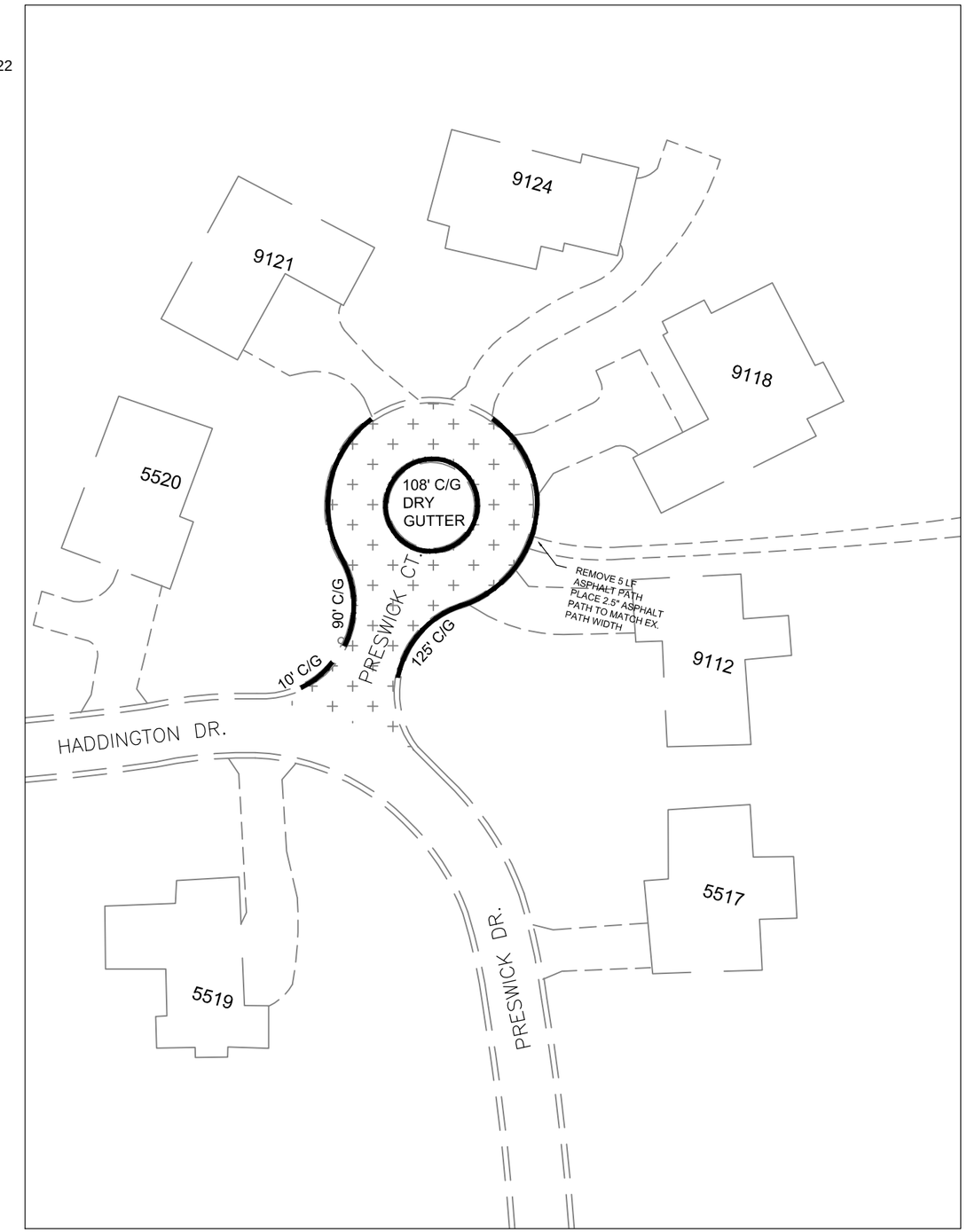
DRAWN BY: DAL
REVISED NONE

ROTHESAY COURT
ROADWAY

16-001-CIP

NOTE:
ASPHALT DRIVE REPAIR
SAW CUT EX. ASPHALT DRIVE 2' BEHIND CURB AND GUTTER
REMOVE EXISTING ASPHALT DRIVE ADJACENT TO CURB AND
REPLACE ASPHALT DRIVE ACCORDING TO
ITEM 251 PARTIAL DEPTH PAVEMENT REPAIR - DRIVEWAY, (3.5"), A.P.P.

4.5" PAVEMENT PLANING,
GRADE AND COMPACT EX. AGGREGATE BASE
3" 301 ASPHALT CONCRETE BASE
TACK COAT (.075 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22



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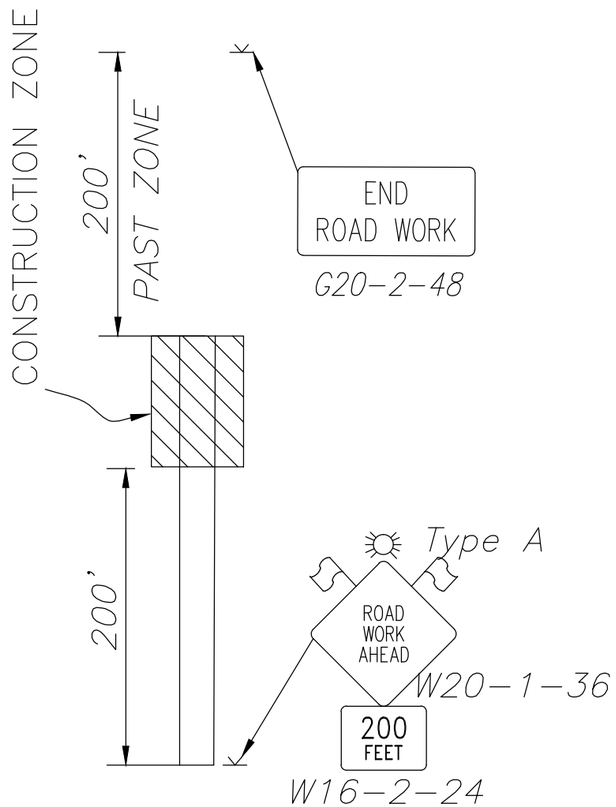
SCALE IN FEET

DRAWN BY: DAL
REVISED
NONE

PRESWICK COURT
ROADWAY

16-001-CIP



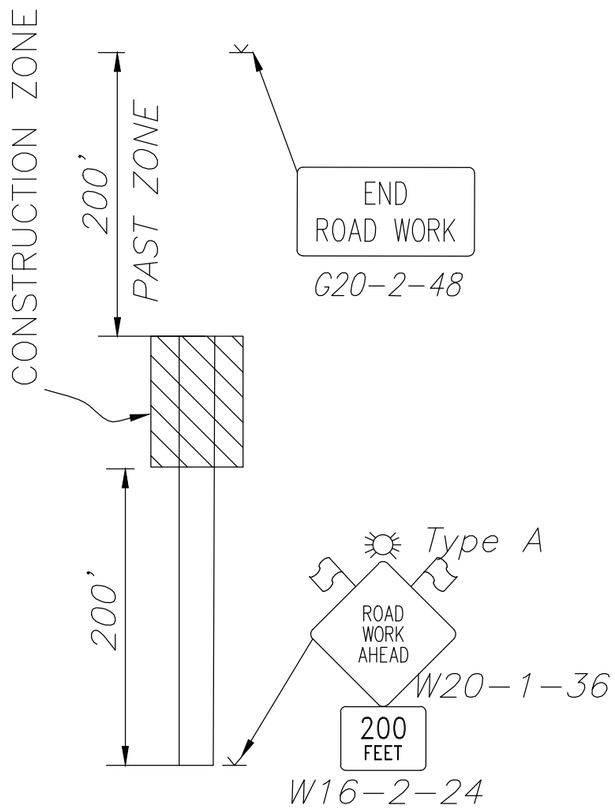
ADVANCE WARNING SIGNS FOR ROAD WORK
(Typical Both Directions)

	ROTHESAY DRIVE ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	2600
202	Bike Path Removed and Disposed of, A.P.P.	SY	13.5
254	Pavement Planing, 4.5",A.P.P.	SY	3984
301	Asphalt Concrete Base	TN	670
407	NTSS-1HM TracklessTack Coat	GAL	700
441	(Bikepath) Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	2
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	340
604	Structure- Adjust, Inlet, A.P.P.	EA	5
609	Combination Curb/Gutter, A.P.P.	LF	2600
614	Flagger	HR	24
644	Stop Bar, 24"	LF	45
653	Pulverized Topsoil, A.P.P.	CY	105
Special	Asphalt Rejuvenating Agent	SY	3984
Special	Curb Can Holes	EA	48
	ROTHESAY DRIVE ESTIMATED CONTINGENCY QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Concrete Removed & Disposed of, A.P.P.	SY	14.5
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	775
608	6" Conc. Walk w/ Agg. Base, A.P.P.	SF	130
609	Combination Curb/Gutter, A.P.P.	LF	775

DRAWN BY: DAL
REVISED NONE

ROTHESAY DRIVE
CONSTRUCTION NOTES AND ESTIMATED QUANTITIES

16-001-CIP



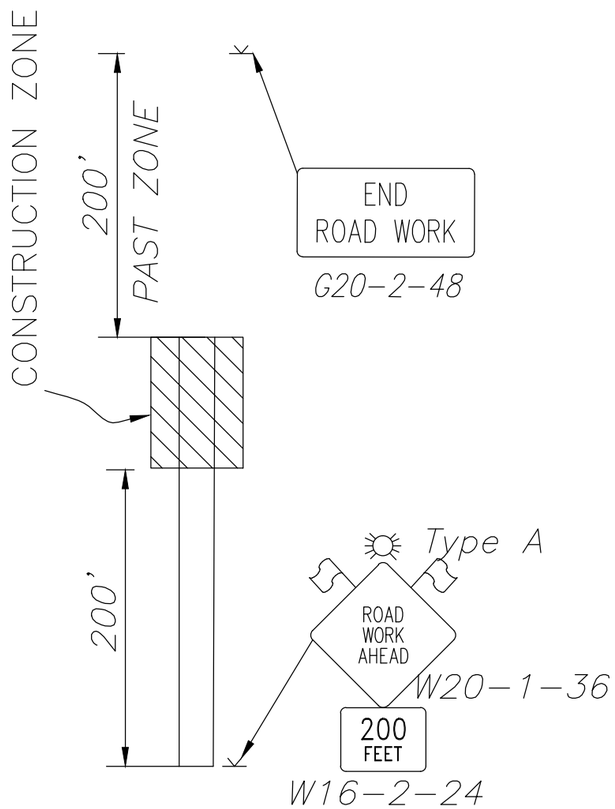
ADVANCE WARNING SIGNS FOR ROAD WORK
(Typical Both Directions)

	ROTHESAY COURT ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	1297
251	Partial Depth Pavement Repair - Driveway, (3.5"), A.P.P.	SY	5
254	Pavement Planing, 4.5",A.P.P.	SY	1569
301	Asphalt Concrete Base	TN	265
407	NTSS-1HM TracklessTack Coat	GAL	275
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	134
604	Structure- Adjust, Inlet, A.P.P.	EA	2
609	Combination Curb/Gutter, A.P.P.	LF	1297
614	Flagger	HR	8
653	Pulverized Topsoil, A.P.P.	CY	48
Special	Asphalt Rejuvenating Agent	SY	1569
Special	Curb Can Holes	EA	23

DRAWN BY: DAL
REVISED NONE

ROTHESAY COURT
CONSTRUCTION NOTES AND ESTIMATED QUANTITIES

16-001-CIP



ADVANCE WARNING SIGNS FOR ROAD WORK
(Typical Both Directions)

	PRESWICK COURT ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Bike Path Removed and Disposed of, A.P.P.	SY	4.5
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	333
254	Pavement Planing, 4.5",A.P.P.	SY	545
301	Asphalt Concrete Base	TN	94
407	NTSS-1HM TracklessTack Coat	GAL	94
441	(Bikepath) Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	0.7
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	47
609	Combination Curb/Gutter, A.P.P.	LF	333
653	Pulverized Topsoil, A.P.P.	CY	20
Special	Asphalt Rejuvenating Agent	SY	545
Special	Curb Can Holes	EA	7

DRAWN BY: DAL
REVISED NONE

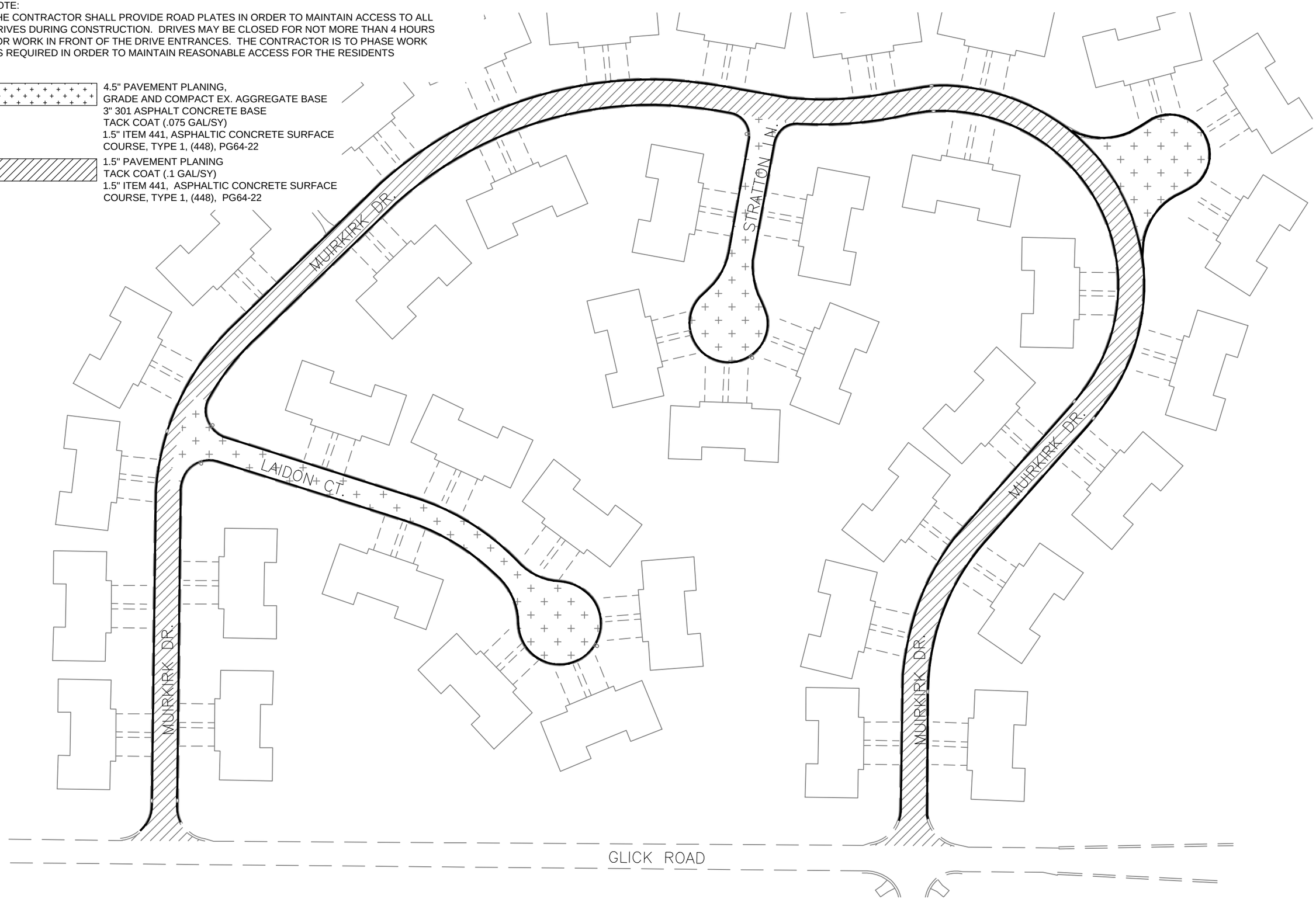
ROTHESAY COURT
CONSTRUCTION NOTES AND ESTIMATED QUANTITIES

16-001-CIP

NOTE:
THE CONTRACTOR SHALL PROVIDE ROAD PLATES IN ORDER TO MAINTAIN ACCESS TO ALL DRIVES DURING CONSTRUCTION. DRIVES MAY BE CLOSED FOR NOT MORE THAN 4 HOURS FOR WORK IN FRONT OF THE DRIVE ENTRANCES. THE CONTRACTOR IS TO PHASE WORK AS REQUIRED IN ORDER TO MAINTAIN REASONABLE ACCESS FOR THE RESIDENTS

4.5" PAVEMENT PLANING,
GRADE AND COMPACT EX. AGGREGATE BASE
3" 301 ASPHALT CONCRETE BASE
TACK COAT (.075 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

1.5" PAVEMENT PLANING
TACK COAT (.1 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22



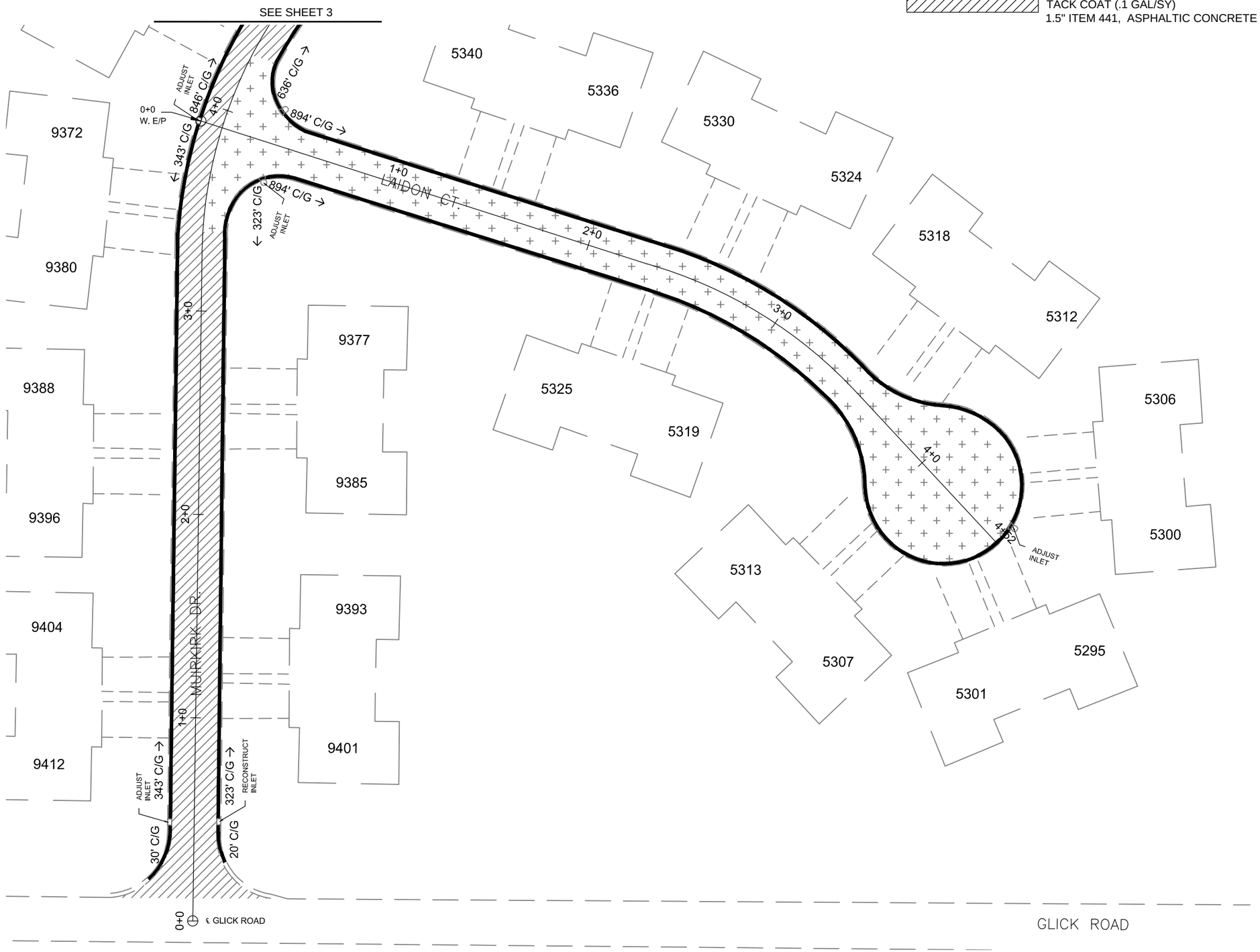
DRAWN BY: DAL
REVISED NONE

MUIRKIRK DRIVE AREA OVERVIEW MAP
OVERALL MAP

16-001-CIP

4.5" PAVEMENT PLANING,
GRADE AND COMPACT EX. AGGREGATE BASE
3" 301 ASPHALT CONCRETE BASE
TACK COAT (.075 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

1.5" PAVEMENT PLANING
TACK COAT (.1 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22



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0 25 50
SCALE IN FEET

DRAWN BY: DAL
REVISED NONE

MUIRKIRK DRIVE / LAIDON COURT
ROADWAY

16-001-CIP

4.5" PAVEMENT PLANING,
GRADE AND COMPACT EX. AGGREGATE BASE
3" 301 ASPHALT CONCRETE BASE
TACK COAT (.075 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

1.5" PAVEMENT PLANING
TACK COAT (.1 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

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SCALE IN FEET

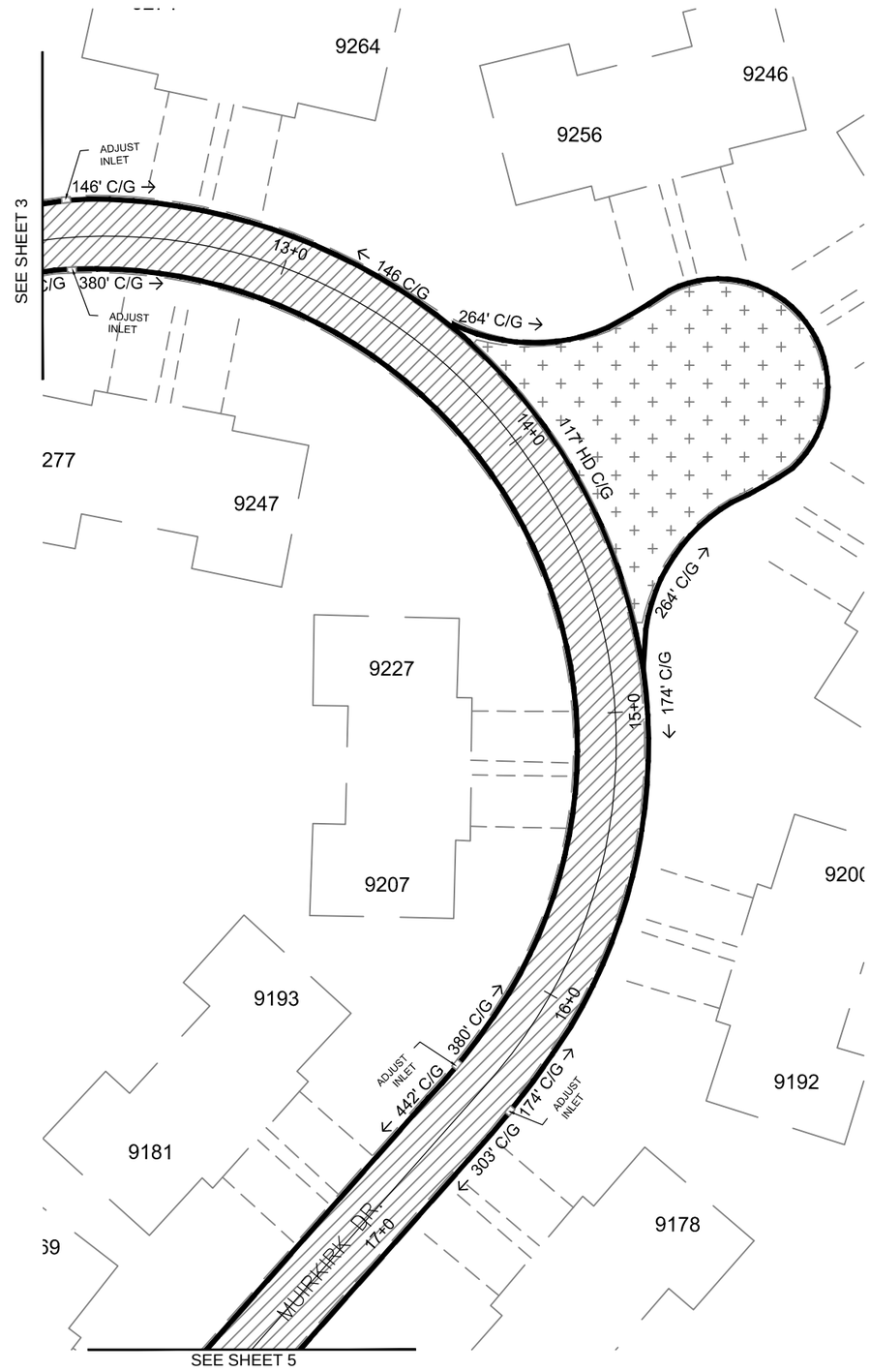
DRAWN BY DAL
REVISED NONE

MUIRKIRK DRIVE / STRATTON LANE
ROADWAY

16-001-CIP

4.5" PAVEMENT PLANING,
GRADE AND COMPACT EX. AGGREGATE BASE
3" 301 ASPHALT CONCRETE BASE
TACK COAT (.075 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

1.5" PAVEMENT PLANING
TACK COAT (.1 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22



SCALE IN FEET 0 25 50

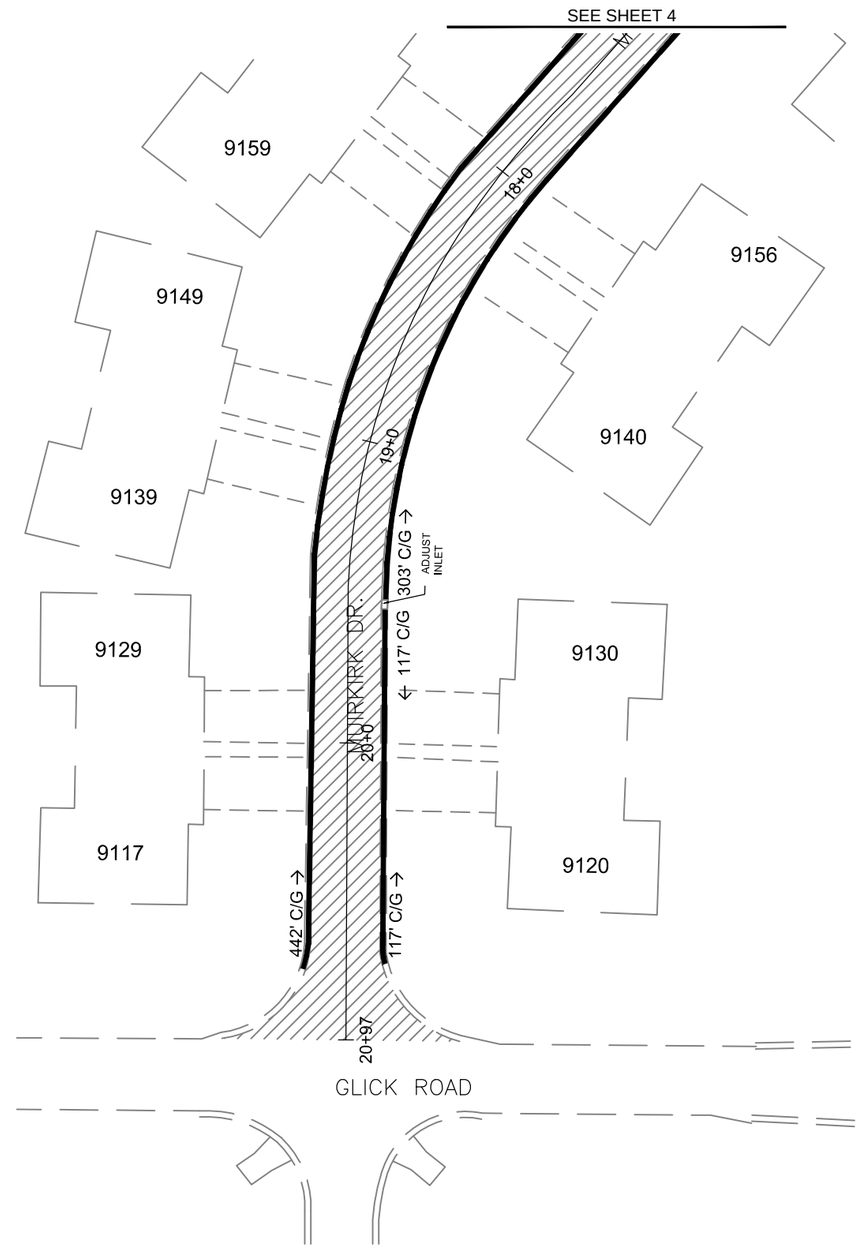
DRAWN BY DAL
REVISED NONE

MUIRKIRK DRIVE
ROADWAY

16-001-CIP

4.5" PAVEMENT PLANING,
GRADE AND COMPACT EX. AGGREGATE BASE
3" 301 ASPHALT CONCRETE BASE
TACK COAT (.075 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

1.5" PAVEMENT PLANING
TACK COAT (.1 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22



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SCALE IN FEET

DRAWN BY: DAL
REVISED NONE

MUIRKIRK DRIVE
ROADWAY

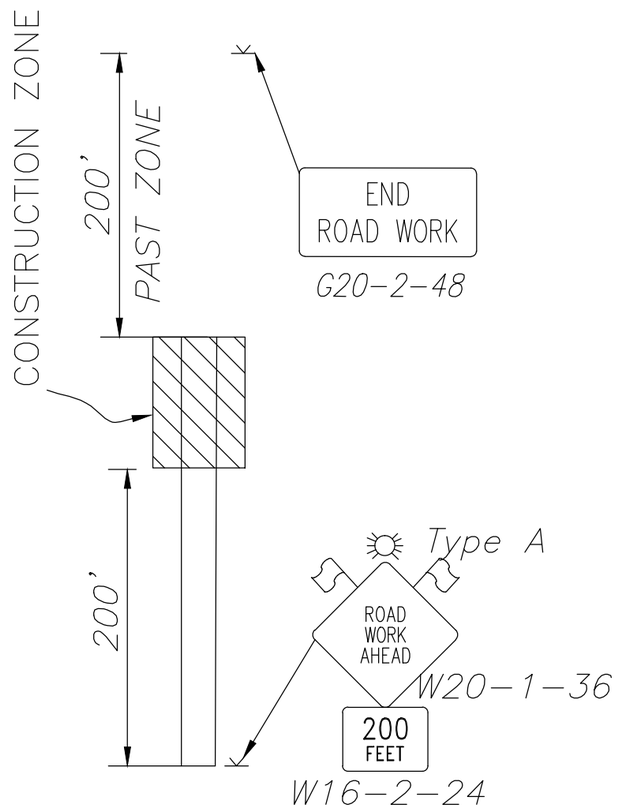
16-001-CIP

NONE

DRAWN BY: DAL
REVISED NONE

MUIRKIRK DRIVE AREA
TRAFFIC AND STIPING

16-001-CIP



ADVANCE WARNING SIGNS FOR ROAD WORK
(Typical Both Directions)

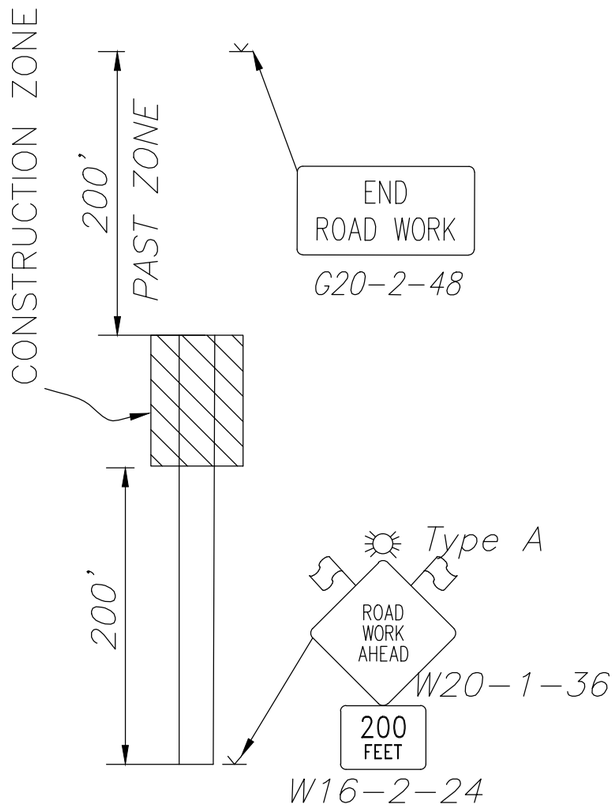
	MUIRKIRK DRIVE ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Bike Path Removed and Disposed of, A.P.P.	SY	4.5
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	4141
251	Partial Depth Pavement Repair - Driveway, (3.5"), A.P.P.	SY	300
254	Pavement Planing, 1.5", A.P.P.	SY	5206
254	Pavement Planing, 4.5",A.P.P.	SY	732
301	Asphalt Concrete Base	TN	124
407	NTSS-1HM TracklessTack Coat	GAL	575
441	(Bikepath) Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	0.7
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	500
604	Structure- Adjust, Inlet, A.P.P.	EA	7
604	Structure- Reconstruct/Adjust CB/Inlet, A.P.P.	EA	1
609	Combination Curb/Gutter, A.P.P.	LF	4024
609	Combination Curb/Gutter, Heavy Duty, A.P.P.	LF	117
614	Flagger	HR	60
644	Stop Bar, 24"	LF	29
653	Pulverized Topsoil, A.P.P.	CY	177
Special	Asphalt Rejuvenating Agent	SY	5938
Special	Curb Can Holes	EA	112

NOTE:
THE CONTRACTOR SHALL PROVIDE ROAD PLATES IN ORDER TO MAINTAIN ACCESS TO ALL DRIVES DURING CONSTRUCTION. DRIVES MAY BE CLOSED FOR NOT MORE THAN 4 HOURS FOR WORK IN FRONT OF THE DRIVE ENTRANCES. THE CONTRACTOR IS TO PHASE WORK AS REQUIRED IN ORDR TO MAINTAIN REASONABLE ACCESS FOR THE RESIDENTS

DRAWN BY: DAL
REVISED NONE

MUIRKIRK DRIVE
CONSTRUCTION NOTES AND ESTIMATED QUANTITIES

16-001-CIP



ADVANCE WARNING SIGNS FOR ROAD WORK
(Typical Both Directions)

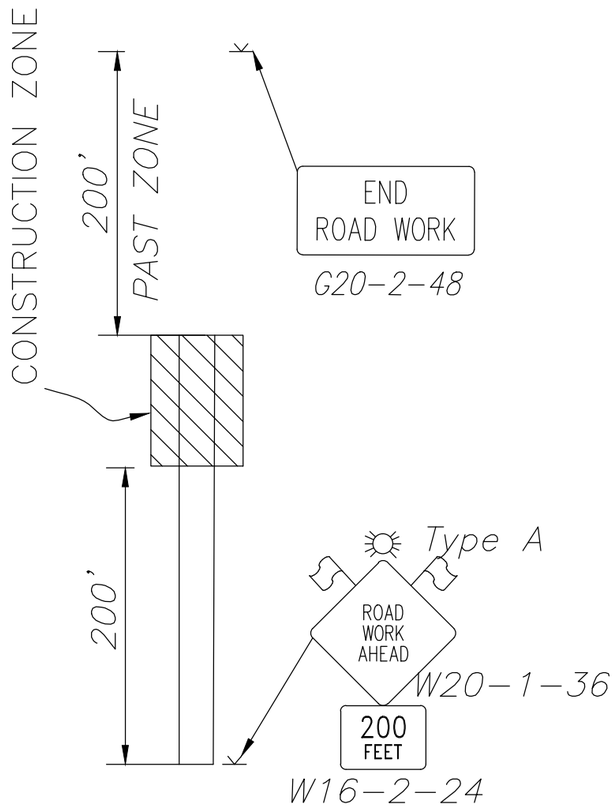
	LAIDON COURT ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	894
251	Partial Depth Pavement Repair - Driveway, (3.5"), A.P.P.	SY	70
254	Pavement Planing, 4.5",A.P.P.	SY	1546
301	Asphalt Concrete Base	TN	260
407	NTSS-1HM TracklessTack Coat	GAL	250
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	130
604	Structure- Adjust, Inlet, A.P.P.	EA	2
609	Combination Curb/Gutter, A.P.P.	LF	894
614	Flagger	HR	9
653	Pulverized Topsoil, A.P.P.	CY	34
Special	Asphalt Rejuvenating Agent	SY	1442
Special	Curb Can Holes	EA	28

NOTE:
THE CONTRACTOR SHALL PROVIDE ROAD PLATES IN ORDER TO MAINTAIN ACCESS TO ALL DRIVES DURING CONSTRUCTION. DRIVES MAY BE CLOSED FOR NOT MORE THAN 4 HOURS FOR WORK IN FRONT OF THE DRIVE ENTRANCES. THE CONTRACTOR IS TO PHASE WORK AS REQUIRED IN ORDR TO MAINTAIN REASONABLE ACCESS FOR THE RESIDENTS

DRAWN BY: DAL
REVISED NONE

LAIDON COURT
CONSTRUCTION NOTES AND ESTIMATED QUANTITIES

16-001-CIP



ADVANCE WARNING SIGNS FOR ROAD WORK
(Typical Both Directions)

	STRATTON LANE ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	503
251	Partial Depth Pavement Repair - Driveway, (3.5"), A.P.P.	SY	40
254	Pavement Planing, 4.5",A.P.P.	SY	890
301	Asphalt Concrete Base	TN	152
407	NTSS-1HM TracklessTack Coat	GAL	155
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	76
604	Structure- Adjust, Inlet, A.P.P.	EA	2
609	Combination Curb/Gutter, A.P.P.	LF	503
614	Flagger	HR	9
653	Pulverized Topsoil, A.P.P.	CY	19
Special	Asphalt Rejuvenating Agent	SY	890
Special	Curb Can Holes	EA	20

NOTE:
THE CONTRACTOR SHALL PROVIDE ROAD PLATES IN ORDER TO MAINTAIN ACCESS TO ALL DRIVES DURING CONSTRUCTION. DRIVES MAY BE CLOSED FOR NOT MORE THAN 4 HOURS FOR WORK IN FRONT OF THE DRIVE ENTRANCES. THE CONTRACTOR IS TO PHASE WORK AS REQUIRED IN ORDR TO MAINTAIN REASONABLE ACCESS FOR THE RESIDENTS

DRAWN BY: DAL
REVISED NONE

STRATTON LANE
CONSTRUCTION NOTES AND ESTIMATED QUANTITIES

16-001-CIP

4.5" PAVEMENT PLANING,
GRADE AND COMPACT EX. AGGREGATE BASE
3" 301 ASPHALT CONCRETE BASE
TACK COAT (.075 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

N

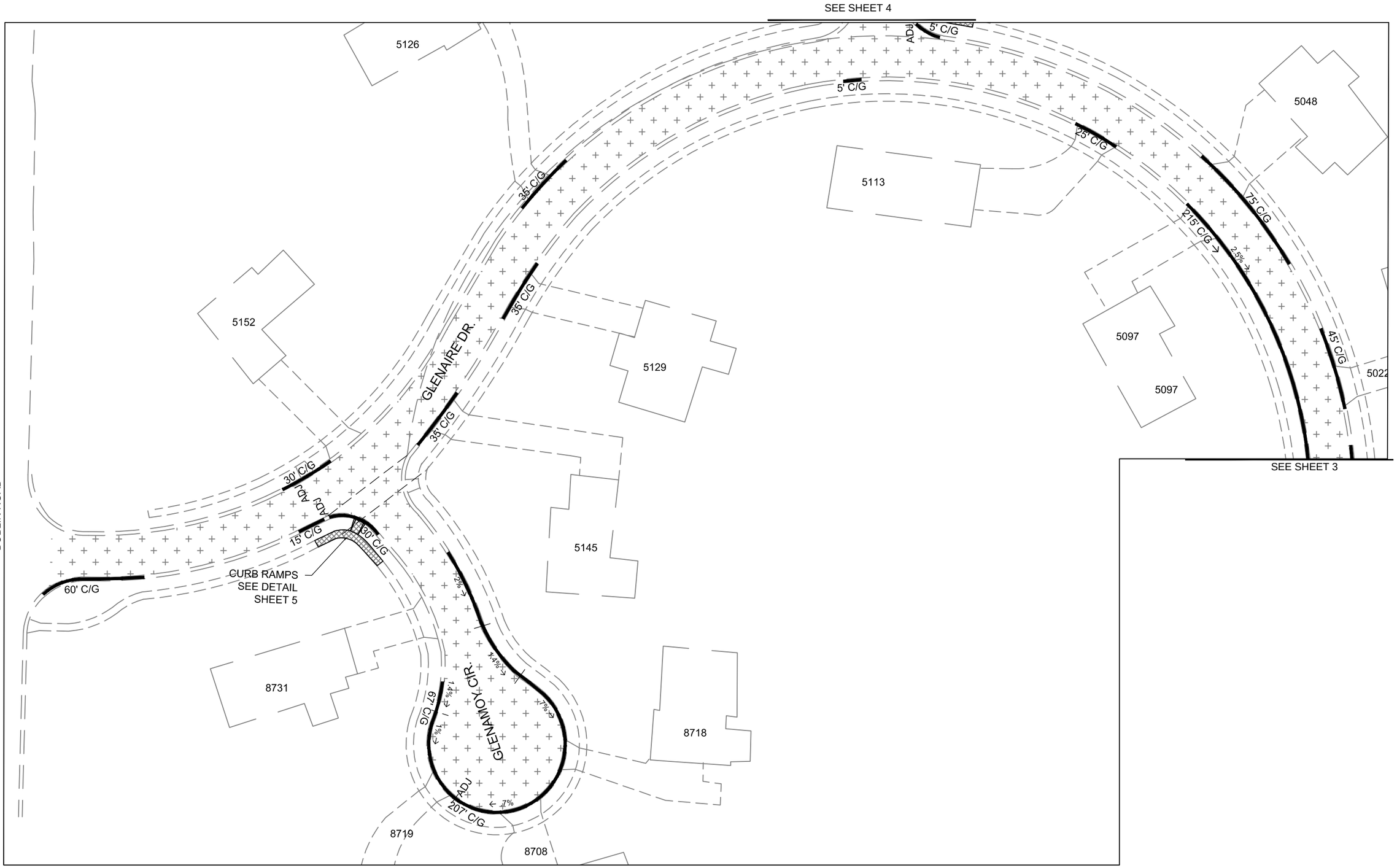
0 NONE

DRAWN BY: DAL
REVISED NONE

GLENAIRE SUBDIVISION
OVERALL MAP

16-001-CIP

4.5" PAVEMENT PLANING,
GRADE AND COMPACT EX. AGGREGATE BASE
3" 301 ASPHALT CONCRETE BASE
TACK COAT (.075 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22



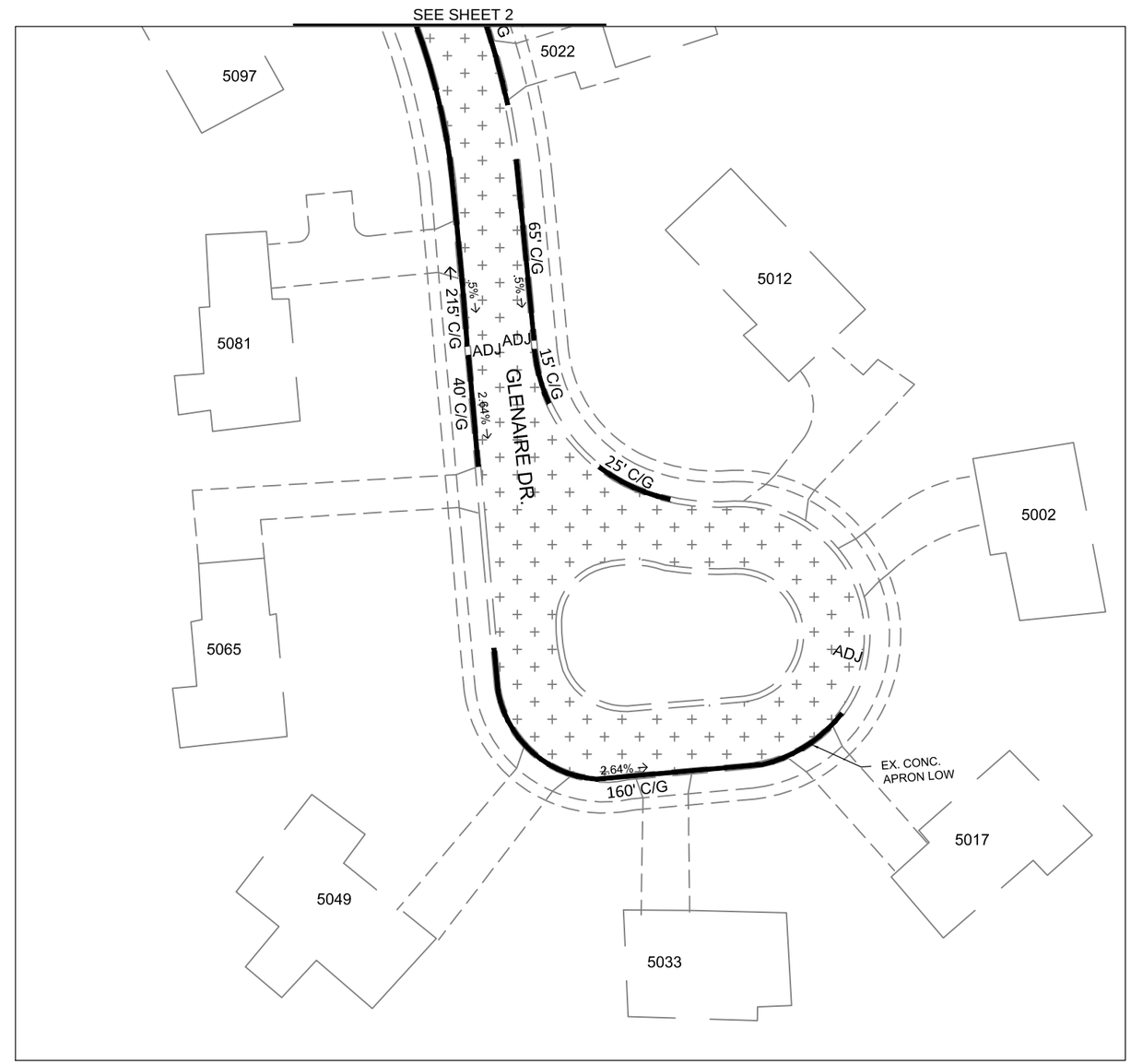
SCALE IN FEET 0 25 50

DRAWN BY: DAL
REVISED NONE

GLENAIRE DRIVE / GLANAMOY CIRCLE
ROADWAY

16-001-CIP

4.5" PAVEMENT PLANING,
GRADE AND COMPACT EX. AGGREGATE BASE
3" 301 ASPHALT CONCRETE BASE
TACK COAT (.075 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22



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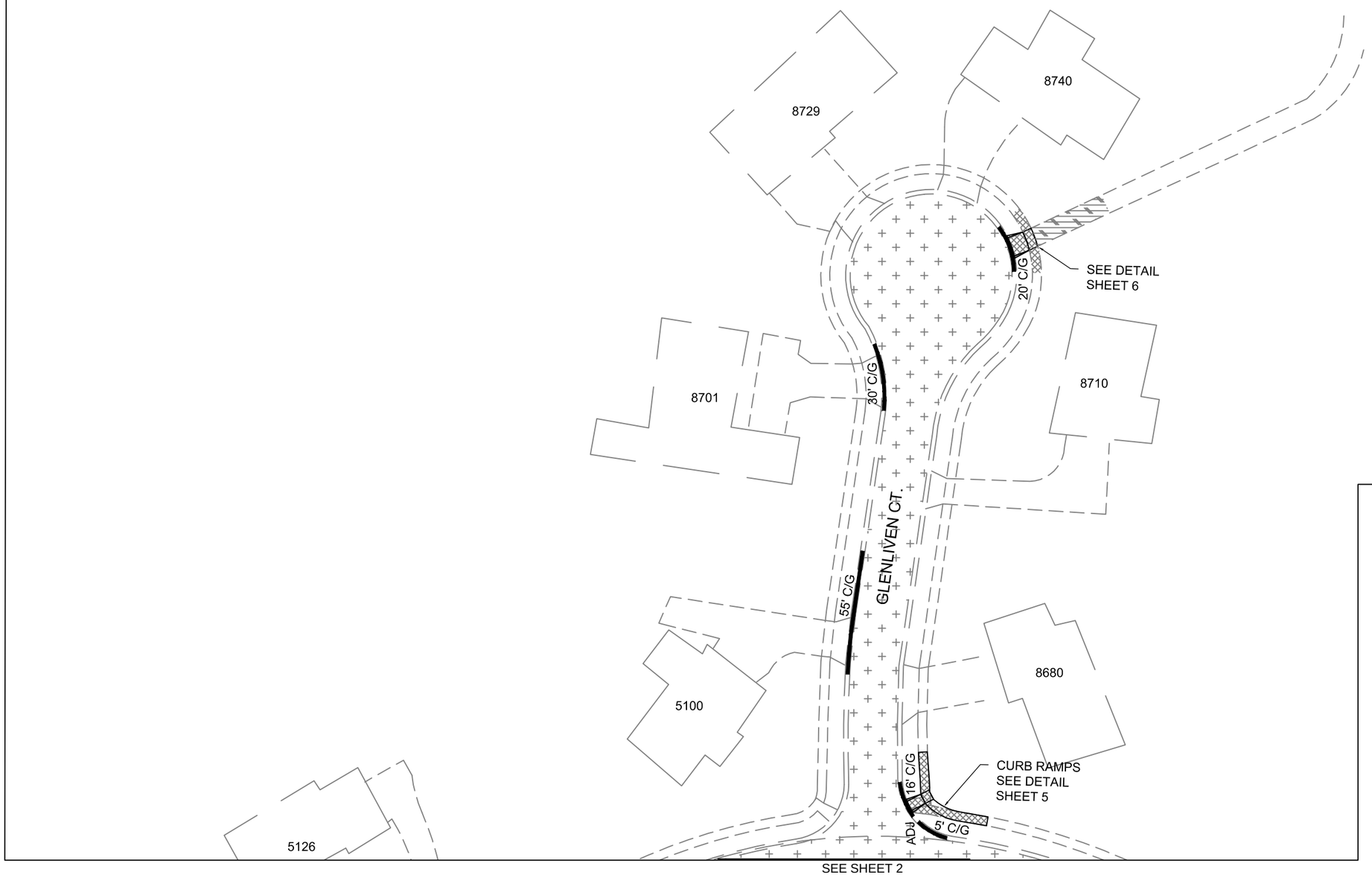
SCALE IN FEET

DRAWN BY: DAL
REVISED NONE

GLENAIRE DRIVE
ROADWAY

16-001-CIP

4.5" PAVEMENT PLANING,
GRADE AND COMPACT EX. AGGREGATE BASE
3" 301 ASPHALT CONCRETE BASE
TACK COAT (.075 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22



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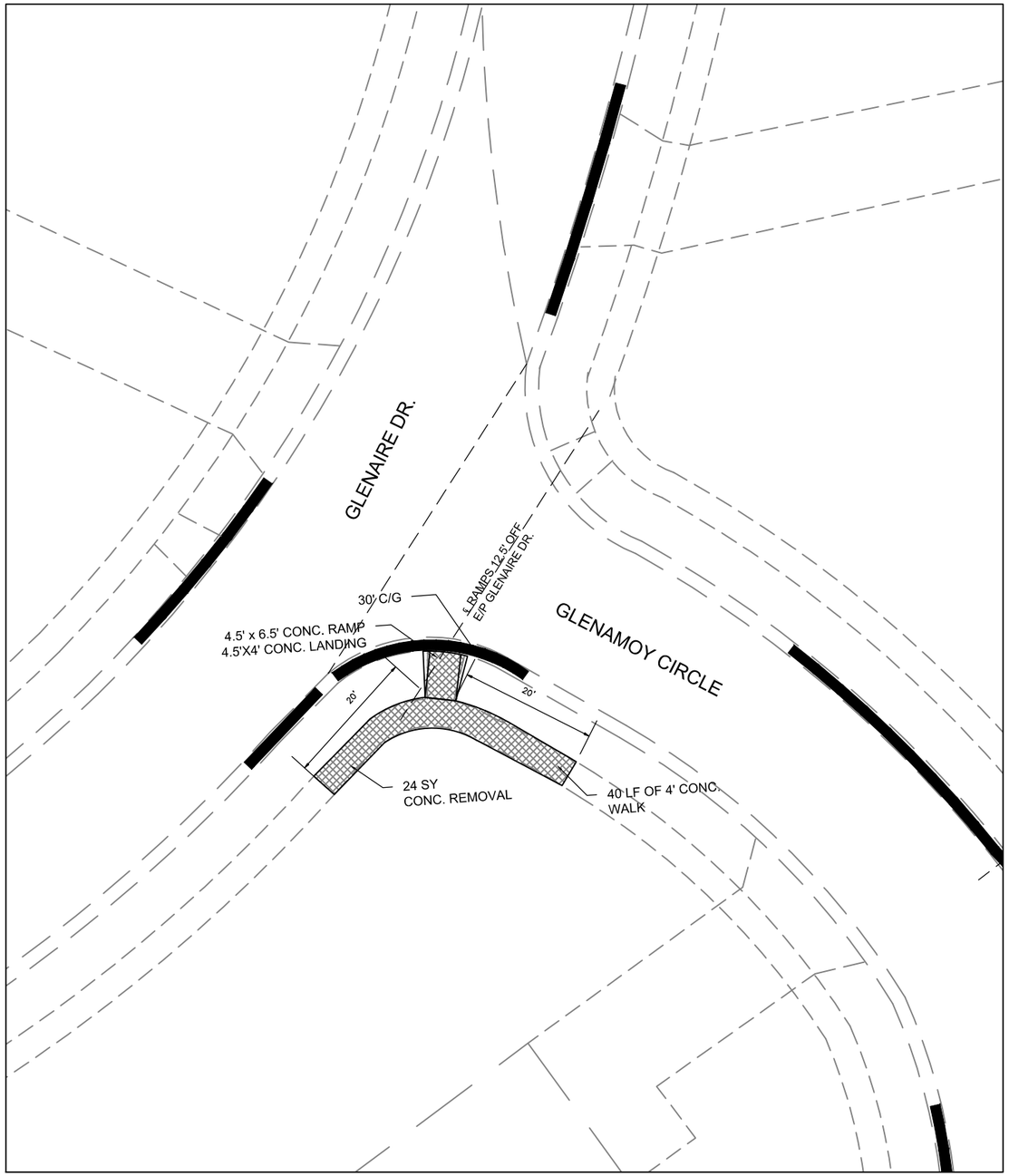
SCALE IN FEET

DRAWN BY: DAL
REVISED NONE

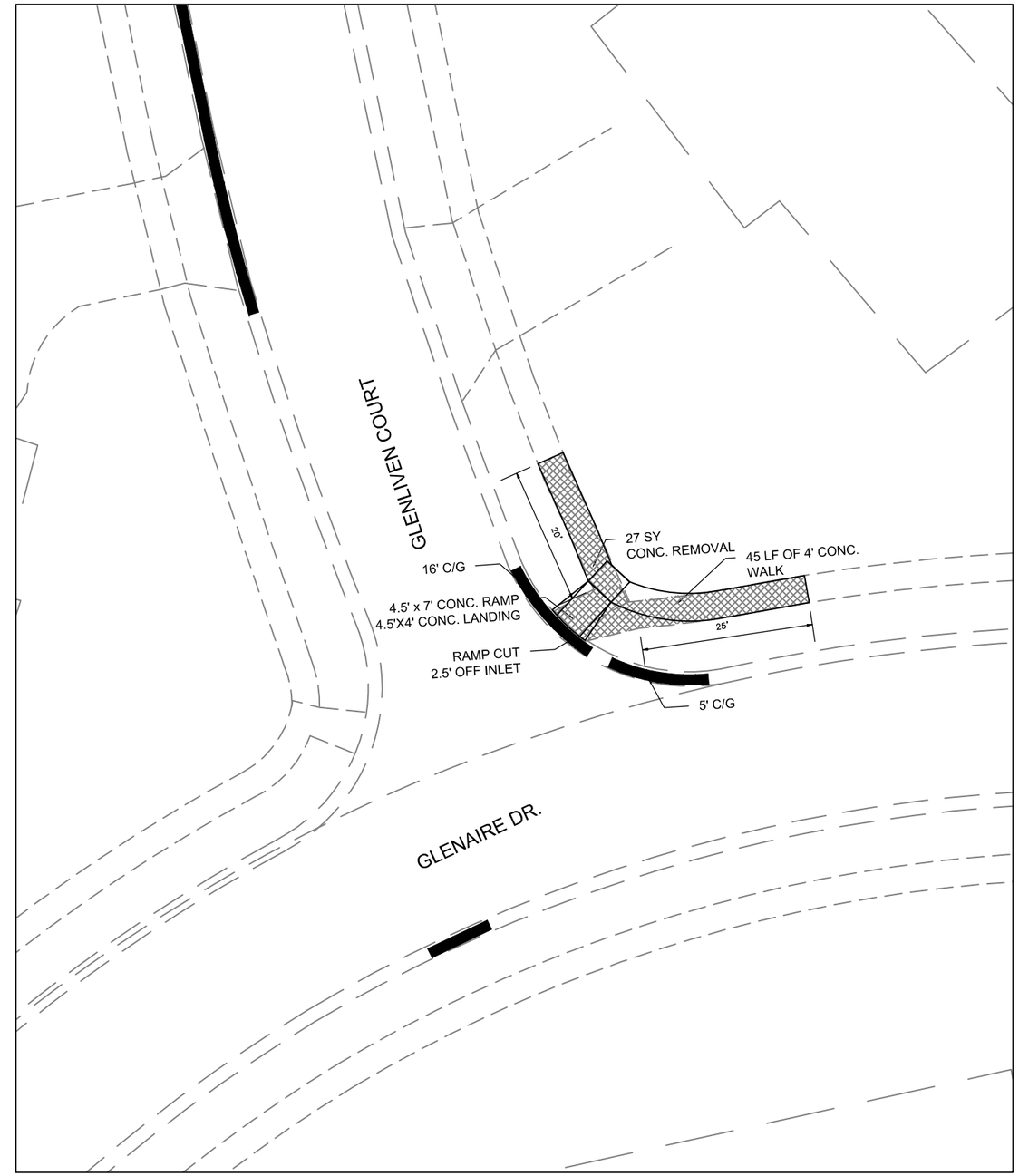
GLENLIVEN COURT
ROADWAY

16-001-CIP



GLENAMOY CIRCLE @ GLENAIRE DRIVE
BIKE PATH AND CURB RAMP CONSTRUCTION DETAILS

REMOVE AND DISPOSE OF EXISTING
CONCRETE RAMP WITHIN LIMITS



GLENLIVEN COURT @ GLENAIRE DRIVE
BIKE PATH AND CURB RAMP CONSTRUCTION DETAILS

REMOVE AND DISPOSE OF EXISTING
CONCRETE RAMP WITHIN LIMITS

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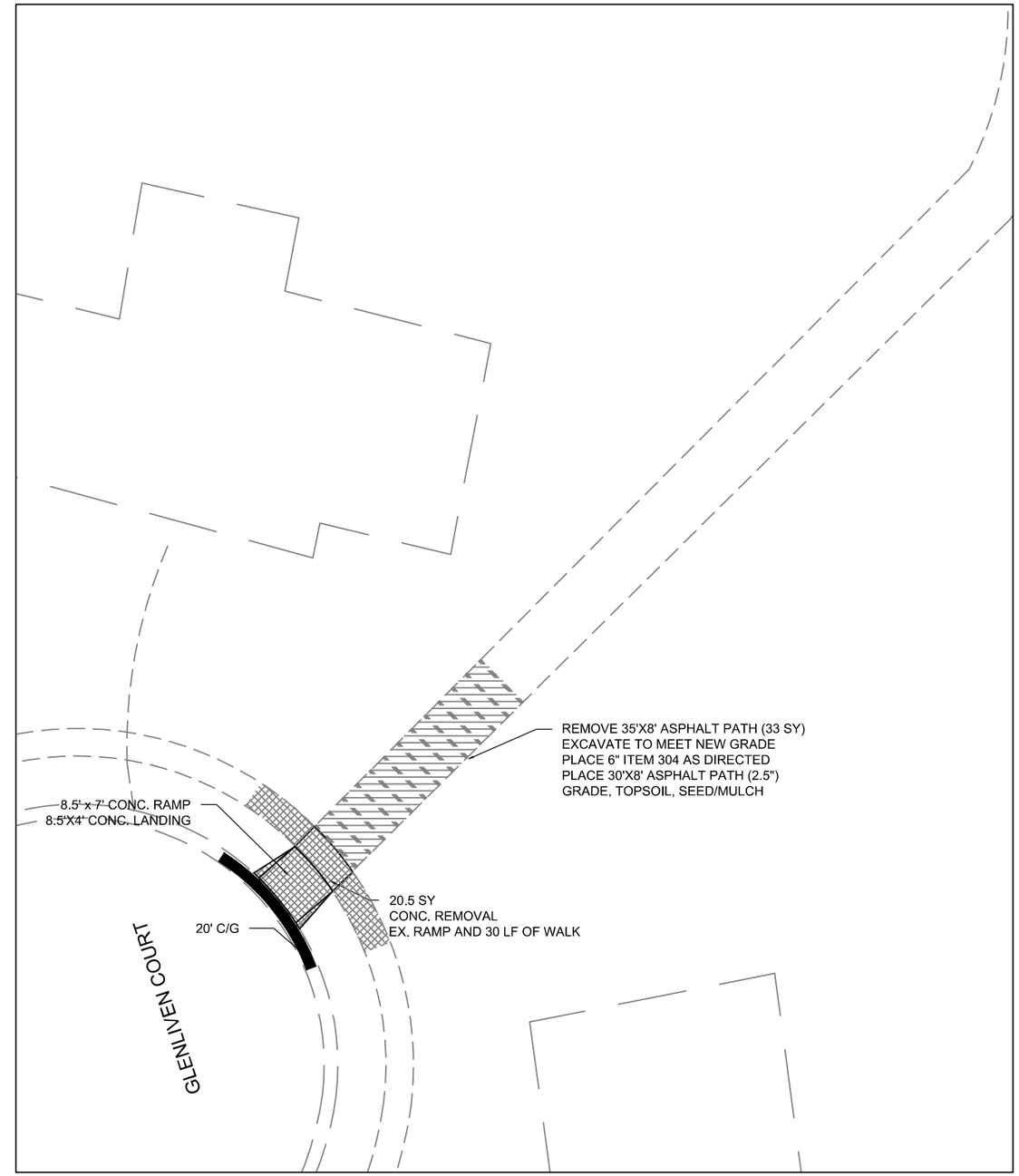
SCALE IN FEET

DRAWN BY DAL
REVISED NONE

BIKE PATH DETAILS
GLENAMOY CIRCLE AND GLENLIVEN COURT

16-001-CIP



BIKE PATH AND CURB RAMP CONSTRUCTION DETAILS
GLENLIVEN COURT

REMOVE AND DISPOSE OF EXISTING CONCRETE RAMP WITHIN LIMITS

REMOVE AND DISPOSE OF EXISTING ASPHALT BIKEPATH WITHIN LIMITS
EXCAVATE, GRADE, PLACE 2.5" ASPHALT SURFACE OVER 6" ITEM 304 BASE

N

0 10 20
SCALE IN FEET

DRAWN BY: DAL
REVISED: NONE

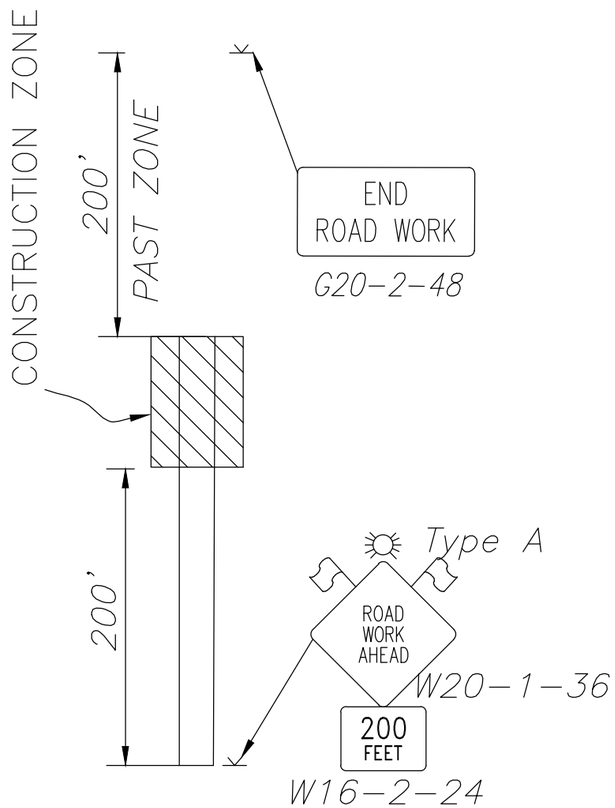
BIKE PATH DETAILS
GLENLIVEN COURT BIKE PATH CONNECTION

16-001-CIP

DRAWN BY: DAL
REVISED NONE

GLENAIRE SUBDIVISION
TRAFFIC AND STRIPING

16-001-CIP



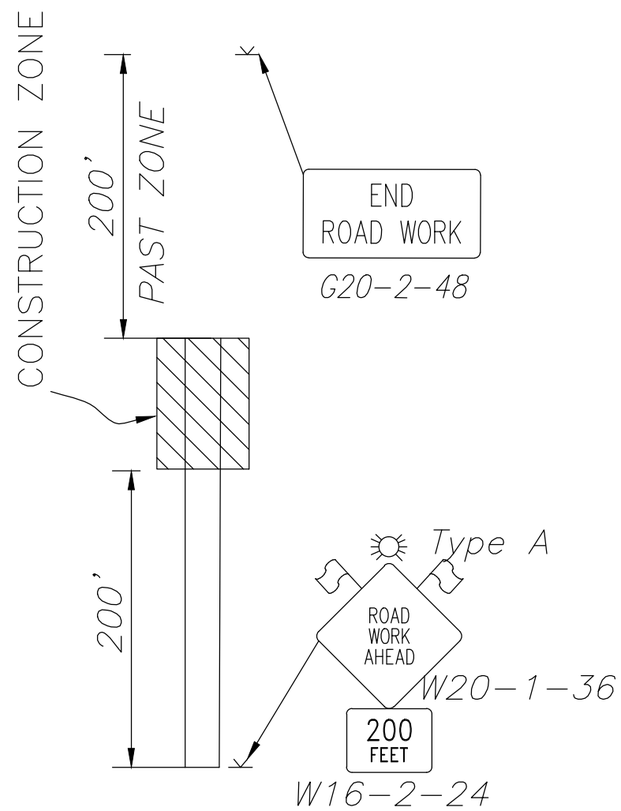
ADVANCE WARNING SIGNS FOR ROAD WORK
(Typical Both Directions)

	GLENAIRE DRIVE ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	900
254	Pavement Planing, 4.5",A.P.P.	SY	3855
301	Asphalt Concrete Base	TN	650
407	NTSS-1HM TracklessTack Coat	GAL	290
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	325
604	Structure- Adjust, Inlet, A.P.P.	EA	5
609	Combination Curb/Gutter, A.P.P.	LF	900
614	Flagger	HR	24
644	Stop Bar, 24"	LF	12
653	Pulverized Topsoil, A.P.P.	CY	35
Special	Asphalt Rejuvenating Agent	SY	3855
Special	Curb Can Holes	EA	20

DRAWN BY: DAL
REVISED NONE

GLENAIRE DRIVE
CONSTRUCTION NOTES AND ESTIMATED QUANTITIES

16-001-CIP



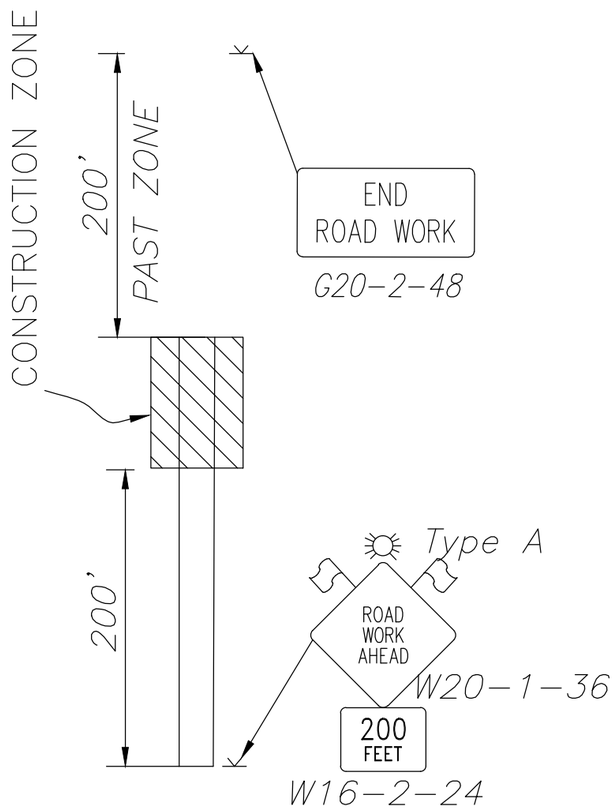
ADVANCE WARNING SIGNS FOR ROAD WORK
(Typical Both Directions)

	GLENAMOY CIRCLE ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	304
202	Concrete Removed & Disposed of, A.P.P.	SY	24
254	Pavement Planing, 4.5",A.P.P.	SY	785
301	Asphalt Concrete Base	TN	136
407	NTSS-1HM TracklessTack Coat	GAL	60
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	66
604	Structure- Adjust, Inlet, A.P.P.	EA	1
608	4" Conc. Walk w/ Agg. Base, A.P.P.	SF	178
608	Curb Ramp, 6" Conc. w/Agg. Base, A.P.P.	SF	42
609	Combination Curb/Gutter, A.P.P.	LF	304
614	Flagger	HR	9
653	Pulverized Topsoil, A.P.P.	CY	16
659	Vegetation (Seed/Mulch), A.P.P.	SY	40
Special	Asphalt Rejuvenating Agent	SY	785
Special	Curb Can Holes	EA	9
Special	Detectable Warning Panel, Type A	EA	2
	GLENAMOY COURT ESTIMATED CONTINGENCY QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Concrete Removed & Disposed of, A.P.P.	SY	40
608	6" Conc. Walk w/ Agg. Base, A.P.P.	SF	360
	* Curb Ramp, Walk Quantities: Glenamoy Circle @ Glenaire Drive		

DRAWN BY: DAL
REVISED NONE

GLENAMOY CIRCLE
CONSTRUCTION NOTES AND ESTIMATED QUANTITIES

16-001-CIP



ADVANCE WARNING SIGNS FOR ROAD WORK
(Typical Both Directions)

	GLENLIVEN COURT ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	121
202	Concrete Removed & Disposed of, A.P.P.	SY	47.5
202	Bike Path Removed and Disposed of, A.P.P.	SY	35
254	Pavement Planing, 4.5",A.P.P.	SY	1029
301	Asphalt Concrete Base	TN	176
407	NTSS-1HM TracklessTack Coat	GAL	75
441	(Bikepath) Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	6
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	90
604	Structure- Adjust, Inlet, A.P.P.	EA	1
608	4" Conc. Walk w/ Agg. Base, A.P.P.	SF	314
608	Curb Ramp, 6" Conc. w/Agg. Base, A.P.P.	SF	290
609	Combination Curb/Gutter, A.P.P.	LF	121
614	Flagger	HR	9
653	Pulverized Topsoil, A.P.P.	CY	13
659	Vegetation (Seed/Mulch), A.P.P.	SY	40
Special	Asphalt Rejuvenating Agent	SY	1029
Special	Curb Can Holes	EA	4
Special	Detectable Warning Panel, Type A	EA	6
	* Curb Ramp, Walk Quantities: Glenliven Court @ Glenaire Drive,		
	* Curb Ramp, Path Quantities: Glenliven Court		

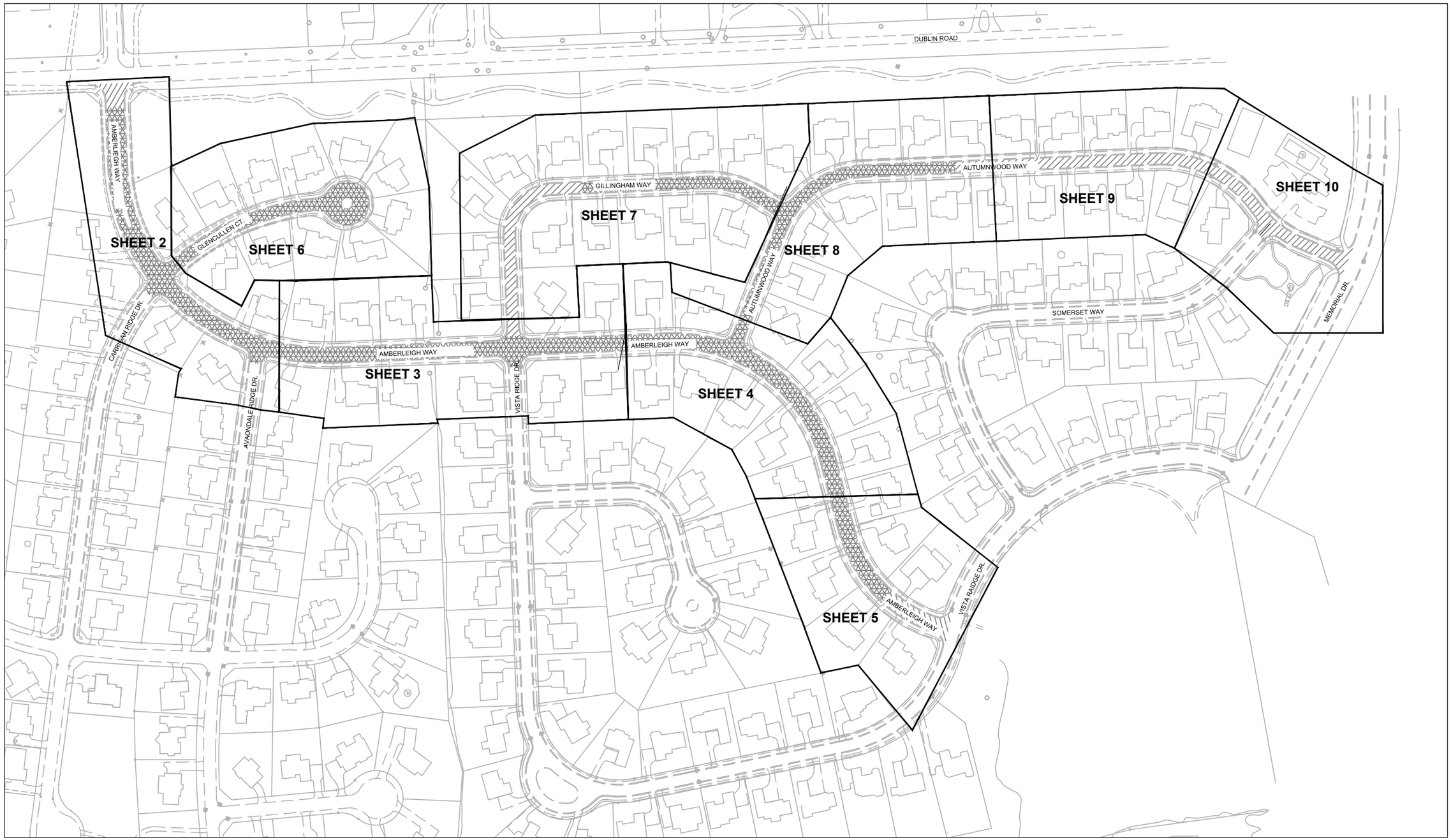
DRAWN BY: DAL
REVISED NONE

GLENLIVEN COURT
CONSTRUCTION NOTES AND ESTIMATED QUANTITIES

16-001-CIP

ITEM 254 PAVEMENT PLANING, 3" A.P.P.
TRACKLESS TACK COAT (.1 GAL/SY)
1.75" ITEM 441 ASPHALTIC CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), PG64-22
TRACKLESS TACK COAT (.075 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

ITEM 254 PAVEMENT PLANING, 1.5" A.P.P.
TRACKLESS TACK COAT (.1 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22



NONE

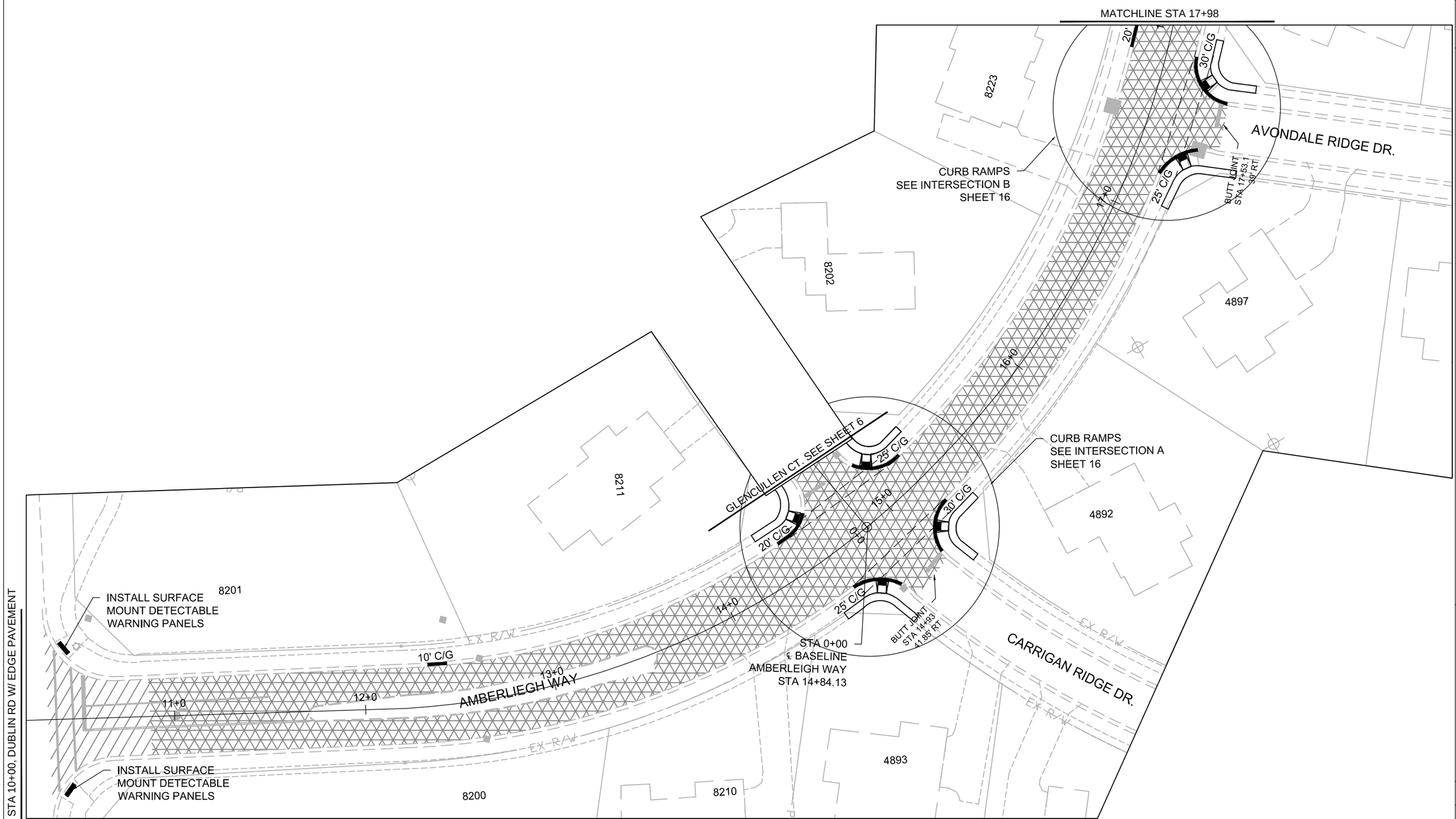
DRAWN BY: DAL
REVISED NONE

AMBERLEIGH SUBDIVISION
OVERALL MAP

16-001-CIP

ITEM 254 PAVEMENT PLANING, 3" A.P.P.
TRACKLESS TACK COAT (.1 GAL/SY)
1.75" ITEM 441 ASPHALTIC CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), PG64-22
TRACKLESS TACK COAT (.075 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

ITEM 254 PAVEMENT PLANING, 1.5" A.P.P.
TRACKLESS TACK COAT (.1 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22



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SCALE IN FEET

DRAWN BY DAL
REVISED NONE

AMBERLEIGH WAY
ROADWAY

16-001-CIP

ITEM 254 PAVEMENT PLANING, 3" A.P.P.
TRACKLESS TACK COAT (.1 GAL/SY)
1.75" ITEM 441 ASPHALTIC CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), PG64-22
TRACKLESS TACK COAT (.075 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

ITEM 254 PAVEMENT PLANING, 1.5" A.P.P.
TRACKLESS TACK COAT (.1 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

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SCALE IN FEET

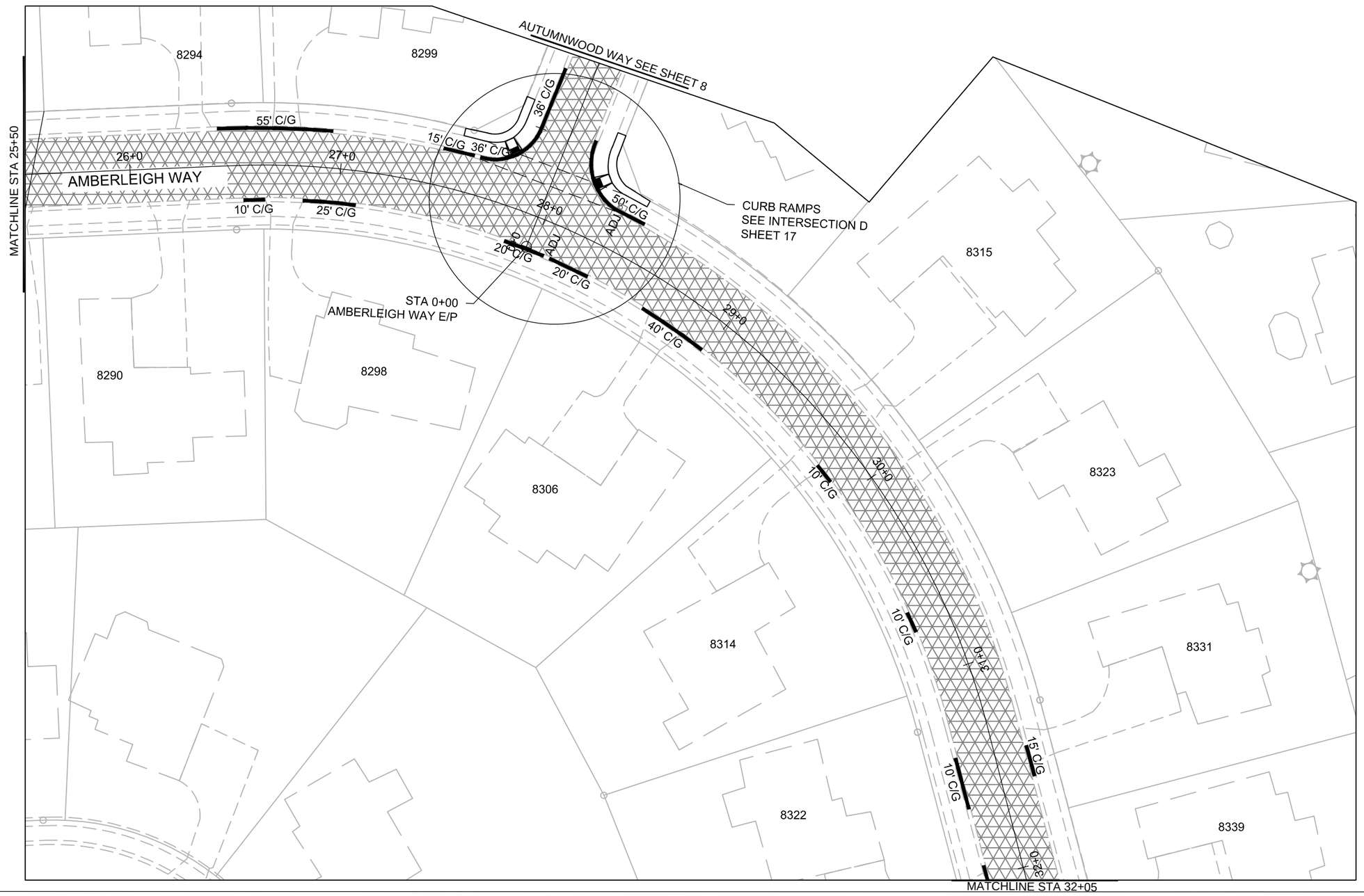
DRAWN BY DAL
REVISED NONE

AMBERLEIGH WAY
ROADWAY

16-001-CIP

ITEM 254 PAVEMENT PLANING, 3" A.P.P.
TRACKLESS TACK COAT (.1 GAL/SY)
1.75" ITEM 441 ASPHALTIC CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), PG64-22
TRACKLESS TACK COAT (.075 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

ITEM 254 PAVEMENT PLANING, 1.5" A.P.P.
TRACKLESS TACK COAT (.1 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22



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0 25 50
SCALE IN FEET

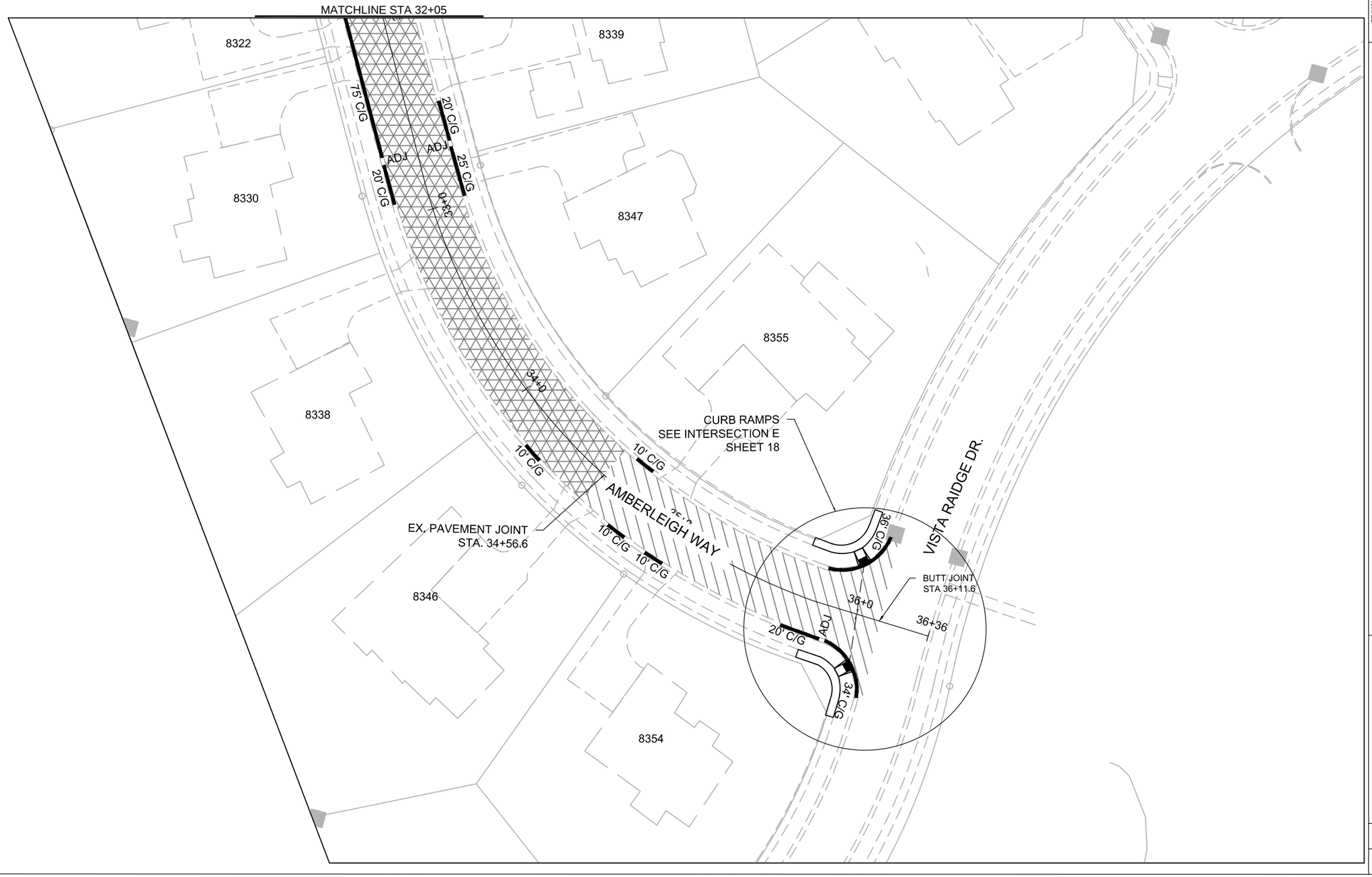
DRAWN BY DAL
REVISED NONE

AMBERLEIGH WAY
ROADWAY

16-001-CIP

ITEM 254 PAVEMENT PLANING, 3" A.P.P.
TRACKLESS TACK COAT (.1 GAL/SY)
1.75" ITEM 441 ASPHALTIC CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), PG64-22
TRACKLESS TACK COAT (.075 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

ITEM 254 PAVEMENT PLANING, 1.5" A.P.P.
TRACKLESS TACK COAT (.1 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22



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SCALE IN FEET

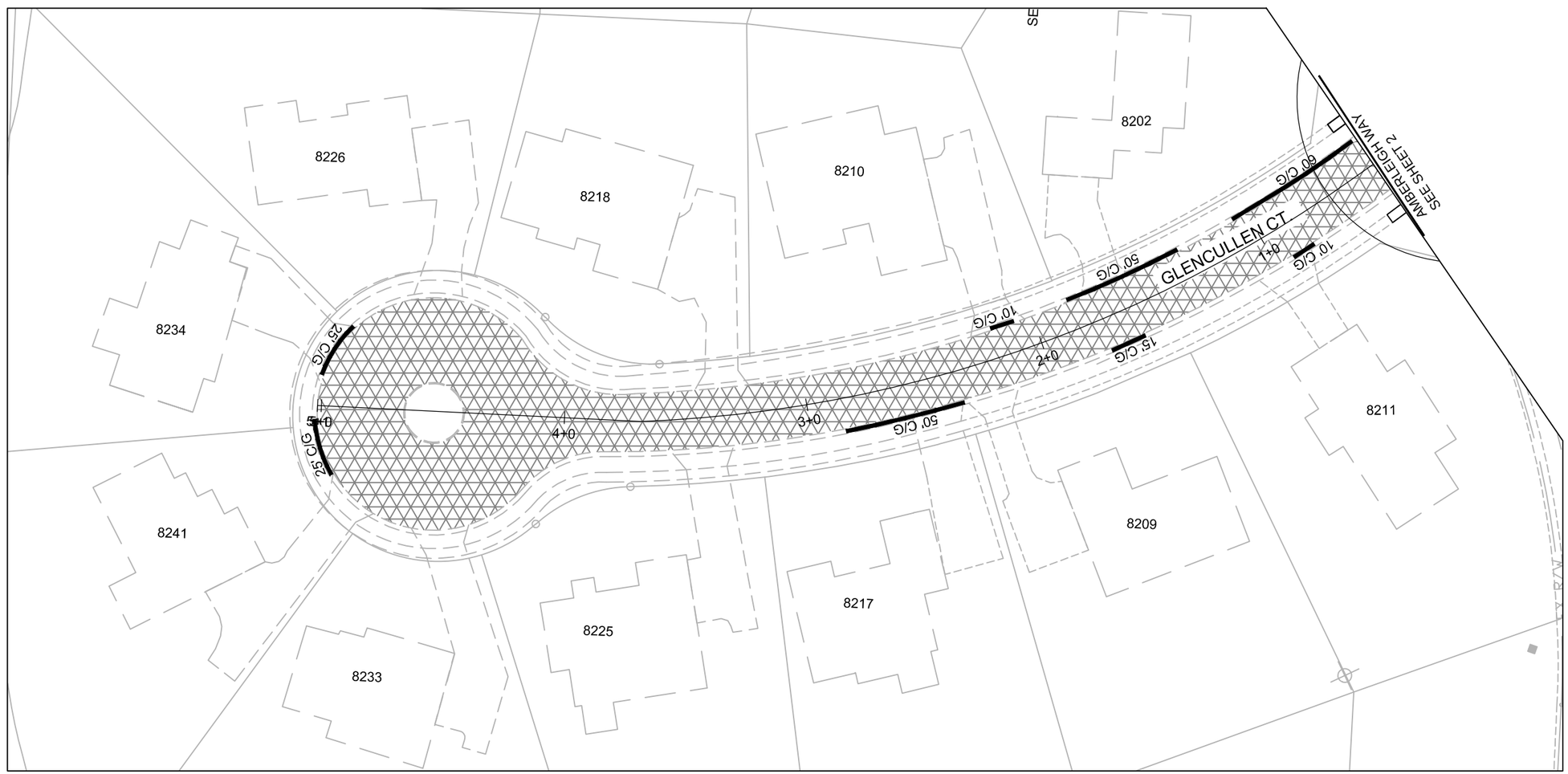
DRAWN BY DAL
REVISED NONE

AMBERLEIGH WAY
ROADWAY

16-001-CIP

ITEM 254 PAVEMENT PLANING, 3" A.P.P.
TRACKLESS TACK COAT (.1 GAL/SY)
1.75" ITEM 441 ASPHALTIC CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), PG64-22
TRACKLESS TACK COAT (.075 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

ITEM 254 PAVEMENT PLANING, 1.5" A.P.P.
TRACKLESS TACK COAT (.1 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22



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SCALE IN FEET

DRAWN BY DAL
REVISED NONE

GLENCULLEN COURT
ROADWAY

16-001-CIP

ITEM 254 PAVEMENT PLANING, 3" A.P.P.
TRACKLESS TACK COAT (.1 GAL/SY)
1.75" ITEM 441 ASPHALTIC CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), PG64-22
TRACKLESS TACK COAT (.075 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

ITEM 254 PAVEMENT PLANING, 1.5" A.P.P.
TRACKLESS TACK COAT (.1 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

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SCALE IN FEET

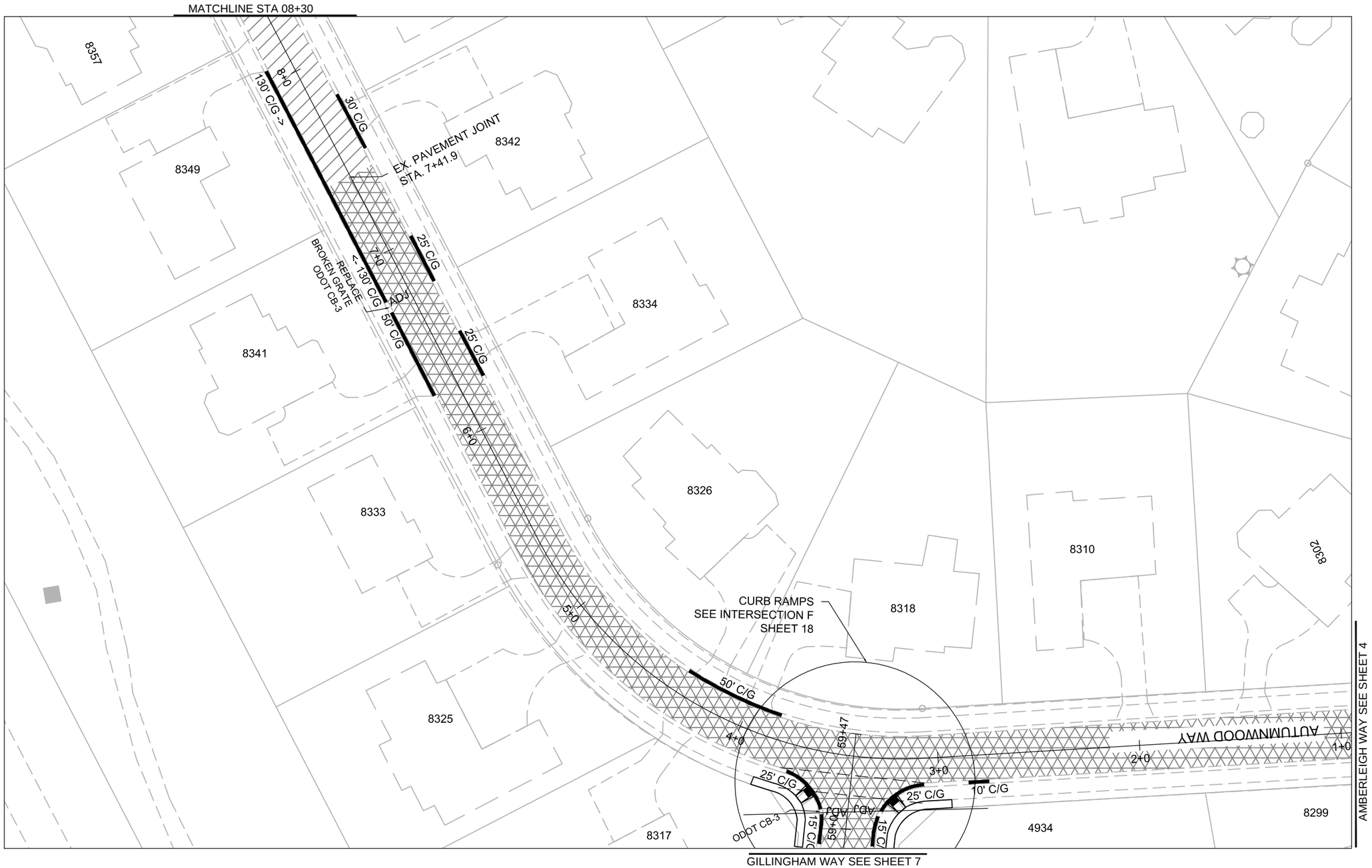
DRAWN BY DAL
REVISED NONE

GILLINGHAM WAY
ROADWAY

16-001-CIP

ITEM 254 PAVEMENT PLANING, 3" A.P.P.
TRACKLESS TACK COAT (.1 GAL/SY)
1.75" ITEM 441 ASPHALTIC CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), PG64-22
TRACKLESS TACK COAT (.075 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

ITEM 254 PAVEMENT PLANING, 1.5" A.P.P.
TRACKLESS TACK COAT (.1 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22



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SCALE IN FEET

DRAWN BY DAL
REVISED NONE

AUTUMNWOOD WAY
ROADWAY

16-001-CIP

ITEM 254 PAVEMENT PLANING, 3" A.P.P.
TRACKLESS TACK COAT (.1 GAL/SY)
1.75" ITEM 441 ASPHALTIC CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), PG64-22
TRACKLESS TACK COAT (.075 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

ITEM 254 PAVEMENT PLANING, 1.5" A.P.P.
TRACKLESS TACK COAT (.1 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

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SCALE IN FEET

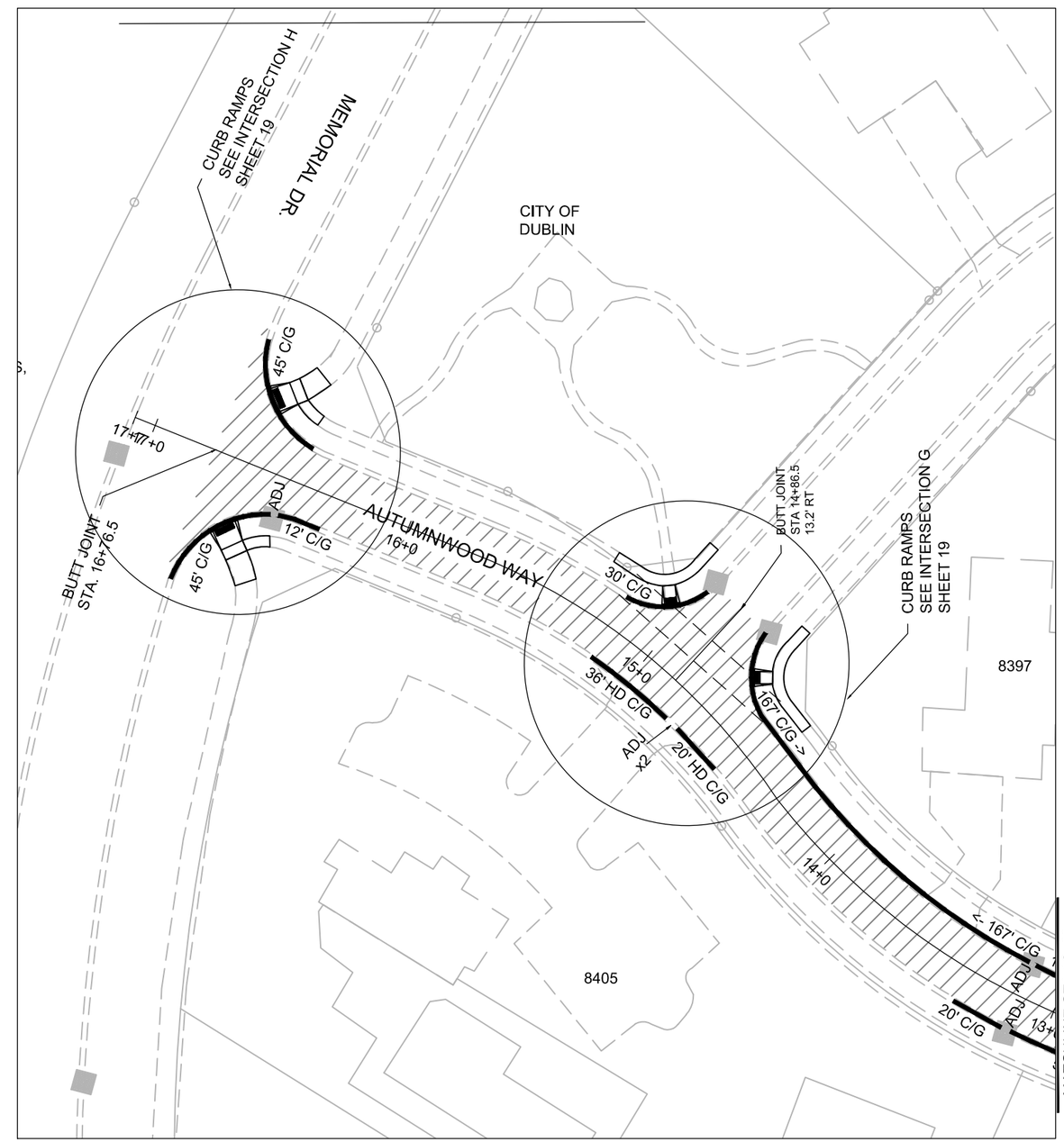
DRAWN BY DAL
REVISED NONE

AUTUMNWOOD WAY
ROADWAY

16-001-CIP

ITEM 254 PAVEMENT PLANING, 3" A.P.P.
TRACKLESS TACK COAT (.1 GAL/SY)
1.75" ITEM 441 ASPHALTIC CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), PG64-22
TRACKLESS TACK COAT (.075 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

ITEM 254 PAVEMENT PLANING, 1.5" A.P.P.
TRACKLESS TACK COAT (.1 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22



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SCALE IN FEET

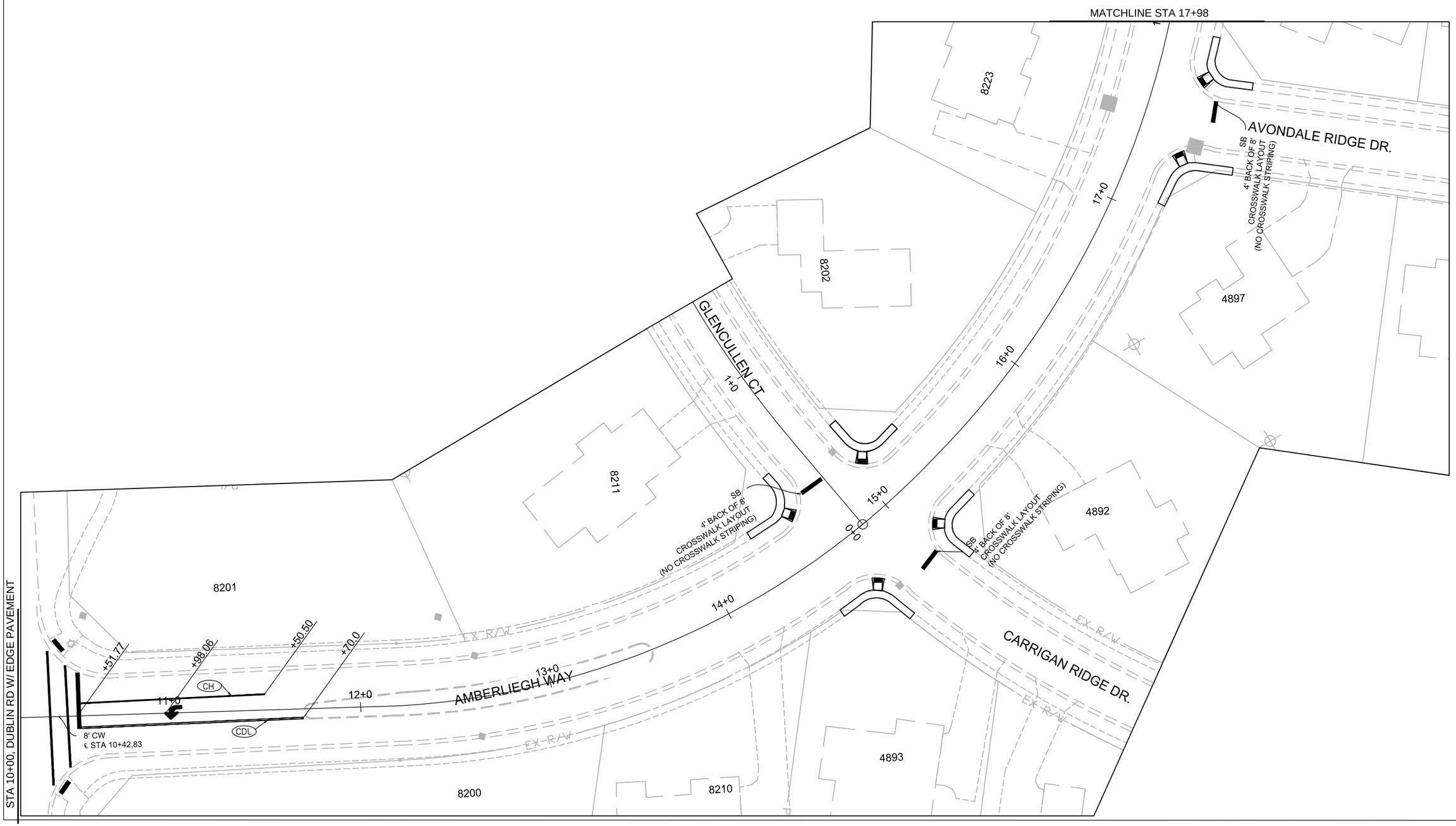
DRAWN BY DAL
REVISED NONE

AUTUMNWOOD WAY
ROADWAY

16-001-CIP

CDL ITEM 644 CENTERLINE DOUBLE YELLOW

CH ITEM 644 CHANNELIZING LINE, 8"



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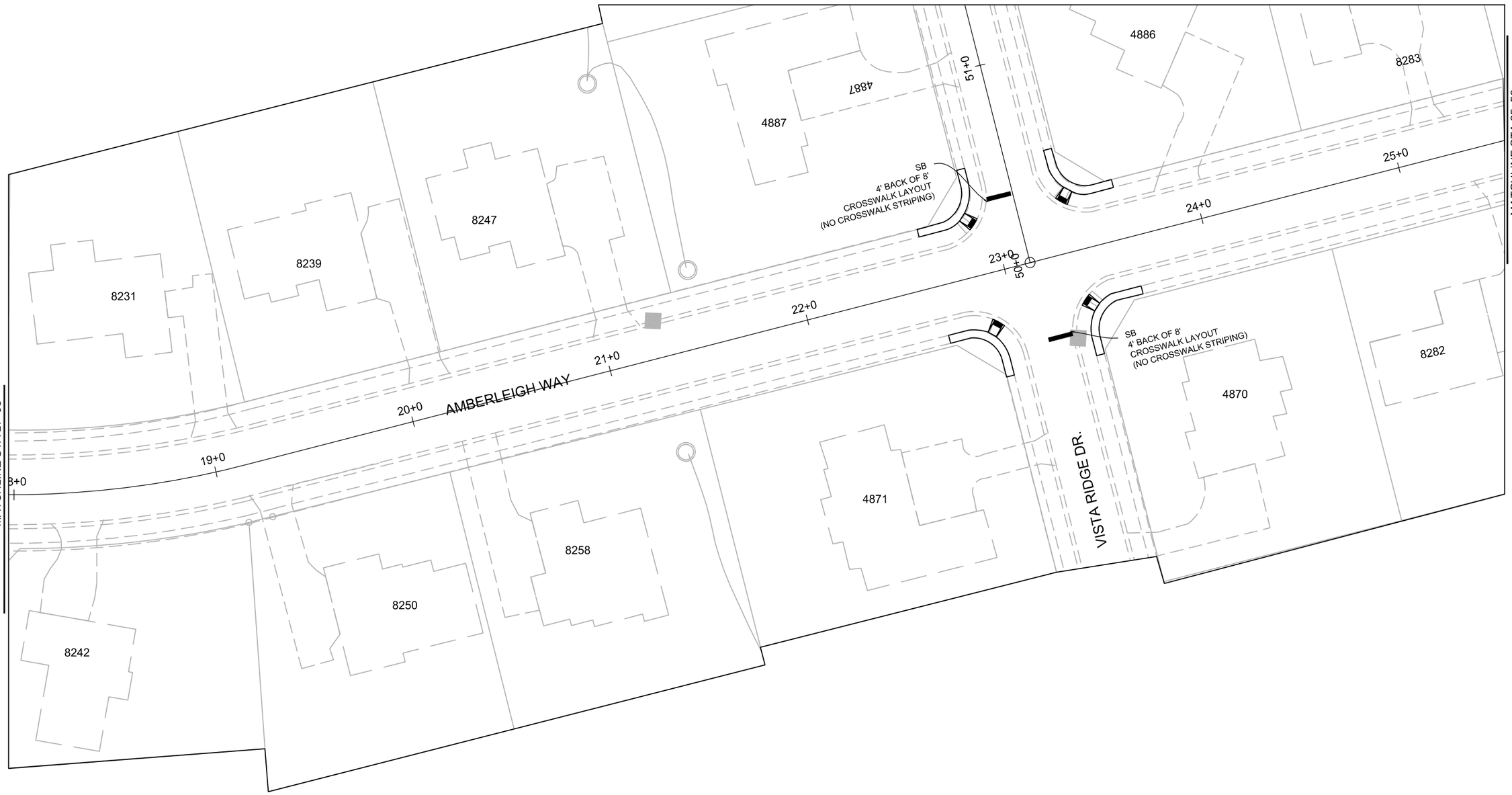
SCALE IN FEET

DRAWN BY DAL
REVISED
NONE

AMBERLEIGH WAY
TRAFFIC AND STRIPING

16-001-CIP



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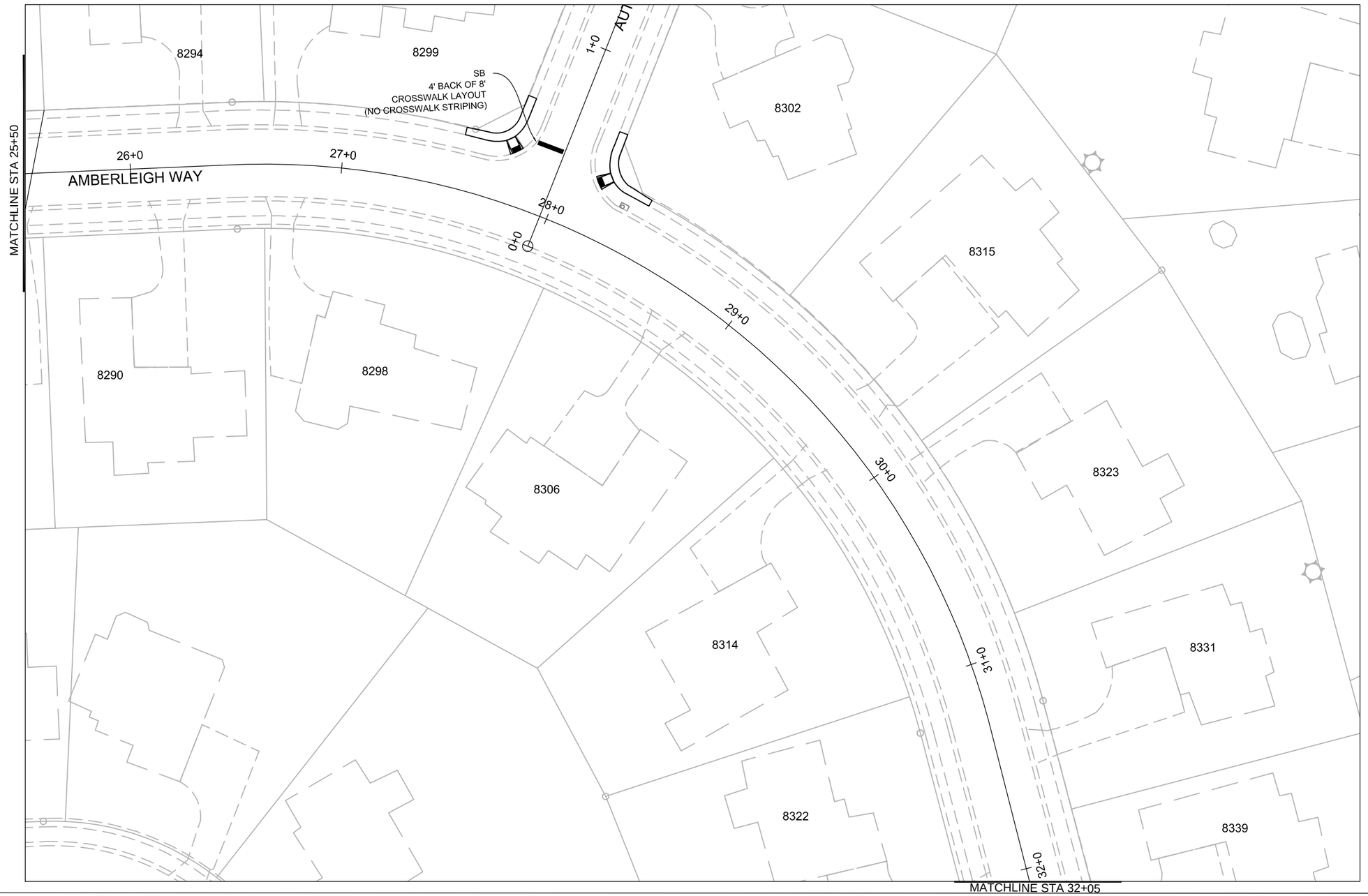
SCALE IN FEET

DRAWN BY
DAL
REVISED
NONE

AMBERLEIGH WAY
TRAFFIC AND SPRIPING

16-001-CIP



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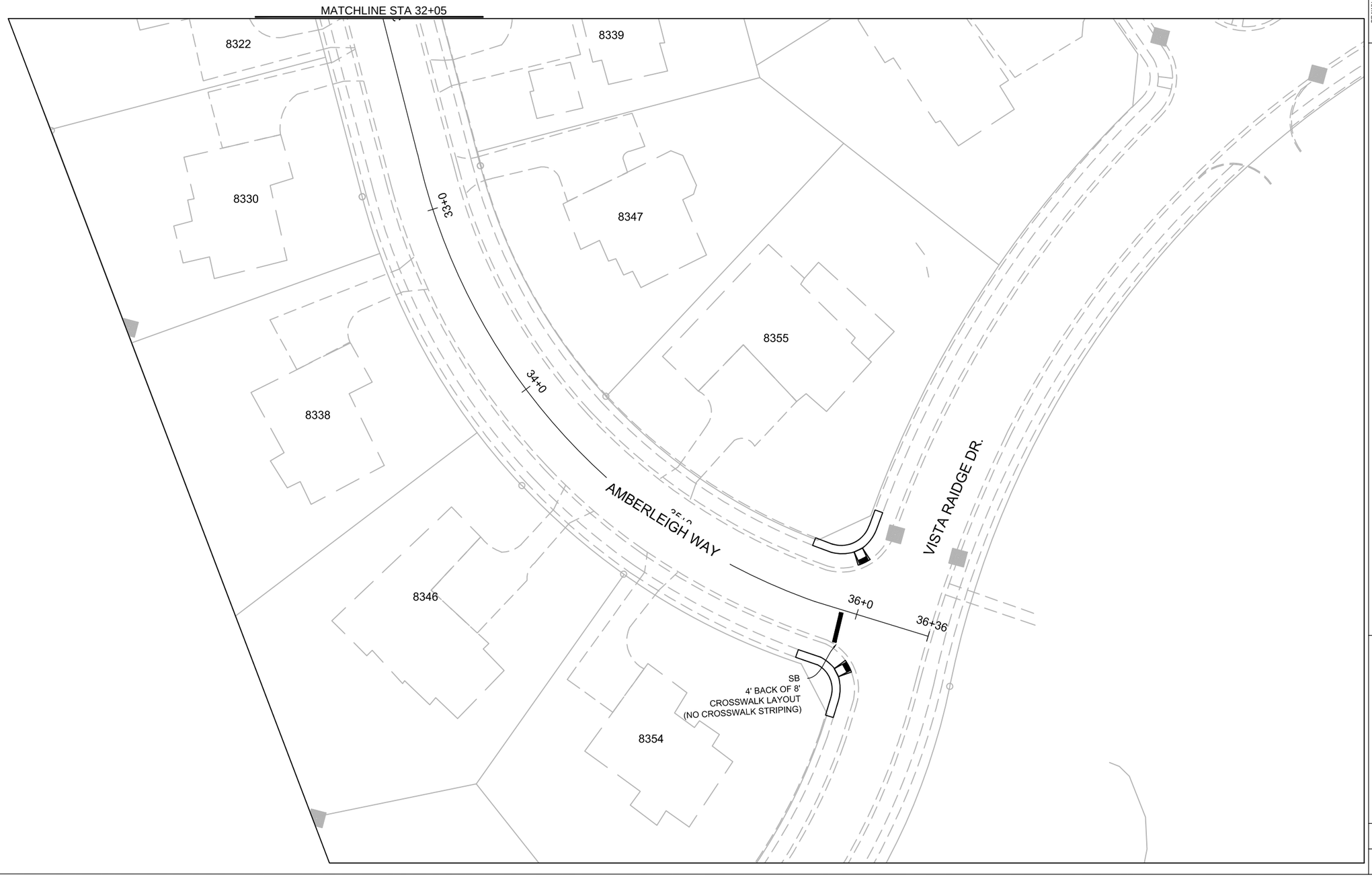
SCALE IN FEET

DRAWN BY DAL
REVISED NONE

AMBERLEIGH WAY
TRAFFIC AND SPRIPING

16-001-CIP



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0 25 50
SCALE IN FEET

DRAWN BY DAL
REVISED NONE

AMBERLEIGH WAY
TRAFFIC AND STRIPING

16-001-CIP

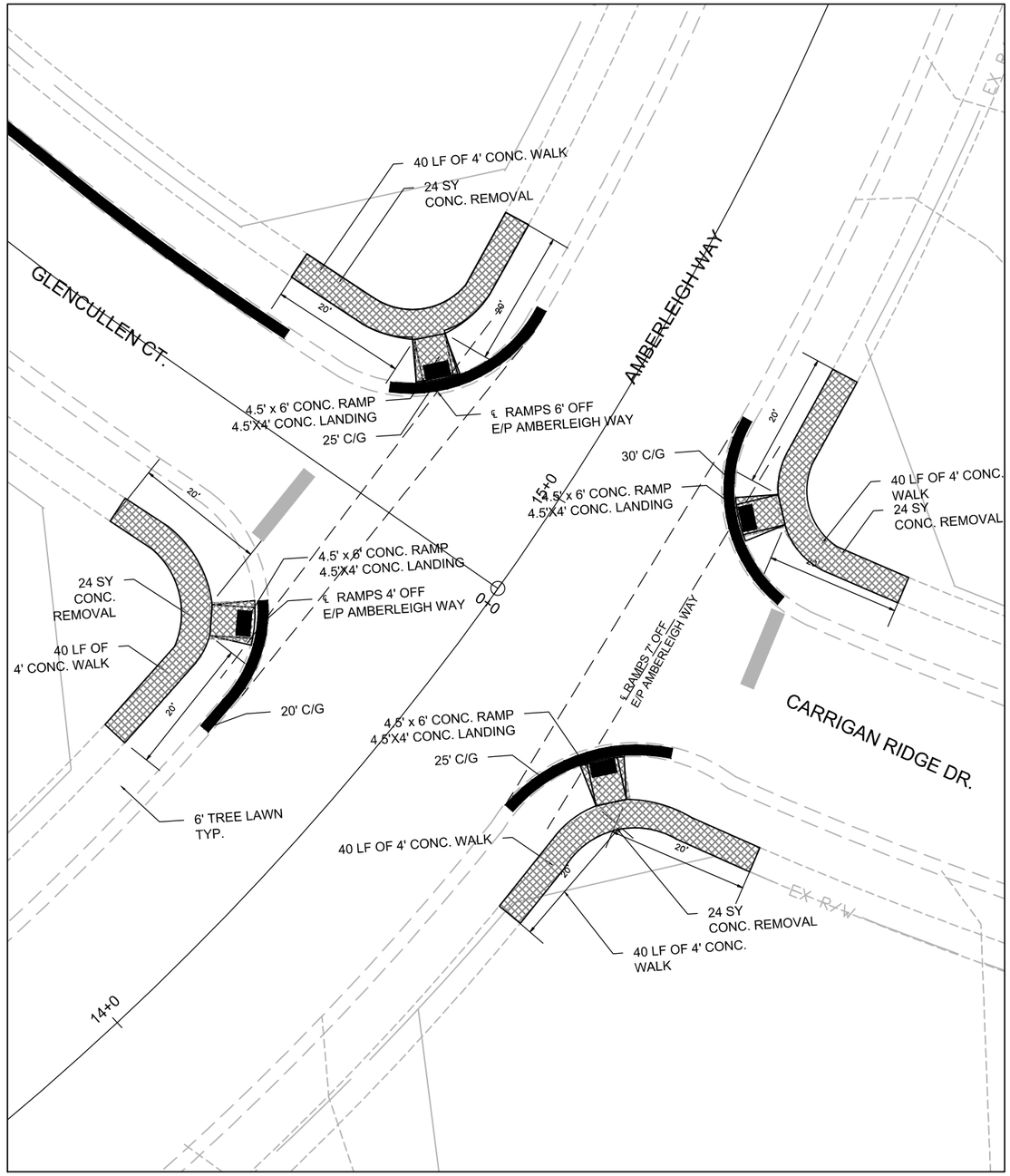
N

0 25 50
SCALE IN FEET

DRAWN BY
DAL
REVISED
NONE

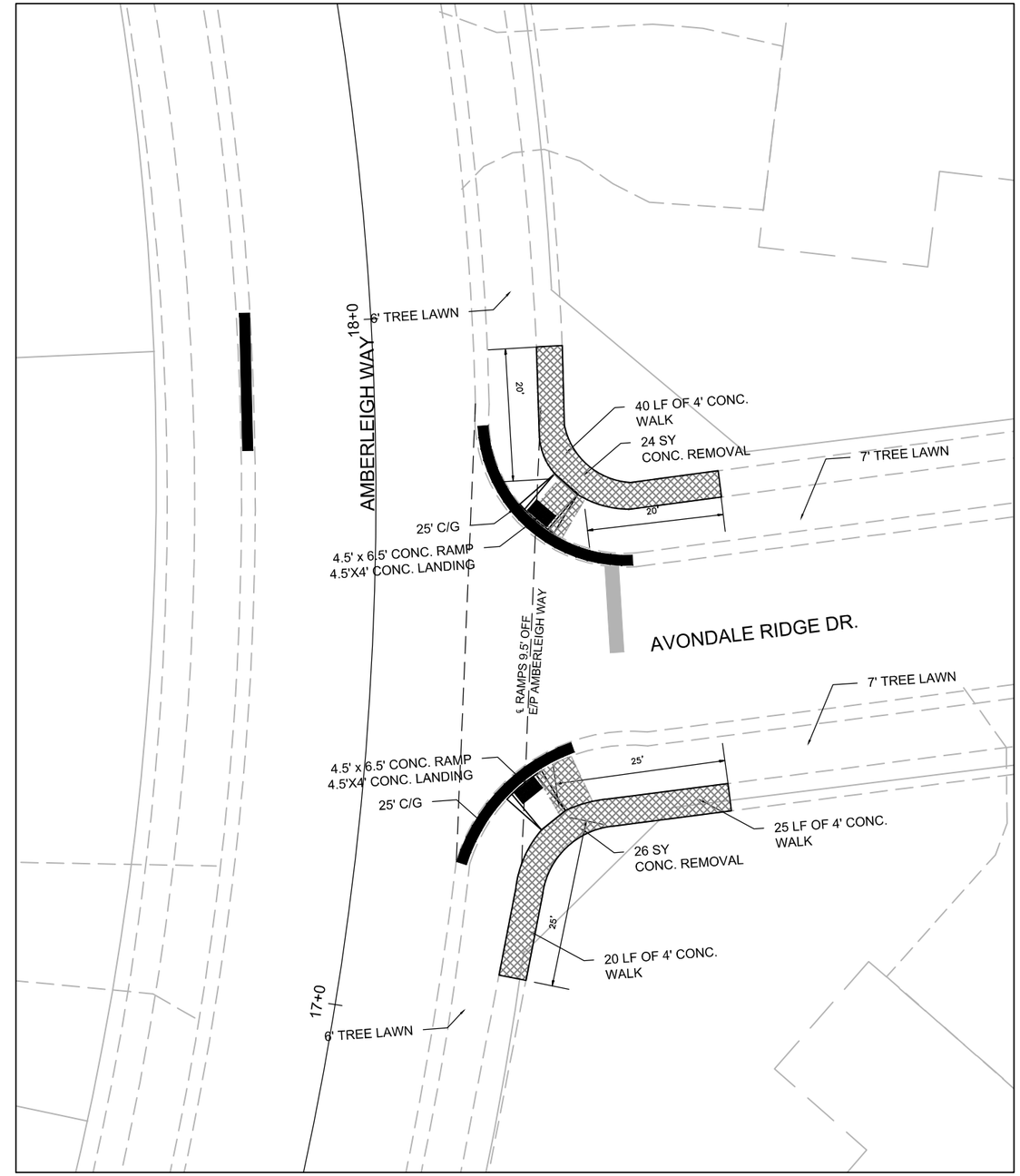
AUTUMNWOOD WAY
TRAFFIC AND STRIPING

16-001-CIP



INTERSECTION A:
AMBERLEIGH WAY AT GLENCULLEN COURT
CURB RAMP CONSTRUCTION DETAILS

REMOVE AND DISPOSE OF EXISTING CONCRETE RAMP, SIDEWALK AND ASPHALT BIKEPATH WITHIN LIMITS



INTERSECTION B:
AMBERLEIGH WAY AT AVONDALE RIDGE DRIVE
CURB RAMP CONSTRUCTION DETAILS

REMOVE AND DISPOSE OF EXISTING CONCRETE RAMP, SIDEWALK AND ASPHALT BIKEPATH WITHIN LIMITS

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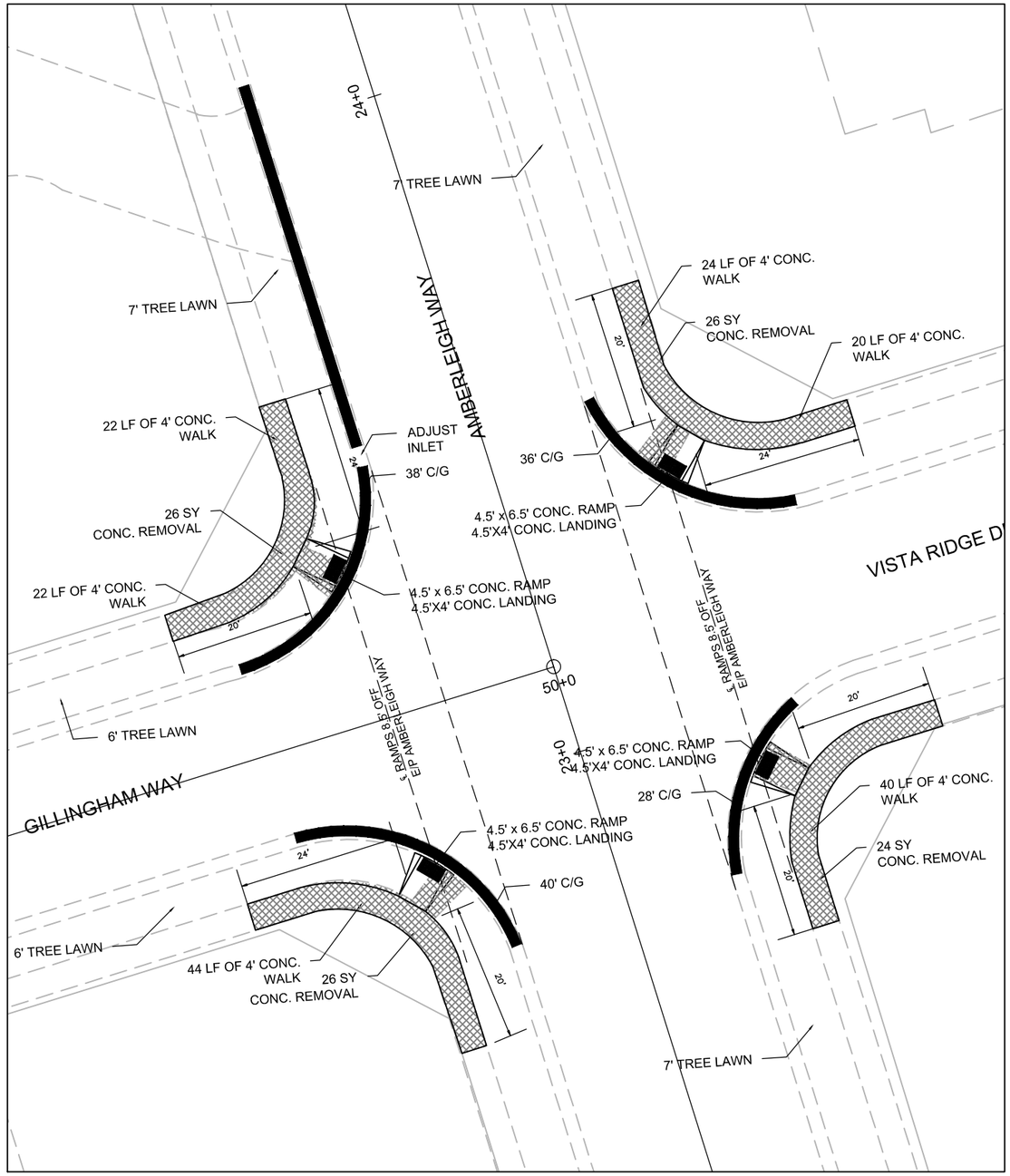
0 10 20
SCALE IN FEET

DRAWN BY: DAL
REVISED NONE

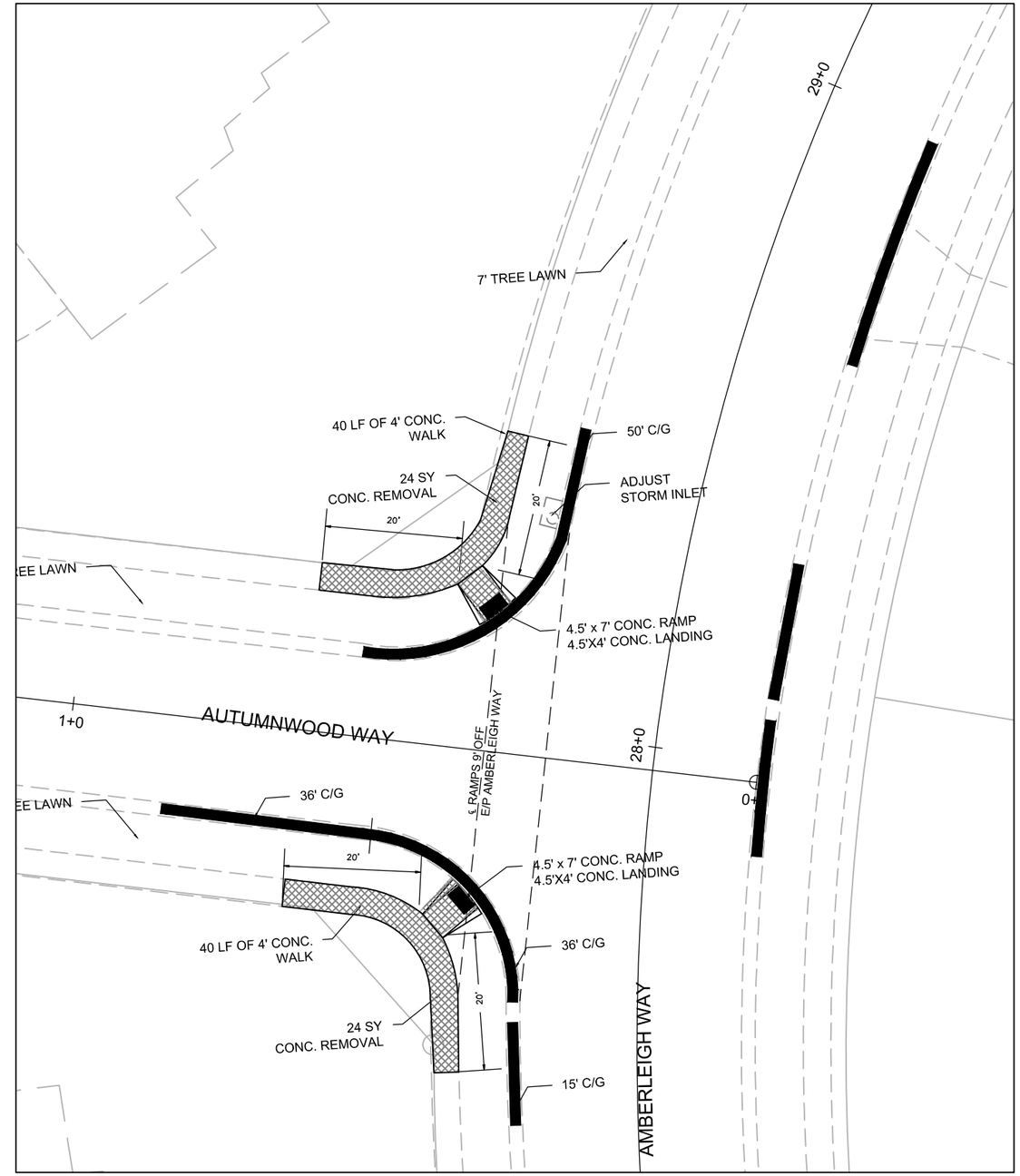
CURB RAMP DETAILS
INTERSECTIONS A & B

16-001-CIP



INTERSECTION C:
AMBERLEIGH WAY AT GILLINGHAM WAY
CURB RAMP CONSTRUCTION DETAILS

REMOVE AND DISPOSE OF EXISTING CONCRETE RAMP, SIDEWALK AND ASPHALT BIKEPATH WITHIN LIMITS



INTERSECTION D:
AMBERLEIGH WAY AT AUTUMNWOOD WAY
CURB RAMP CONSTRUCTION DETAILS

REMOVE AND DISPOSE OF EXISTING CONCRETE RAMP, SIDEWALK AND ASPHALT BIKEPATH WITHIN LIMITS

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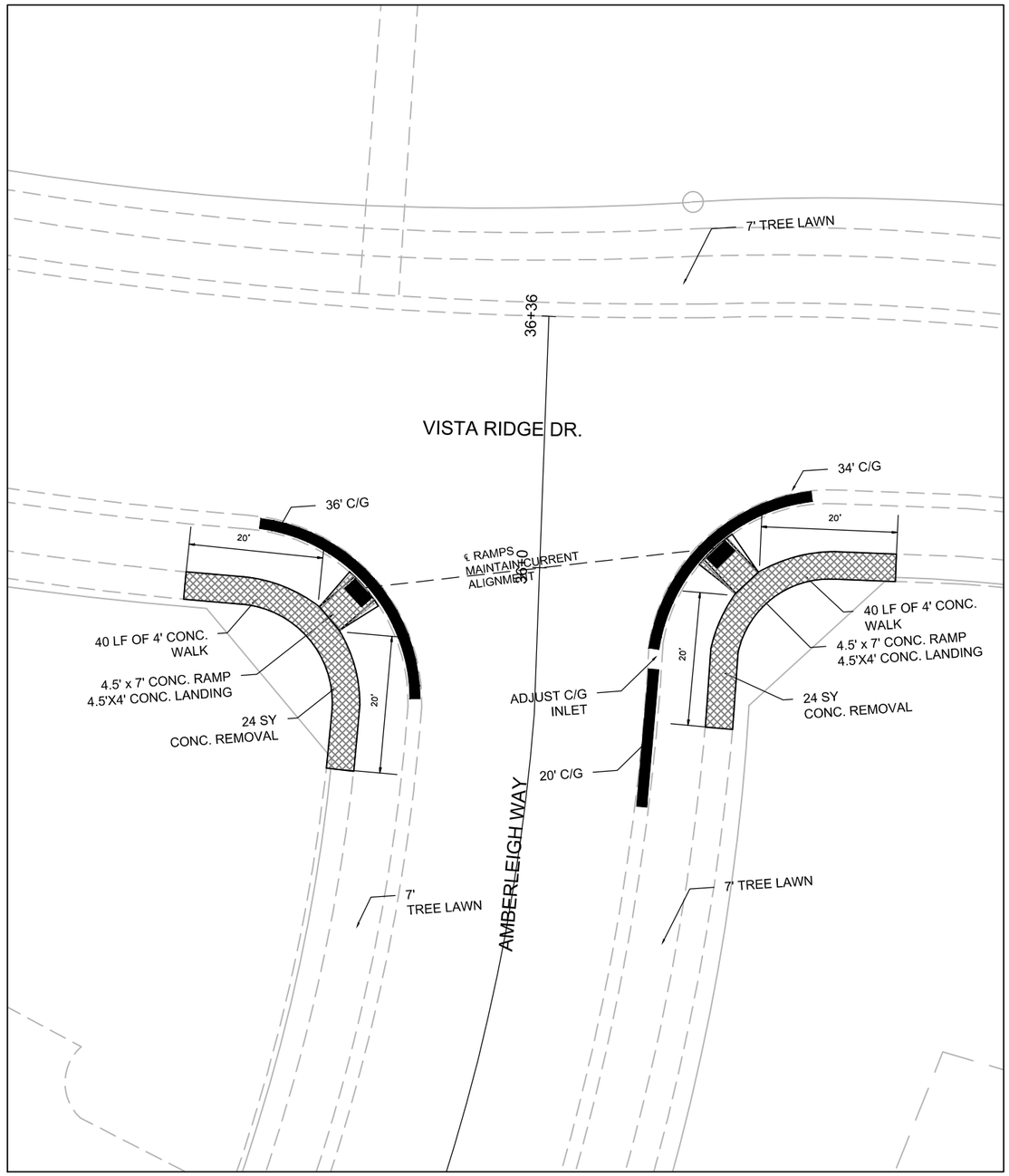
0 10 20
SCALE IN FEET

DRAWN BY: DAL
REVISED NONE

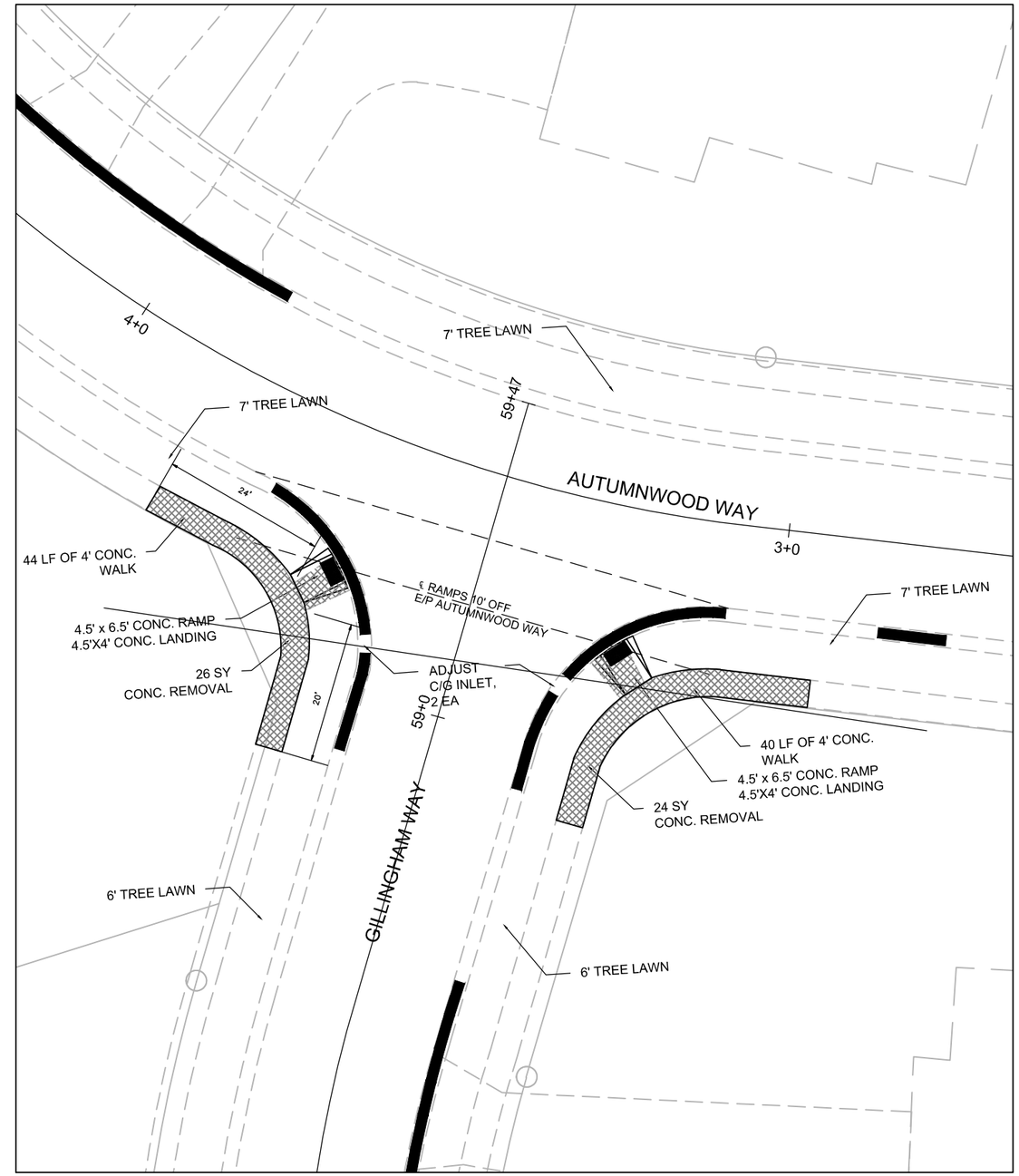
CURB RAMP DETAILS
INTERSECTIONS C & D

16-001-CIP



INTERSECTION E:
AMBERLEIGH WAY AT VISTA RIDGE DRIVE
CURB RAMP CONSTRUCTION DETAILS

REMOVE AND DISPOSE OF EXISTING CONCRETE RAMP, SIDEWALK AND ASPHALT BIKEPATH WITHIN LIMITS



INTERSECTION F:
GILLINGHAM WAY AT AUTUMNWOOD WAY
CURB RAMP CONSTRUCTION DETAILS

REMOVE AND DISPOSE OF EXISTING CONCRETE RAMP, SIDEWALK AND ASPHALT BIKEPATH WITHIN LIMITS

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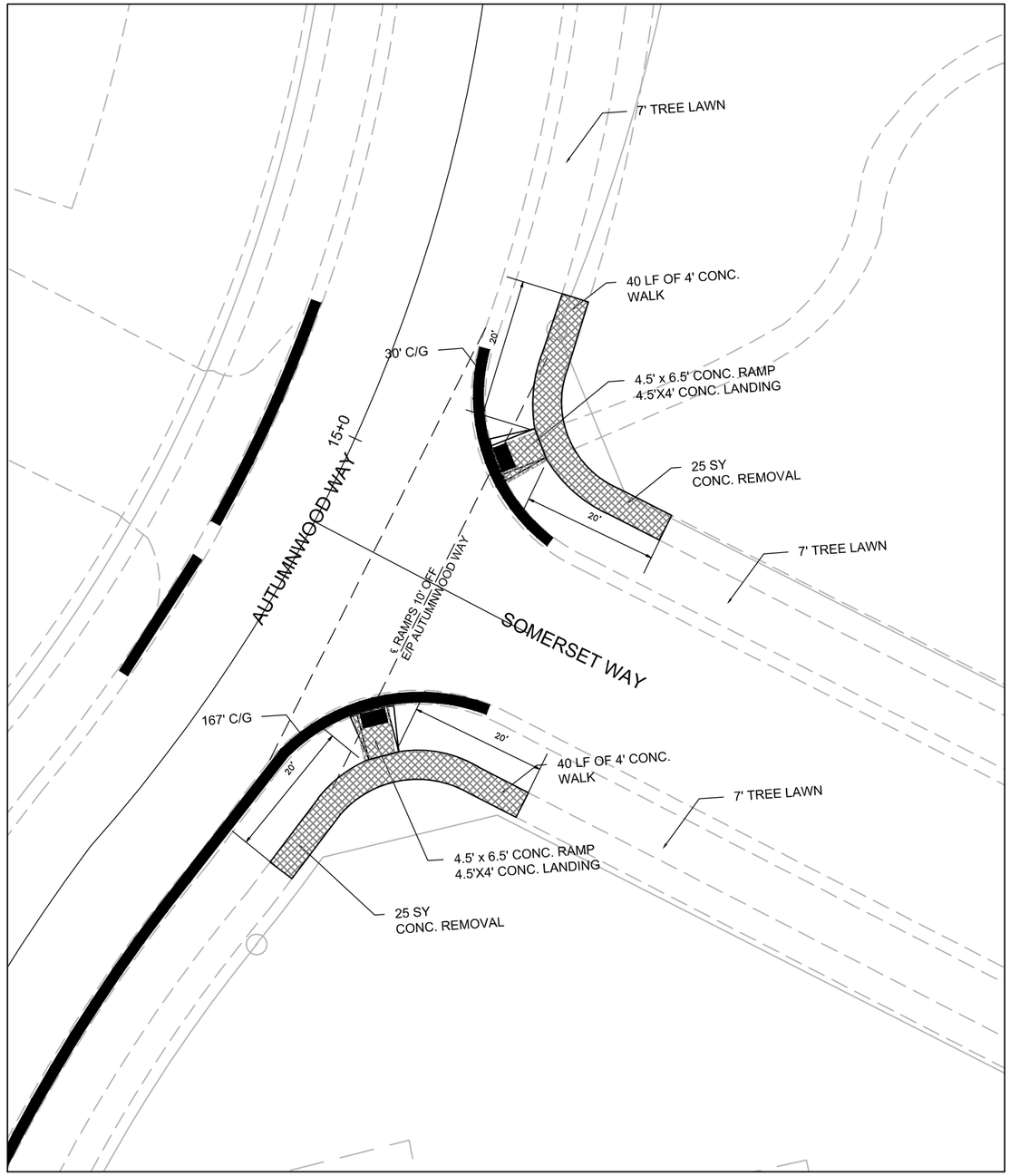
0 10 20
SCALE IN FEET

DRAWN BY: DAL
REVISED NONE

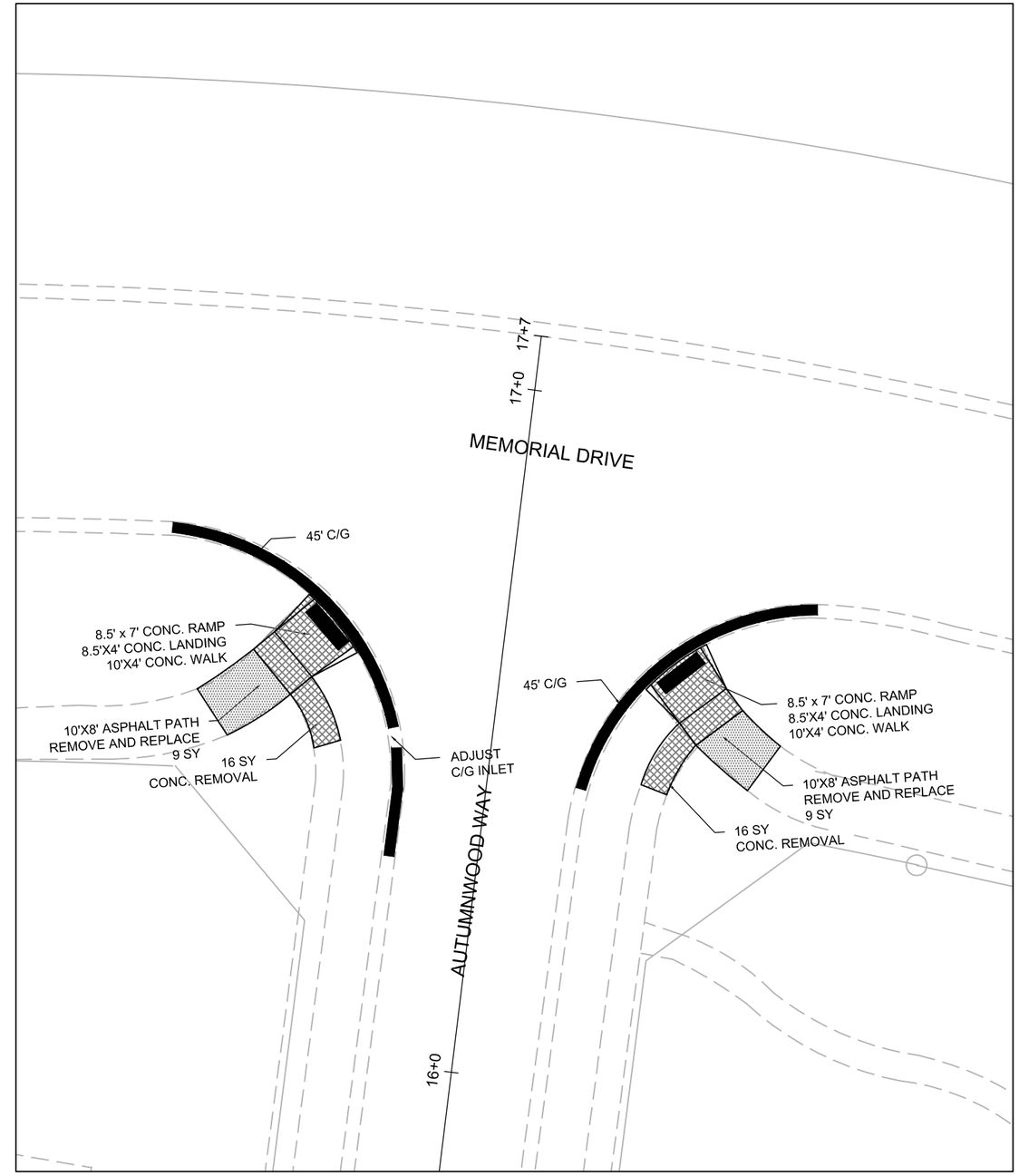
CURB RAMP DETAILS
INTERSECTIONS E & F

16-001-CIP



INTERSECTION G:
AUTUMNWOOD WAY AT SOMERSET WAY
CURB RAMP CONSTRUCTION DETAILS

REMOVE AND DISPOSE OF EXISTING CONCRETE RAMP, SIDEWALK AND ASPHALT BIKEPATH WITHIN LIMITS



INTERSECTION H:
AUTUMNWOOD WAY AT MEMORIAL DRIVE
CURB RAMP CONSTRUCTION DETAILS

REMOVE AND DISPOSE OF EXISTING CONCRETE RAMP, SIDEWALK WITHIN LIMITS

REMOVE AND DISPOSE OF EXISTING ASPHALT BIKEPATH WITHIN LIMITS
PLACE NEW 8' WIDE ASPHALT PATH (2.5"), 448, TYPE 1, OVER GRADED AND COMPACTED AGGREGATE BASE

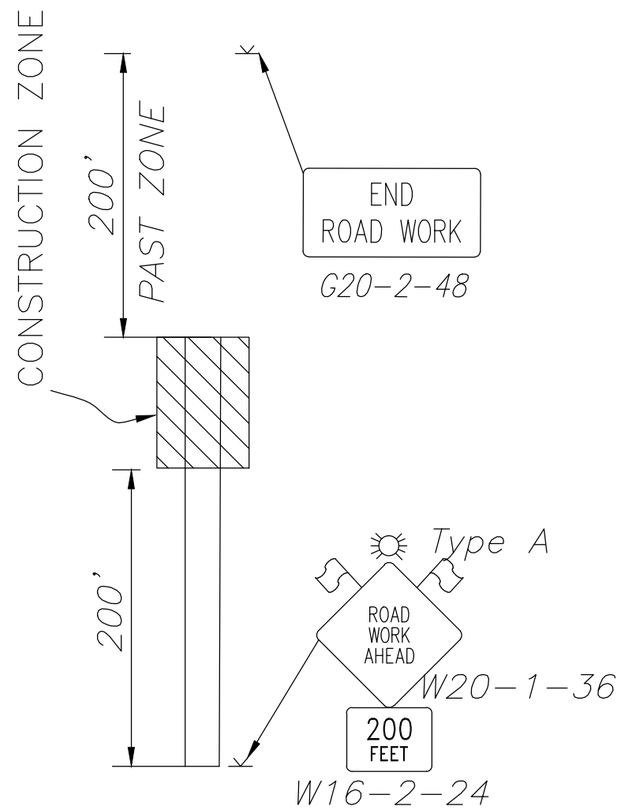
N

0 10 20
SCALE IN FEET

DRAWN BY: DAL
REVISED NONE

CURB RAMP DETAILS
INTERSECTIONS G & H

16-001-CIP



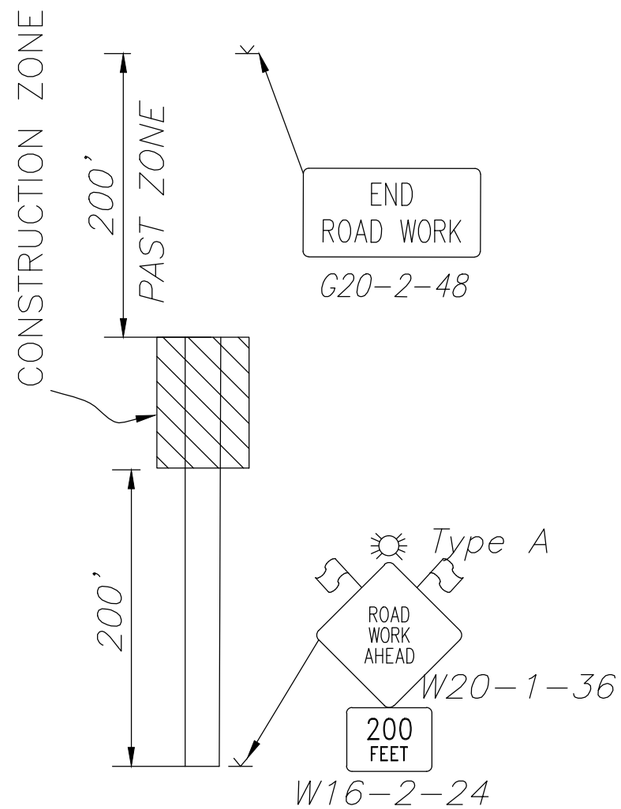
ADVANCE WARNING SIGNS FOR ROAD WORK
(Typical Both Directions)

	AMBERLEIGH WAY ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Concrete Removed & Disposed of, A.P.P.	SY	196
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	1196
254	Pavement Planing, 1.5", A.P.P.	SY	598
254	Pavement Planing, 3",A.P.P.	SY	9192
407	NTSS-1HM TracklessTack Coat	GAL	1670
441	Asphaltic Concrete Intermediate Course, Type-2, (448), PG64-22	TN	900
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	820
604	Structure- Adjust, Inlet, A.P.P.	EA	6
608	4" Conc. Walk w/ Agg. Base, A.P.P.	SF	1464
608	Curb Ramp, 6" Conc. w/Agg. Base, A.P.P.	SF	336
609	Combination Curb/Gutter, A.P.P.	LF	1196
614	Flagger	HR	50
644	Center Line- Double (Yellow, Solid or Dashed)	MILE	0.044
644	Channelizing Line, 8"	LF	98
644	Lane Arrow, 72"	EA	1
644	Crosswalk Line, 12"	LF	122
644	Stop Bar, 24"	LF	117
653	Pulverized Topsoil, A.P.P.	CY	125
659	Vegetation (Seed/Mulch), A.P.P.	SY	280
Special	Asphalt Rejuvenating Agent	SY	9790
Special	Curb Can Holes	EA	16
Special	Detectable Warning Panel, Type A	EA	16
Special	Detectable Warning Panel, Type B	EA	4
	* Curb Ramp, Walk and Striping Quantities: Amberleigh Way @ Carrigan Ridge Dr. (east side), Amberleigh Way @ Avondale Ridge Dr., Amberleigh Way @ Vista Ridge Dr./Gillingham Way(east side), Amberleigh Way @ Vista Ridge Drive		
	AMBERLEIGH WAY ESTIMATED CONTINGENCY QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	200
202	Concrete Removed & Disposed of, A.P.P.	SY	74
204	Excavation, Roadway Undercut, A.P.P.	CY	100
204	No. 2 Stone (703), in place	CY	70
301	Asphalt Concrete Base	TN	20
304	Aggregate Base	CY	30
441	Asphaltic Concrete Intermediate Course, Type-2, (448), PG64-22	TN	15
608	4" Conc. Walk w/ Agg. Base, A.P.P.	SF	200
608	6" Conc. Walk w/ Agg. Base, A.P.P.	SF	460
609	Combination Curb/Gutter, A.P.P.	LF	200
624	Mobilization - Undercut/Base Repair	EA	1

DRAWN BY: DAL
REVISED NONE

CONSTRUCTION NOTES AND ESTIMATED QUANTITIES
AMBERLEIGH WAY

16-001-CIP



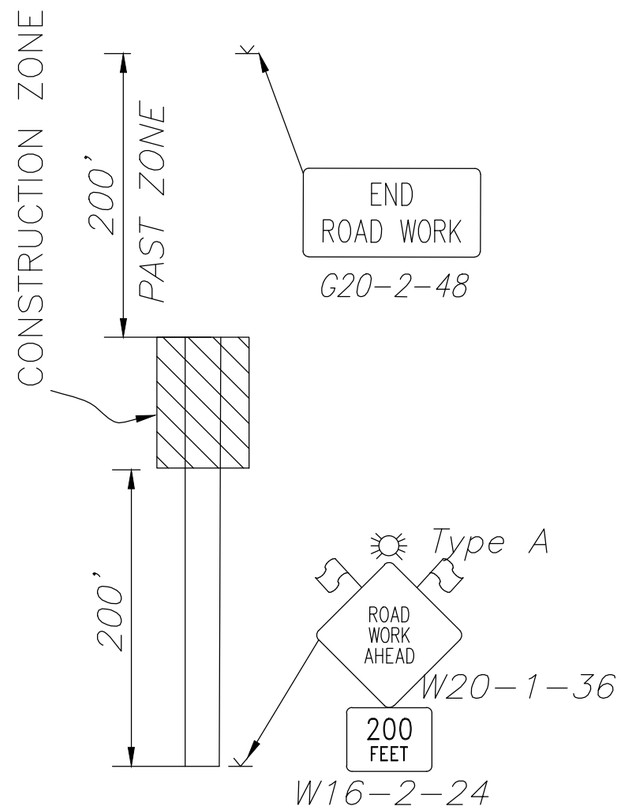
ADVANCE WARNING SIGNS FOR ROAD WORK
(Typical Both Directions)

	GLENCULLEN COURT ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Concrete Removed & Disposed of, A.P.P.	SY	48
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	245
254	Pavement Planing, 3",A.P.P.	SY	1830
407	NTSS-1HM TracklessTack Coat	GAL	320
441	Asphaltic Concrete Intermediate Course, Type-2, (448), PG64-22	TN	180
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	154
608	4" Conc. Walk w/ Agg. Base, A.P.P.	SF	356
608	Curb Ramp, 6" Conc. w/Agg. Base, A.P.P.	SF	84
609	Combination Curb/Gutter, A.P.P.	LF	245
614	Flagger	HR	12
653	Pulverized Topsoil, A.P.P.	CY	17
659	Vegetation (Seed/Mulch), A.P.P.	SY	6
Special	Asphalt Rejuvenating Agent	SY	1830
Special	Curb Can Holes	EA	8
Special	Detectable Warning Panel, Type A	EA	4
	* Curb Ramp, Walk and Striping Quantities: Glencullen Court @ Amberleigh Way (west side)		
	GLENCULLEN COURT ESTIMATED CONTINGENCY QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	30
604	Structure- Adjust, Inlet, A.P.P.	EA	1
609	Combination Curb/Gutter, A.P.P.	LF	30

DRAWN BY: DAL
REVISED NONE

CONSTRUCTION NOTES AND ESTIMATED QUANTITIES
GLENCULLEN COURT

16-001-CIP



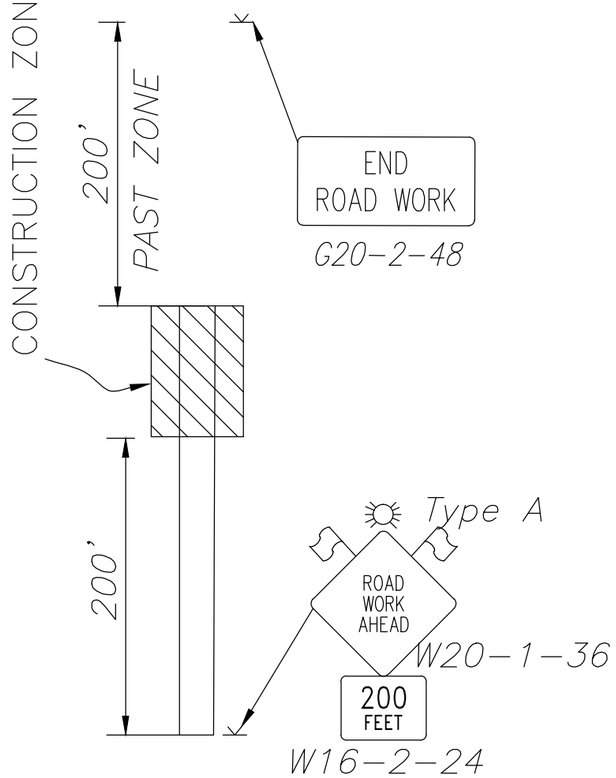
ADVANCE WARNING SIGNS FOR ROAD WORK
(Typical Both Directions)

	GILLINGHAM WAY ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Concrete Removed & Disposed of, A.P.P.	SY	102
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	435
254	Pavement Planing, 1.5", A.P.P.	SY	1186
254	Pavement Planing, 3",A.P.P.	SY	1250
407	NTSS-1HM TracklessTack Coat	GAL	340
441	Asphaltic Concrete Intermediate Course, Type-2, (448), PG64-22	TN	125
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	205
604	Structure- Adjust, Inlet, A.P.P.	EA	2
604	ODOT CB-3/3A Pre-cast Adjust to Grade	EA	1
608	4" Conc. Walk w/ Agg. Base, A.P.P.	SF	760
608	Curb Ramp, 6" Conc. w/Agg. Base, A.P.P.	SF	168
609	Combination Curb/Gutter, A.P.P.	LF	435
614	Flagger	HR	24
653	Pulverized Topsoil, A.P.P.	CY	16
659	Vegetation (Seed/Mulch), A.P.P.	SY	140
Special	Asphalt Rejuvenating Agent	SY	2436
Special	Curb Can Holes	EA	7
Special	Detectable Warning Panel, Type A	EA	8
	* Curb Ramp, Walk and Striping Quantities: Gillingham Way @ Amberleigh Way (west side), Gillingham way @ Autumnwood Way		
	GILLINGHAM WAY ESTIMATED CONTINGENCY QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	50
609	Combination Curb/Gutter, A.P.P.	LF	50
604	Structure- Adjust, Inlet, A.P.P.	EA	1

DRAWN BY: DAL
REVISED NONE

CONSTRUCTION NOTES AND ESTIMATED QUANTITIES
GILLINGHAM WAY

16-001-CIP



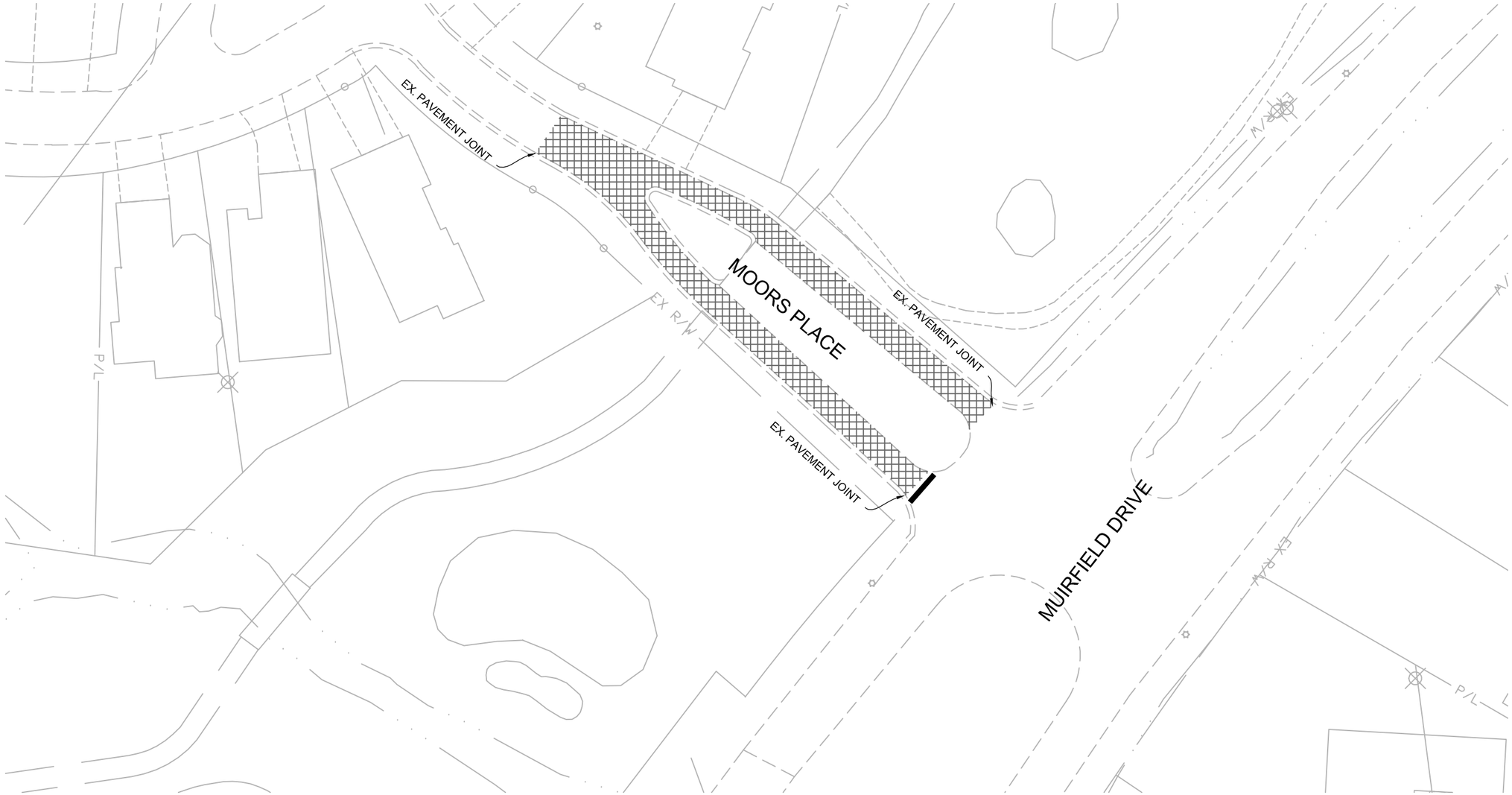
ADVANCE WARNING SIGNS FOR ROAD WORK
(Typical Both Directions)

	AUTUMNWOOD WAY ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Bike Path Removed and Disposed of, A.P.P.	SY	18
202	Concrete Removed & Disposed of, A.P.P.	SY	130
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	991
254	Pavement Planing, 1.5", A.P.P.	SY	2640
254	Pavement Planing, 3",A.P.P.	SY	1868
407	NTSS-1HM TracklessTack Coat	GAL	326
441	(Bikepath) Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	3
441	Asphaltic Concrete Intermediate Course, Type-2, (448), PG64-22	TN	190
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	375
604	Structure- Adjust, Inlet, A.P.P.	EA	4
604	ODOT CB-3/3A Pre-cast Adjust to Grade	EA	1
604	ODOT CB-3/3A Grate	EA	1
608	4" Conc. Walk w/ Agg. Base, A.P.P.	SF	960
608	Curb Ramp, 6" Conc. w/Agg. Base, A.P.P.	SF	301
609	Combination Curb/Gutter, A.P.P.	LF	935
609	Combination Curb/Gutter, Heavy Duty, A.P.P.	LF	56
614	Flagger	HR	24
644	Stop Bar, 24"	LF	13
653	Pulverized Topsoil, A.P.P.	CY	55
659	Vegetation (Seed/Mulch), A.P.P.	SY	200
Special	Asphalt Rejuvenating Agent	SY	4508
Special	Curb Can Holes	EA	17
Special	Detectable Warning Panel, Type A	EA	16
	* Curb Ramp, Walk and Striping Quantities: Autumnwood Way @ Amberleigh Way, Autumnwood Way @ Somerset Way, Autumnwood Way @ Memorial Dr.		
	AUTUMNWOOD WAY ESTIMATED CONTINGENCY QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	50
202	Concrete Removed & Disposed of, A.P.P.	SY	40
604	Structure- Reconstruct/Adjust CB/Inlet, A.P.P.	EA	1
608	4" Conc. Walk w/ Agg. Base, A.P.P.	SF	200
608	6" Conc. Walk w/ Agg. Base, A.P.P.	SF	220
609	Combination Curb/Gutter, A.P.P.	LF	50

DRAWN BY: DAL
REVISED NONE

CONSTRUCTION NOTES AND ESTIMATED QUANTITIES
AUTUMNWOOD WAY

16-001-CIP



	MOORS PLACE ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
251	Partial Depth Pavement Repair , 3", A.P.P.	SY	575
614	Flagger	HR	14
644	Stop Bar, 24"	LF	22

ITEM 251 PARTIAL DEPTH PAVEMENT REPAIR, 3", A.P.P.
-TACK COAT (.1 GAL/SY)
-1.75" ITEM 441, ASPHALTIC CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), PG64-22
-TACK COAT (.075 GAL/SY)
-1.25" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
-JOINT SEAL

NOTE:
WORK IS TO BE COMPLETED ONE SIDE AT A TIME
ONE LANE TWO WAY TRAFFIC IS TO BE MAINTAINED

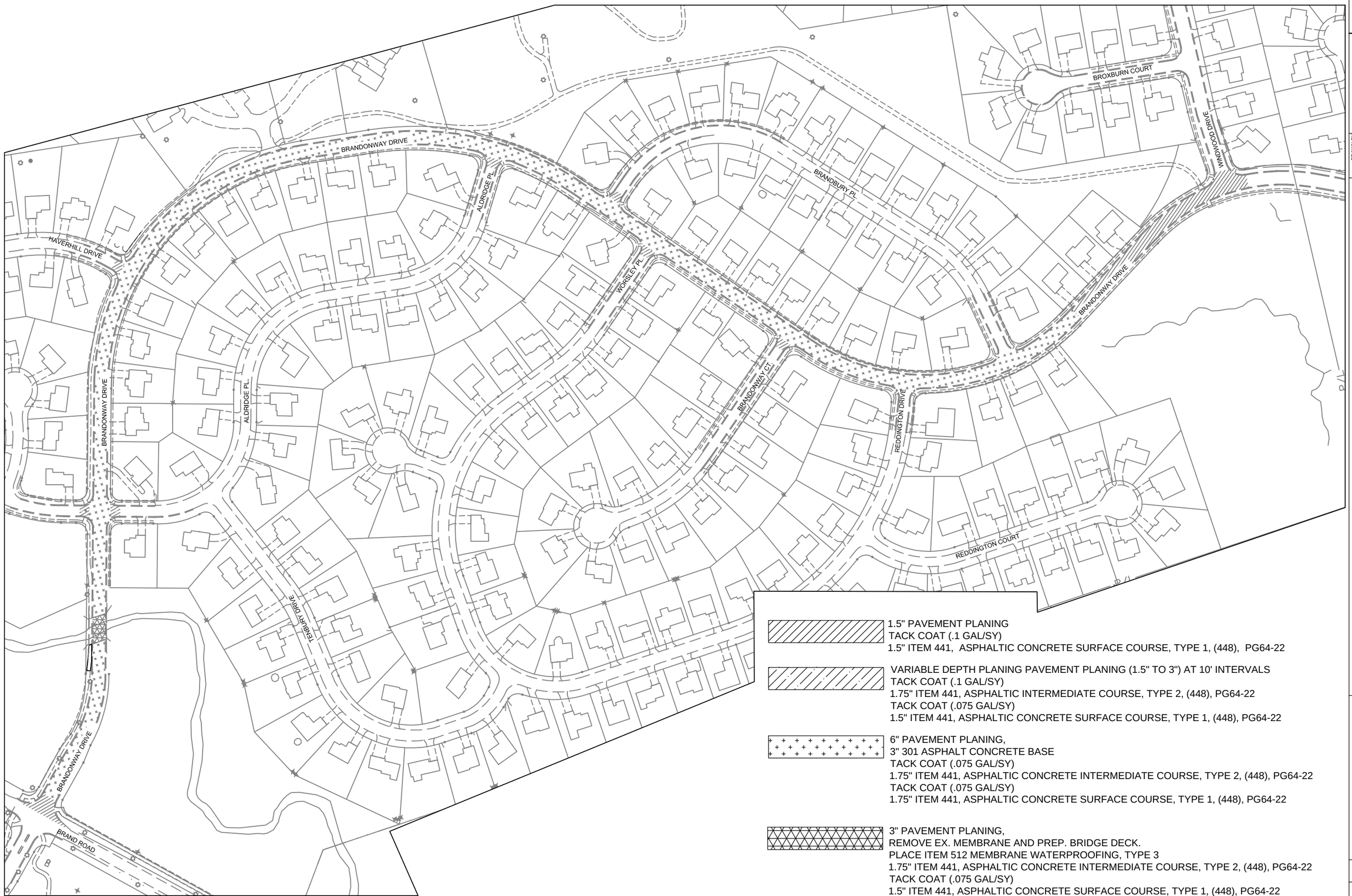
N

0 25 50
SCALE IN FEET

DRAWN BY: DAL
REVISED 3/30/2012

MOORS PLACE - ENTRANCE
PAVEMENT REPAIRS

16-001-CIP



N

0 NONE

DRAWN BY DAL
REVISED NONE

BRANDONWAY DRIVE (BRAND ROAD TO WINDWOOD DRIVE)
OVERALL MAP

16-001-CIP

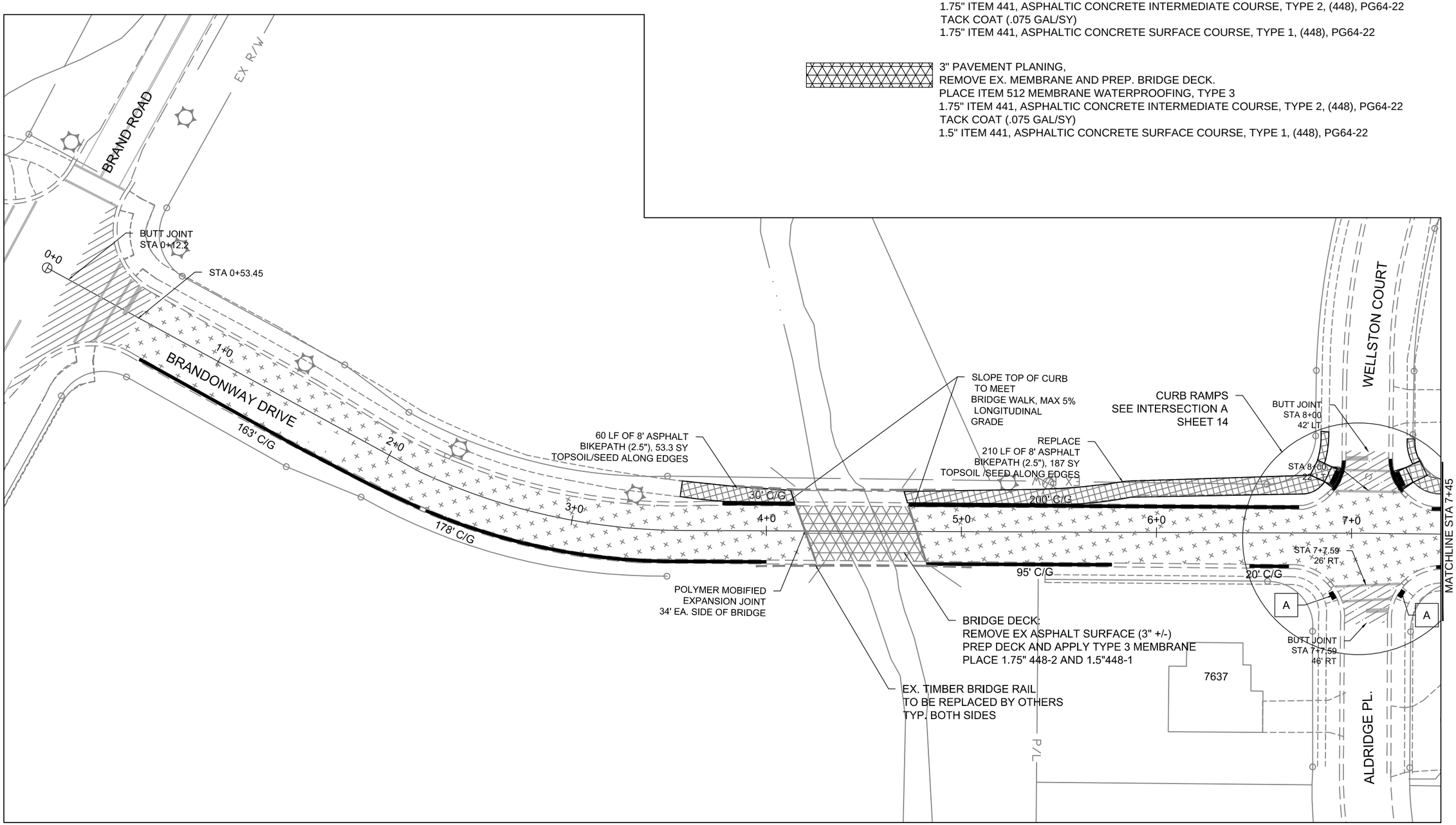
A REMOVE EX. WARNING PANELS
PREP. EX. RAMP SURFACE
INSTALL SURFACE APPLIED DETECTABLE WARNING PANELS

1.5" PAVEMENT PLANING
TACK COAT (.1 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

VARIABLE DEPTH PLANING PAVEMENT PLANING (1.5" TO 3") AT 10' INTERVALS
TACK COAT (.1 GAL/SY)
1.75" ITEM 441, ASPHALTIC INTERMEDIATE COURSE, TYPE 2, (448), PG64-22
TACK COAT (.075 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

6" PAVEMENT PLANING,
3" 301 ASPHALT CONCRETE BASE
TACK COAT (.075 GAL/SY)
1.75" ITEM 441, ASPHALTIC CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), PG64-22
TACK COAT (.075 GAL/SY)
1.75" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

3" PAVEMENT PLANING,
REMOVE EX. MEMBRANE AND PREP. BRIDGE DECK.
PLACE ITEM 512 MEMBRANE WATERPROOFING, TYPE 3
1.75" ITEM 441, ASPHALTIC CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), PG64-22
TACK COAT (.075 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

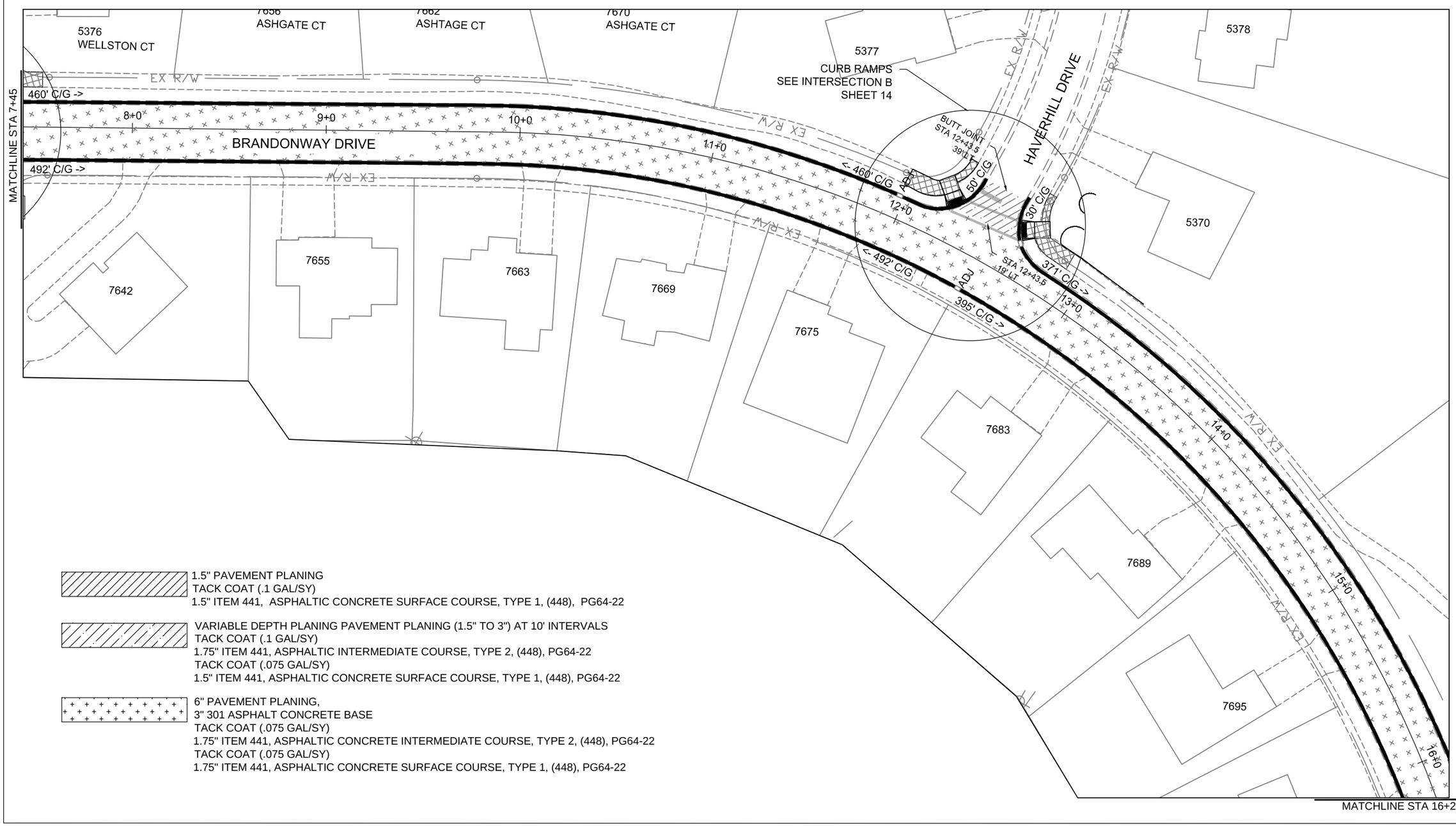


DRAWN BY DAL
REVISED
NONE

SCALE IN FEET 0 25 50

BRANDONWAY DRIVE
ROADWAY

16-001-CIP



0 25 50
SCALE IN FEET

DRAWN BY DAL
REVISED NONE

BRANDONWAY DRIVE
ROADWAY

16-001-CIP

A REMOVE EX. WARNING PANELS
PREP. EX. RAMP SURFACE
INSTALL SURFACE APPLIED DETECTABLE WARNING PANELS

1.5" PAVEMENT PLANING
TACK COAT (.1 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

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1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

6" PAVEMENT PLANING,
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TACK COAT (.075 GAL/SY)
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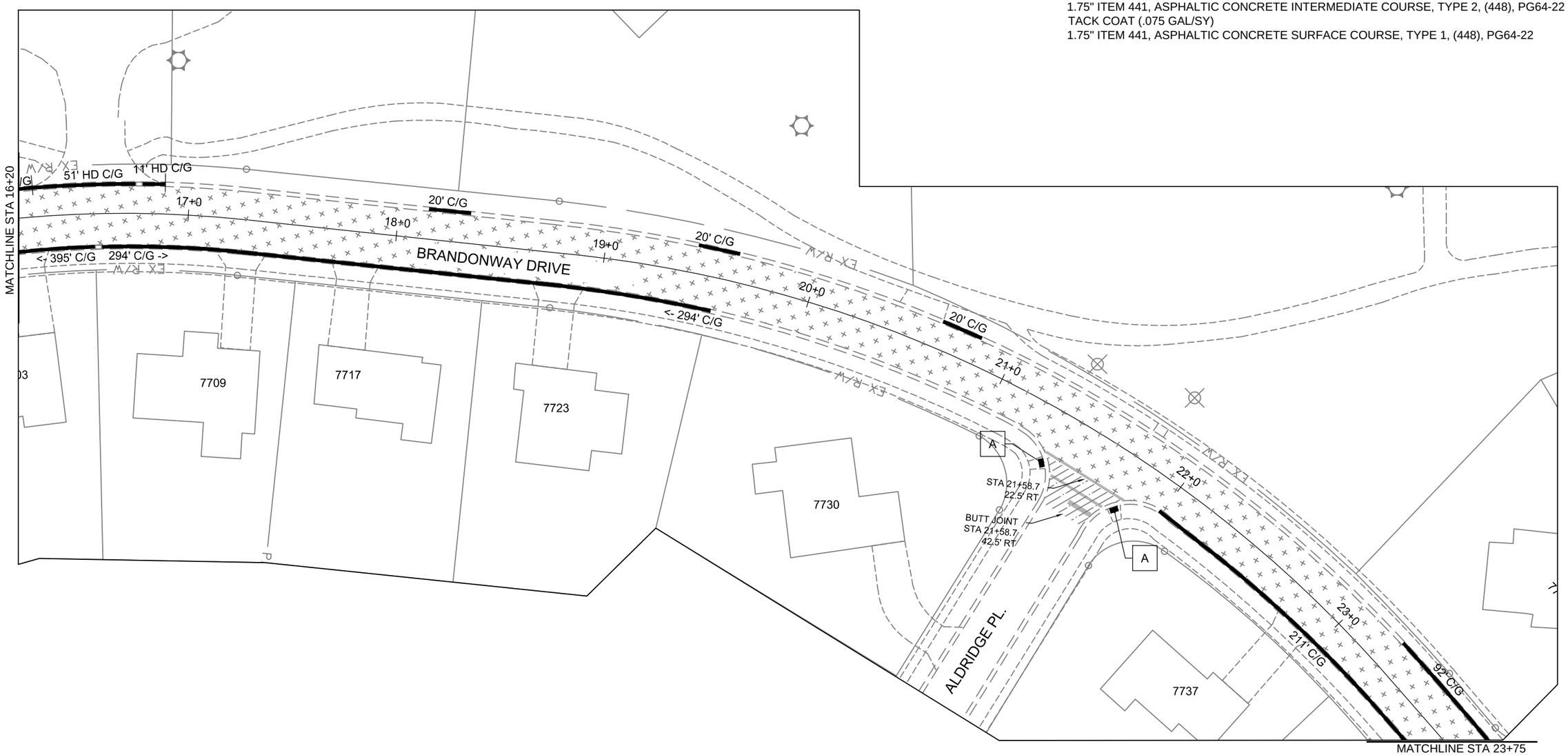
TACK COAT (.075 GAL/SY)
1.75" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22



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0 25 50
SCALE IN FEET

DRAWN BY DAL
REVISED NONE

BRANDONWAY DRIVE
ROADWAY

16-001-CIP

A REMOVE EX. WARNING PANELS
PREP. EX. RAMP SURFACE
INSTALL SURFACE APPLIED DETECTABLE WARNING PANELS

1.5" PAVEMENT PLANING
TACK COAT (.1 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

VARIABLE DEPTH PLANING PAVEMENT PLANING (1.5" TO 3") AT 10' INTERVALS
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1.75" ITEM 441, ASPHALTIC INTERMEDIATE COURSE, TYPE 2, (448), PG64-22
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3" 301 ASPHALT CONCRETE BASE
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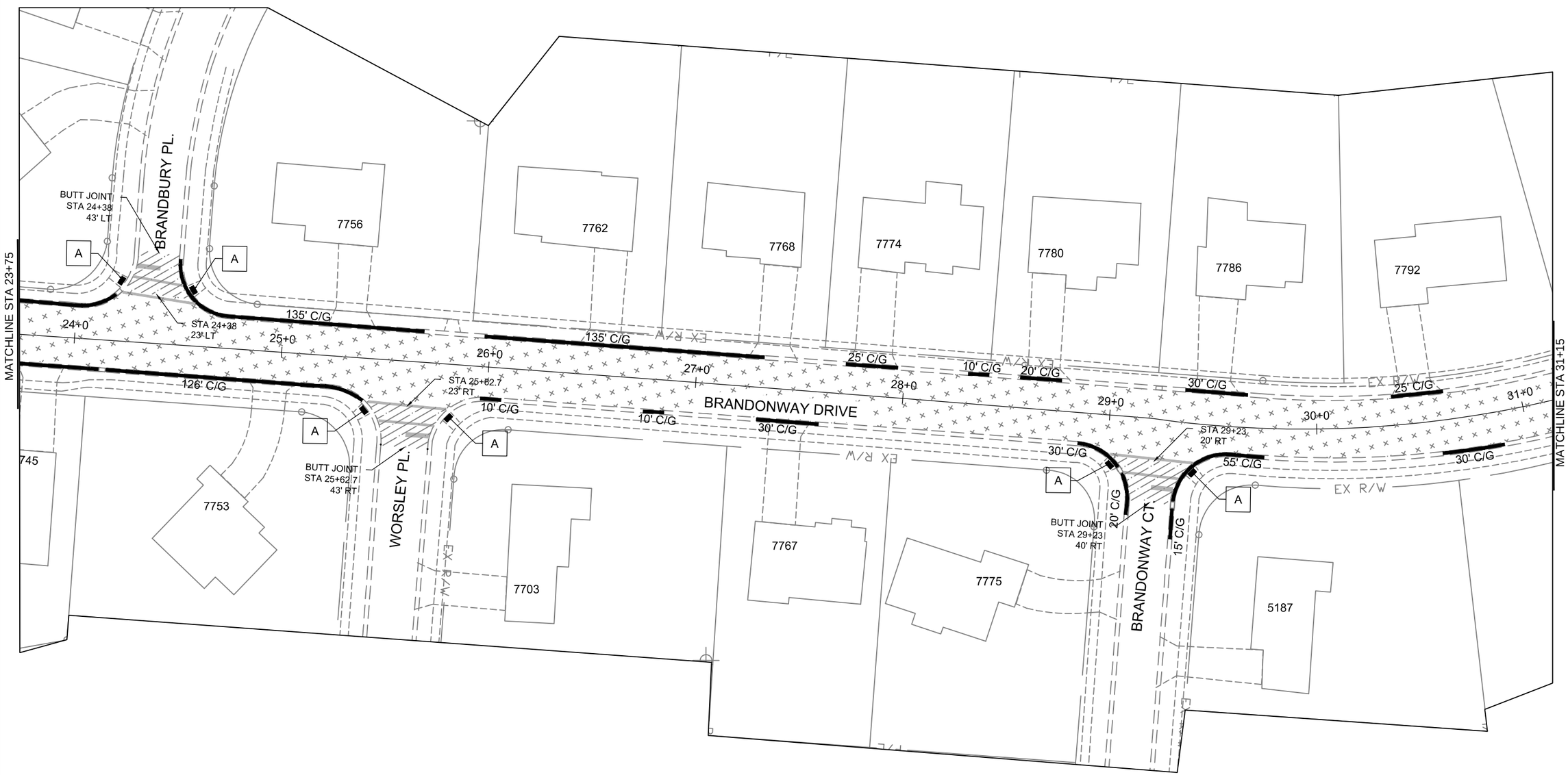

DRAWN BY DAL
REVISED
NONE

SCALE IN FEET 0 25 50

BRANDONWAY DRIVE
ROADWAY

16-001-CIP

6" PAVEMENT PLANING,
3" 301 ASPHALT CONCRETE BASE
TACK COAT (.075 GAL/SY)
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TACK COAT (.075 GAL/SY)
1.75" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

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TACK COAT (.1 GAL/SY)
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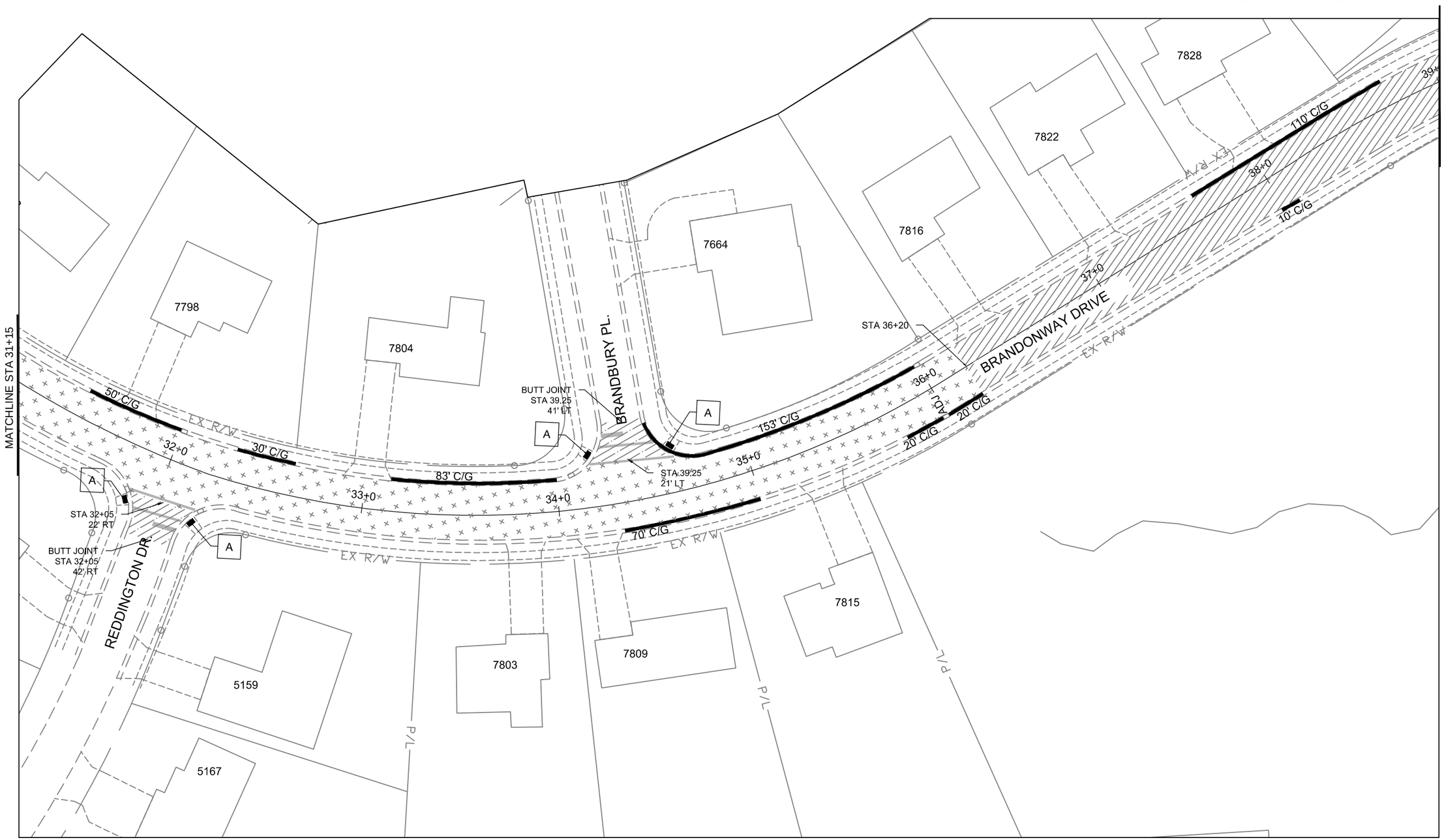
TACK COAT (.075 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

A REMOVE EX. WARNING PANELS
PREP. EX. RAMP SURFACE
INSTALL SURFACE APPLIED DETECTABLE WARNING PANELS



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0 25 50
SCALE IN FEET

DRAWN BY DAL
REVISED NONE

BRANDONWAY DRIVE
ROADWAY

16-001-CIP

A REMOVE EX. WARNING PANELS
PREP. EX. RAMP SURFACE
INSTALL SURFACE APPLIED DETECTABLE WARNING PANELS

1.5" PAVEMENT PLANING
TACK COAT (.1 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

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1.75" ITEM 441, ASPHALTIC INTERMEDIATE COURSE, TYPE 2, (448), PG64-22
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3" 301 ASPHALT CONCRETE BASE
TACK COAT (.075 GAL/SY)
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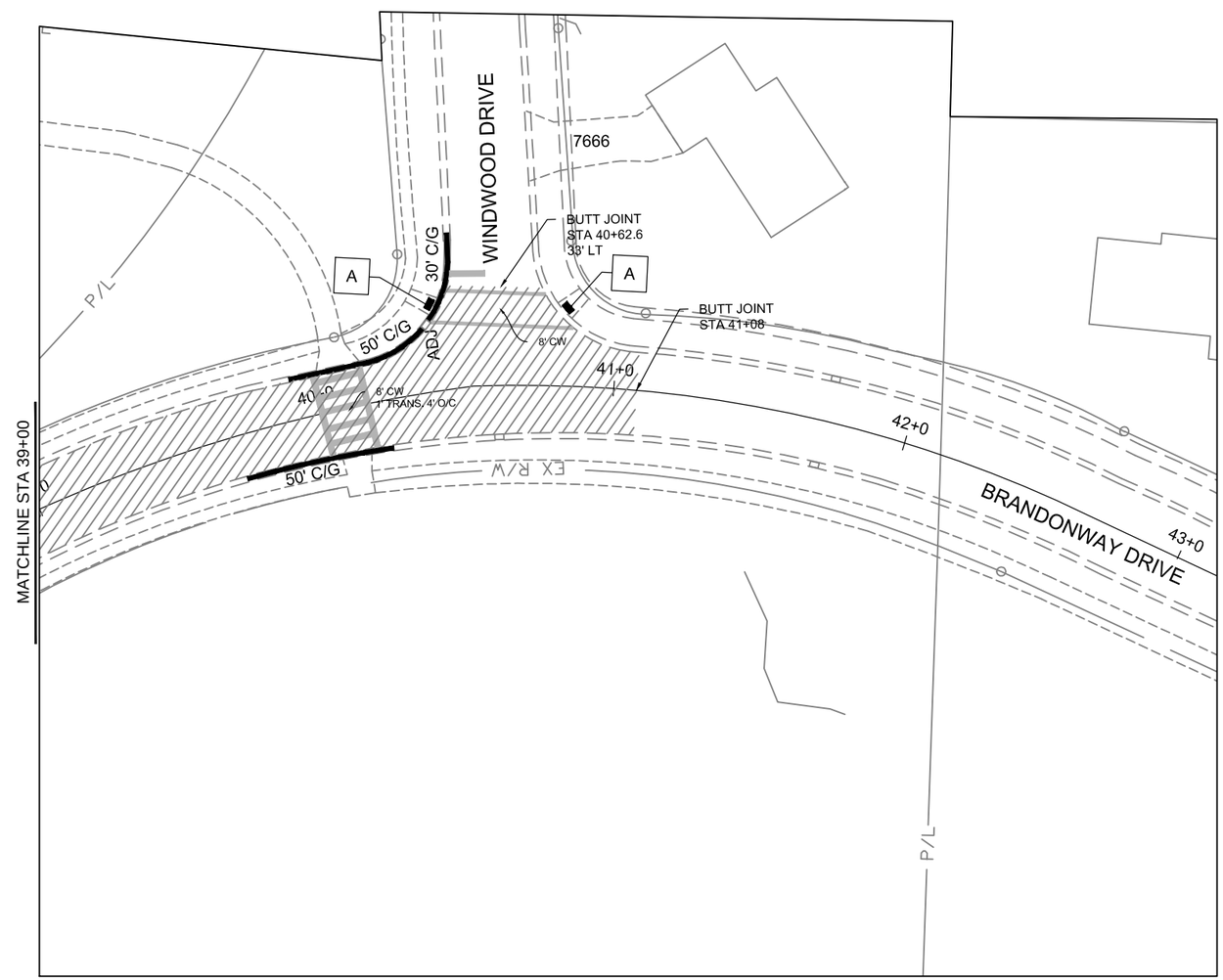

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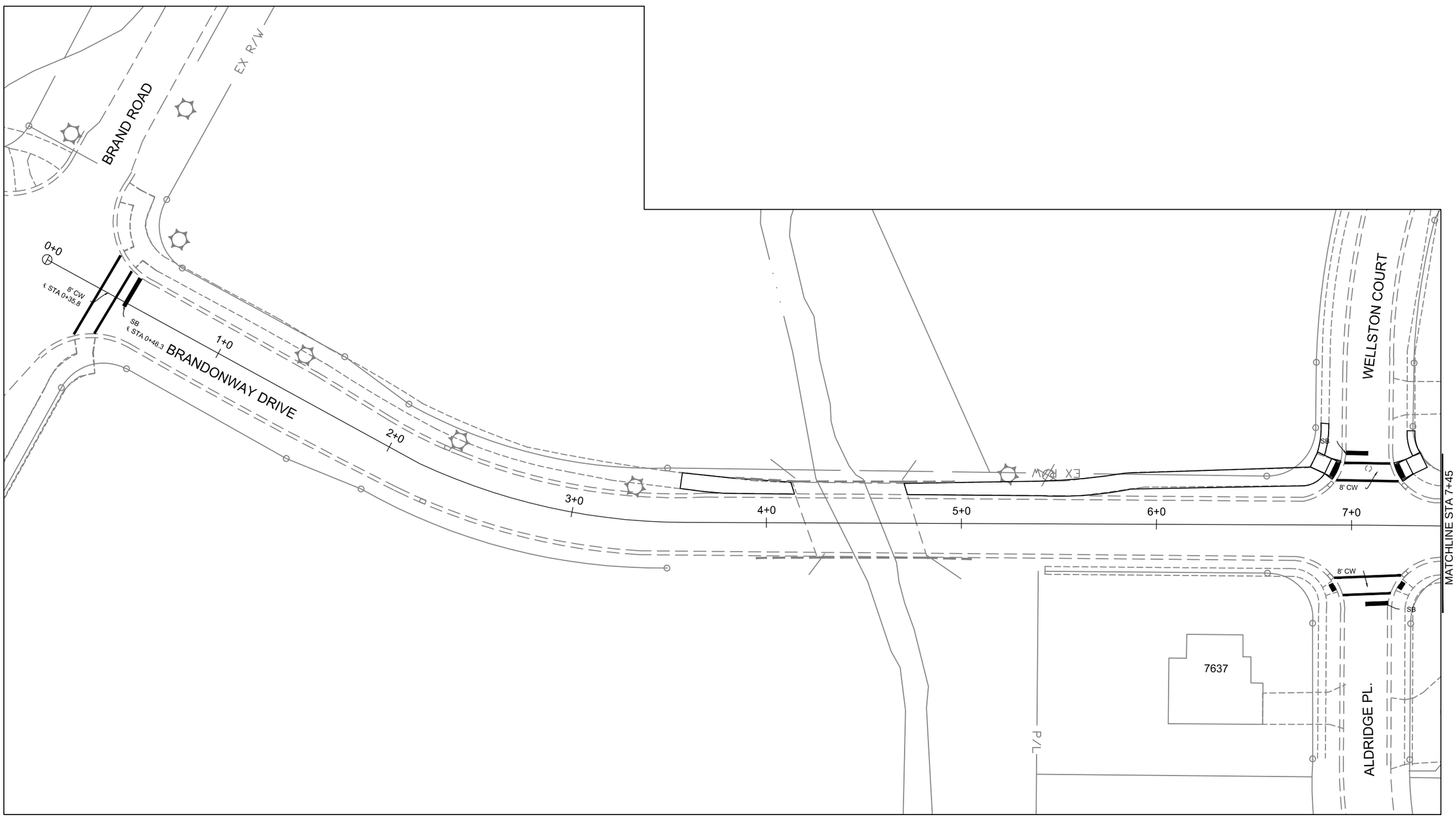
0 25 50
SCALE IN FEET

DRAWN BY DAL
REVISED NONE

BRANDONWAY DRIVE
ROADWAY

16-001-CIP



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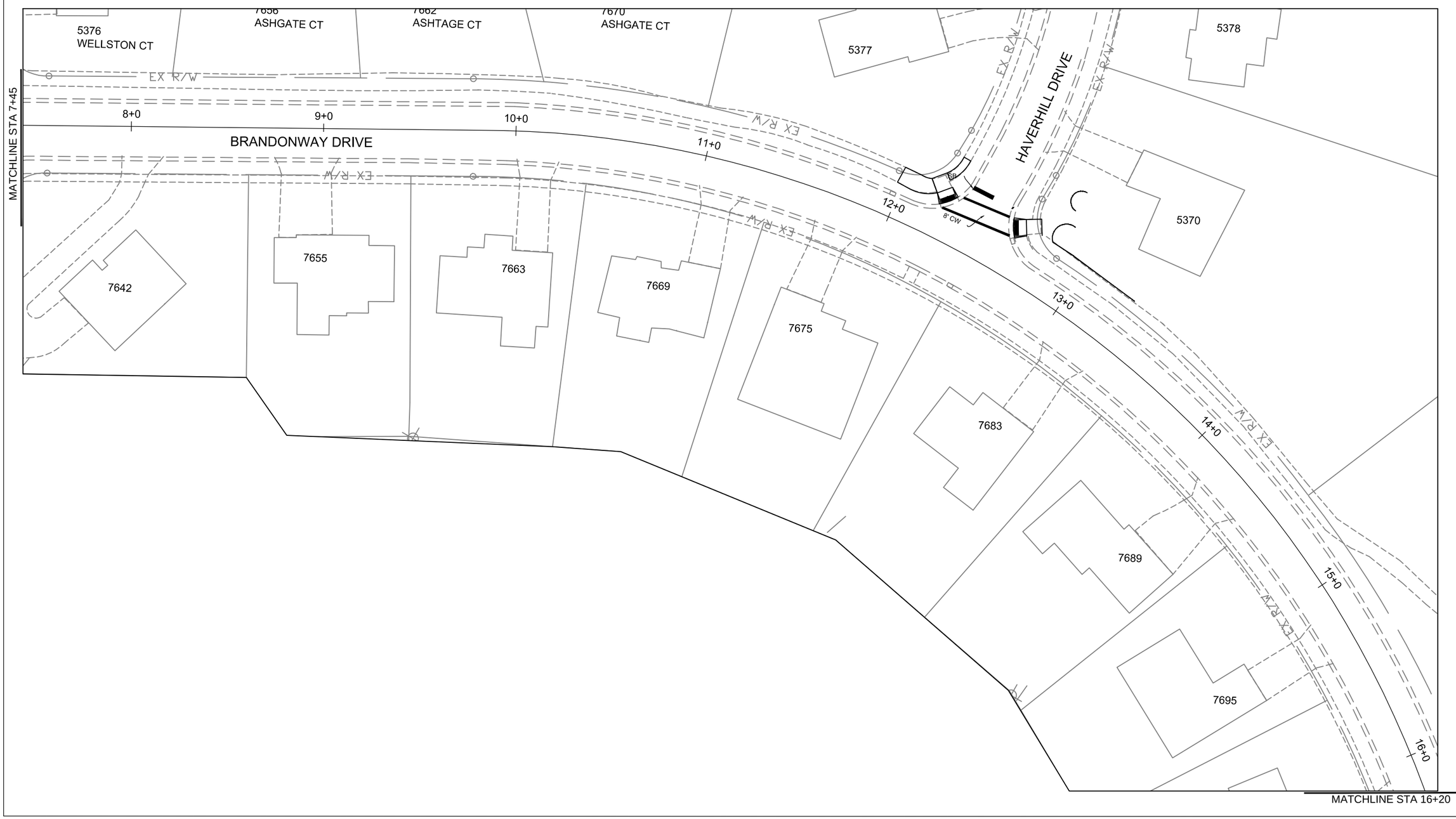
SCALE IN FEET

DRAWN BY DAL
REVISED NONE

BRANDONWAY DRIVE
TRAFFIC AND STRIPING

16-001-CIP

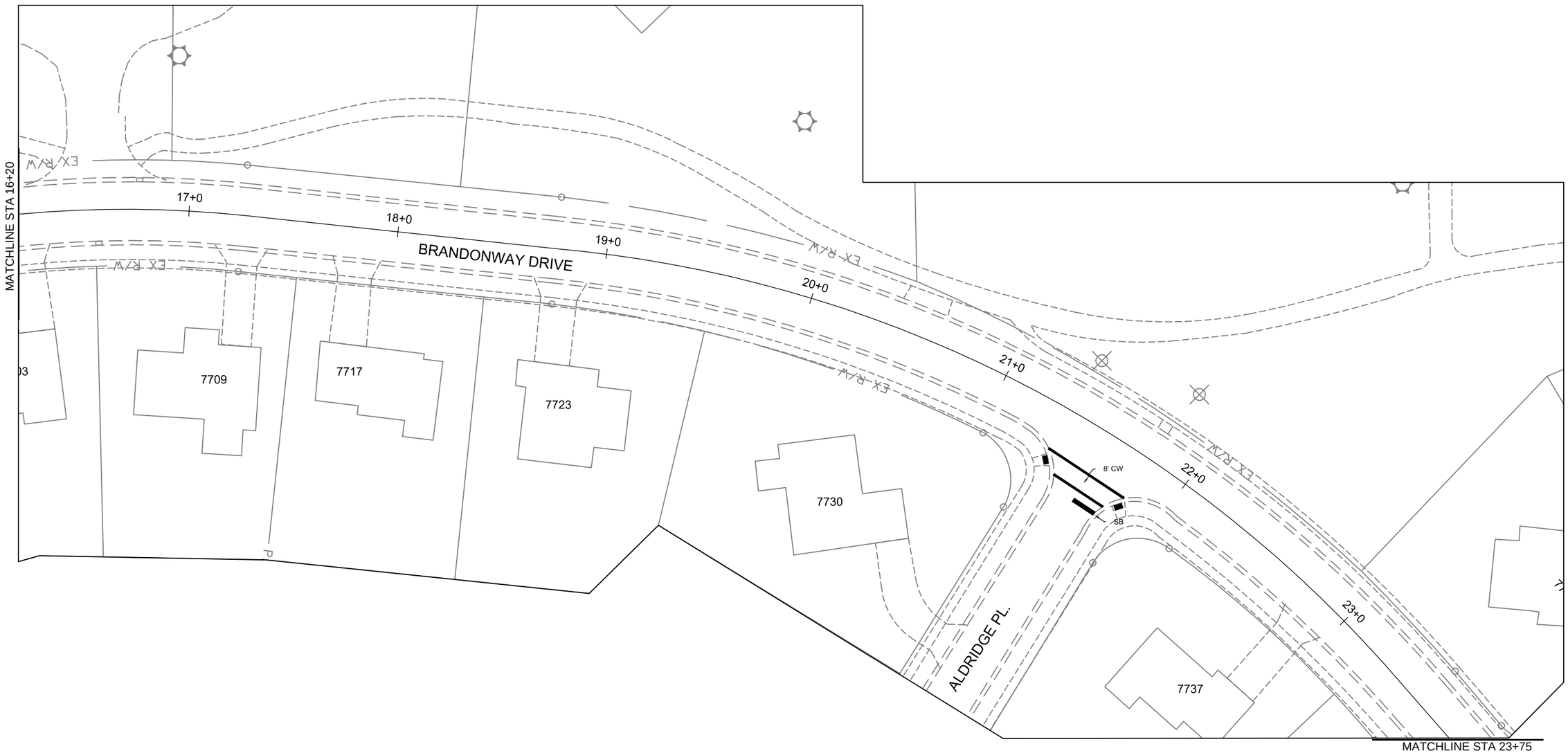


SCALE IN FEET 0 25 50

DRAWN BY DAL
REVISED NONE

BRANDONWAY DRIVE
TRAFFIC AND STRIPING

16-001-CIP



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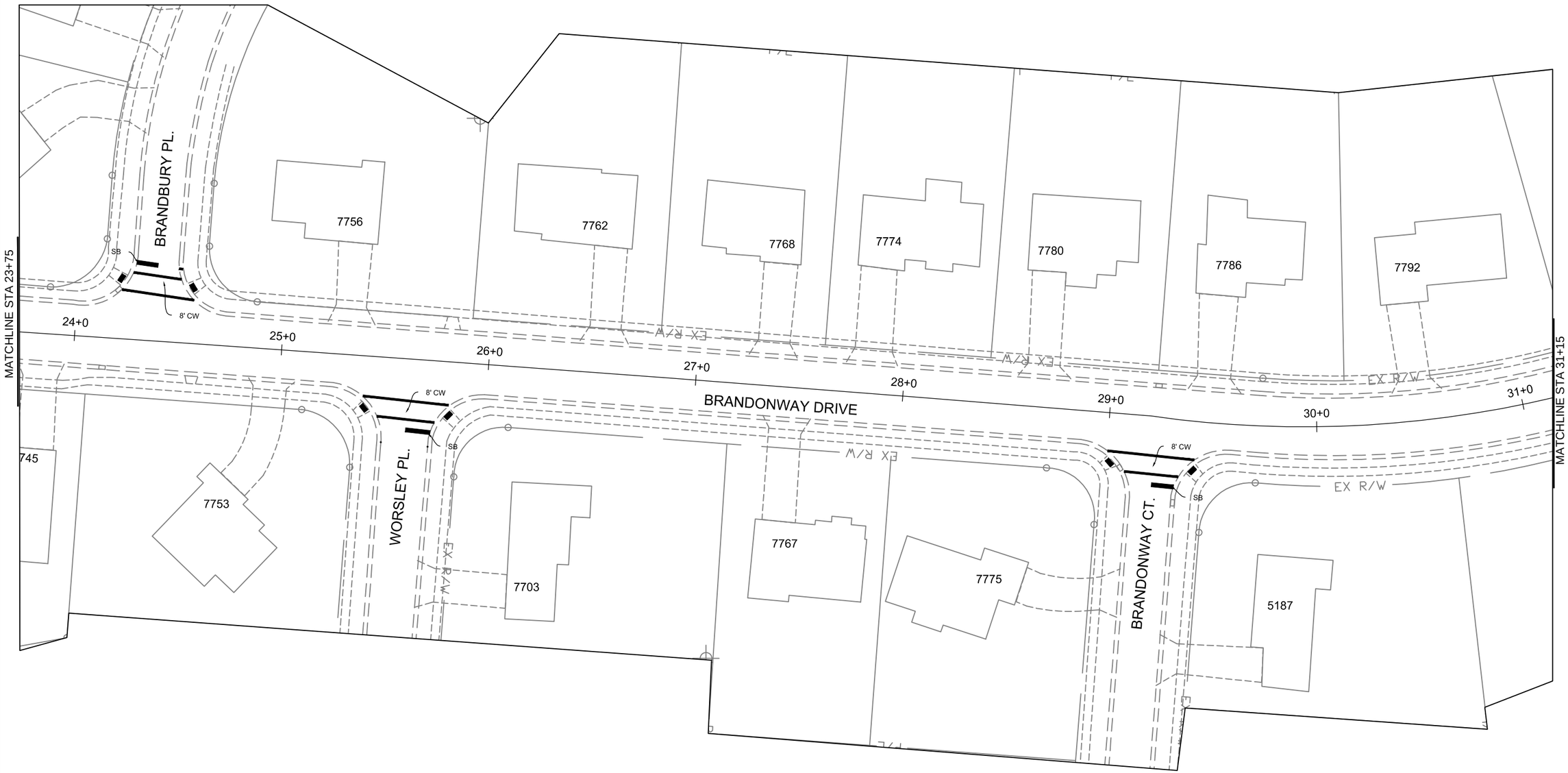
SCALE IN FEET

DRAWN BY DAL
REVISED NONE

BRANDONWAY DRIVE
TRAFFIC AND STRIPING

16-001-CIP



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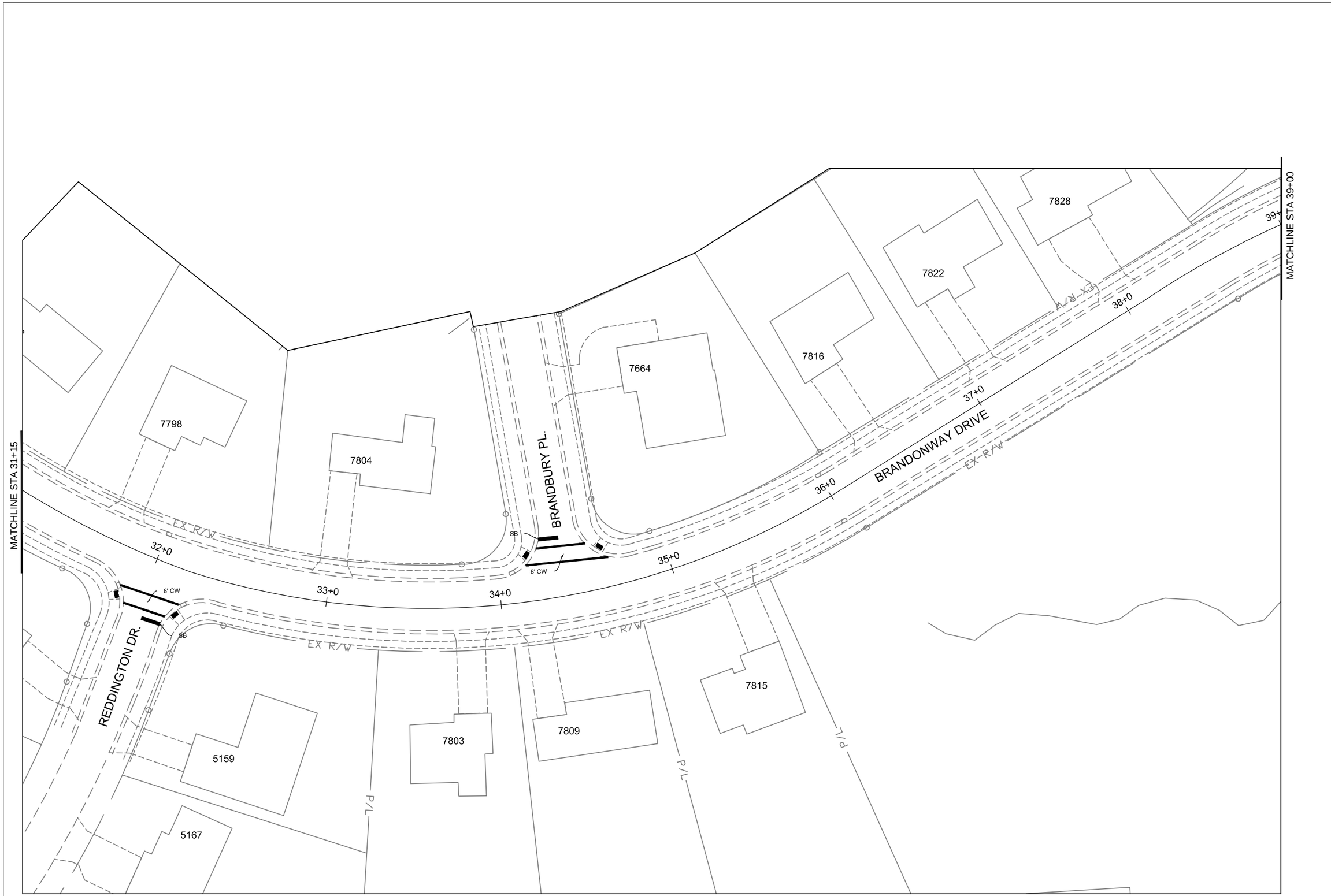
SCALE IN FEET

DRAWN BY DAL
REVISED NONE

BRANDONWAY DRIVE
TRAFFIC AND STRIPING

16-001-CIP



DRAWN BY: DAL
REVISED: NONE

BRANDONWAY DRIVE
TRAFFIC AND STRIPING

16-001-CIP

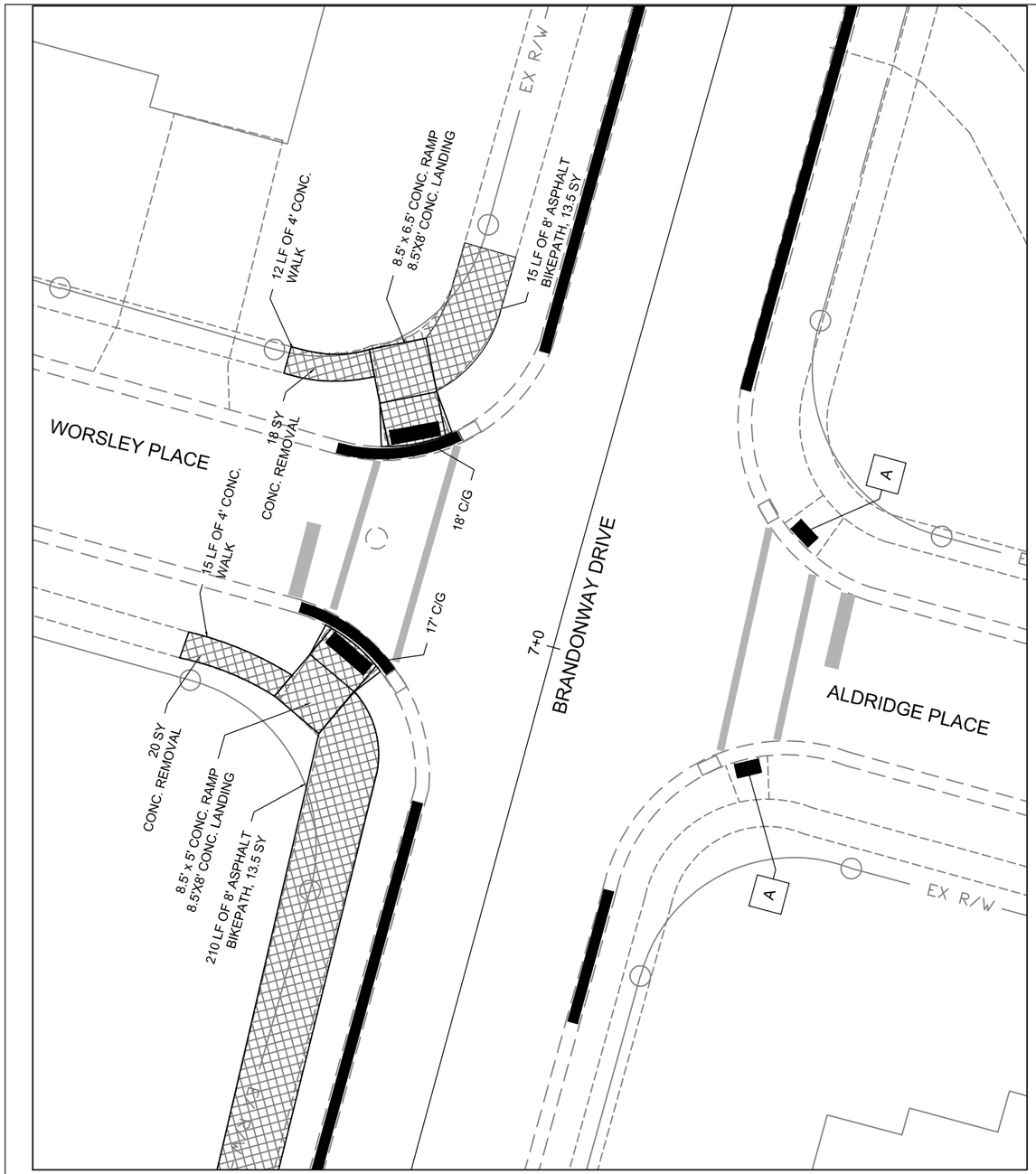
N

0 25 50
SCALE IN FEET

DRAWN BY
DAL
REVISED
NONE

BRANDONWAY DRIVE
TRAFFIC AND STRIPING

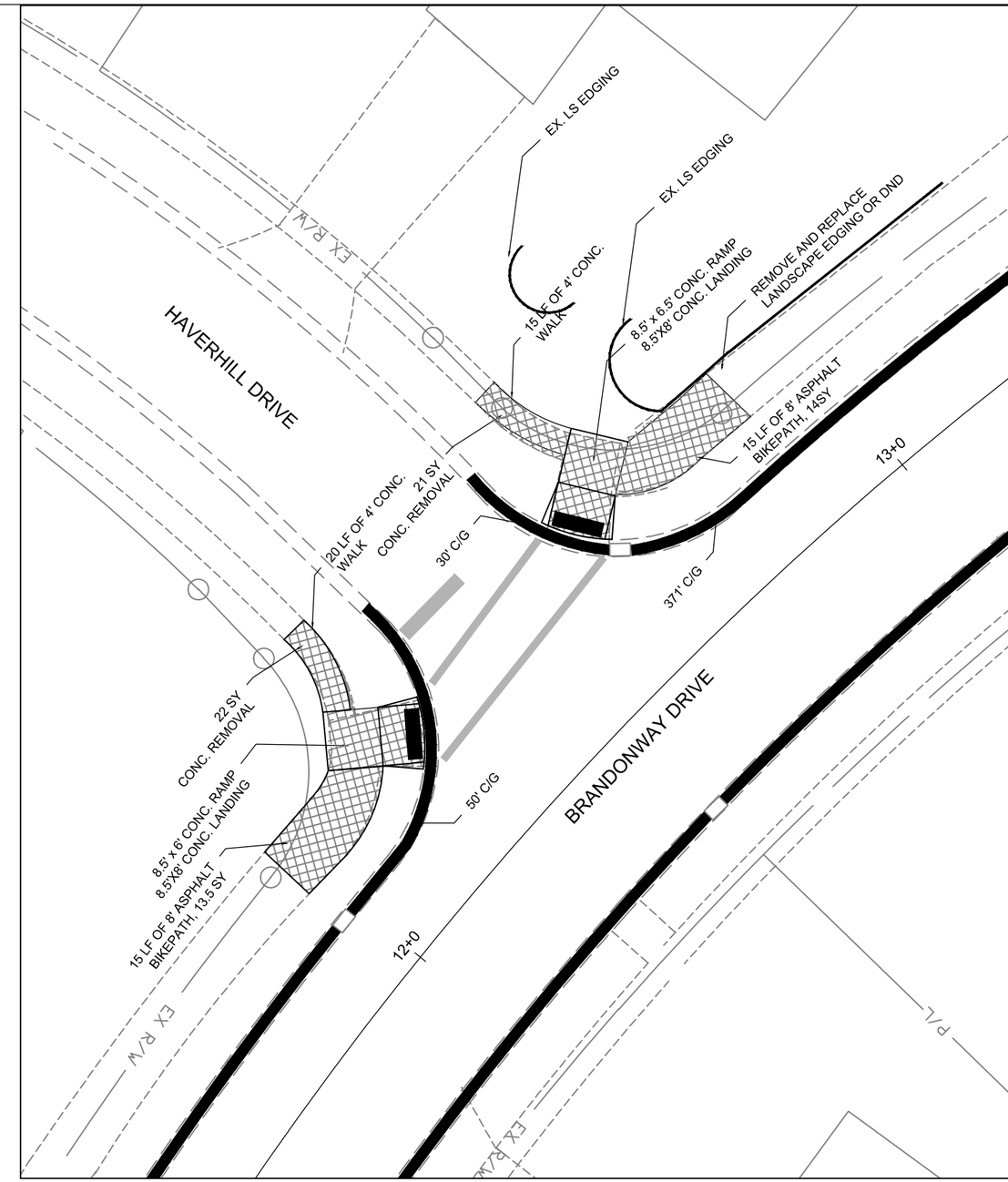
16-001-CIP



INTERSECTION A:
BRANDONWAY DRIVE AT WORSLEY COURT
CURB RAMP CONSTRUCTION DETAILS

REMOVE AND DISPOSE OF EXISTING CONCRETE RAMP, SIDEWALK AND ASPHALT BIKEPATH WITHIN LIMITS

A REMOVE EX. WARNING PANELS
PREP. EX. RAMP SURFACE
INSTALL SURFACE APPLIED DETECTABLE WARNING PANELS



INTERSECTION B:
BRANDONWAY DRIVE AT HAVERHILL DRIVE
CURB RAMP CONSTRUCTION DETAILS

REMOVE AND DISPOSE OF EXISTING CONCRETE RAMP, SIDEWALK AND ASPHALT BIKEPATH WITHIN LIMITS

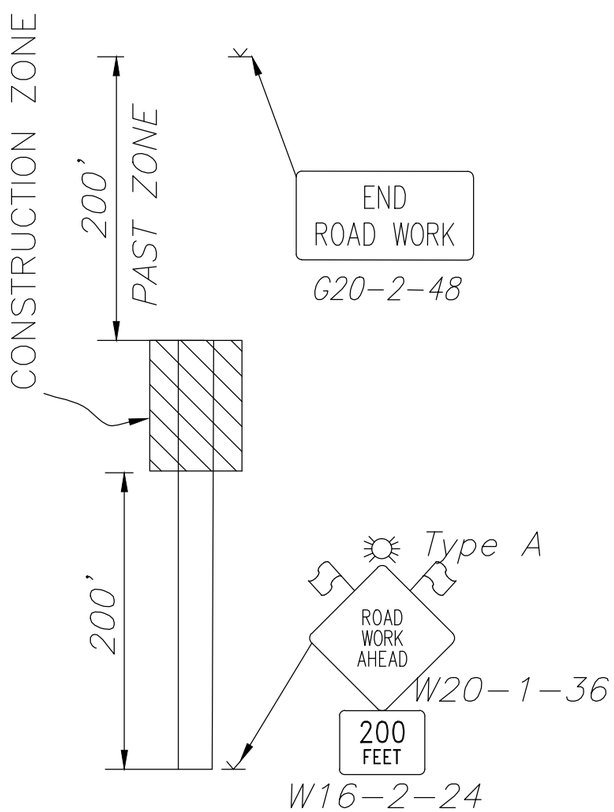
N

0 10 20
SCALE IN FEET

DRAWN BY DAL
REVISED
NONE

CURB RAMP DETAILS
INTERSECTIONS A & B

16-001-CIP



ADVANCE WARNING SIGNS FOR ROAD WORK
(Typical Both Directions)

ASPHALT BASE IS TO BE PLACED THE SAME DAY THAT THE EXISTING PAVMENT SECTION IS REMOVED.

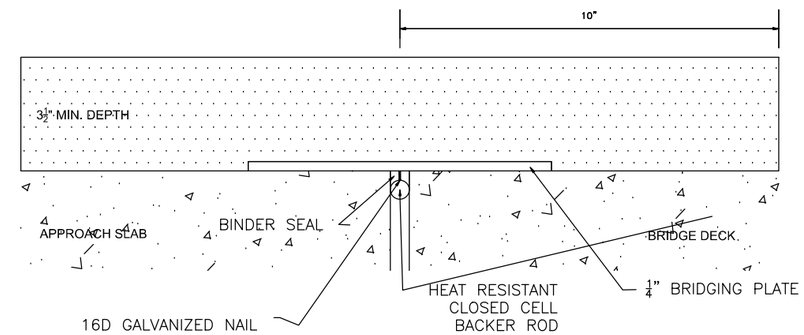
CONTRACTOR SHALL PLAN AND PHASE OPERATIONS SO AS TO MAINTIAN A MINIMUM OF ONE LANE TWO WAY TRAFFIC AND MINIMIZE TRAFFIC DISRUPTIONS AS MUCH AS POSSIBLE.

CONTRACTOR SHALL SUBMIT A DETAILED WORK PLAN FOR PAVING OPERATIONS ONE WEEK PRIOR TO PLANNED START OF PAVING RELATED WORK.

WORK PLAN SHOULD INCLUDE AT A MINIMUM:
- PROPOSED PHASES AND LIMITS
- ANTICIPATED TIME FOR PROPOSED PHASES
- PROPOSED MAINTENANCE OF TRAFFIC DETAILS

WORK ZONE FOR PAVING RELATED WORK TO CONFORM TO ODOT MT-97-12

ITEM SPECIAL
POLYMER MODIFIED ASPHALTIC
EXPANSION JOINT SYSTEM



ITEM SPECIAL - POLYMER MODIFIED ASPHALT EXPANSION JOINT

THE FOLLOWING ARE APPROVED SUPPLIERS:

DYNAMIC SURFACE APPLICATIONS, LTD.
373 VILLAGE ROAD
PENNSDALE, PA 177756
(800) 491-5663
AREA REPRESENTATIVE:
LYNN RIGGENBERG
(800) 491-5663, EXT. 103
LRIGGENBERG@DSA-LTD.COM

D.S. BROWN COMPANY
300 EAST CHERRY STREET
N. BALTIMORE, OHIO 45872
(419) 257-2200

DRAWN BY DAL
REVISED NONE

BRANDONWAY DRIVE
CONSTRUCTION NOTES AND DETAILS

16-001-CIP

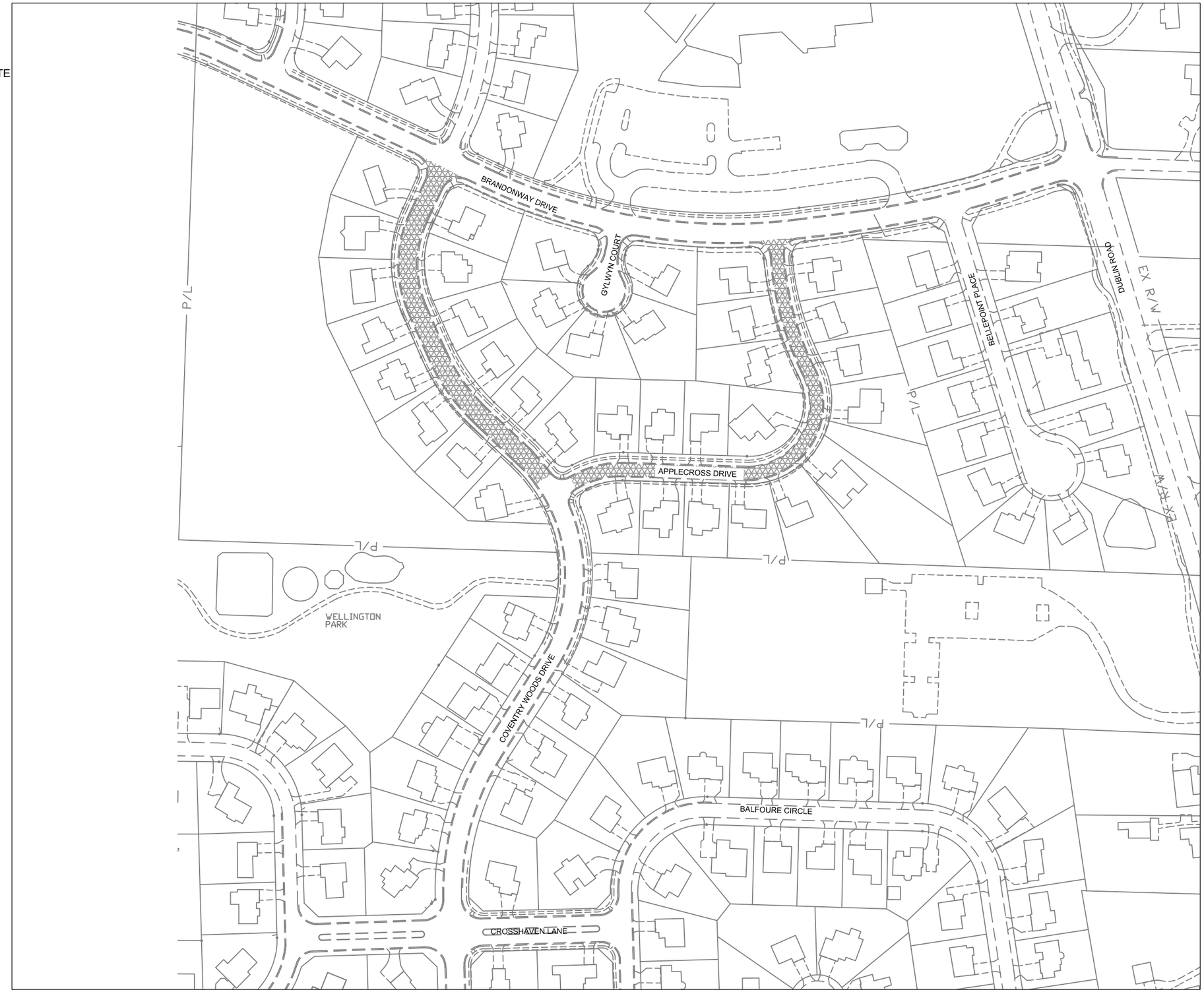
	BRANDONWAY DRIVE ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Bike Path Removed and Disposed of, A.P.P.	SY	296
202	Concrete Removed & Disposed of, A.P.P.	SY	81
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	4610
254	Pavement Planing, 1.5", A.P.P.	SY	1870
254	Pavement Planing, 3",A.P.P.	SY	180
254	Pavement Planing, Variable Depth (1.5"-3"),A.P.P.	SY	520
254	Pavement Planing, 6",A.P.P.	SY	11280
301	Asphalt Concrete Base	TN	1890
304	Aggregate Base	CY	4
407	NTSS-1HM TracklessTack Coat	GAL	2000
441	(Bikepath) Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	44
441	Asphaltic Concrete Intermediate Course, Type-2, (448), PG64-22	TN	1170
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	1160
512	Waterproofing Membrane, Type 3	SY	180
604	Structure- Adjust, Inlet, A.P.P.	EA	3
608	4" Conc. Walk w/ Agg. Base, A.P.P.	SF	520
608	Curb Ramp, 6" Conc. w/Agg. Base, A.P.P.	SF	250
609	Combination Curb/Gutter, A.P.P.	LF	4548
609	Combination Curb/Gutter, Heavy Duty, A.P.P.	LF	62
614	LEO w/ Patrol Car	HR	30
614	Flagger	HR	162
644	Crosswalk Line, 12"	LF	818
644	Stop Bar, 24"	LF	136
653	Pulverized Topsoil, A.P.P.	CY	210
659	Vegetation (Seed/Mulch), A.P.P.	SY	200
Special	Polymer Modified Asphaltic Expansion Joint	LF	68
Special	Asphalt Rejuvenating Agent	SY	13850
Special	Curb Can Holes	EA	56
Special	Detectable Warning Panel, Type A	EA	16
Special	Detectable Warning Panel, Type B	EA	16
	BRANDONWAY DRIVE ESTIMATED CONTINGENCY QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	100
202	Concrete Removed & Disposed of, A.P.P.	SY	50
604	Structure- Reconstruct/Adjust CB/Inlet, A.P.P.	EA	1
608	6" Conc. Walk w/ Agg. Base, A.P.P.	SF	450
609	Combination Curb/Gutter, A.P.P.	LF	100

DRAWN BY DAL
REVISED NONE

BRANDONWAY DRIVE
ESTIMATED QUANTITIES

16-001-CIP

ITEM 254 PAVEMENT PLANING, 3" A.P.P.
TRACKLESS TACK COAT (.1 GAL/SY)
1.75" ITEM 441 ASPHALTIC CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), PG64-22
TRACKLESS TACK COAT (.075 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22



NONE

DRAWN BY: DAL
REVISED NONE

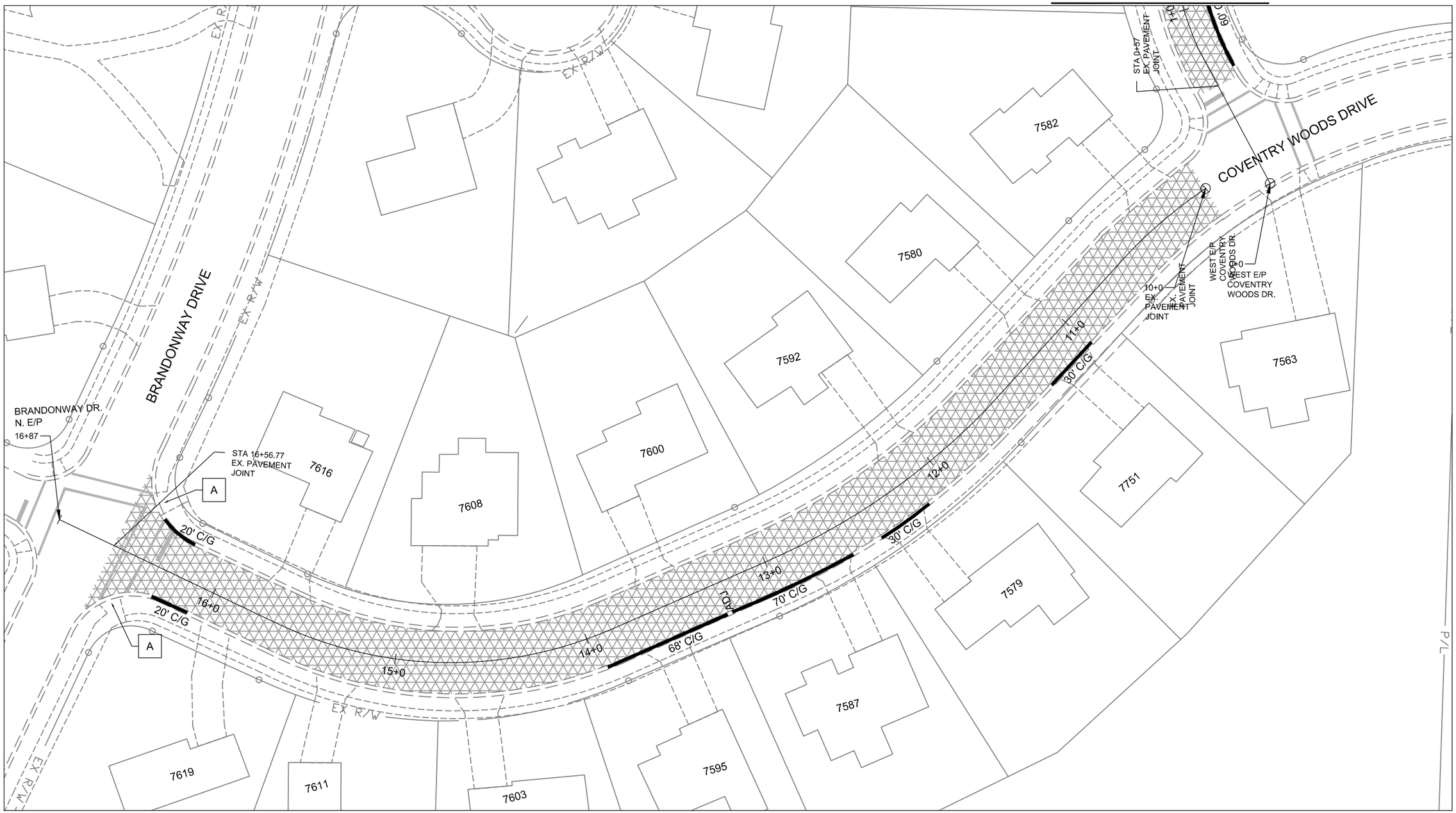
COVENTRY WOODS DRIVE / APPLECROSS DRIVE
OVERALL MAP

16-001-CIP

ITEM 254 PAVEMENT PLANING, 3" A.P.P.
TRACKLESS TACK COAT (.1 GAL/SY)
1.75" ITEM 441 ASPHALTIC CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), PG64-22
TRACKLESS TACK COAT (.075 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

A REMOVE EX. WARNING PANELS
PREP. EX. RAMP SURFACE
INSTALL SURFACE APPLIED DETECTABLE WARNING PANELS

APPLECROSS DRIVESEE SHEET 3



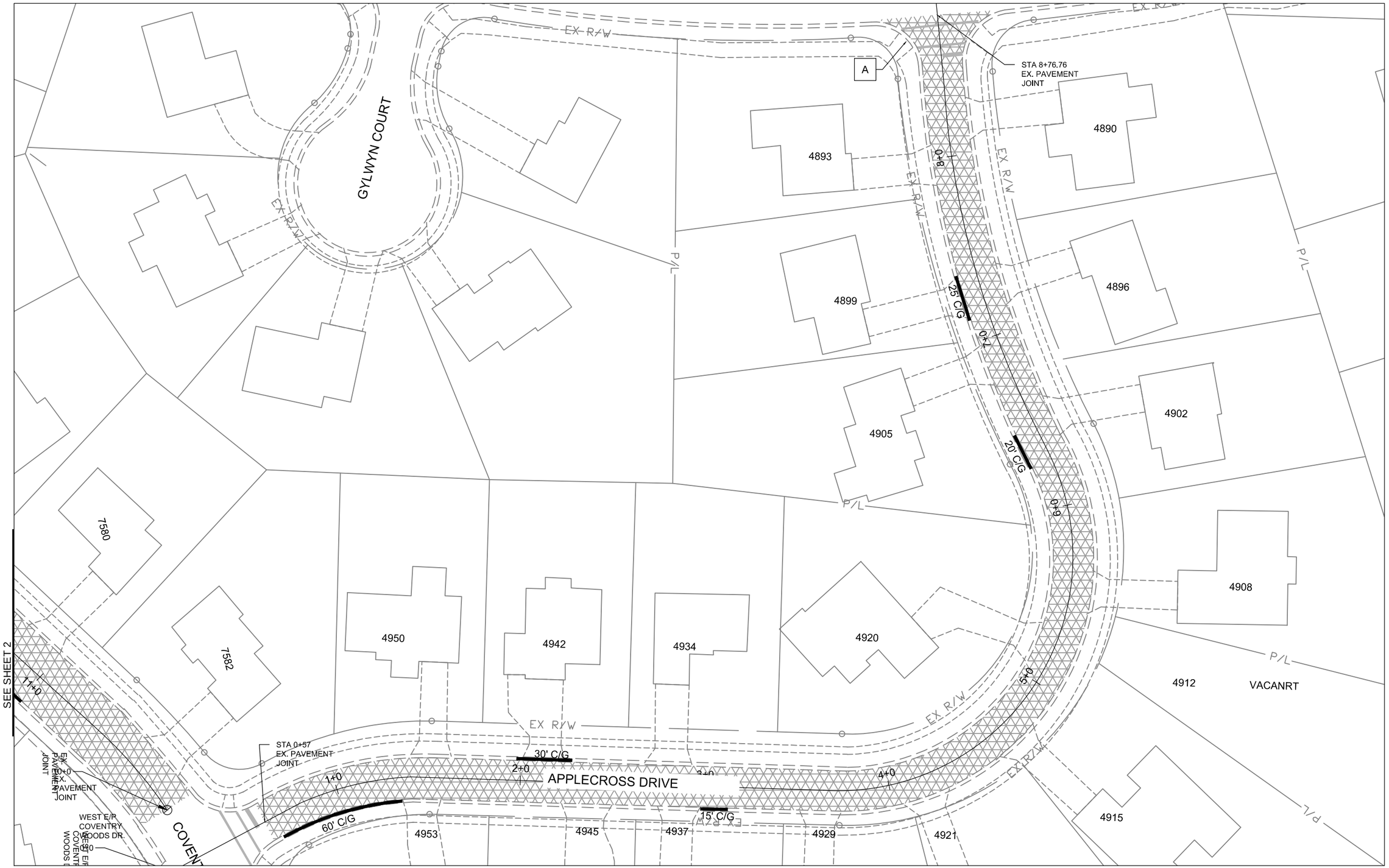
DRAWN BY: DAL
REVISED NONE

SCALE IN FEET 0 25 50

COVENTRY WOODS DRIVE (APPLECROSS TO BRANDONWAY)
ROADWAY

16-001-CIP

ITEM 254 PAVEMENT PLANING, 3" A.P.P.
TRACKLESS TACK COAT (.1 GAL/SY)
1.75" ITEM 441 ASPHALTIC CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), PG64-22
TRACKLESS TACK COAT (.075 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22



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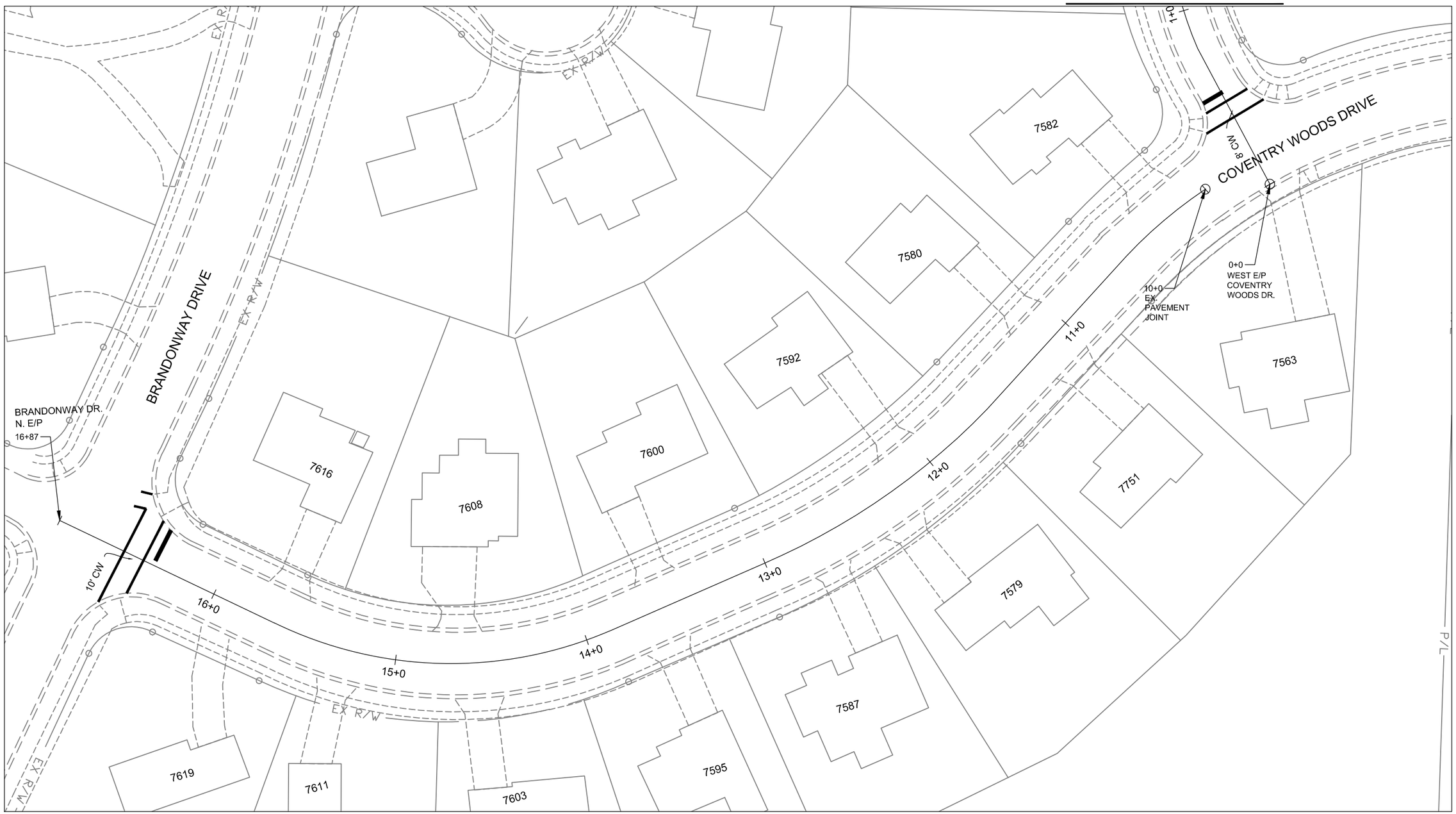
SCALE IN FEET 0 25 50

DRAWN BY: DAL
REVISED NONE

APPLECROSS DRIVE
ROADWAY

16-001-CIP

APPLECROSS DRIVESEE SHEET 5



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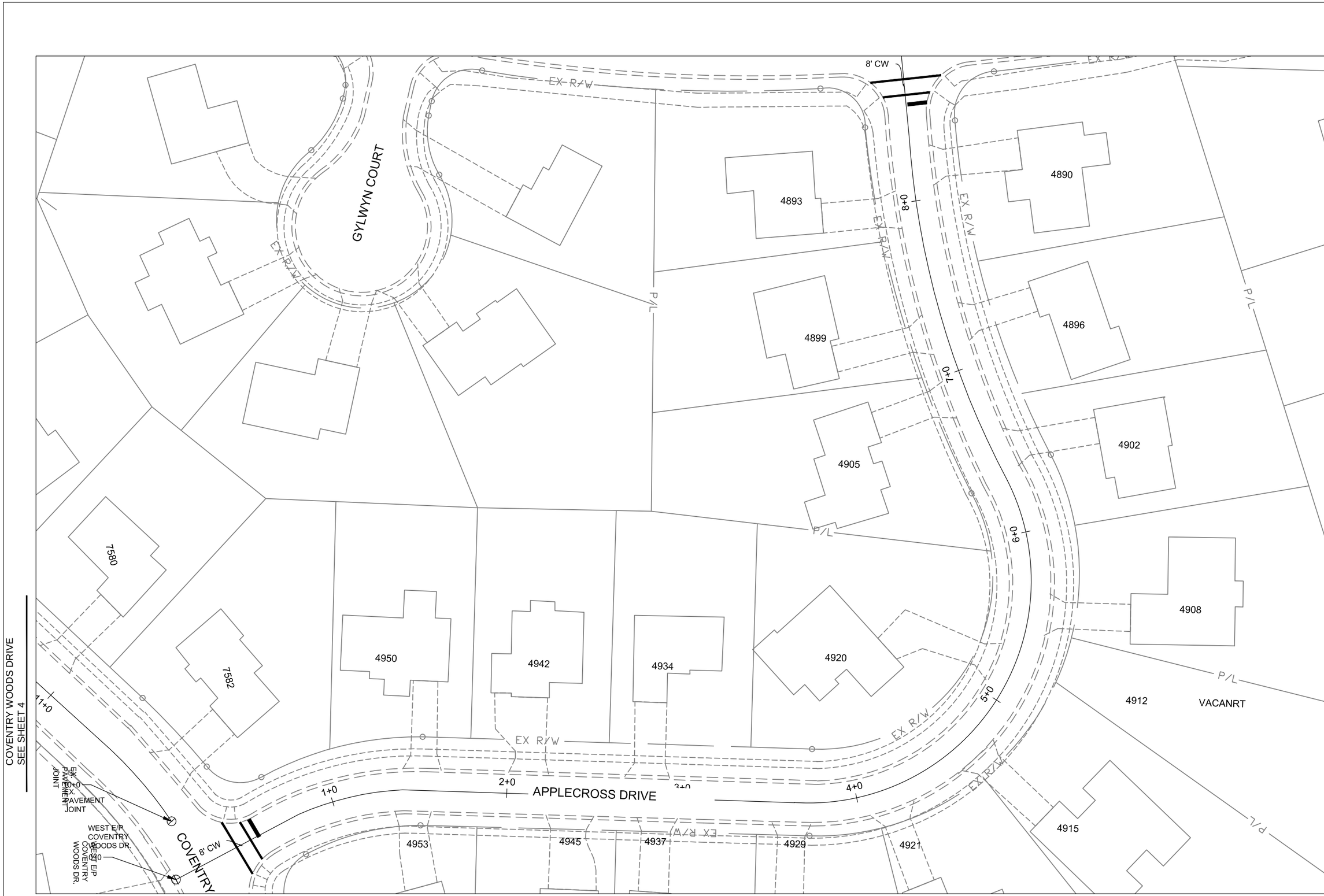
0 25 50
SCALE IN FEET

DRAWN BY: DAL
REVISED
NONE

COVENTRY WOODS DRIVE (APPLECROSS TO BRANDONWAY)
TRAFFIC AND STRIPING

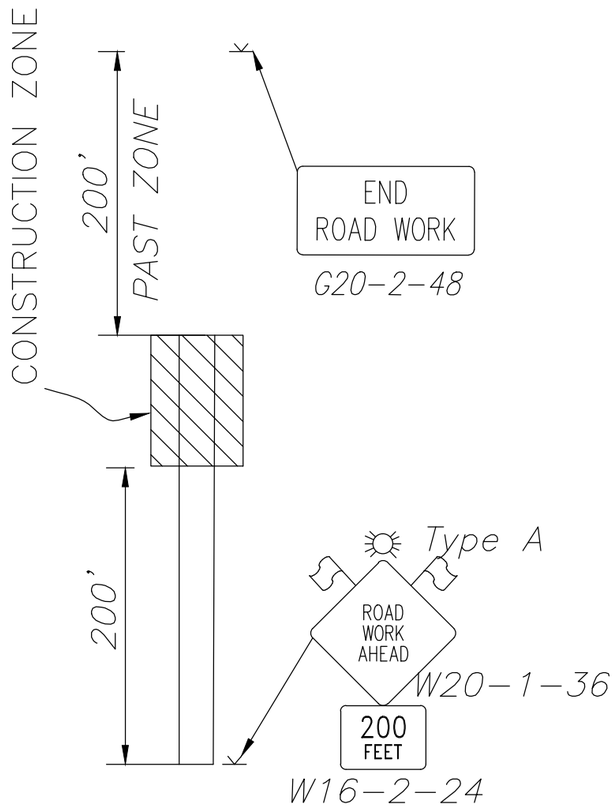
16-001-CIP



DRAWN BY: DAL
REVISED
NONE

APPLECROSS DRIVE
TRAFFIC AND STRIPING

16-001-CIP



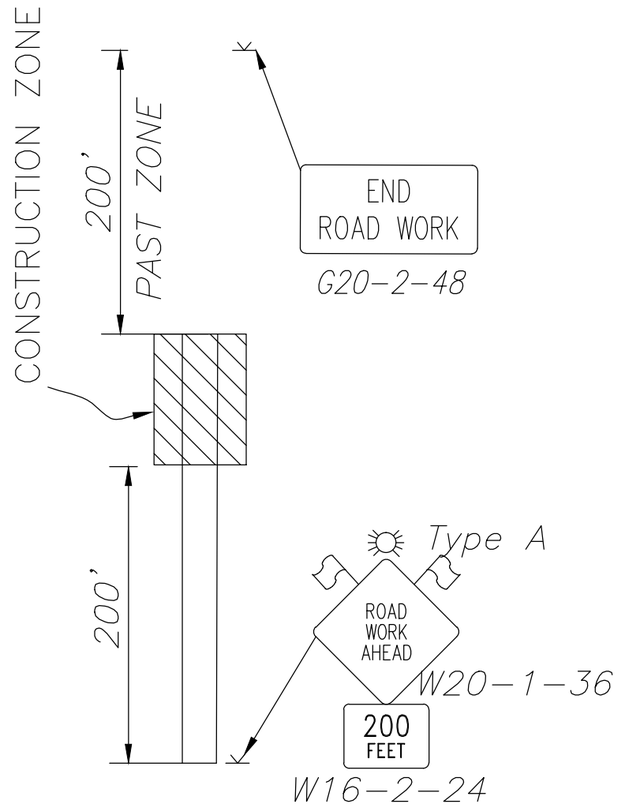
ADVANCE WARNING SIGNS FOR ROAD WORK
(Typical Both Directions)

	COVENTRY WOODS DRIVE ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	230
254	Pavement Planing, 3",A.P.P.	SY	2384
407	NTSS-1HM TracklessTack Coat	GAL	417
441	Asphaltic Concrete Intermediate Course, Type-2, (448), PG64-22	TN	235
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	200
604	Structure- Adjust, Inlet, A.P.P.	EA	1
609	Combination Curb/Gutter, A.P.P.	LF	230
614	Flagger	HR	18
644	Crosswalk Line, 12"	LF	106
644	Stop Bar, 24"	LF	16
653	Pulverized Topsoil, A.P.P.	CY	9
Special	Asphalt Rejuvenating Agent	SY	2384
Special	Curb Can Holes	EA	7
Special	Detectable Warning Panel, Type B	EA	4
	* Curb Ramp, Walk and Striping Quantities: Coventry Woods Drive @ Brandonway Drive		

DRAWN BY DAL
REVISED NONE

COVENTRY WOODS DRIVE
CONSTRUCTION NOTES AND ESTIMATED QUANTITIES

16-001-CIP



ADVANCE WARNING SIGNS FOR ROAD WORK
(Typical Both Directions)

APPLECROSS DRIVE ESTIMATED QUANTITIES

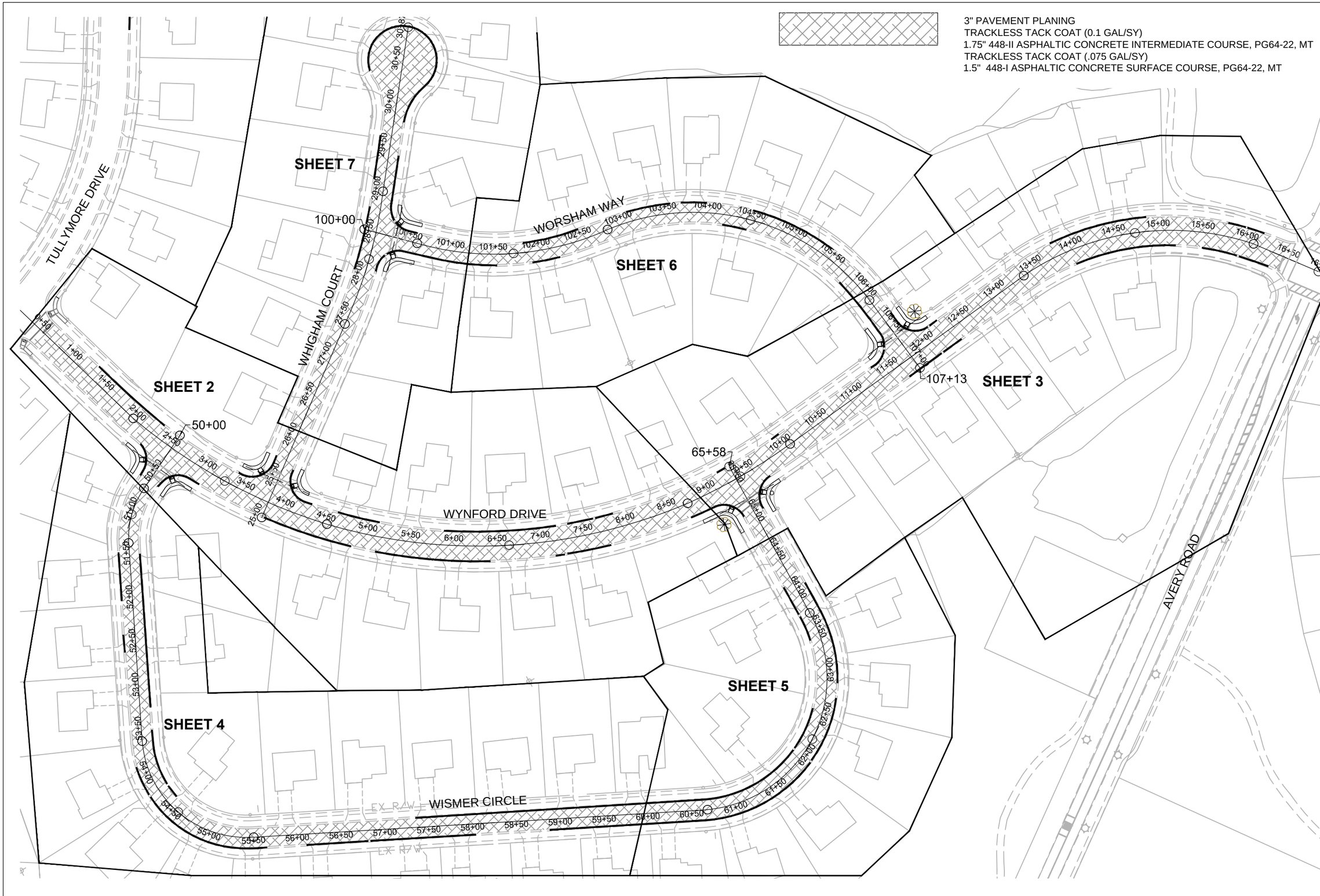
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	150
254	Pavement Planing, 3",A.P.P.	SY	2027
407	NTSS-1HM TracklessTack Coat	GAL	354
441	Asphaltic Concrete Intermediate Course, Type-2, (448), PG64-22	TN	200
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	170
609	Combination Curb/Gutter, A.P.P.	LF	150
614	Flagger	HR	16
644	Crosswalk Line, 12"	LF	150
644	Stop Bar, 24"	LF	24
653	Pulverized Topsoil, A.P.P.	CY	6
Special	Asphalt Rejuvenating Agent	SY	2027
Special	Curb Can Holes	EA	2
Special	Detectable Warning Panel, Type B	EA	2
	* Curb Ramp, Walk and Striping Quantities: Applecross Drive @ Coventry Woods Drive, Applecross Drive @ Brandonway Drive		

DRAWN BY: DAL
REVISED NONE

APPLECROSS DRIVE
CONSTRUCTION NOTES AND ESTIMATED QUANTITIES

16-001-CIP

3" PAVEMENT PLANING
TRACKLESS TACK COAT (0.1 GAL/SY)
1.75" 448-II ASPHALTIC CONCRETE INTERMEDIATE COURSE, PG64-22, MT
TRACKLESS TACK COAT (.075 GAL/SY)
1.5" 448-I ASPHALTIC CONCRETE SURFACE COURSE, PG64-22, MT



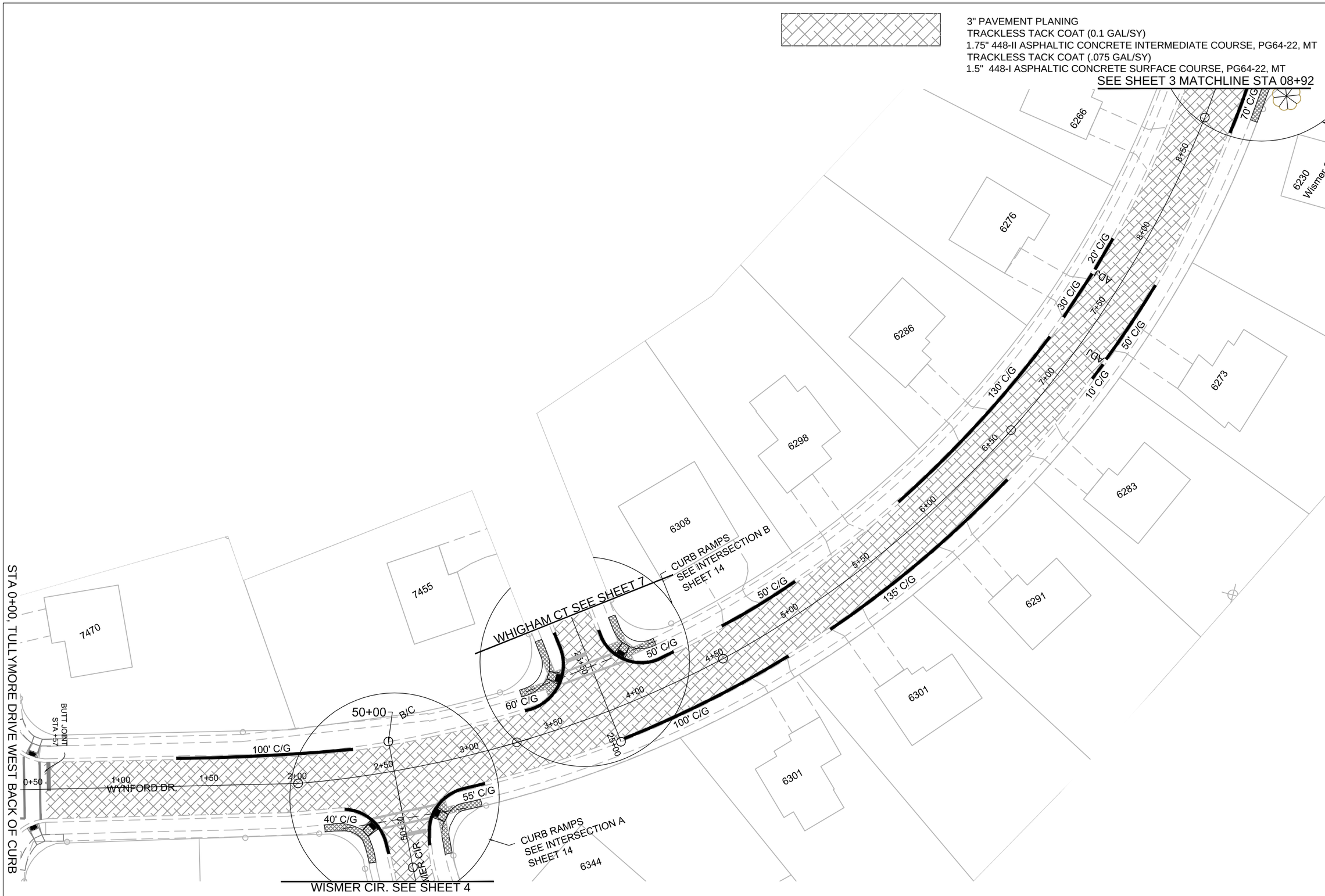
SCALE IN FEET 0 25' 50'

DRAWN BY: DAL
REVISED NONE

WYNFORD AREA OVERVIEW MAP
ROADWAY AND CONCRETE WORK

16-001-CIP

3" PAVEMENT PLANING
TRACKLESS TACK COAT (0.1 GAL/SY)
1.75" 448-II ASPHALTIC CONCRETE INTERMEDIATE COURSE, PG64-22, MT
TRACKLESS TACK COAT (.075 GAL/SY)
1.5" 448-I ASPHALTIC CONCRETE SURFACE COURSE, PG64-22, MT



N

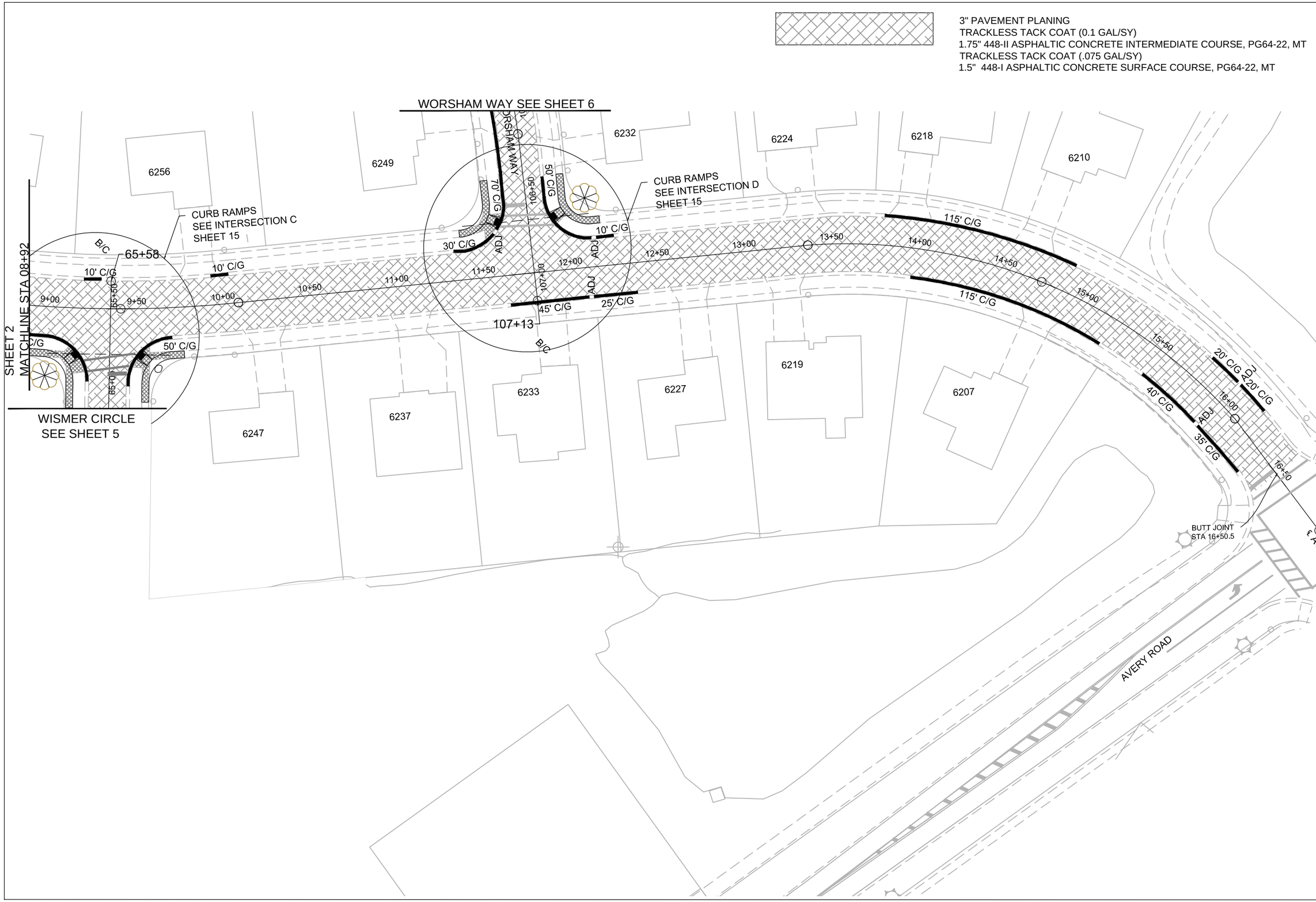
0 25' 50'
SCALE IN FEET

DRAWN BY: DAL
REVISED
NONE

WYNFORD DRIVE
ROADWAY AND CONCRETE WORK

16-001-CIP

3" PAVEMENT PLANING
TRACKLESS TACK COAT (0.1 GAL/SY)
1.75" 448-II ASPHALTIC CONCRETE INTERMEDIATE COURSE, PG64-22, MT
TRACKLESS TACK COAT (.075 GAL/SY)
1.5" 448-I ASPHALTIC CONCRETE SURFACE COURSE, PG64-22, MT



DRAWN BY: DAL
REVISED NONE

SCALE IN FEET 0 25' 50

WYNFORD DRIVE
ROADWAY AND CONCRETE WORK

16-001-CIP

3" PAVEMENT PLANING
TRACKLESS TACK COAT (0.1 GAL/SY)
1.75" 448-II ASPHALTIC CONCRETE INTERMEDIATE COURSE, PG64-22, MT
TRACKLESS TACK COAT (.075 GAL/SY)
1.5" 448-I ASPHALTIC CONCRETE SURFACE COURSE, PG64-22, MT

SHEET 5- MATCHLINE STA 60+00

N

0 25' 50'
SCALE IN FEET

DRAWN BY: DAL
REVISED NONE

WISMER CIRCLE
ROADWAY AND CONCRETE WORK

16-001-CIP

3" PAVEMENT PLANING
TRACKLESS TACK COAT (0.1 GAL/SY)
1.75" 448-II ASPHALTIC CONCRETE INTERMEDIATE COURSE, PG64-22, MT
TRACKLESS TACK COAT (.075 GAL/SY)
1.5" 448-I ASPHALTIC CONCRETE SURFACE COURSE, PG64-22, MT

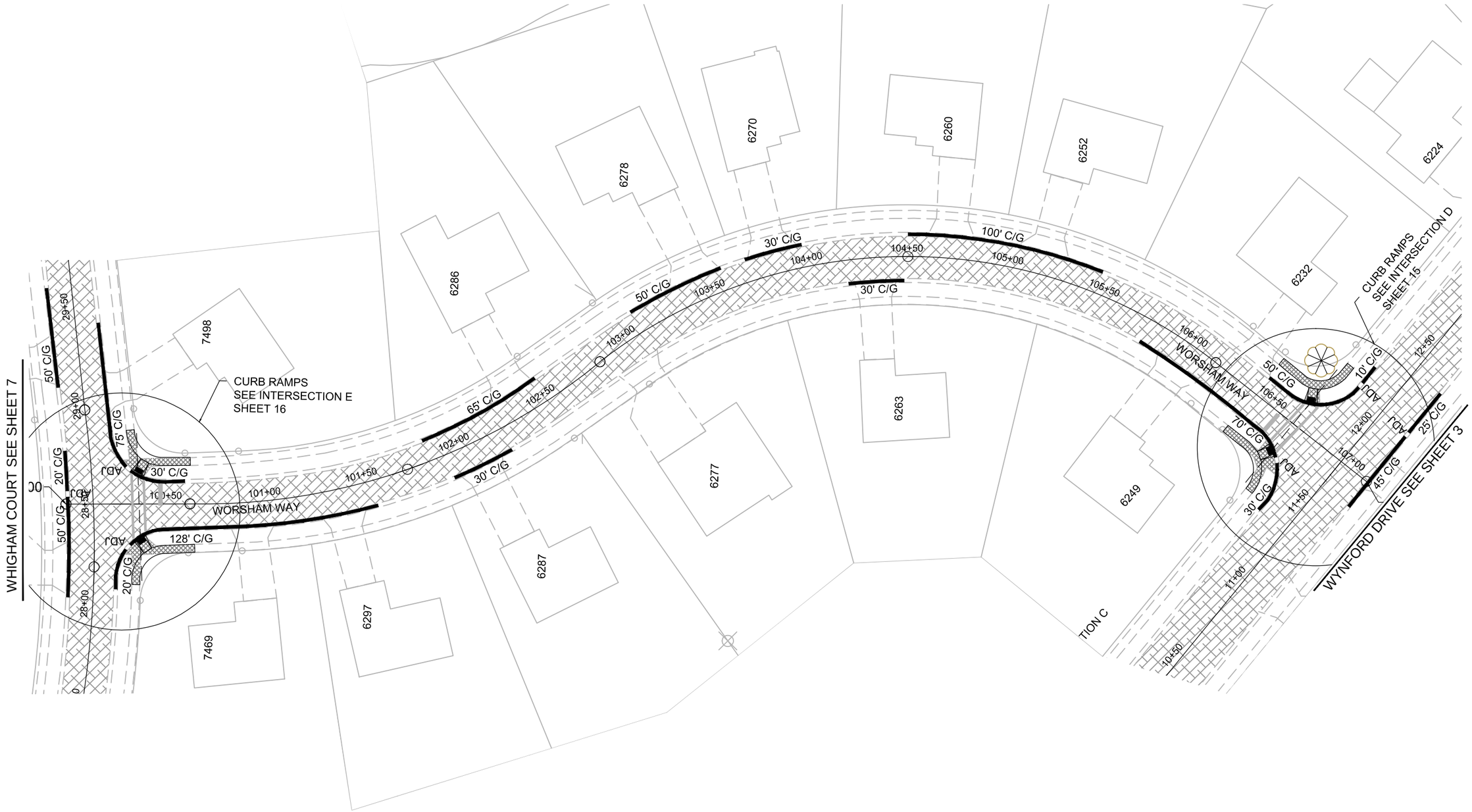
SCALE IN FEET 0 25' 50'

DRAWN BY: DAL
REVISED NONE

WISMER CIRCLE
ROADWAY AND CONCRETE WORK

16-001-CIP

3" PAVEMENT PLANING
TRACKLESS TACK COAT (0.1 GAL/SY)
1.75" 448-II ASPHALTIC CONCRETE INTERMEDIATE COURSE, PG64-22, MT
TRACKLESS TACK COAT (.075 GAL/SY)
1.5" 448-I ASPHALTIC CONCRETE SURFACE COURSE, PG64-22, MT

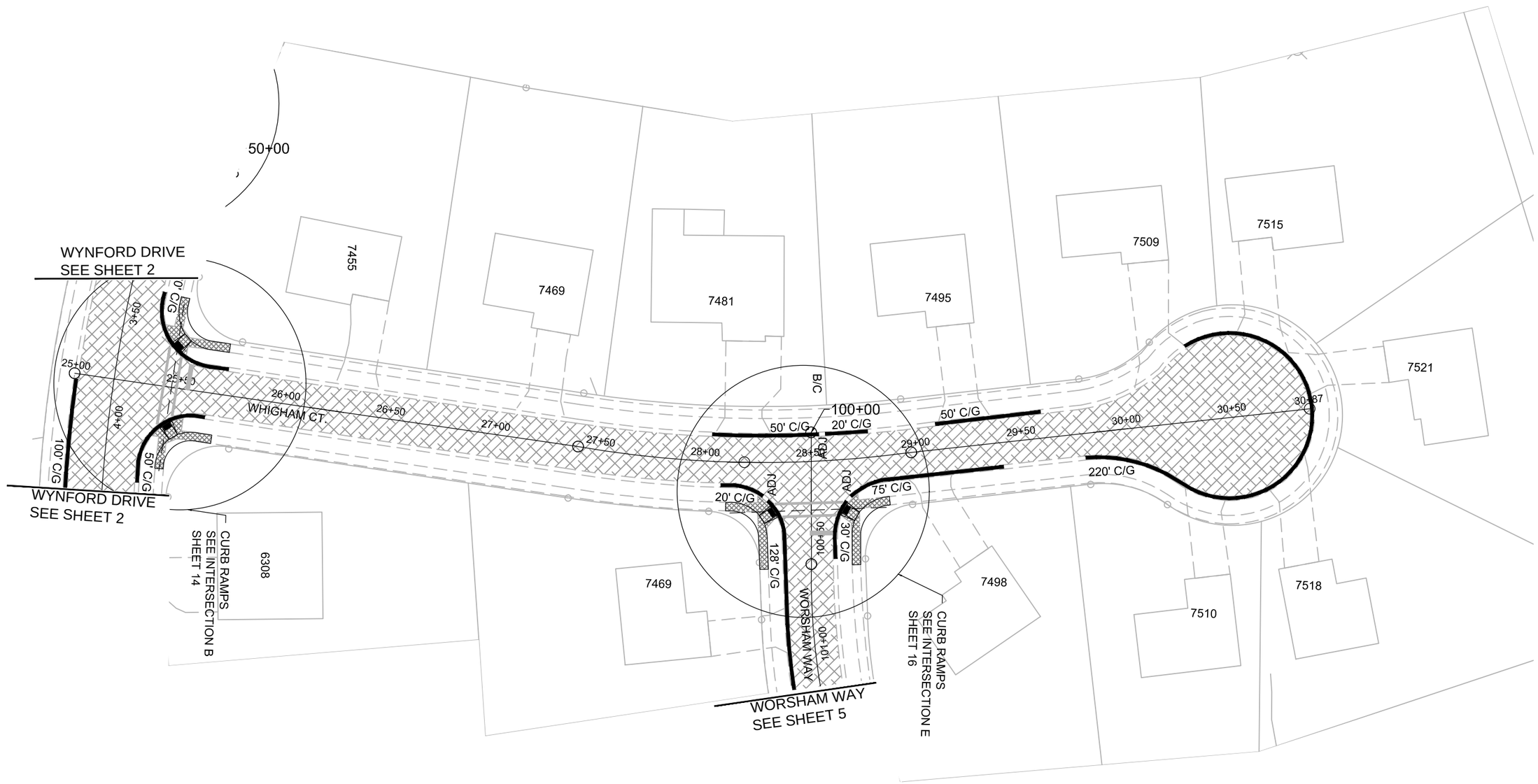


DRAWN BY: DAL
REVISED NONE

WORSHAM WAY
ROADWAY AND CONCRETE WORK

16-001-CIP

3" PAVEMENT PLANING
TRACKLESS TACK COAT (0.1 GAL/SY)
1.75" 448-II ASPHALTIC CONCRETE INTERMEDIATE COURSE, PG64-22, MT
TRACKLESS TACK COAT (.075 GAL/SY)
1.5" 448-I ASPHALTIC CONCRETE SURFACE COURSE, PG64-22, MT



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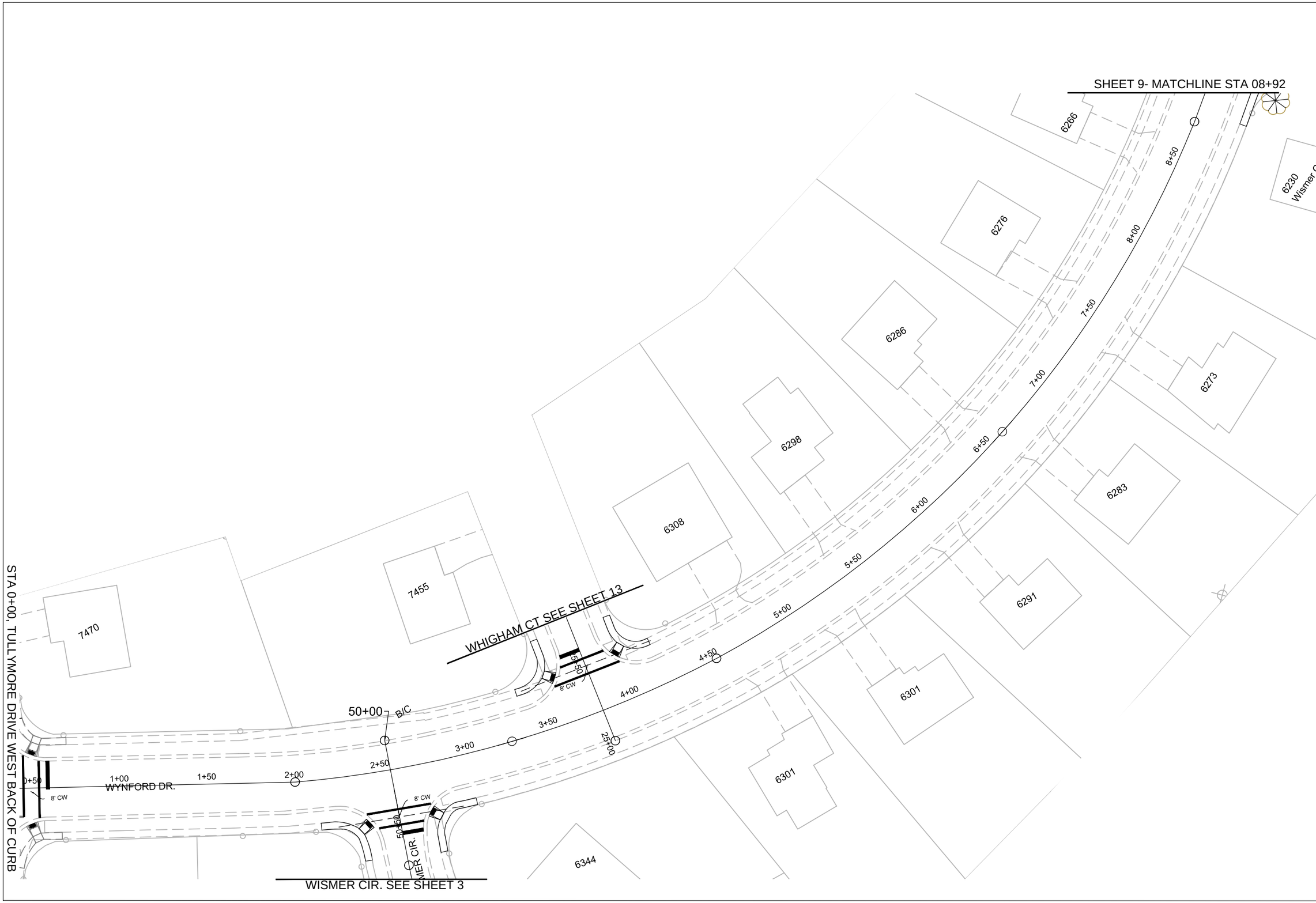
0 25' 50'
SCALE IN FEET

DRAWN BY: DAL
REVISED NONE

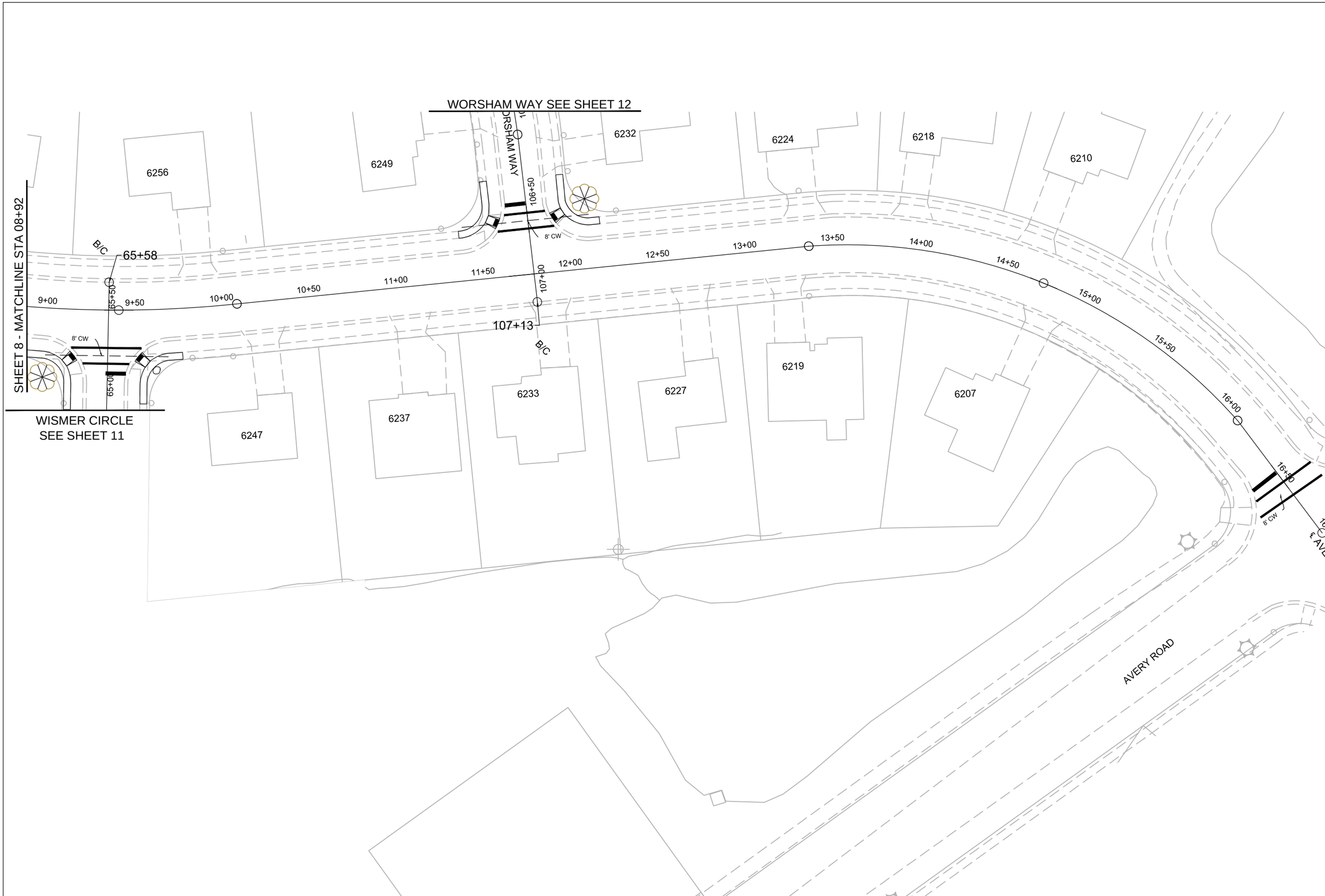
WHIGHAM COURT
ROADWAY AND CONCRETE WORK

16-001-CIP



WYNFORD DRIVE
TRAFFIC AND STRIPING

16-001-CIP


WORSHAM WAY SEE SHEET 12
SHEET 8 - MATCHLINE STA 08+92
WISMER CIRCLE
SEE SHEET 11
WORSHAM WAY
AVERY ROAD
6256
6249
6232
6224
6218
6210
6247
6237
6233
6227
6219
6207
B/C
65+58
65+50
65+00
9+00
9+50
10+00
10+50
11+00
11+50
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15+00
15+50
16+00
16+50
106+50
107+00
107+13
8' CW
SCALE IN FEET
0
25'
50'
DRAWN BY:
DAL
REVISED
NONE
WYNFORD DRIVE
TRAFFIC AND STRIPING
16-001-CIP

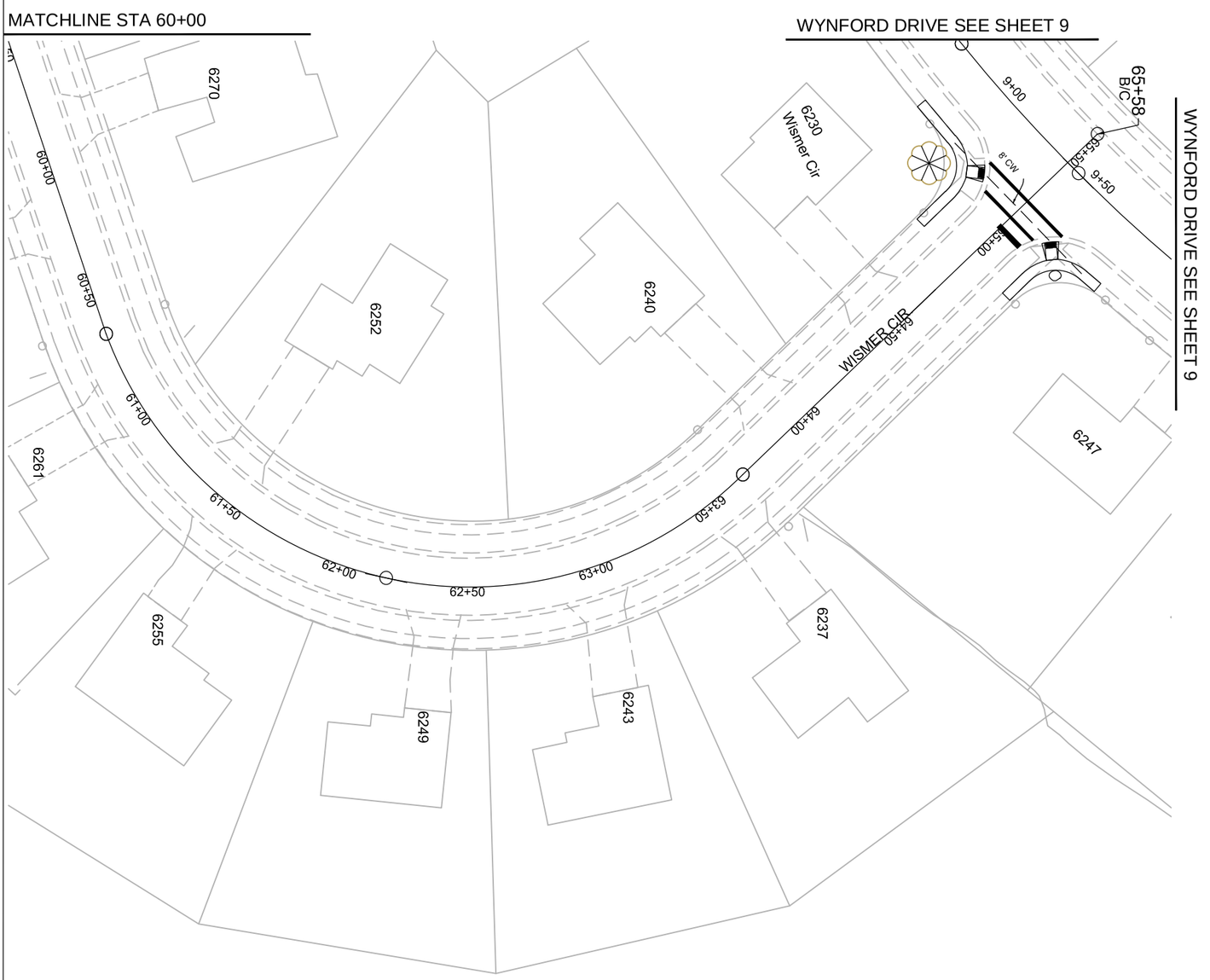
N

0 25' 50'
SCALE IN FEET

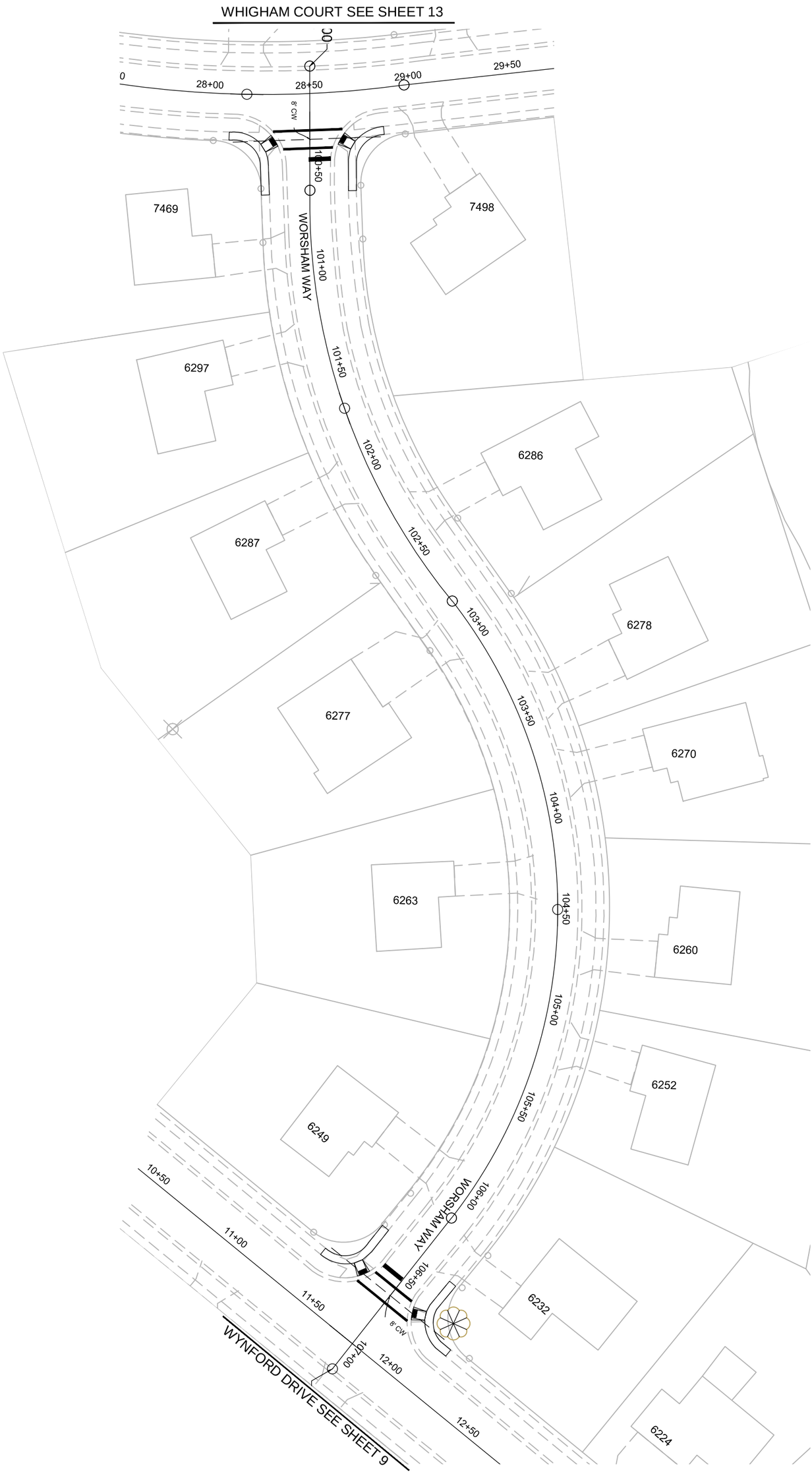
DRAWN BY: DAL
REVISED NONE

WISMER CIRCLE
TRAFFIC AND STRIPING

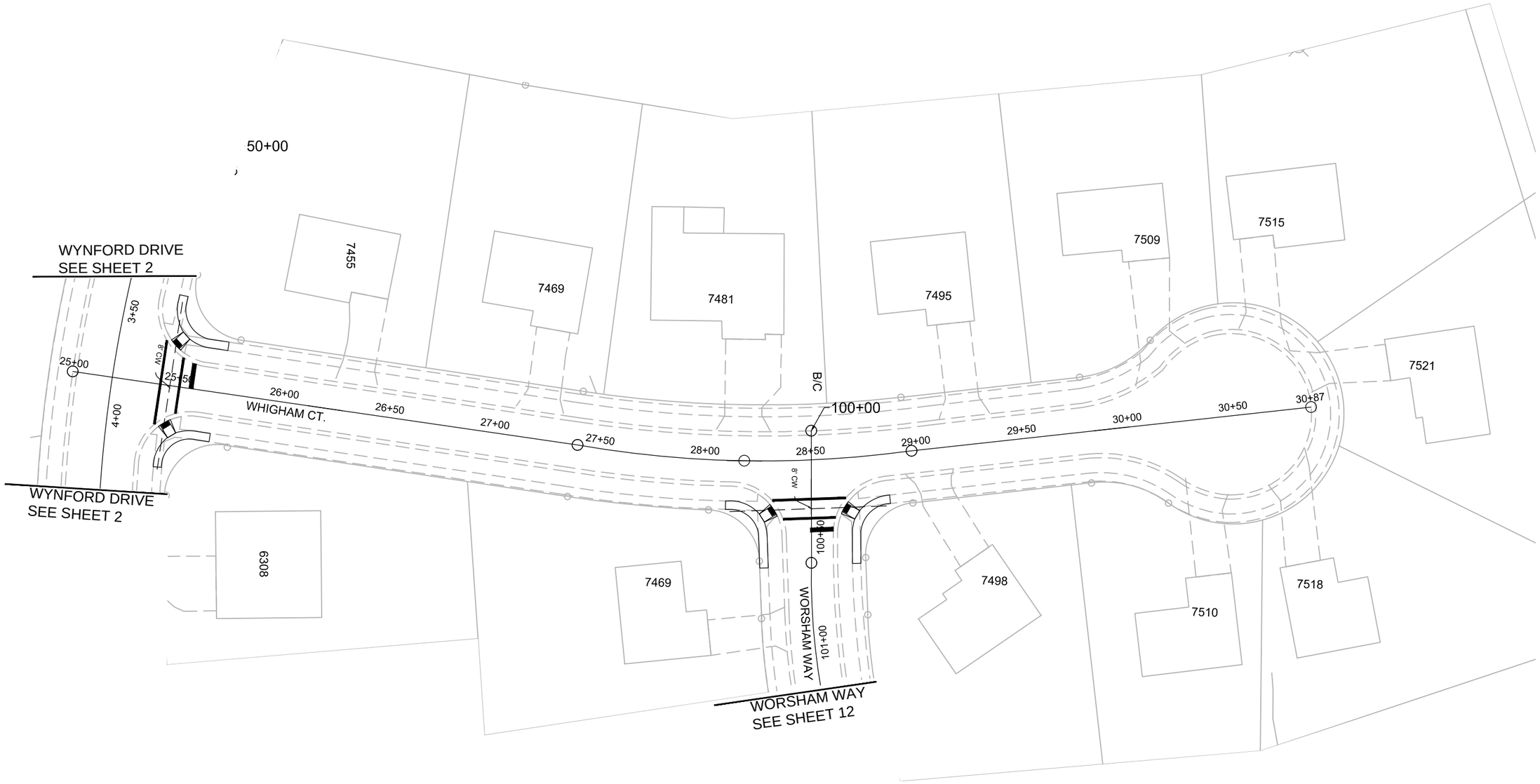
16-001-CIP



85	11 / 18	**16-001-CIP**	WISMER CIRCLE ROADWAY AND CONCRETE WORK	DRAWN BY: DAL REVISED NONE	0 25' 50' SCALE IN FEET



86	12 / 18	**16-001-CIP**	WORSHAM WAY TRAFFIC AND STRIPING	DRAWN BY: DAL REVISED NONE	0 25' 50' SCALE IN FEET



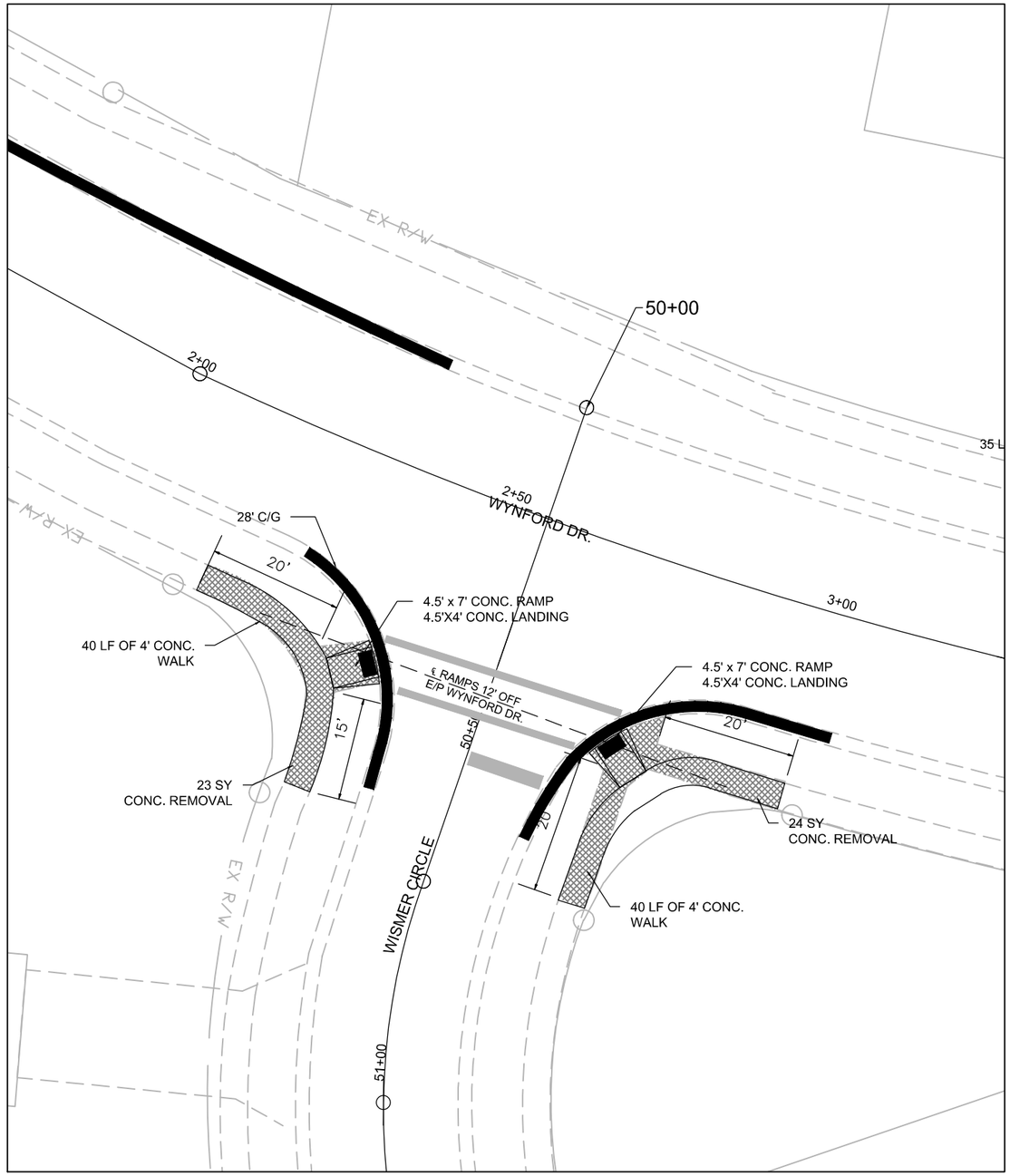
N

0 25' 50'
SCALE IN FEET

DRAWN BY: DAL
REVISED NONE

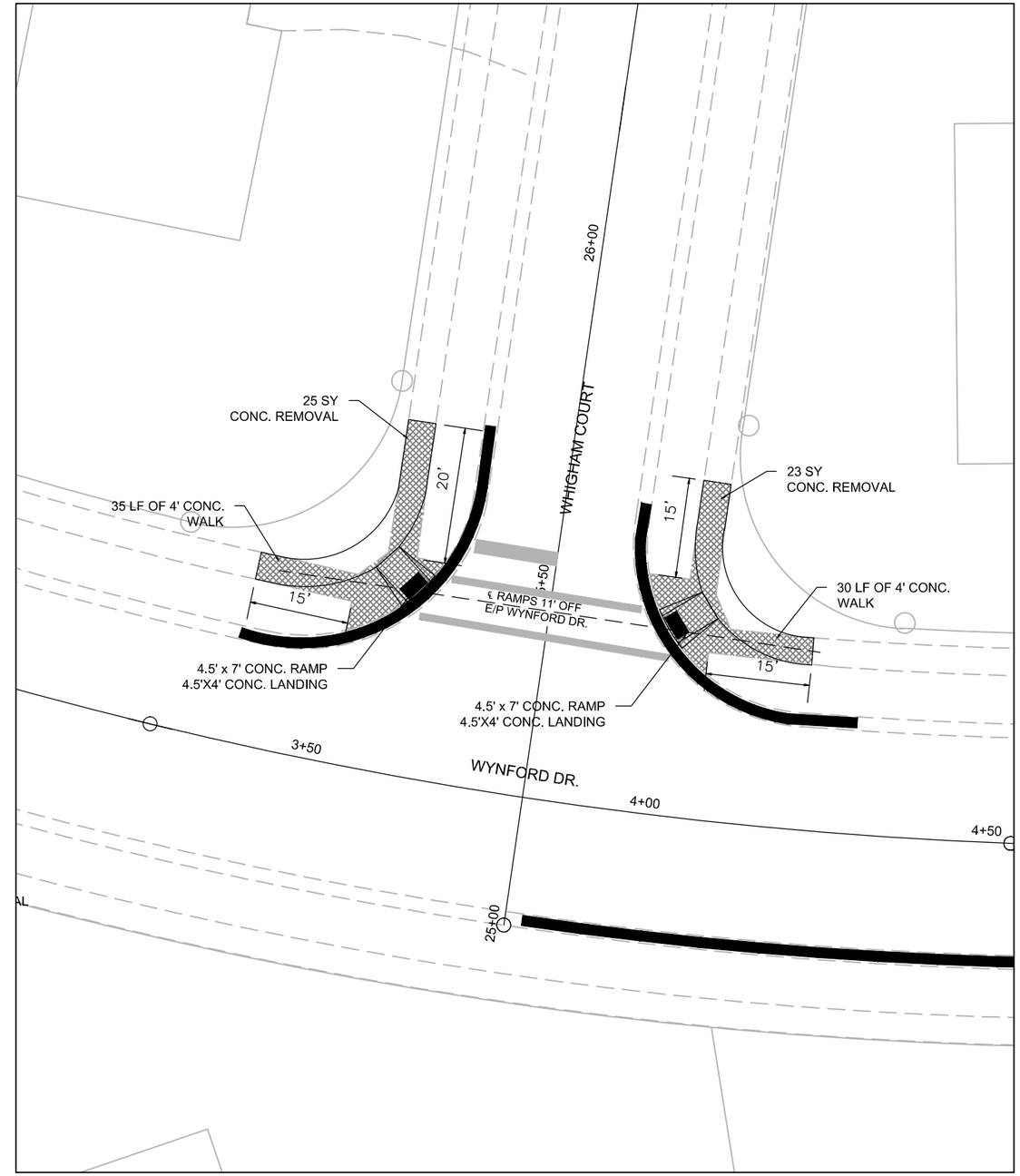
WHIGHAM COURT
TRAFFIC AND STRIPING

16-001-CIP



INTERSECTION A:
WISMER CIRCLE AT WYNFORD DRIVE
CURB RAMP CONSTRUCTION DETAILS

REMOVE AND DISPOSE OF EXISTING
CONCRETE RAMP, SIDEWALK AND
ASPHALT BIKEPATH WITHIN LIMITS



INTERSECTION B:
WHIGHAM COURT AT WYNFORD DRIVE
CURB RAMP CONSTRUCTION DETAILS

REMOVE AND DISPOSE OF EXISTING
CONCRETE RAMP, SIDEWALK AND
ASPHALT BIKEPATH WITHIN LIMITS

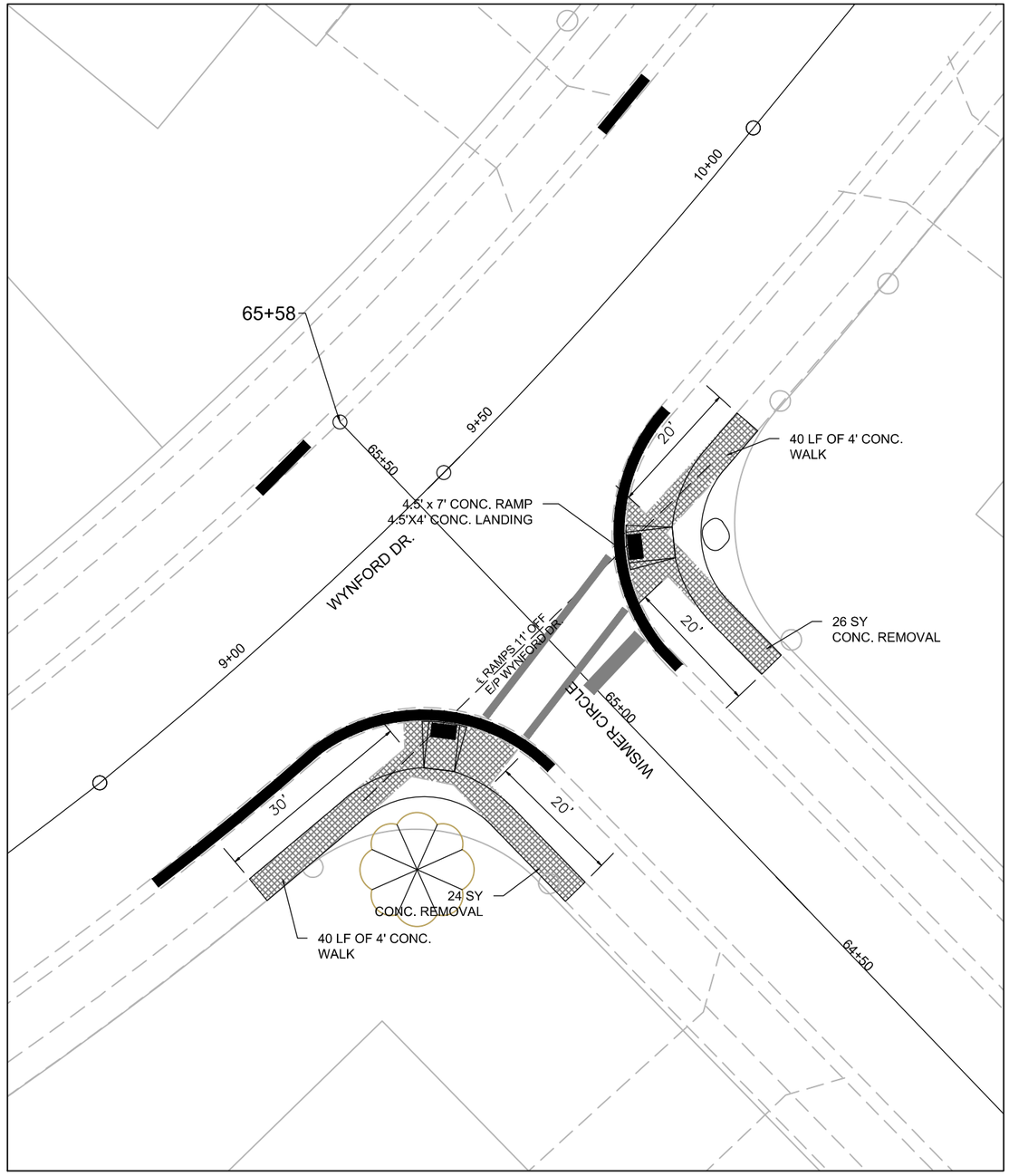
N

0 10 20
SCALE IN FEET

DRAWN BY: DAL
REVISED NONE

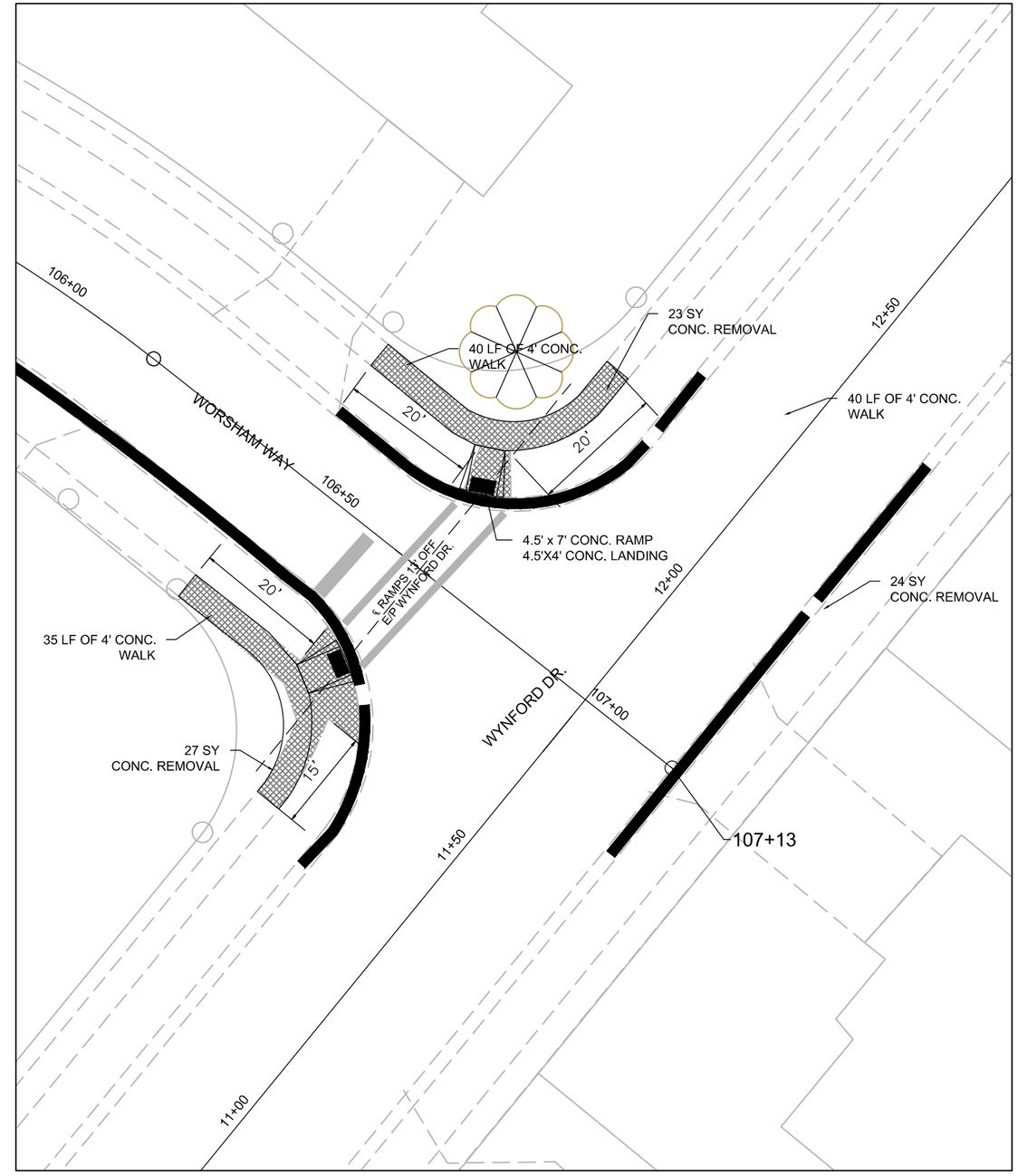
CURB RAMP DETAILS
INTERSECTIONS A & B

16-001-CIP



INTERSECTION C:
WISMER CIRCLE AT WYNFORD DRIVE
CURB RAMP CONSTRUCTION DETAILS

REMOVE AND DISPOSE OF EXISTING CONCRETE RAMP, SIDEWALK AND ASPHALT BIKEPATH WITHIN LIMITS



INTERSECTION D:
WORSHAM WAY AT WYNFORD DRIVE
CURB RAMP CONSTRUCTION DETAILS

REMOVE AND DISPOSE OF EXISTING CONCRETE RAMP, SIDEWALK AND ASPHALT BIKEPATH WITHIN LIMITS

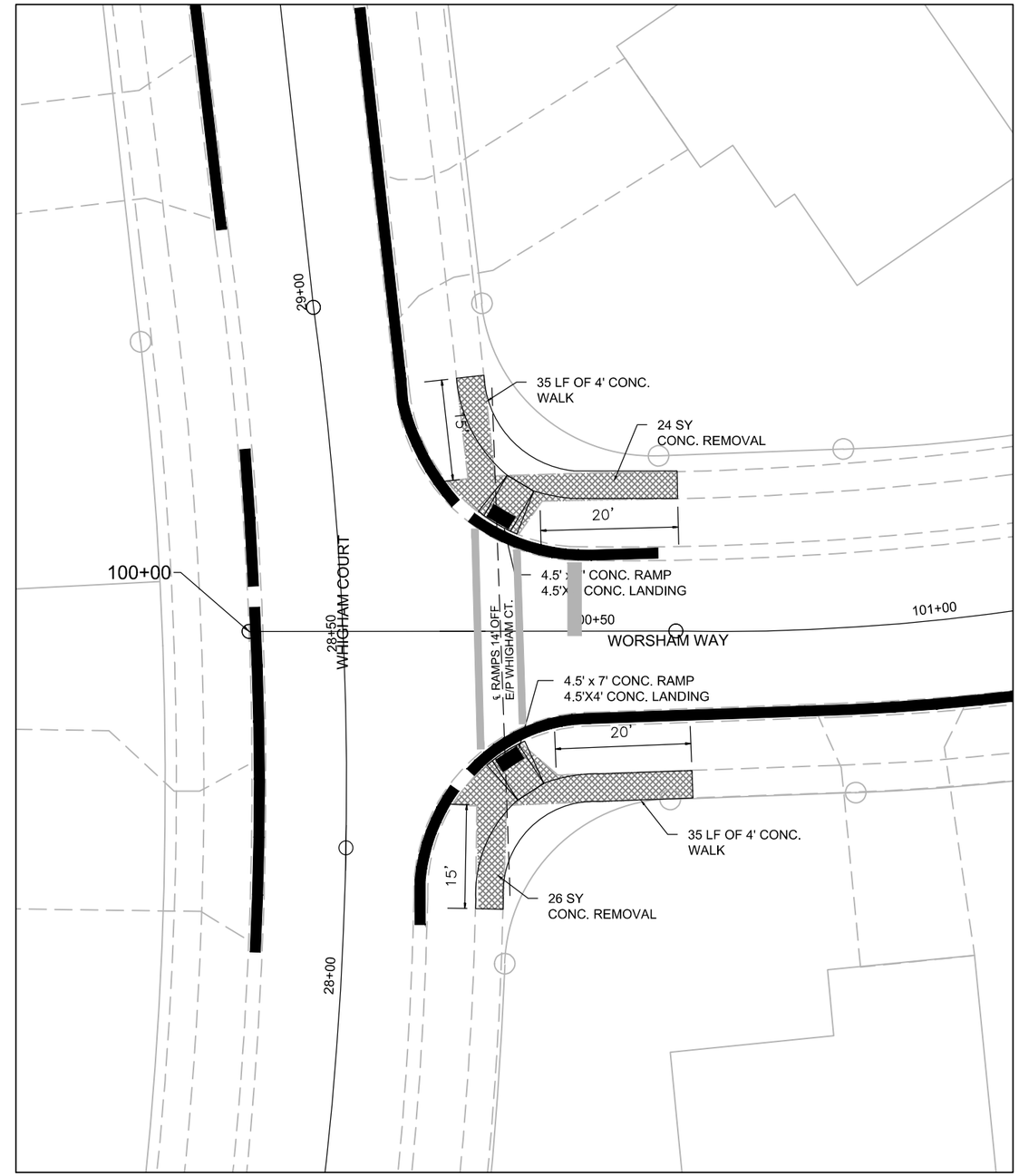
N

0 10 20
SCALE IN FEET

DRAWN BY: DAL
REVISED NONE

CURB RAMP DETAILS
INTERSECTIONS C & D

16-001-CIP



INTERSECTION E:
WORSHAM WAY AT WHIGHAM COURT
CURB RAMP CONSTRUCTION DETAILS

REMOVE AND DISPOSE OF EXISTING
CONCRETE RAMP, SIDEWALK AND
ASPHALT BIKEPATH WITHIN LIMITS

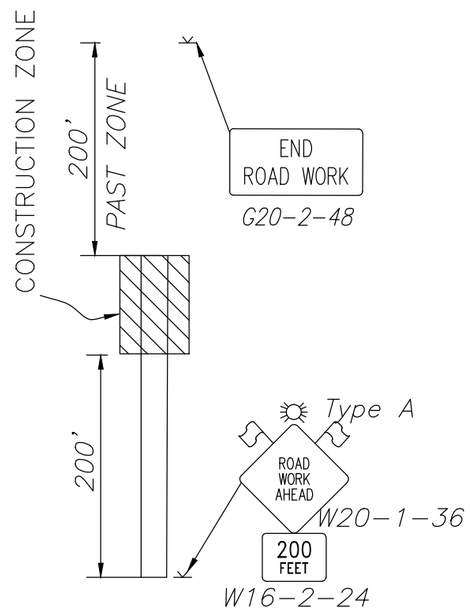
N

0 10 20
SCALE IN FEET

DRAWN BY: DAL
REVISED NONE

CURB RAMP DETAILS
INTERSECTION E

16-001-CIP



ADVANCE WARNING SIGNS FOR ROAD WORK
(Typical Both Directions)

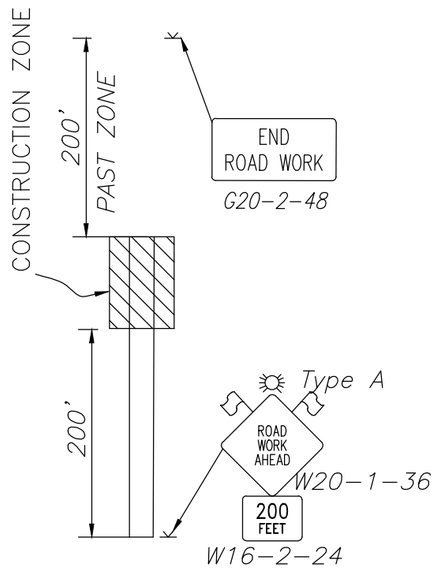
	WYNFORD DRIVE ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	1700
254	Pavement Planing, 3",A.P.P.	SY	5804
407	NTSS-1HM TracklessTack Coat	GAL	1015
441	Asphaltic Concrete Intermediate Course, Type-2, (448), PG64-22	TN	570
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	490
604	Structure- Adjust, Inlet, A.P.P.	EA	7
609	Combination Curb/Gutter, A.P.P.	LF	1700
614	Flagger	HR	32
644	Crosswalk Line, 12"	LF	130
644	Stop Bar, 24"	LF	32
653	Pulverized Topsoil, A.P.P.	CY	62
Special	Curb Can Holes	EA	24
Special	Asphalt Rejuvenating Agent	SY	5804

	WISMER CIRCLE ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	1932
202	Concrete Removed & Disposed of, A.P.P.	SY	150
254	Pavement Planing, 3",A.P.P.	SY	3584
407	NTSS-1HM TracklessTack Coat	GAL	630
441	Asphaltic Concrete Intermediate Course, Type-2, (448), PG64-22	TN	350
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	300
604	Structure- Adjust, Inlet, A.P.P.	EA	2
608	4" Conc. Walk w/ Agg. Base, A.P.P.	SF	712
608	6" Conc. Walk w/ Agg. Base, A.P.P.	SF	450
608	Curb Ramp, 6" Conc. w/Agg. Base, A.P.P.	SF	168
609	Combination Curb/Gutter, A.P.P.	LF	1932
614	Flagger	HR	24
644	Crosswalk Line, 12"	LF	120
644	Stop Bar, 24"	LF	24
653	Pulverized Topsoil, A.P.P.	CY	99
659	Vegetation (Seed/Mulch), A.P.P.	SY	140
Special	Curb Can Holes	EA	45
Special	Detectable Warning Panel, Type A	EA	8
Special	Asphalt Rejuvenating Agent	SY	3584
	* Curb Ramp, Walk and Striping Quantities: Wismer Cir. (E and W) @ Wynford Dr.		

DRAWN BY: DAL
REVISED NONE

WYNFORD DRIVE AND WISMER CIRCLE
ESTIMATED CONSTRUCTION QUANTITIES and SIGNAGE

16-001-CIP



ADVANCE WARNING SIGNS FOR ROAD WORK
(Typical Both Directions)

	WORSHAM WAY ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	600
202	Concrete Removed & Disposed of, A.P.P.	SY	173
254	Pavement Planing, 3",A.P.P.	SY	1544
407	NTSS-1HM TracklessTack Coat	GAL	270
441	Asphaltic Concrete Intermediate Course, Type-2, (448), PG64-22	TN	152
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	130
604	Structure- Adjust, Inlet, A.P.P.	EA	1
608	4" Conc. Walk w/ Agg. Base, A.P.P.	SF	652
608	Curb Ramp, 6" Conc. w/Agg. Base, A.P.P.	SF	170
609	Combination Curb/Gutter, A.P.P.	LF	600
614	Flagger	HR	18
644	Crosswalk Line, 12"	LF	130
644	Stop Bar, 24"	LF	23
653	Pulverized Topsoil, A.P.P.	CY	49
659	Vegetation (Seed/Mulch), A.P.P.	SY	140
Special	Curb Can Holes	EA	12
Special	Detectable Warning Panel, Type A	EA	8
Special	Asphalt Rejuvenating Agent	SY	1544
	* Curb Ramp, Walk and Striping Quantities: Worwham Way @ Wynford Drive and Worsham Way @ Whigham Ct.		

	WHIGHAM COURT ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	545
202	Concrete Removed & Disposed of, A.P.P.	SY	48
254	Pavement Planing, 3",A.P.P.	SY	1724
407	NTSS-1HM TracklessTack Coat	GAL	300
441	Asphaltic Concrete Intermediate Course, Type-2, (448), PG64-22	TN	170
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	145
604	Structure- Adjust, Inlet, A.P.P.	EA	3
608	4" Conc. Walk w/ Agg. Base, A.P.P.	SF	620
608	Curb Ramp, 6" Conc. w/Agg. Base, A.P.P.	SF	84
609	Combination Curb/Gutter, A.P.P.	LF	545
614	Flagger	HR	12
644	Crosswalk Line, 12"	LF	65
644	Stop Bar, 24"	LF	12
653	Pulverized Topsoil, A.P.P.	CY	26
659	Vegetation (Seed/Mulch), A.P.P.	SY	70
Special	Curb Can Holes	EA	13
Special	Detectable Warning Panel, Type A	EA	4
Special	Asphalt Rejuvenating Agent	SY	1724
	* Curb Ramp, Walk and Striping Quantities: Whigham Ct. @ Wynford Drive		

DRAWN BY: DAL
REVISED NONE

WORSHAM WAY AND WHIGHAM COURT
ESTIMATED CONSTRUCTION QUANTITIES and SIGNAGE

16-001-CIP

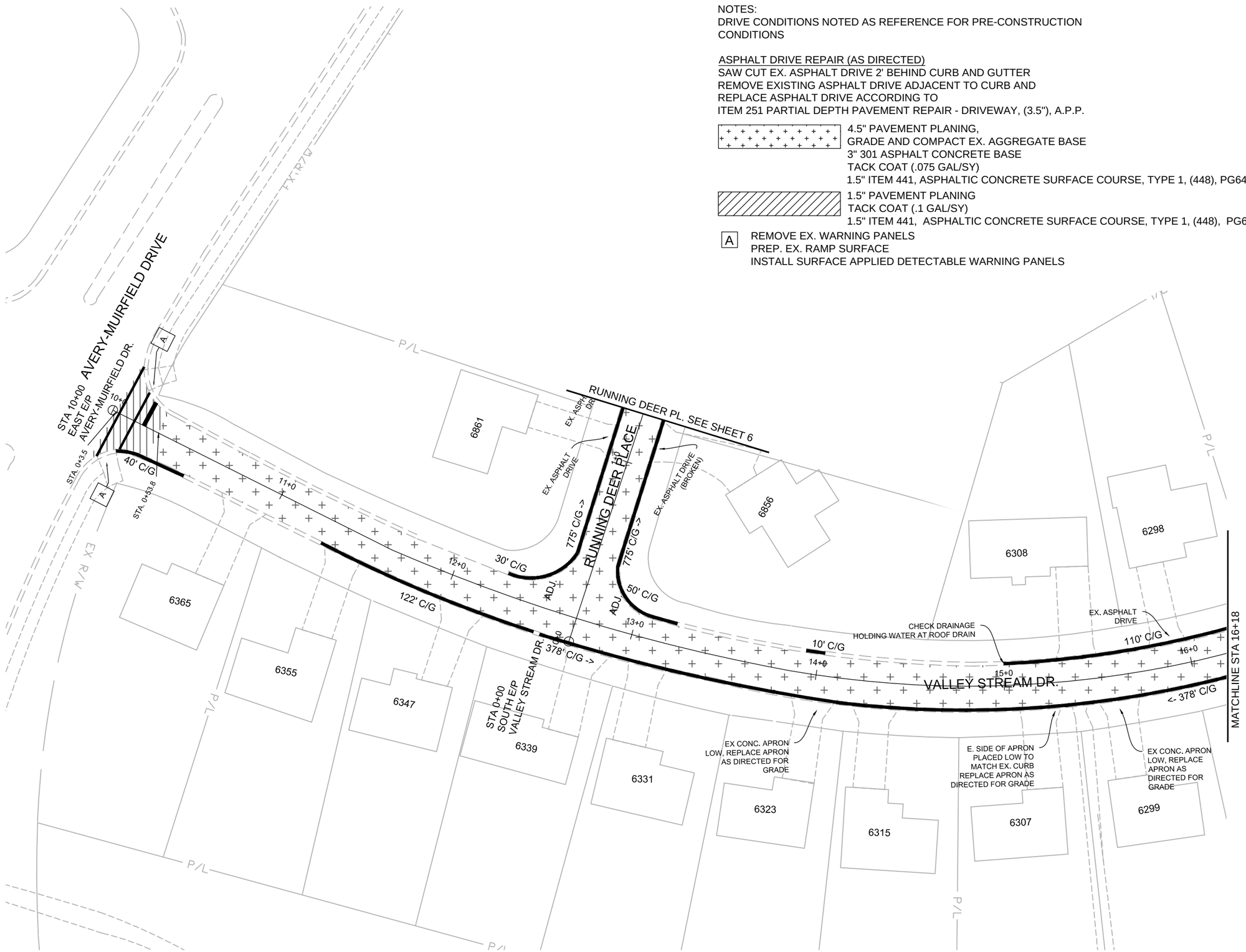
NOTES:
DRIVE CONDITIONS NOTED AS REFERENCE FOR PRE-CONSTRUCTION CONDITIONS

ASPHALT DRIVE REPAIR (AS DIRECTED)
SAW CUT EX. ASPHALT DRIVE 2' BEHIND CURB AND GUTTER
REMOVE EXISTING ASPHALT DRIVE ADJACENT TO CURB AND
REPLACE ASPHALT DRIVE ACCORDING TO
ITEM 251 PARTIAL DEPTH PAVEMENT REPAIR - DRIVEWAY, (3.5"), A.P.P.

4.5" PAVEMENT PLANING,
GRADE AND COMPACT EX. AGGREGATE BASE
3" 301 ASPHALT CONCRETE BASE
TACK COAT (.075 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

1.5" PAVEMENT PLANING
TACK COAT (.1 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

A REMOVE EX. WARNING PANELS
PREP. EX. RAMP SURFACE
INSTALL SURFACE APPLIED DETECTABLE WARNING PANELS



SCALE IN FEET 0 25 50

DRAWN BY: DAL
REVISED 3/30/2012

VALLEY STREAM DRIVE
ROADWAY AND CONCRETE WORK

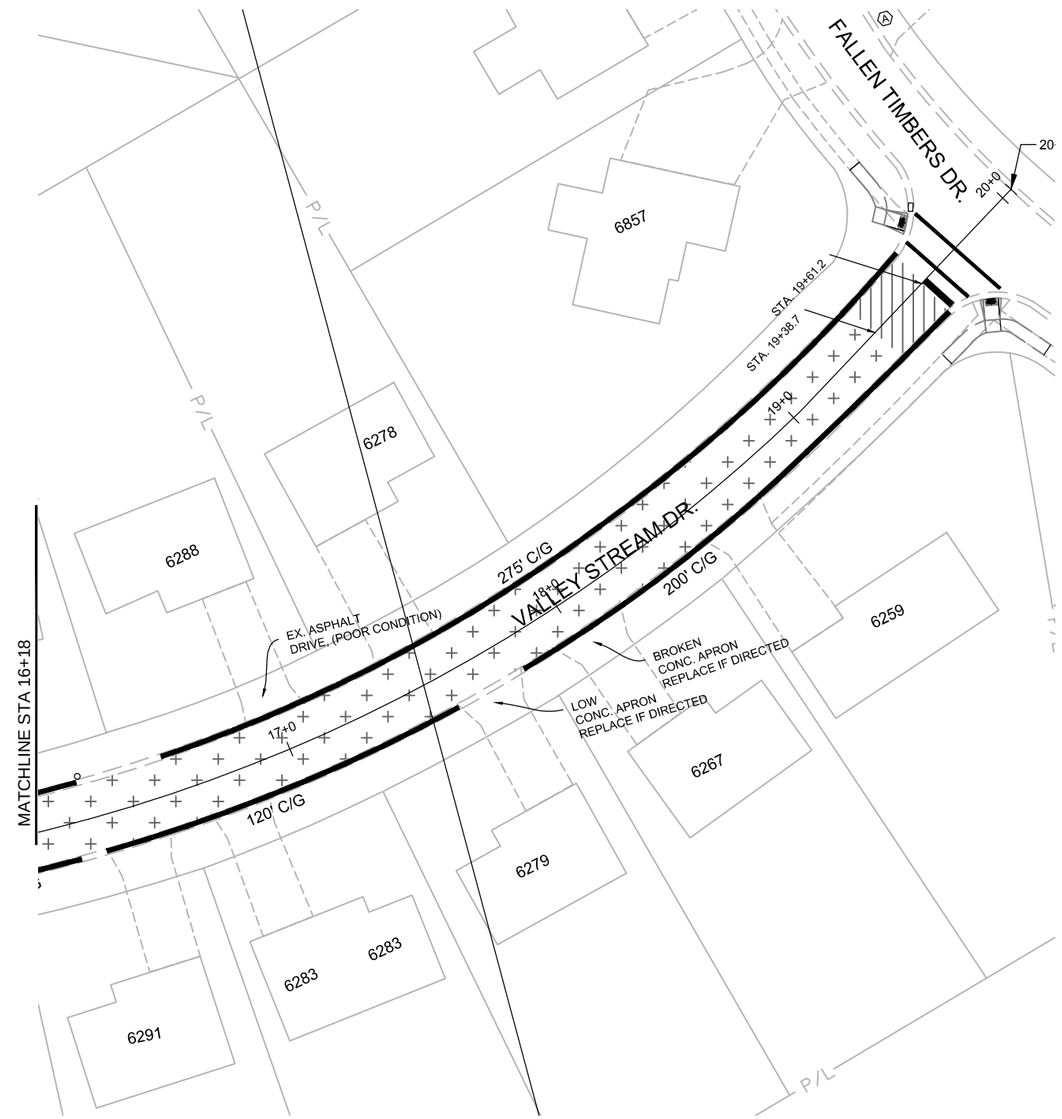
16-001-CIP

NOTES:
DRIVE CONDITIONS NOTED AS REFERENCE FOR PRE-CONSTRUCTION CONDITIONS

ASPHALT DRIVE REPAIR (AS DIRECTED)
SAW CUT EX. ASPHALT DRIVE 2' BEHIND CURB AND GUTTER
REMOVE EXISTING ASPHALT DRIVE ADJACENT TO CURB AND
REPLACE ASPHALT DRIVE ACCORDING TO
ITEM 251 PARTIAL DEPTH PAVEMENT REPAIR - DRIVEWAY, (3.5"), A.P.P.

4.5" PAVEMENT PLANING,
GRADE AND COMPACT EX. AGGREGATE BASE
3" 301 ASPHALT CONCRETE BASE
TACK COAT (.075 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

1.5" PAVEMENT PLANING
TACK COAT (.1 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22



N

0 25 50
SCALE IN FEET

DRAWN BY: DAL
REVISED 3/30/2012

VALLEY STREAM DRIVE
ROADWAY AND CONCRETE WORK

16-001-CIP

SCALE IN FEET 0 25 50

DRAWN BY: DAL
REVISED 3/30/2012

VALLEY STREAM DRIVE
TRAFFIC AND STRIPING

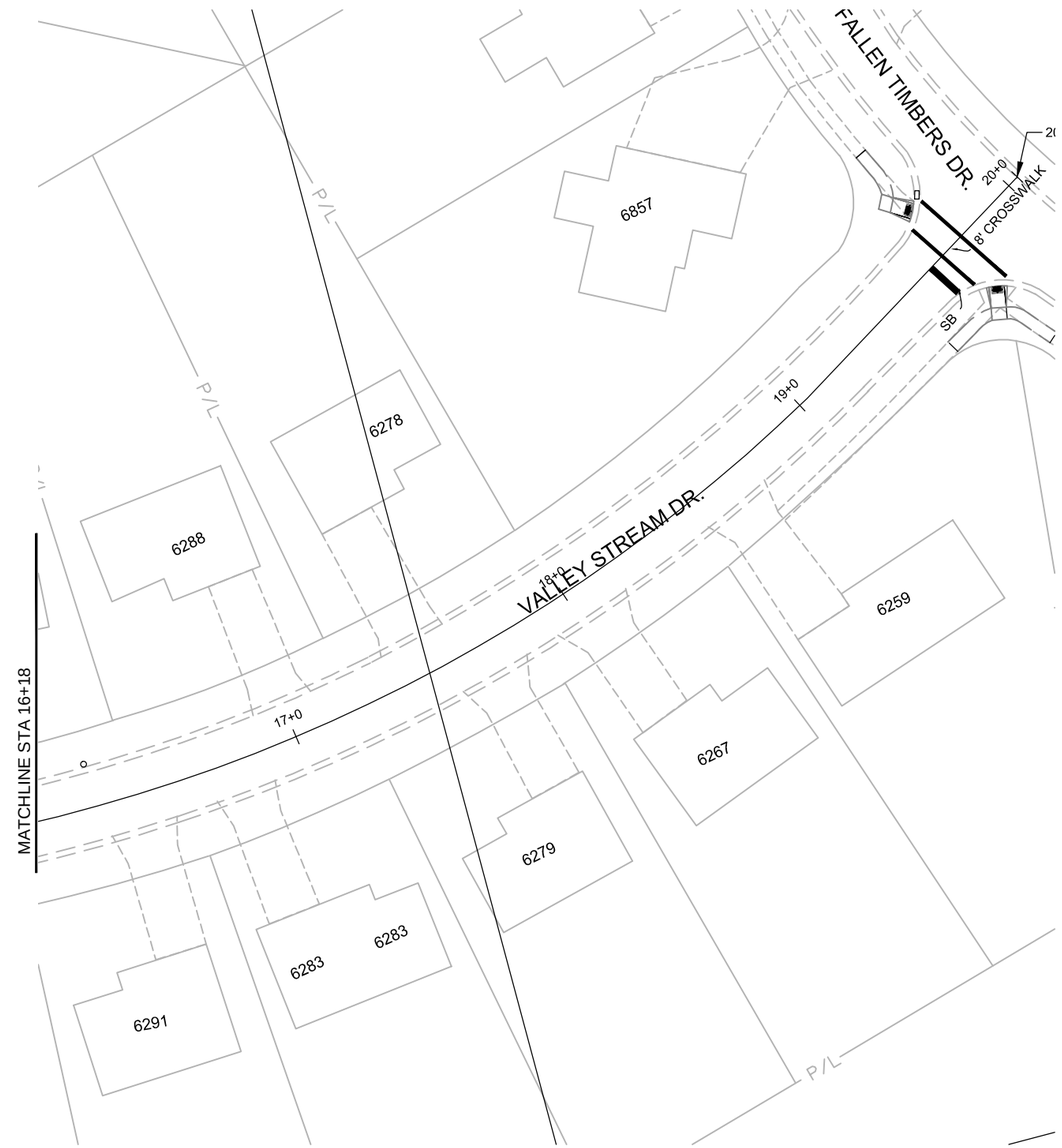
16-001-CIP

NOTES:
DRIVE CONDITIONS NOTED AS REFERENCE FOR PRE-CONSTRUCTION CONDITIONS

ASPHALT DRIVE REPAIR (AS DIRECTED)
SAW CUT EX. ASPHALT DRIVE 2' BEHIND CURB AND GUTTER
REMOVE EXISTING ASPHALT DRIVE ADJACENT TO CURB AND
REPLACE ASPHALT DRIVE ACCORDING TO
ITEM 251 PARTIAL DEPTH PAVEMENT REPAIR - DRIVEWAY, (3.5"), A.P.P.

4.5" PAVEMENT PLANING,
GRADE AND COMPACT EX. AGGREGATE BASE
3" 301 ASPHALT CONCRETE BASE
TACK COAT (.075 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

1.5" PAVEMENT PLANING
TACK COAT (.1 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

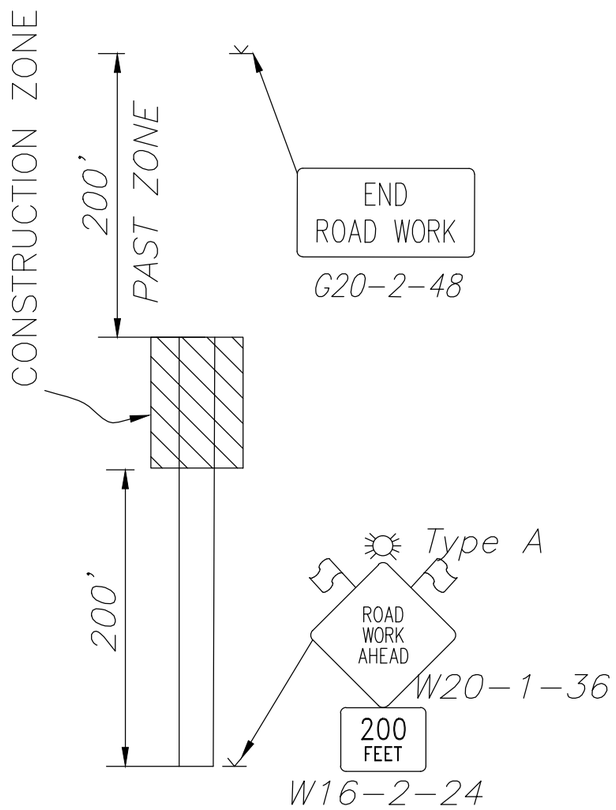


SCALE IN FEET 0 25 50

DRAWN BY: DAL
REVISED 3/30/2012

VALLEY STREAM DRIVE
TRAFFIC AND STRIPING

16-001-CIP



ADVANCE WARNING SIGNS FOR ROAD WORK
(Typical Both Directions)

	VALLEY STREAM DRIVE ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	1335
251	Partial Depth Pavement Repair - Driveway, (3.5"), A.P.P.	SY	10
254	Pavement Planing, 1.5", A.P.P.	SY	154
254	Pavement Planing, 4.5",A.P.P.	SY	2320
301	Asphalt Concrete Base	TN	390
407	NTSS-1HM TracklessTack Coat	GAL	190
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	208
604	Structure- Adjust, Inlet, A.P.P.	EA	2
609	Combination Curb/Gutter, A.P.P.	LF	1335
614	Flagger	HR	26
644	Crosswalk Line, 12"	LF	153
644	Stop Bar, 24"	LF	24
653	Pulverized Topsoil, A.P.P.	CY	50
Special	Asphalt Rejuvenating Agent	SY	2474
Special	Curb Can Holes	EA	37
Special	Detectable Warning Panel, Type B	EA	4
	VALLEY STREAM DRIVE ESTIMATED CONTINGENCY QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Concrete Removed & Disposed of, A.P.P.	SY	70
608	6" Conc. Walk w/ Agg. Base, A.P.P.	SF	630

DRAWN BY: DAL
REVISED NONE

VALLEY STREAM DRIVE
CONSTRUCTION NOTES / ESTIMATED CONSTRUCTION QUANTITIES

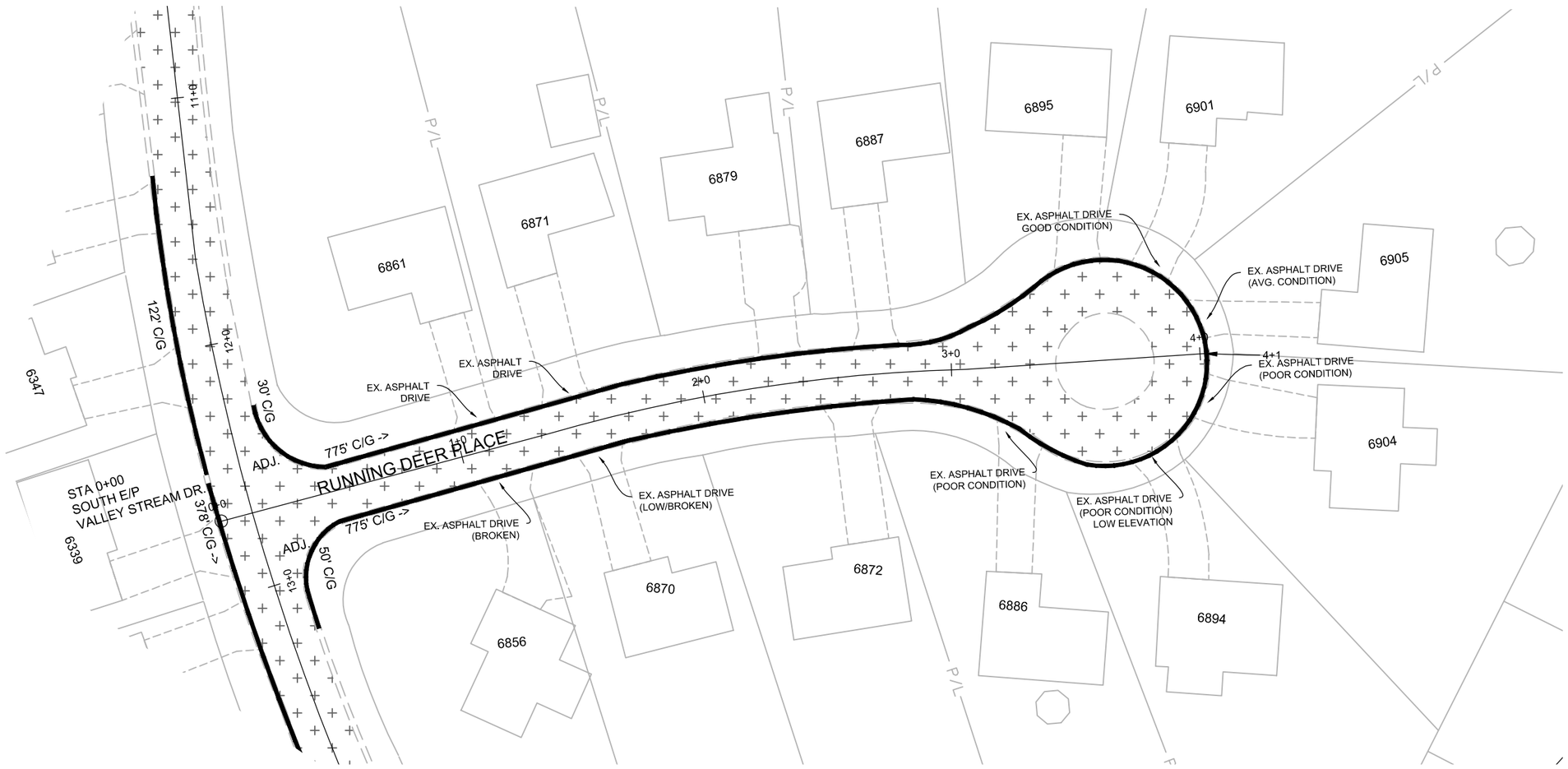
16-001-CIP

NOTES:
DRIVE CONDITIONS NOTED AS REFERENCE FOR PRE-CONSTRUCTION CONDITIONS

ASPHALT DRIVE REPAIR (AS DIRECTED)
SAW CUT EX. ASPHALT DRIVE 2' BEHIND CURB AND GUTTER
REMOVE EXISTING ASPHALT DRIVE ADJACENT TO CURB AND
REPLACE ASPHALT DRIVE ACCORDING TO
ITEM 251 PARTIAL DEPTH PAVEMENT REPAIR - DRIVEWAY, (3.5"), A.P.P.

4.5" PAVEMENT PLANING,
GRADE AND COMPACT EX. AGGREGATE BASE
3" 301 ASPHALT CONCRETE BASE
TACK COAT (.075 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

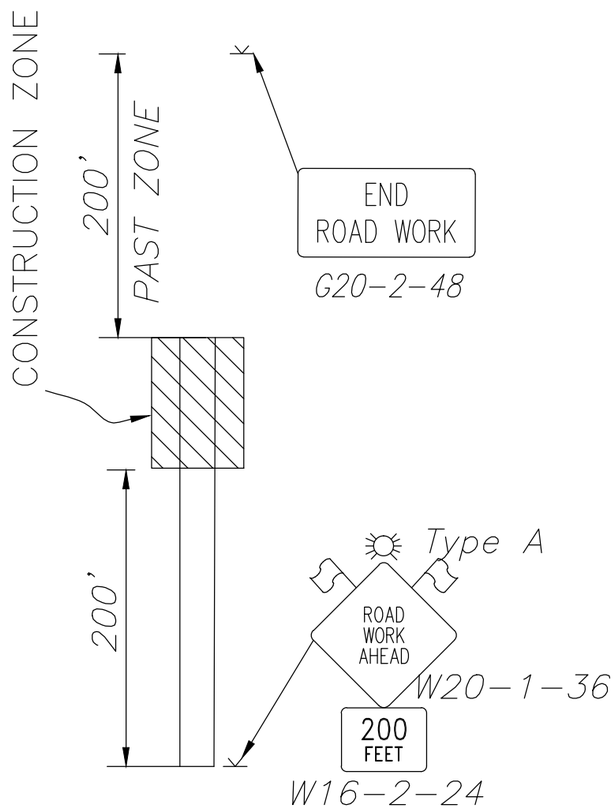
1.5" PAVEMENT PLANING
TACK COAT (.1 GAL/SY)
1.5" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22



DRAWN BY: DAL
REVISED 3/30/2012

RUNNING DEER PLACE
ROADWAY AND CONCRETE WORK

16-001-CIP



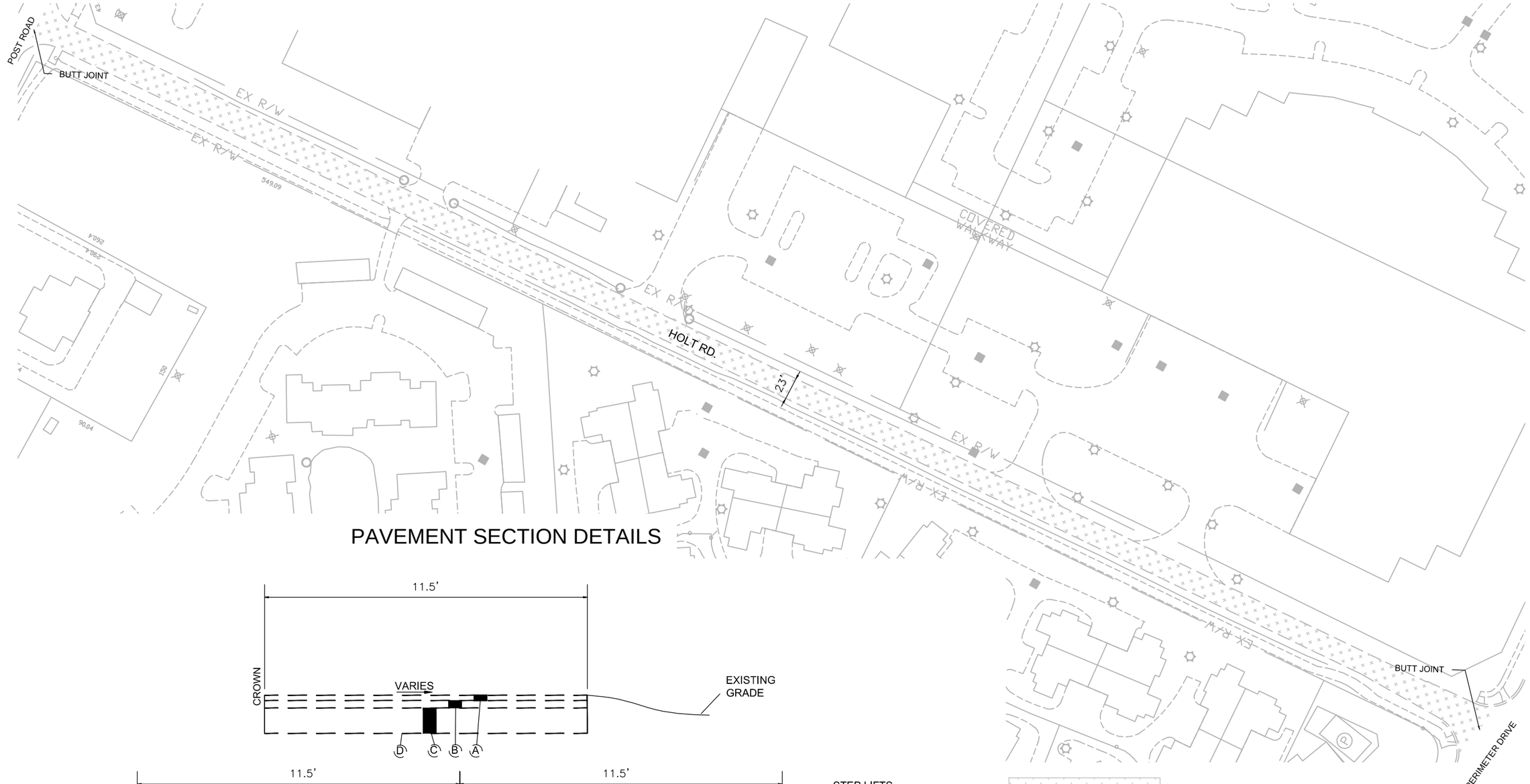
ADVANCE WARNING SIGNS FOR ROAD WORK
(Typical Both Directions)

	RUNNING DEER PLACE ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	775
251	Partial Depth Pavement Repair - Driveway, (3.5"), A.P.P.	SY	45
254	Pavement Planing, 4.5",A.P.P.	SY	1182
301	Asphalt Concrete Base	TN	205
407	NTSS-1HM TracklessTack Coat	GAL	100
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	102
609	Combination Curb/Gutter, A.P.P.	LF	775
614	Flagger	HR	9
653	Pulverized Topsoil, A.P.P.	CY	30
Special	Asphalt Rejuvenating Agent	SY	1182
Special	Curb Can Holes	EA	25
	RUNNING DEER PLACE ESTIMATED CONTINGENCY QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Concrete Removed & Disposed of, A.P.P.	SY	27
608	6" Conc. Walk w/ Agg. Base, A.P.P.	SF	240

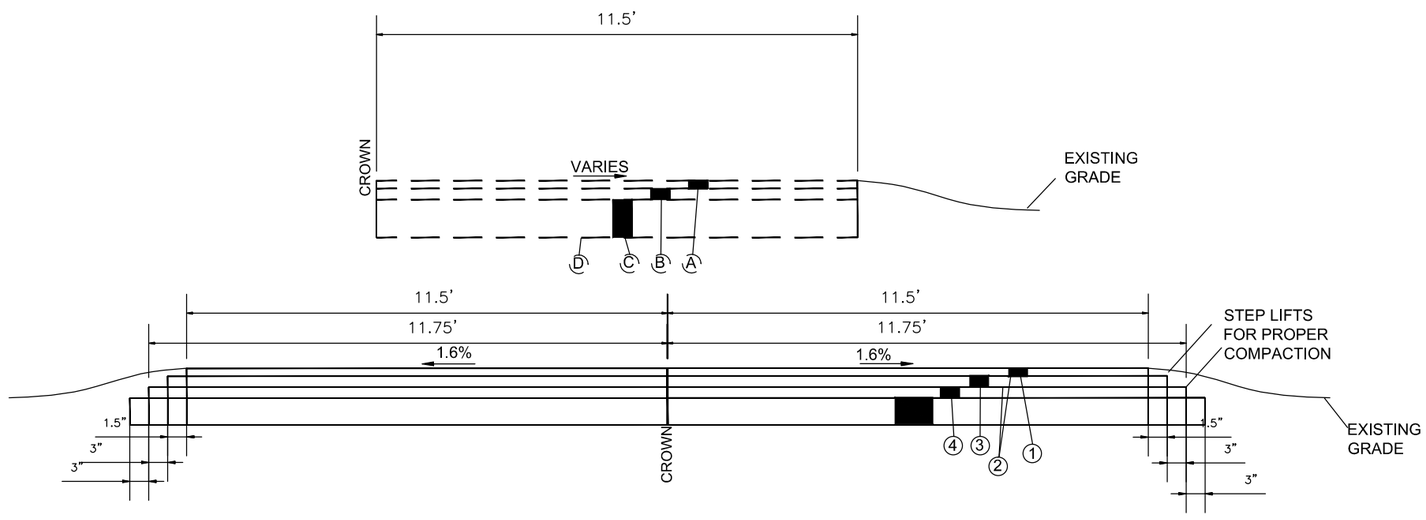
DRAWN BY: DAL
REVISED NONE

RUNNING DEER PLACE
CONSTRUCTIONNOTES / ESTIMATED CONSTRUCTION QUANTITIES

16-001-CIP



PAVEMENT SECTION DETAILS



4.5" Pavement Planing
3" 301 Bituminous Aggregate Base
1.5" 448-1 Asphaltic Concrete Surface Course, PG64-22

A	ITEM	404	Asphaltic Concrete 1.5"	1	ITEM	441	ASPHALTIC CONC. SURFACE COURSE, TYPE 1, (448), PG64-22, 1.5"
B	ITEM	402/301	Asphaltic Concrete 2" to 4"	2	ITEM	407	TRACKLESS TACK COAT
C	ITEM	304/ NO.2	Aggregate Base, 10"+/-	3	ITEM	441	ASPHALTIC CONC. INTERMEDIATE COURSE, TYPE 2, (448), PG64-22, 1.75" (WHERE SPECIFIED)
D	ITEM	204	Subgrade	4	ITEM	301	ASPHALT CONCRETE BASE, 3"

0 50 100 SCALE IN FEET

DRAWN BY DAL
REVISED NONE

HOLT ROAD
PAVING AND CONSTRUCTION QUANTITIES

16-001-CIP

TRAFFIC AND STRIPING LEGEND

CDL	ITEM 644 CENTERLINE DOUBLE YELLOW
ELW	ITEM 644 EDGE LINE WHITE
SB	ITEM 644 STOP BAR, 24"
CW	ITEM 644 CROSSWALK, 12"

0 50 100
SCALE IN FEET

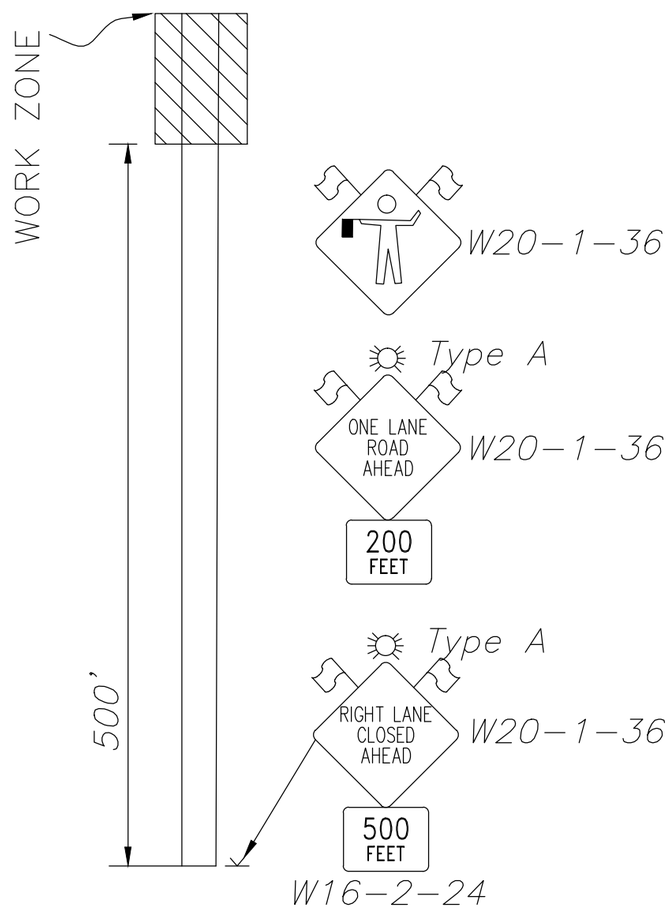
DRAWN BY: DAL
REVISED NONE

HOLT ROAD
STRIPING PLAN

16-001-CIP

2 / 3

101



ADVANCE WARNING SIGNS FOR ONE LANE WORK ZONE

TAPER LENGTHS SHOULD CONFORM TO MUTCD

(Typical Both Directions)

ADVANCE SIGNANGE FOR LANE CLOSURE FOR PERIMTER LOOP
ADDITIONAL WORK ZONE SIGNAGE SHALL BE PLACED ALONG
PERIMETER DRIVE AND POST ROAD

	HOLT ROAD ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
254	Pavement Planing, 4.5", A.P.P.	SY	4158
301	Asphalt Concrete Base	TN	800
407	NTSS-1HM TracklessTack Coat	GAL	415
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	410
614	LEO w/ Patrol Car	HR	64
614	Flagger	HR	32
644	4" Edge Line (white)	MILE	0.61
644	Center Line- Double (Yellow, Solid or Dashed)	MILE	0.31
644	Crosswalk Line, 12"	LF	100
644	Stop Bar, 24"	LF	22
	HOLT ROAD ESTIMATED CONTINGENCY QUANTITIES - BERM WORK 2' WIDE +/-		
ITEM	DESCRIPTION	UNIT	QUANTITY
617	Recondition Shoulders A.P.P. (Item 653 Pulverized Topsoil, A.P.P.)	CY	32
659	Vegetation (Seed/Mulch), A.P.P.	SY	600

CONSTRUCTION NOTES:

1. CONTRACTOR SHALL PROVIDE AT LEAST 5 WORKING DAYS NOTICE PRIOR TO COMMENCEMENT OF WORK
2. WORK HOURS ARE BETWEEN 8 A.M. AND 5:00 P.M., MONDAY THROUGH FRIDAY
3. ASPHALT BASE IS TO BE PLACED THE SAME DAY PAVEMENT IS REMOVED
4. ALL DRIVES AND INTERSECTIONS TO BE RAMPED FOR ACCESS FOLLOWING PAVEMENT REMOVAL AND BETWEEN PAVING PHASES
5. LEO'S SHALL BE USED AT THE INTERSETIONS
6. ONE LANE TWO WAY TRAFFIC SHALL BE MAINTAINED FOR LOCAL TRAFFIC SEE ODOT SCD MT-97.12

SCALE IN FEET 0

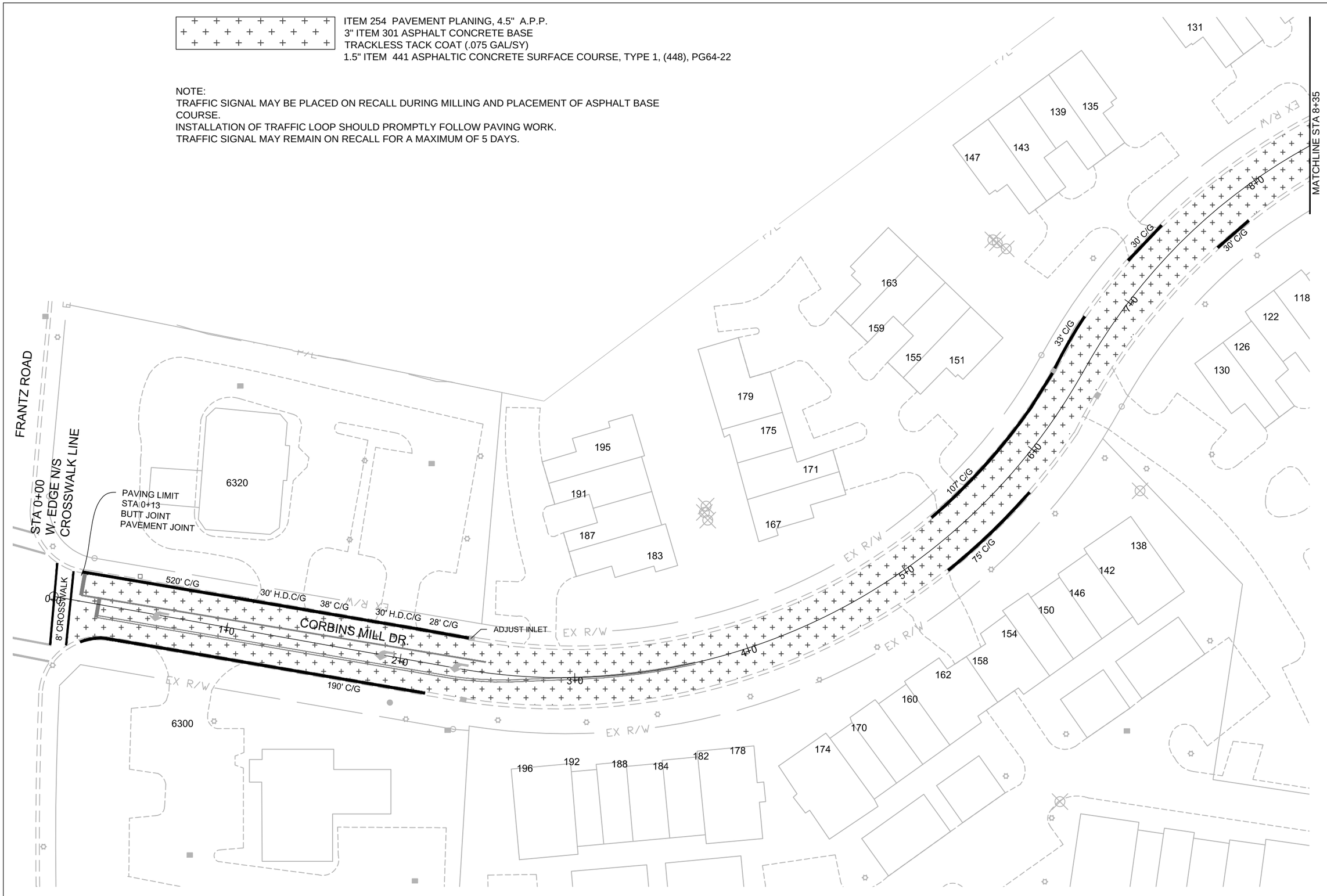
DRAWN BY: DAL
REVISED NONE

HOLT ROAD
CONSTRUCTION NOTES AND ESTIMATED QUANTITIES

16-001-CIP

ITEM 254 PAVEMENT PLANING, 4.5" A.P.P.
3" ITEM 301 ASPHALT CONCRETE BASE
TRACKLESS TACK COAT (.075 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

NOTE:
TRAFFIC SIGNAL MAY BE PLACED ON RECALL DURING MILLING AND PLACEMENT OF ASPHALT BASE COURSE.
INSTALLATION OF TRAFFIC LOOP SHOULD PROMPTLY FOLLOW PAVING WORK.
TRAFFIC SIGNAL MAY REMAIN ON RECALL FOR A MAXIMUM OF 5 DAYS.



N

0 25 50
SCALE IN FEET

DRAWN BY: DAL
REVISED
NONE

CORBINS MILL DRIVE
ROADWAY AND CONCRETE WORK

16-001-CIP

ITEM 254 PAVEMENT PLANING, 4.5" A.P.P.
3" ITEM 301 ASPHALT CONCRETE BASE
TRACKLESS TACK COAT (.075 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

N

0 25 50
SCALE IN FEET

DRAWN BY: DAL
REVISED NONE

CORBINS MILL DRIVE
ROADWAY AND CONCRETE WORK

16-001-CIP

CDL ITEM 644 CENTERLINE DOUBLE YELLOW

SB ITEM 644 STOP BAR

CH ITEM 644 CHANNELIZING LINE, 8"

CW ITEM 644 CROSSWALK LINE, 12"

N

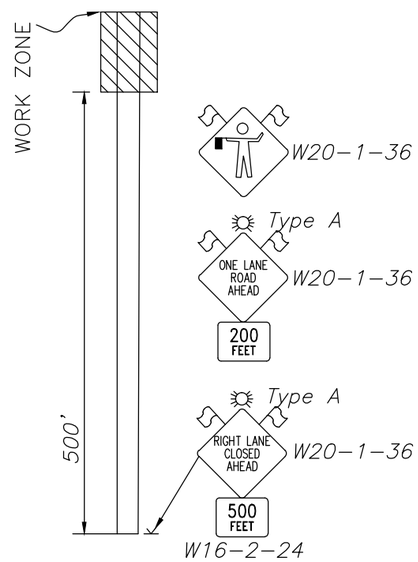
0 25 50
SCALE IN FEET

DRAWN BY: DAL
REVISED
NONE

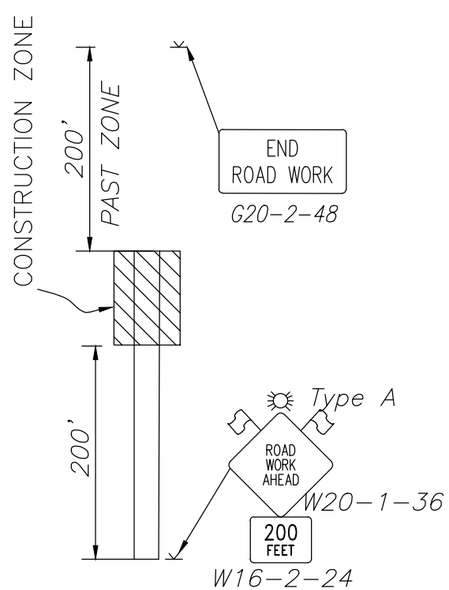
CORBINS MILL DRIVE
TRAFFIC AND STRIPING

16-001-CIP

ADVANCE SIGNANGE EXAMPLE FOR LANE CLOSURE FOR CORBINS MILL DRIVE
SEE MT-97.12 FOR WORK ZONE DETAILS
WORK ZONE SIGNAGE SHALL ALSO BE PLACED ALONG
FRANTZ ROAD AND BRIDGE STREET.



ADVANCE WARNING SIGNS FOR ONE LANE WORK ZONE
TAPER LENGTHS SHOULD CONFORM TO MUTCD
(Typical Both Directions)



ADVANCE WARNING SIGNS FOR ROAD WORK
(Typical Both Directions)

	CORBINS MILL DRIVE ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	1250
254	Pavement Planing, 4.5",A.P.P.	SY	4470
407	NTSS-1HM TracklessTack Coat	GAL	335
301	Asphalt Concrete Base	TN	750
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	380
604	Structure- Adjust, Inlet, A.P.P.	EA	4
604	Structure- Adjust, MH Pavement Ring	EA	1
609	Combination Curb/Gutter, A.P.P.	LF	1190
609	Combination Curb/Gutter, Heavy Duty, A.P.P.	LF	60
632	Detector Loop- A.P.P.	EA	2
614	LEO w/ Patrol Car	HR	20
614	Flagger	HR	32
644	Center Line- Double (Yellow, Solid or Dashed)	MILE	0.06
644	Channelizing Line, 8"	LF	232
644	Crosswalk Line, 12"	LF	85
644	Stop Bar, 24"	LF	25
644	Lane Arrow, 72"	EA	2
653	Pulverized Topsoil, A.P.P.	CY	50
Special	Curb Can Holes	EA	5

NOTE:
CONTINGENCY QUANTITIES FOR CURB AND GUTTER REPLACEMENT ARE PROVIDED TO ALLOW FOR POSSIBLE ADJUSTMENT TO IMPROVE DRAINAGE.

CONSTRUCTION NOTES:

1. CONTRACTOR SHALL PROVIDE AT LEAST 5 WORKING DAYS NOTICE PRIOR TO COMMENCEMENT OF WORK
2. WORK HOURS ARE BETWEEN 9 A.M. AND 3:30 P.M., MONDAY THROUGH FRIDAY
3. ONE LANE TWO WAY TRAFFIC SHALL BE MAINTAINED
   SEE ODOT SCD MT-97.12

N

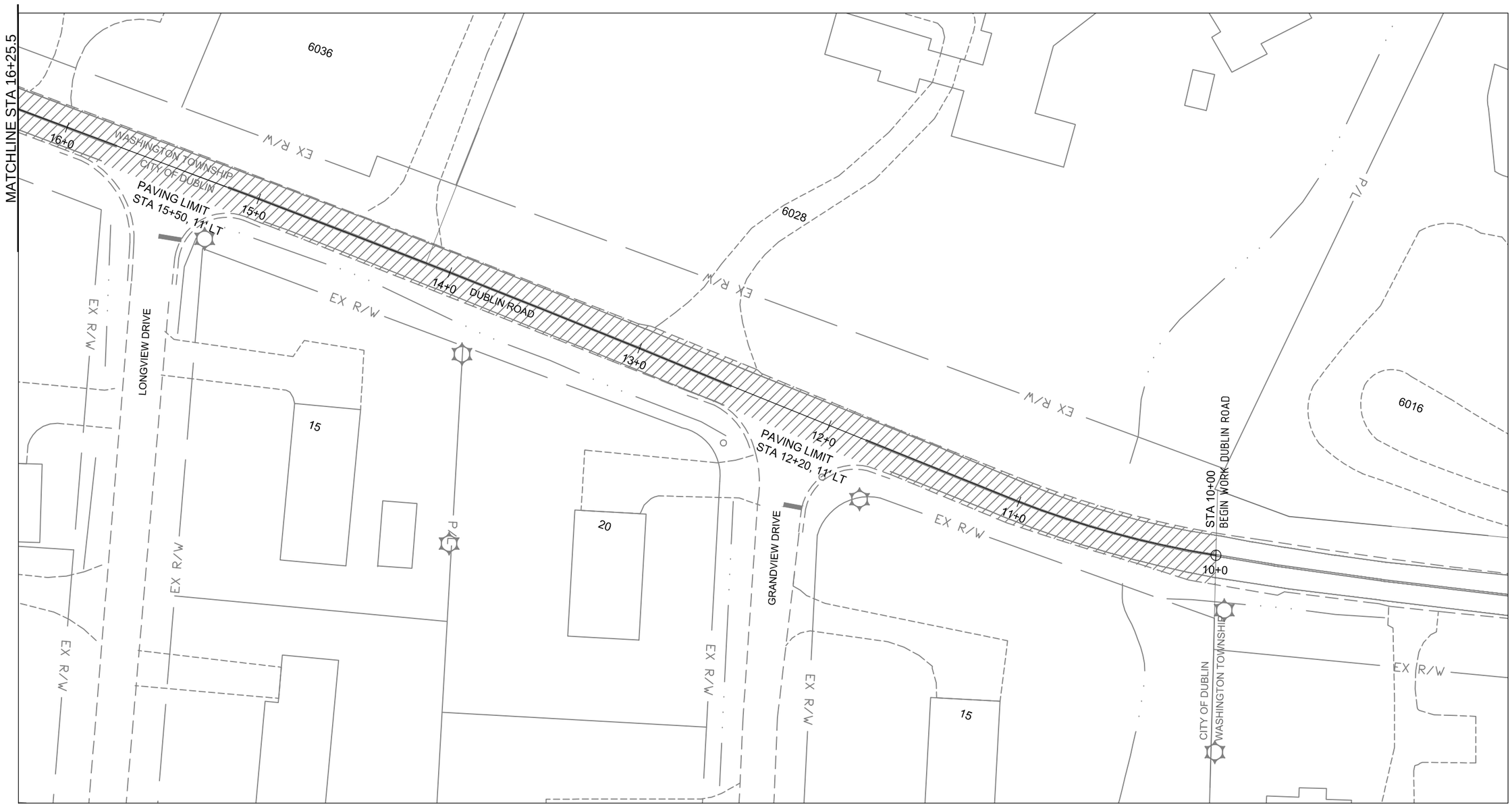
0 25 50
SCALE IN FEET

DRAWN BY: DAL
REVISED NONE

CORBINS MILL DRIVE
WORK ZONE SIGNAGE AND ESTIMATED QUANTITIES

16-001-CIP

1.5" PAVEMENT PLANING
TRACKLESS TACK COAT (.1 GAL/SY)
1.5" 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22



N

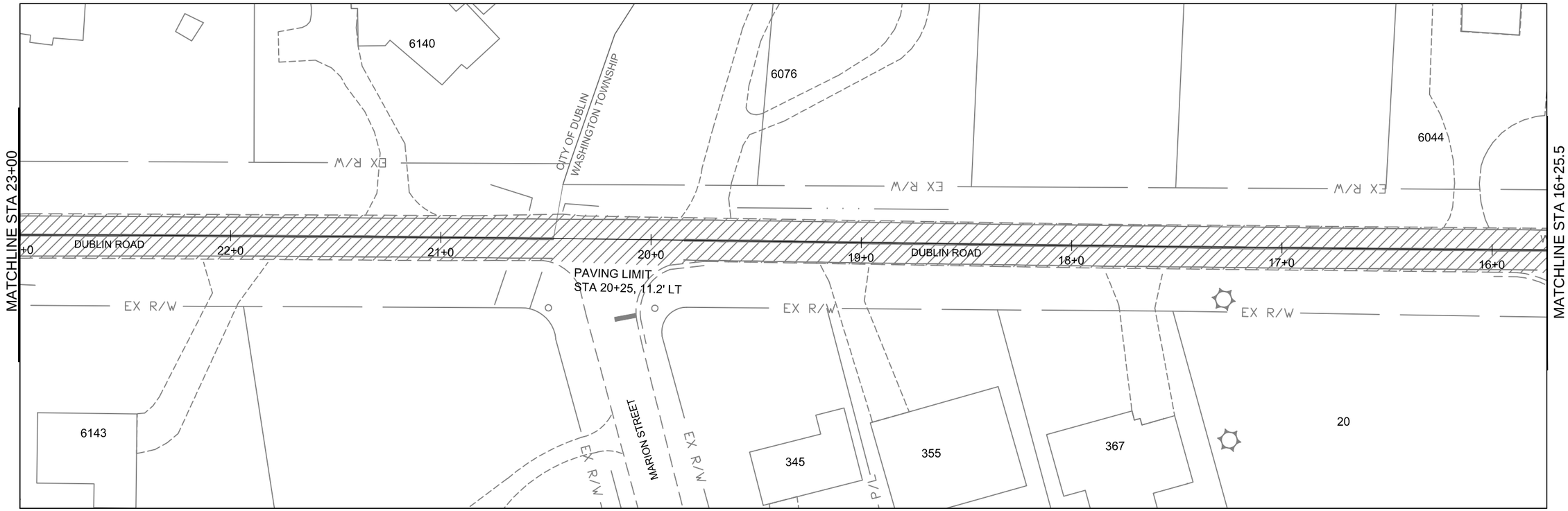
0 25 50
SCALE IN FEET

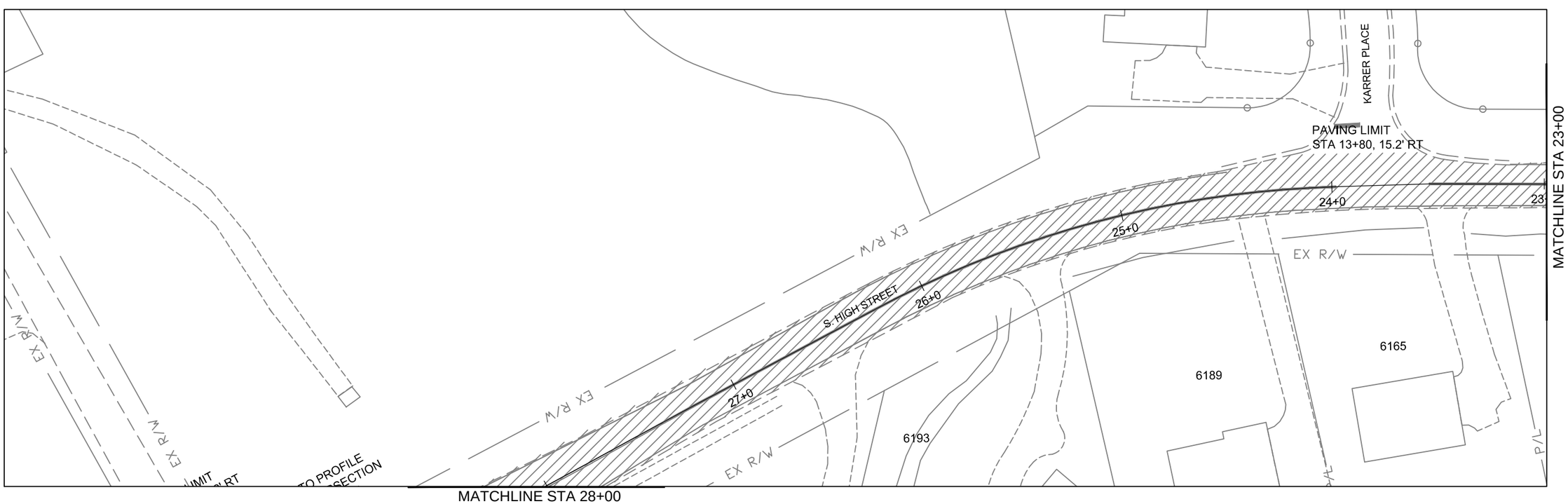
DRAWN BY: DAL
REVISED NONE

DUBLIN ROAD / S. HIGH ST.
ROADWAY PAVING WORK

16-001-CIP

1.5" PAVEMENT PLANING
TRACKLESS TACK COAT (.1 GAL/SY)
1.5" 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22



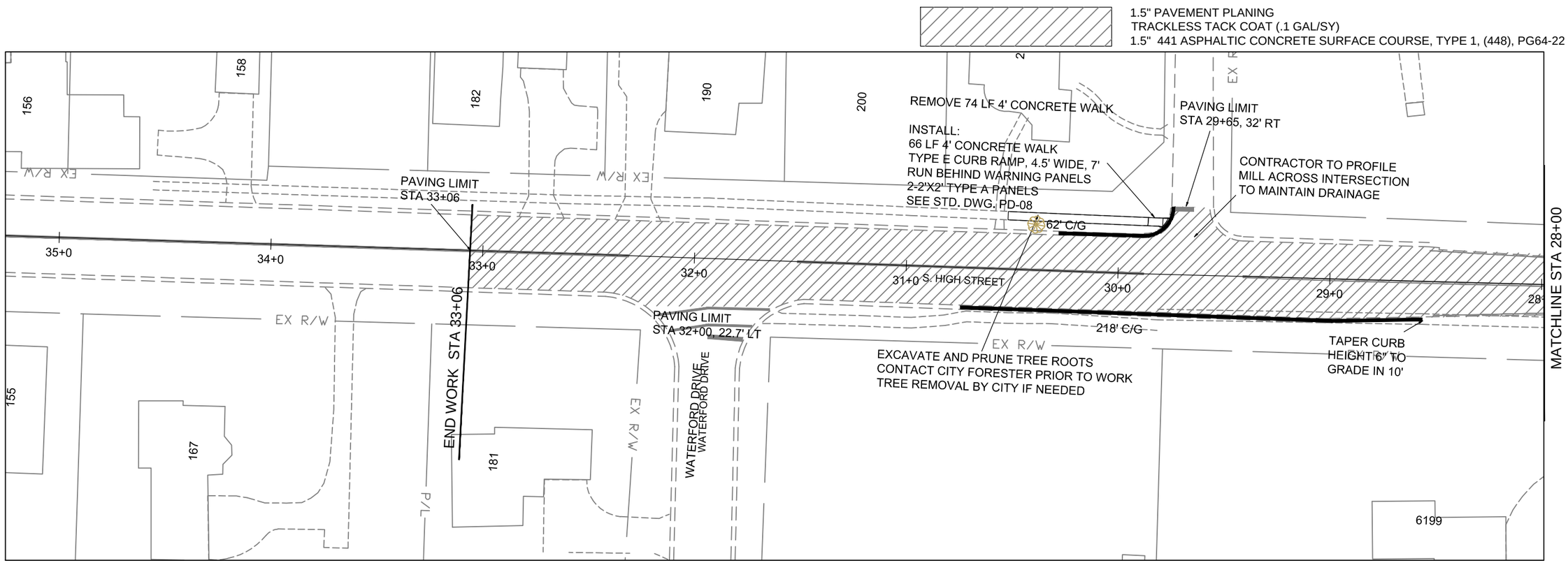


SCALE IN FEET 0 25 50

DRAWN BY: DAL
REVISED NONE

DUBLIN ROAD / S. HIGH ST.
ROADWAY PAVING WORK

16-001-CIP



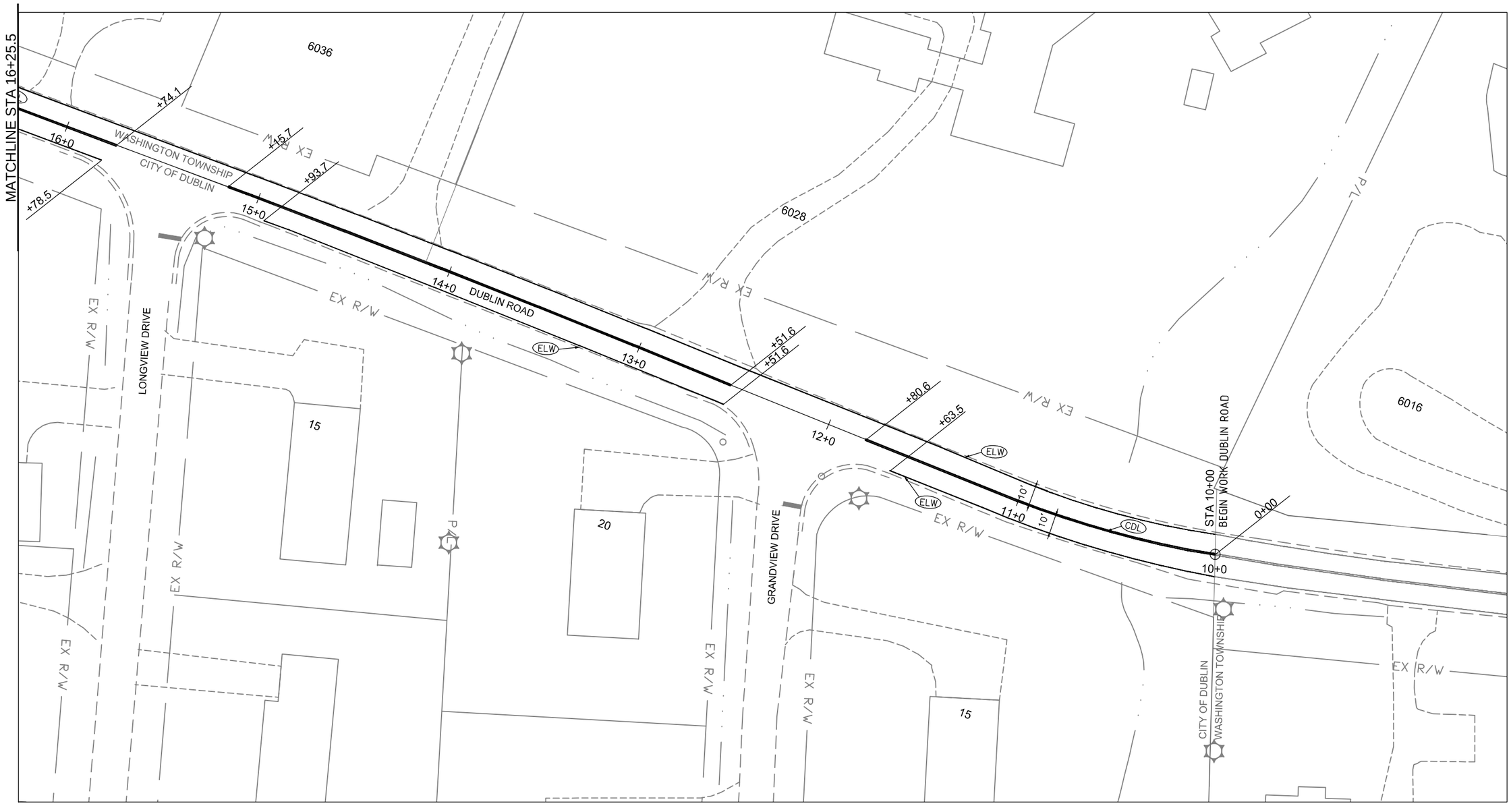
DRAWN BY: DAL
REVISED NONE

DUBLIN ROAD / S. HIGH ST.
ROADWAY PAVING WORK

16-001-CIP

CDL ITEM 644 CENTERLINE DOUBLE YELLOW

ELW ITEM 644 EDGE LINE WHITE



N

0 25 50
SCALE IN FEET

DRAWN BY: DAL
REVISED NONE

DUBLIN ROAD / S. HIGH ST.
TRAFFIC AND STRIPING

16-001-CIP

CDL ITEM 644 CENTERLINE DOUBLE YELLOW

ELW ITEM 644 EDGE LINE WHITE

DRAWN BY: DAL

REVISED

NONE

SCALE IN FEET 0 25 50

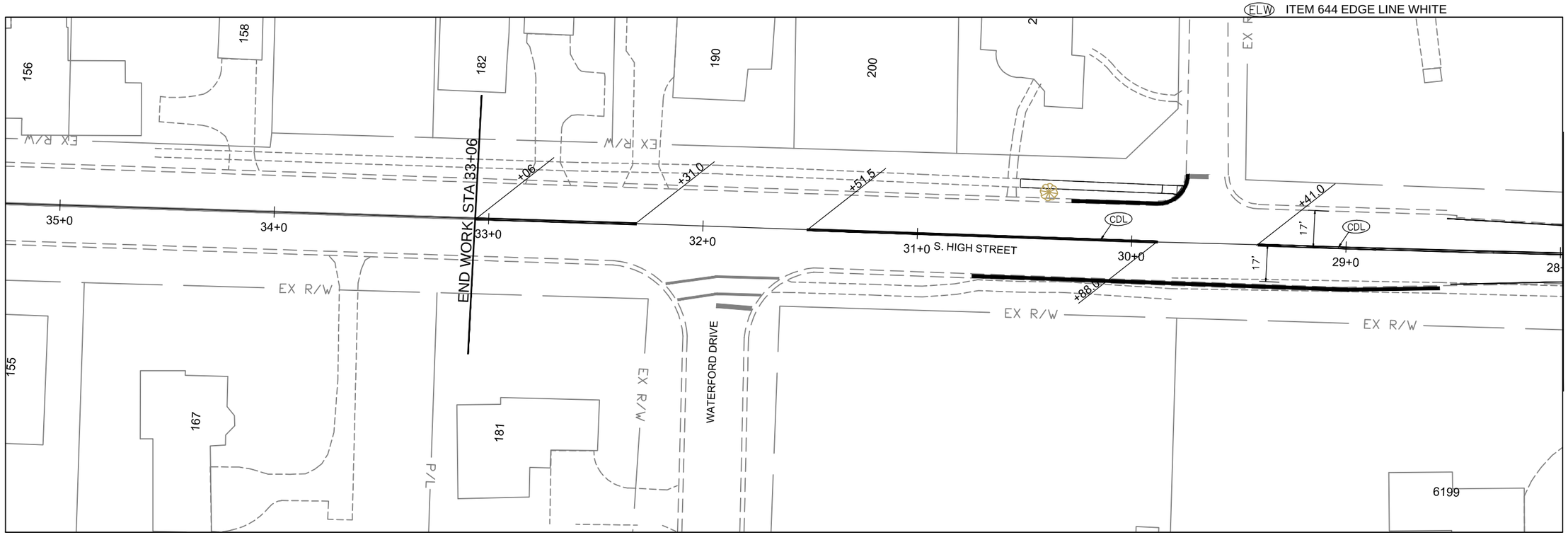
DUBLIN ROAD / S. HIGH ST.

TRAFFIS AND STRIPING

16-001-CIP

CDL ITEM 644 CENTERLINE DOUBLE YELLOW

ELW ITEM 644 EDGE LINE WHITE



N

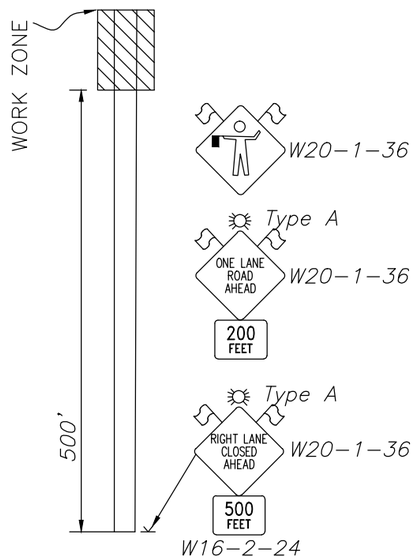
0 25 50
SCALE IN FEET

DRAWN BY: DAL
REVISED NONE

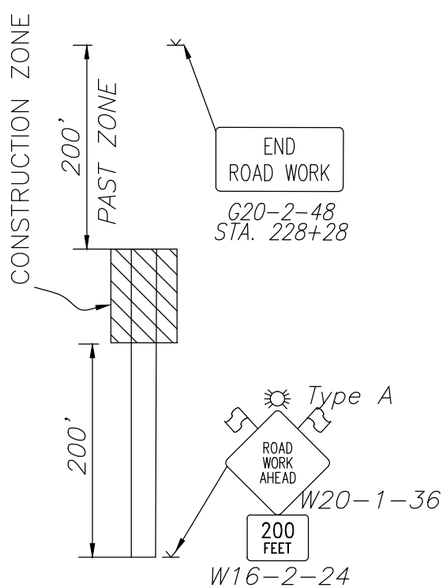
DUBLIN ROAD / S. HIGH ST.
TRAFFIC AND STRIPING

16-001-CIP

ADVANCE SIGNANGE EXAMPLE FOR LANE CLOSURE FOR DUBLIN ROAD
SEE MT-97.12 FOR WORK ZONE DETAILS
ADVANCE WORK ZONE SIGNAGE SHALL BE PLACED ALONG
INTERSECTING STREETS FOR ADVANCE NOTICE



ADVANCE WARNING SIGNS FOR ONE LANE WORK ZONE
TAPER LENGTHS SHOULD CONFORM TO MUTCD
(Typical Both Directions)



ADVANCE WARNING SIGNS FOR ROAD WORK
(Typical Both Directions)

	DUBLIN ROAD / S. HIGH STREET ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	280
202	Concrete Removed & Disposed of, A.P.P.	SY	33
203	Excavation, A.P.P.	CY	4
254	Pavement Planing, 1.5", A.P.P.	SY	6462
407	NTSS-1HM TracklessTack Coat	GAL	646
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	545
608	4" Conc. Walk w/ Agg. Base, A.P.P.	SF	264
608	Curb Ramp, 6" Conc. w/Agg. Base, A.P.P.	SF	48
609	Combination Curb/Gutter, A.P.P.	LF	280
614	LEO w/ Patrol Car	HR	48
614	Flagger	HR	48
644	Center Line- Double (Yellow, Solid or Dashed)	MILE	0.4
644	4" Edge Line (white)	MILE	0.71
Special	Detectable Warning Panel, Type A	EA	2
	DUBLIN ROAD / S. HIGH STREET ESTIMATED CONTINGENCY QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
253	Patching Planed Surface- Type 2, A.P.P.	SY	200

CONSTRUCTION NOTES:

1. CONTRACTOR SHALL PROVIDE AT LEAST 5 WORKING DAYS NOTICE PRIOR TO COMMENCEMENT OF WORK
2. WORK HOURS ARE BETWEEN 9 A.M. AND 4:00 P.M., MONDAY THROUGH FRIDAY
3. ONE LANE TWO WAY TRAFFIC SHALL BE MAINTAINED
   SEE ODOT SCD MT-97.12

0 25 50
SCALE IN FEET

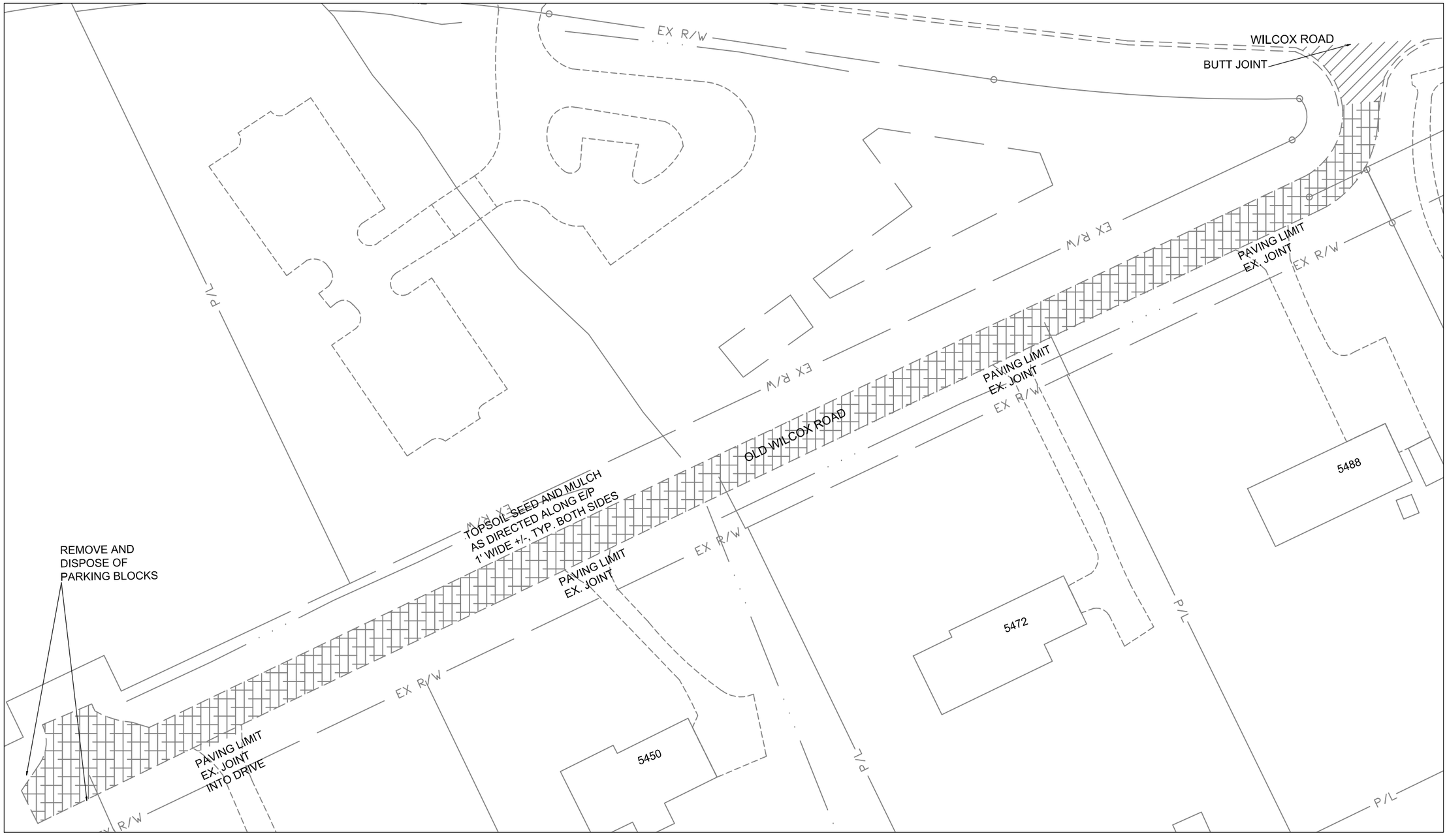
DRAWN BY DAL
REVISED NONE

DUBLIN ROAD / S. HIGH ST.
ESTIMATED QUANTITIED AND CONSTUCTION NOTES

16-001-CIP

3" PAVEMENT PLANING
TRACKLESS TACK COAT (.1 GAL/SY)
1.75" 441 ASPHALTIC CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), PG64-22
TRACKLESS TACK COAT (.075 GAL/SY)
1.25" 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

1.5" PAVEMENT PLANING
TRACKLESS TACK COAT (.1 GAL/SY)
1.5" 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

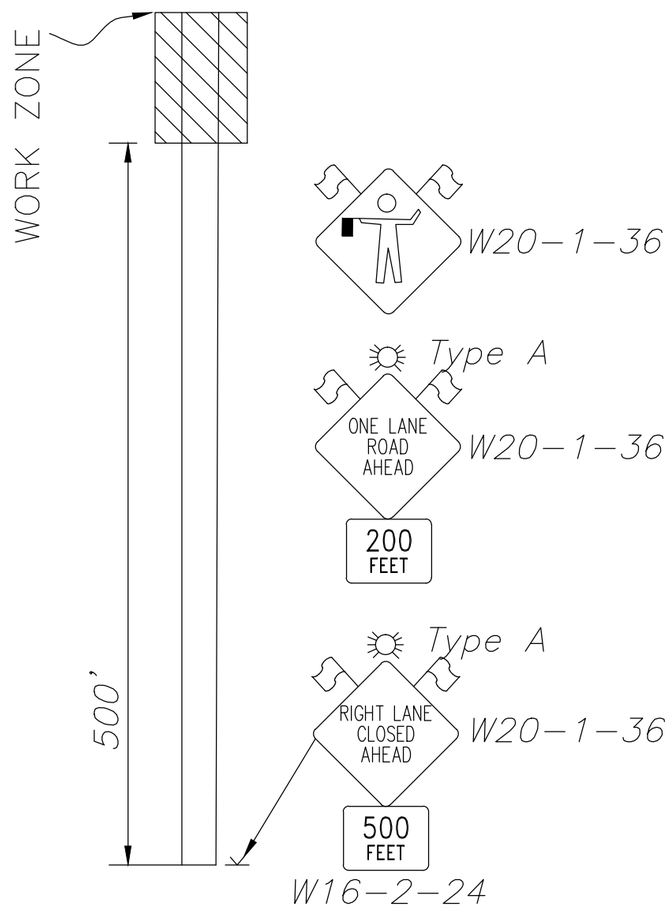


SCALE IN FEET 0 25 50

DRAWN BY: DAL
REVISED NONE

OLD WILCOX ROAD
ROADWAY PAVING WORK

16-001-CIP



ADVANCE WARNING SIGNS FOR ONE LANE WORK ZONE

TAPER LENGTHS SHOULD CONFORM TO MUTCD

(Typical Both Directions)

	OLD WILCOX ROAD ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
201	Concrete Parking Block Removed and Disposed of	EA	16
254	Pavement Planing, 1.5",A.P.P.	SY	110
254	Pavement Planing, 3",A.P.P.	SY	1696
407	NTSS-1HM TracklessTack Coat	GAL	311
441	Asphaltic Concrete Intermediate Course, Type-2, (448), PG64-22	TN	170
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	150
	OLD WILCOX ESTIMATED CONTINGENCY QUANTITIES - BERM WORK 1' WIDE AS DIRECTED		
ITEM	DESCRIPTION	UNIT	QUANTITY
617	Recondition Shoulders A.P.P. (Item 653 Pulverized Topsoil, A.P.P.)	CY	15
659	Vegetation (Seed/Mulch), A.P.P.	SY	180

CONSTRUCTION NOTES:

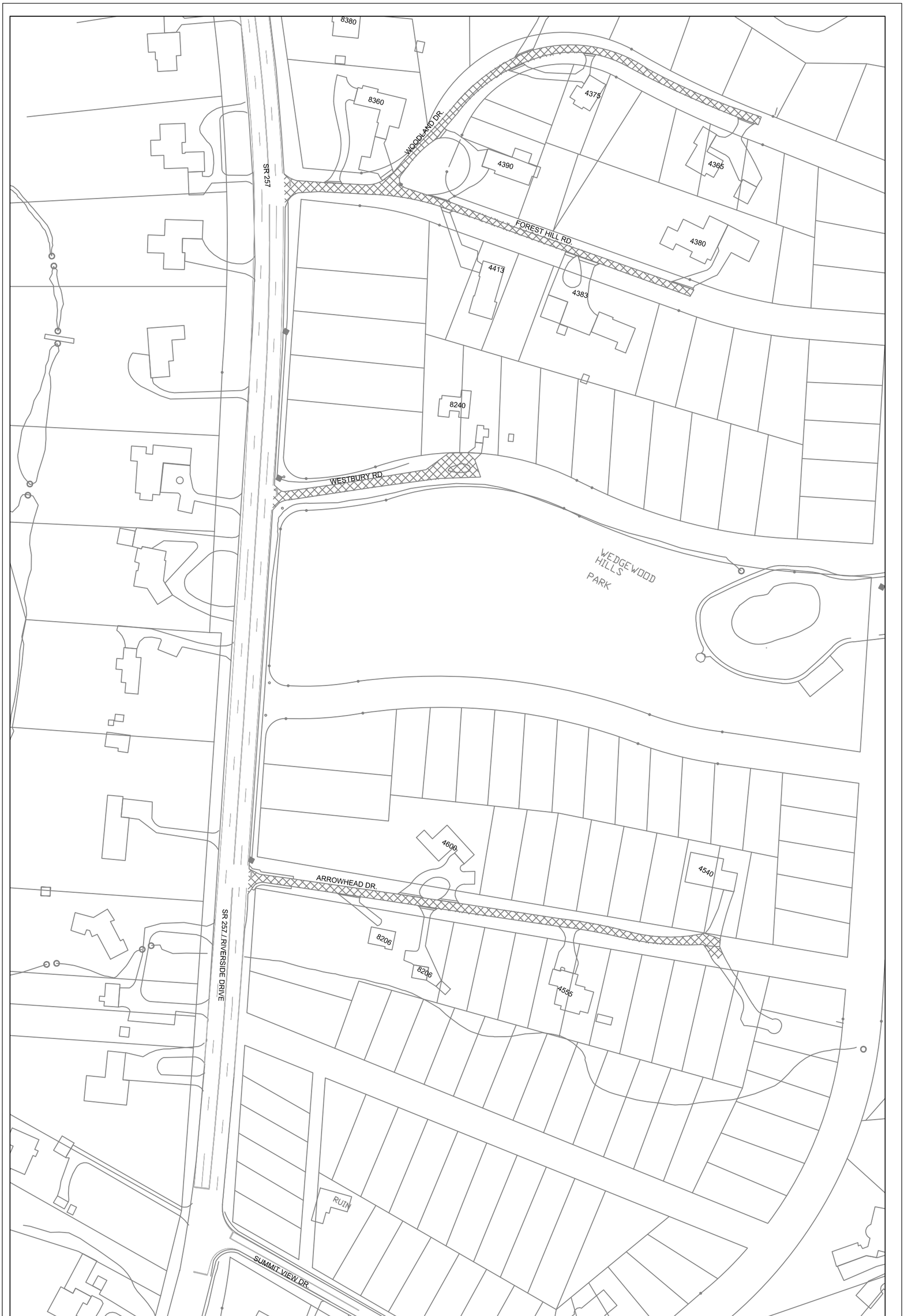
1. CONTRACTOR SHALL PROVIDE AT LEAST 2 WORKING DAYS NOTICE PRIOR TO COMMENCEMENT OF WORK
2. WORK HOURS ARE BETWEEN 9 A.M. AND 4:30 P.M., MONDAY THROUGH FRIDAY
3. ONE LANE TWO WAY TRAFFIC SHALL BE MAINTAINED
   SEE ODOT SCD MT-97.11

0 25 50 SCALE IN FEET

DRAWN BY DAL
REVISED NONE

OLD WILCOX ROAD
ESTIMATED QUANTITIED AND CONSTUCTION NOTES

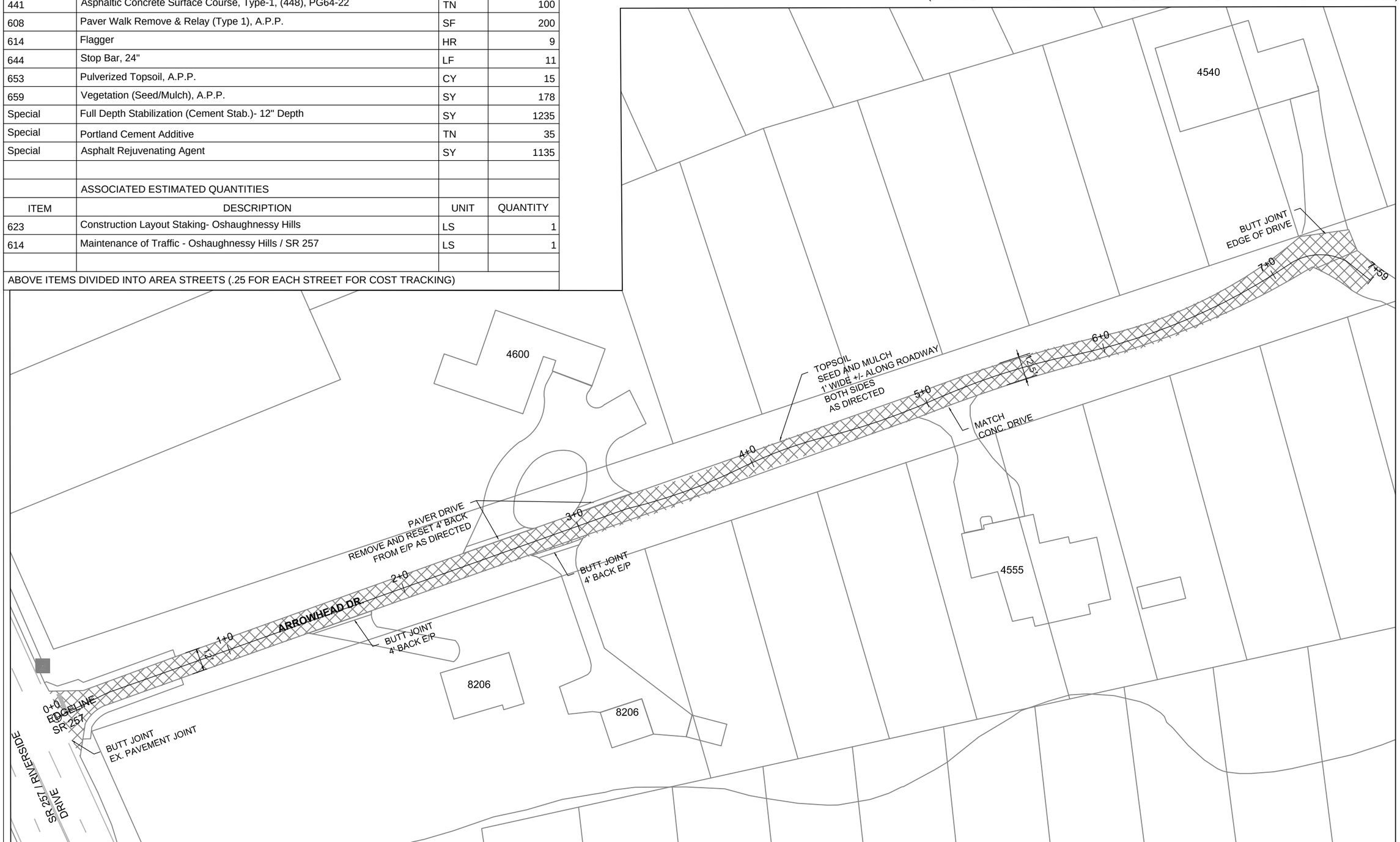
16-001-CIP



116	1 / 7	**16-001-CIP**	OSHAUGHNESSY HILLS OVERVIEW MAP OVERALL MAP	DRAWN BY: DAL REVISED NONE	0 NONE

	ARROWHEAD DRIVE ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
254	Pavement Planing, 5",A.P.P.	SY	1135
301	Asphalt Concrete Base	TN	200
407	NTSS-1HM TracklessTack Coat	GAL	90
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	100
608	Paver Walk Remove & Relay (Type 1), A.P.P.	SF	200
614	Flagger	HR	9
644	Stop Bar, 24"	LF	11
653	Pulverized Topsoil, A.P.P.	CY	15
659	Vegetation (Seed/Mulch), A.P.P.	SY	178
Special	Full Depth Stabilization (Cement Stab.)- 12" Depth	SY	1235
Special	Portland Cement Additive	TN	35
Special	Asphalt Rejuvenating Agent	SY	1135
	ASSOCIATED ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
623	Construction Layout Staking- Oshaughnessy Hills	LS	1
614	Maintenance of Traffic - Oshaughnessy Hills / SR 257	LS	1
ABOVE ITEMS DIVIDED INTO AREA STREETS (.25 FOR EACH STREET FOR COST TRACKING)			

ITEM 254 PAVEMENT PLANING, 5" A.P.P.
ITEM SPECIAL FULL DEPTH STABILIZATION (CEMENT STAB.), 12" DEPTH
[5% CEMENT]
3" ITEM 301 ASPHALTIC CONCRETE BASE COURSE
TRACKLESS TACK COAT (.075 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
(INCLUDES PAVEMENT REMOVAL AND PLACEMENT FOR BUTT JOINTS AT DRIVES AS NOTED)



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0 25 50
SCALE IN FEET

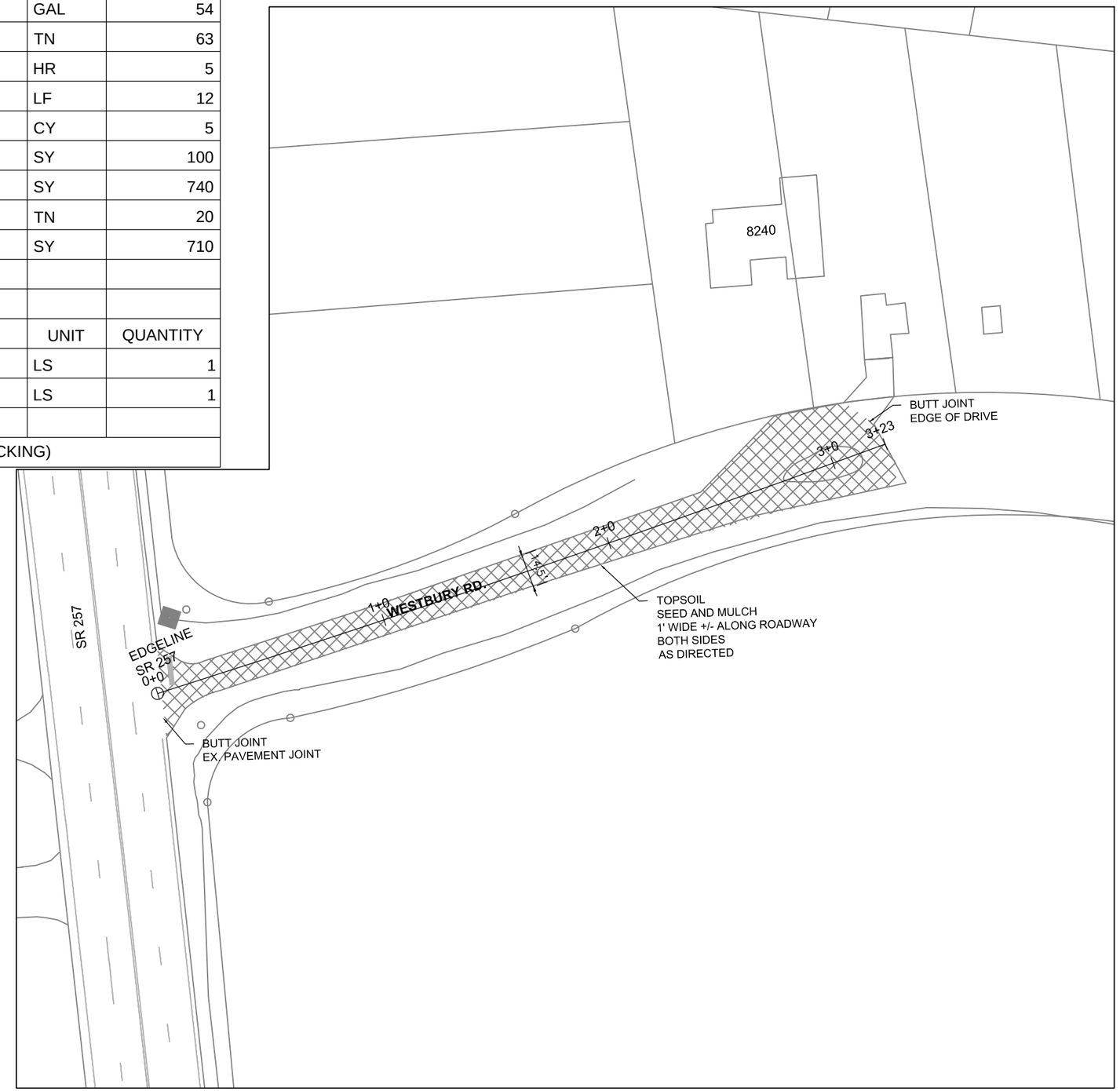
DRAWN BY: DAL
REVISED
NONE

ARROWHEAD DRIVE
ROADWAY

16-001-CIP

	WESTBURY ROAD ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
254	Pavement Planing, 5",A.P.P.	SY	710
301	Asphalt Concrete Base	TN	122
407	NTSS-1HM TracklessTack Coat	GAL	54
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	63
614	Flagger	HR	5
644	Stop Bar, 24"	LF	12
653	Pulverized Topsoil, A.P.P.	CY	5
659	Vegetation (Seed/Mulch), A.P.P.	SY	100
Special	Full Depth Stabilization (Cement Stab.)- 12" Depth	SY	740
Special	Portland Cement Additive	TN	20
Special	Asphalt Rejuvenating Agent	SY	710
	ASSOCIATED ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
623	Construction Layout Staking- Oshaughnessy Hills	LS	1
614	Maintenance of Traffic - Oshaughnessy Hills / SR 257	LS	1
ABOVE ITEMS DIVIDED INTO AREA STREETS (.25 FOR EACH STREET FOR COST TRACKING)			

ITEM 254 PAVEMENT PLANING, 5" A.P.P.
ITEM SPECIAL FULL DEPTH STABILIZATION (CEMENT STAB.), 12" DEPTH
[5% CEMENT]
3" ITEM 301 ASPHALTIC CONCRETE BASE COURSE
TRACKLESS TACK COAT (.075 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
(INCLUDES PAVEMENT REMOVAL AND PLACEMENT FOR BUTT JOINTS AT DRIVES AS NOTED)



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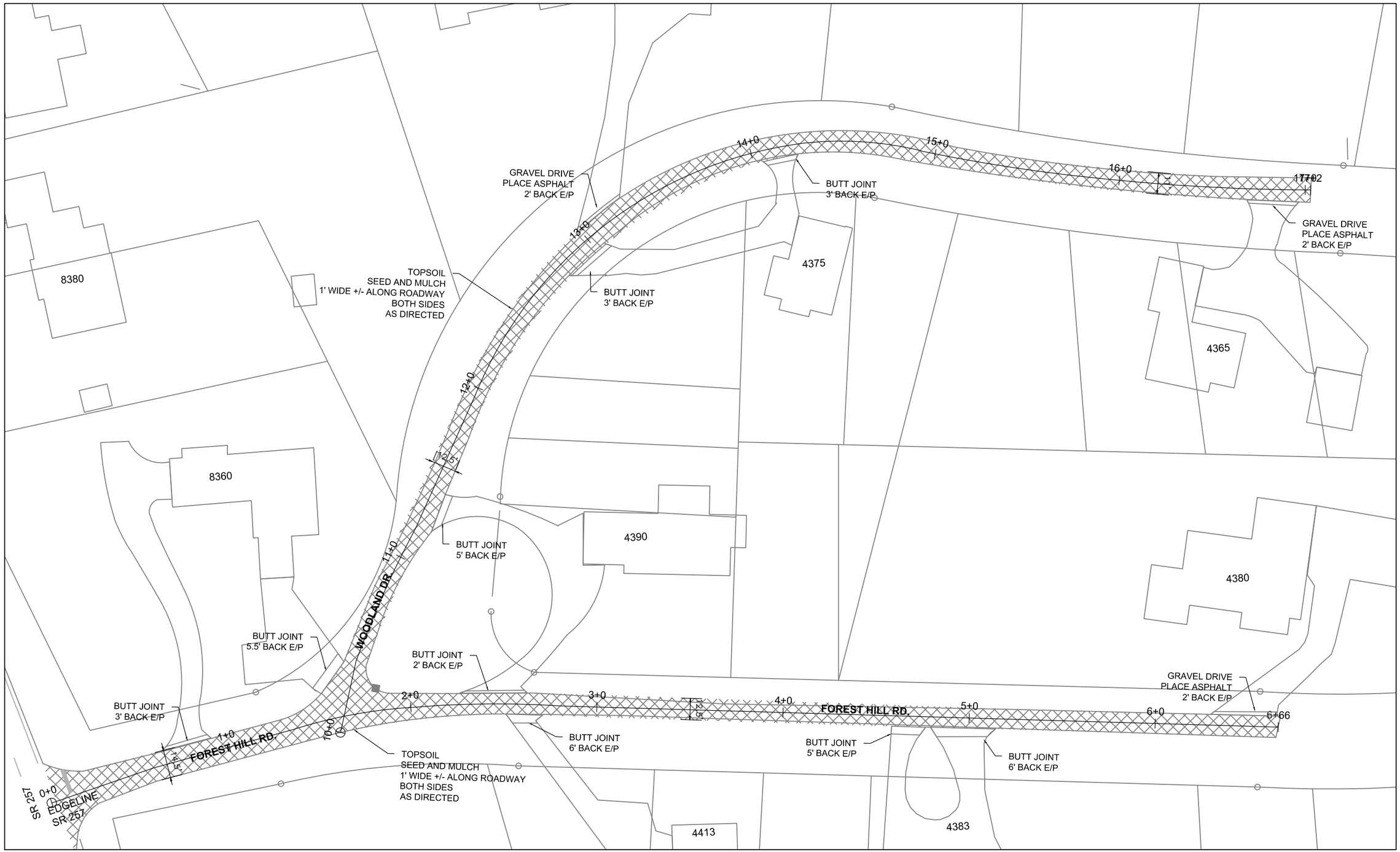
SCALE IN FEET

DRAWN BY: DAL
REVISED NONE

WESTBURY ROAD
ROADWAY

16-001-CIP

ITEM 254 PAVEMENT PLANING, 5" A.P.P.
ITEM SPECIAL FULL DEPTH STABILIZATION (CEMENT STAB.), 12" DEPTH
[5% CEMENT]
3" ITEM 301 ASPHALTIC CONCRETE BASE COURSE
TRACKLESS TACK COAT (.075 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
(INCLUDES PAVEMENT REMOVAL AND PLACEMENT FOR BUTT JOINTS AT DRIVES AS NOTED)



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SCALE IN FEET

DRAWN BY: DAL
REVISED NONE

FOREST HILL ROAD / WOODLAND DRIVE
ROADWAY

16-001-CIP

	WOODLAND DRIVE ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
254	Pavement Planing, 5",A.P.P.	SY	964
301	Asphalt Concrete Base	TN	165
407	NTSS-1HM TracklessTack Coat	GAL	75
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	92
614	Flagger	HR	8
644	Stop Bar, 24"	LF	-
653	Pulverized Topsoil, A.P.P.	CY	20
659	Vegetation (Seed/Mulch), A.P.P.	SY	150
Special	Full Depth Stabilization (Cement Stab.)- 12" Depth	SY	1086
Special	Portland Cement Additive	TN	30
Special	Asphalt Rejuvenating Agent	SY	964
	ASSOCIATED ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
623	Construction Layout Staking- Oshaughnessy Hills	LS	1
614	Maintenance of Traffic - Oshaughnessy Hills / SR 257	LS	1
ABOVE ITEMS DIVIDED INTO AREA STREETS (.25 FOR EACH STREET FOR COST TRACKING)			

	FOREST HILL ROAD ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
254	Pavement Planing, 5",A.P.P.	SY	990
301	Asphalt Concrete Base	TN	165
407	NTSS-1HM TracklessTack Coat	GAL	75
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	92
614	Flagger	HR	12
644	Stop Bar, 24"	LF	13
653	Pulverized Topsoil, A.P.P.	CY	15
659	Vegetation (Seed/Mulch), A.P.P.	SY	150
Special	Full Depth Stabilization (Cement Stab.)- 12" Depth	SY	1100
Special	Portland Cement Additive	TN	30
Special	Asphalt Rejuvenating Agent	SY	990
	ASSOCIATED ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
623	Construction Layout Staking- Oshaughnessy Hills	LS	1
614	Maintenance of Traffic - Oshaughnessy Hills / SR 257	LS	1
ABOVE ITEMS DIVIDED INTO AREA STREETS (.25 FOR EACH STREET FOR COST TRACKING)			

N

0 25 50
SCALE IN FEET

DRAWN BY: DAL
REVISED NONE

FOREST HILL ROAD / WOODLAND DRIVE
ESTIMATE QUANTITIES

16-001-CIP

NONE

DRAWN BY: DAL
REVISED NONE

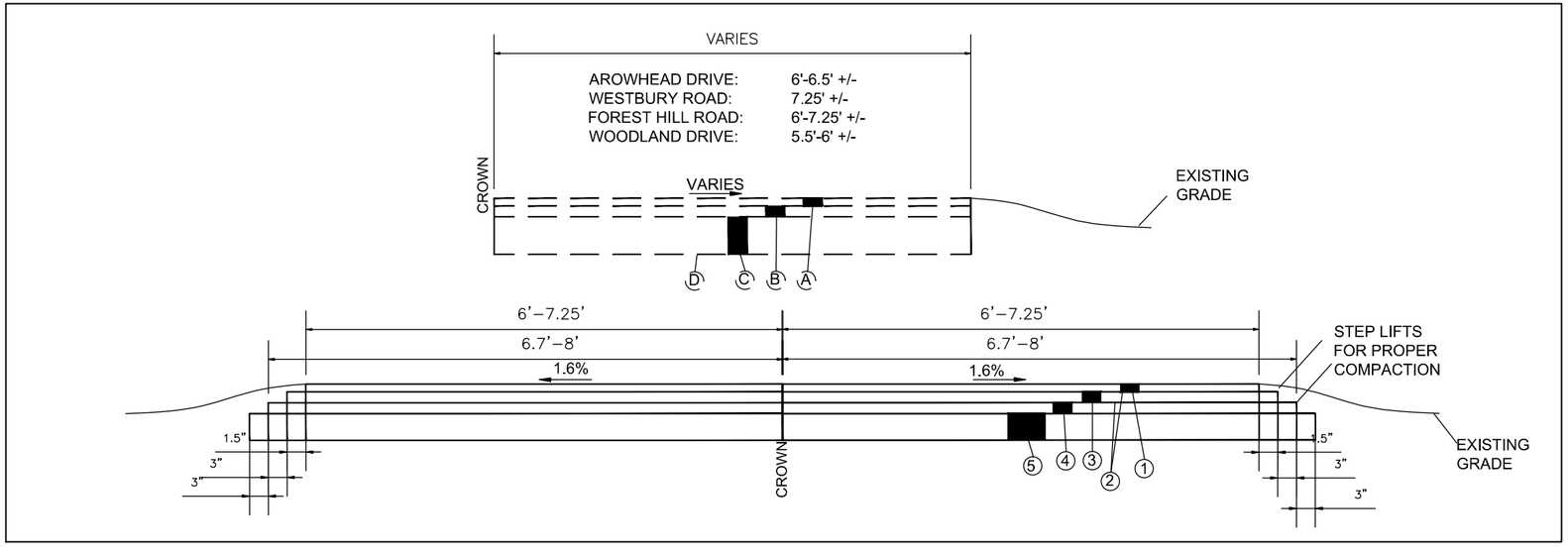
OSHAUGHNESSY AREA
TRAFFIC AND STRIPING

16-001-CIP

CONSTRUCTION NOTES:

1. CONTRACTOR SHALL PROVIDE AT LEAST 7 WORKING DAYS NOTICE TOTHE ENGINEER PRIOR TO COMMENCEMENT OF WORK
2. WORK HOURS ARE BETWEEN 9 A.M. AND 4:00 P.M., MONDAY THROUGH FRIDAY
3. CONTRACTOR MAY SET UP WORK ZONE AREA IN NORTH BOUND RIGHT LANE OF SR 257
   - 3A. ONE LANE TRAFFIC SHALL BE MAINTAINED FOR NORTH BOUND TRAFFIC AT ALL TIMES SEE ODOT SCD MT-95.31
   - 3B. WORK ZONE MUST BE SET UP AND TAKEN DOWN EACH DAY (PERMITTED ONE HALF-HOUR BEFORE AND AFTER WORK HOURS)
   - 3C. WORK ZONE LENGTH SHALL ACCOMODATE STAGING AREA SOUTH OF ACTIVE ROAD WORK AND ADEQUATE AREA AVAILABLE FOR RESIDENT PARKING ALONG BERM OF SR 257 TO NORTH OF ACTIVE ROAD WORK AREA
4. FLAGGER SHALL BE UTILIZIED TO ASSIST WITH INBOUND AND OUTBOUND TRAFFIC AT INTERSECTION WITH SR 257
5. THE CITY WILL NOTIFY RESIDENTS ALONG STREETS OF PROPOSED WORK SCHEDULE AND ACCESS RESTRICTIONS DURING THE WORK DAYS.
   - 5A. DUE TO THE NARROW ROADS THE CONTRACTOR WILL NOT BE REQUIRED TO MAINTAIN CONTINUOUS ACCESS DURING ACTIVE WORK PHASES OF PAVEMENT REMOVAL, SUBGRADE STABILIZATION, AND PAVING OPERATIONS. HOWEVER THE CONTRACTOR MUST BE ACCOMODATING TO PROVIDING REASONABLE ACCESS TO THE RESIDENTS PROPERTIES AS DIRECTED.
   - 5B. ALL PROPERTIES MUST BE ACCESSIBLE OUTSIDE OF WORK HOURS.
   - 5B. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE IMMEDIATE ACCESS TO EMERGENCY SERVICES
   - 5C. THE CONTRACTOR SHALL MAKE SURE ALL RESIDENTS HAVE EXITED WORK AREA PRIOR TO COMMENCEMENT OF WORK THAT WILL RESTRICT ACCESS.

PAVEMENT SECTION DETAILS



A	ITEM	404	Asphaltic Concrete 1.5"
B	ITEM	402/301	Asphaltic Concrete 2" to 4"
C	ITEM	304	Aggregate Base, 10" to 14"
D	ITEM	204	Subgrade

1	ITEM	441	ASPHALTIC CONC. SURFACE COURSE, TYPE 1, (448), PG64-22, 1.5"
2	ITEM	407	TRACKLESS TACK COAT
3	ITEM	441	ASPHALTIC CONC. INTERMEDIATE COURSE, TYPE 2, (448), PG64-22, 1.75" (WHERE SPECIFIED)
4	ITEM	301	ASPHALT CONCRETE BASE, 3"
5	ITEM	SPEC	RECYCLED PAVEMENT BASE, 12"

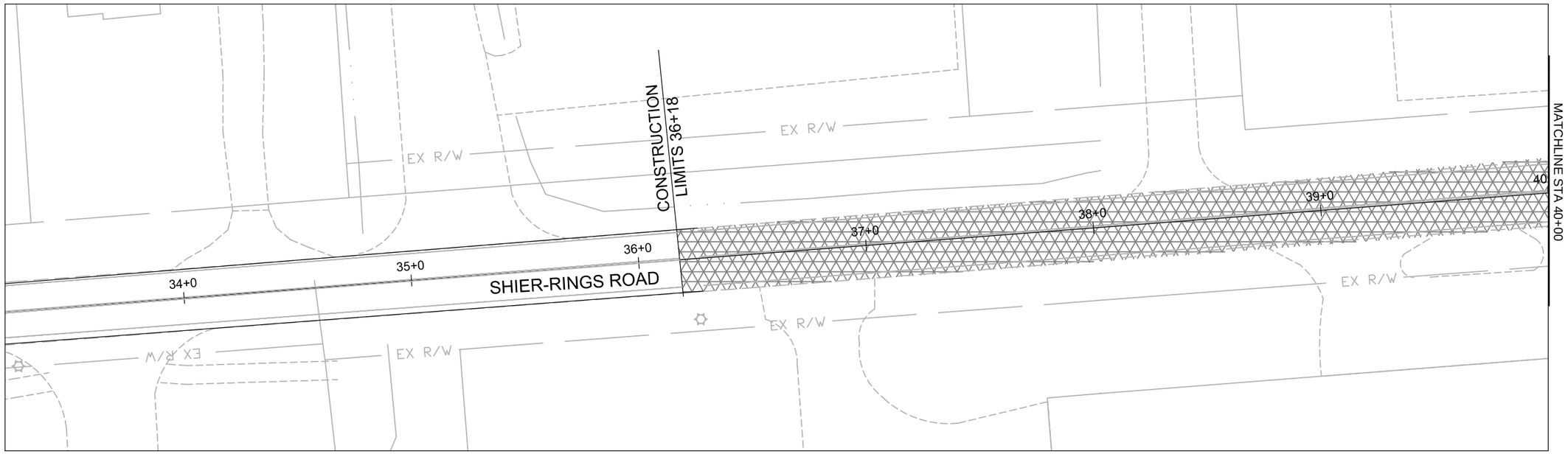
NONE

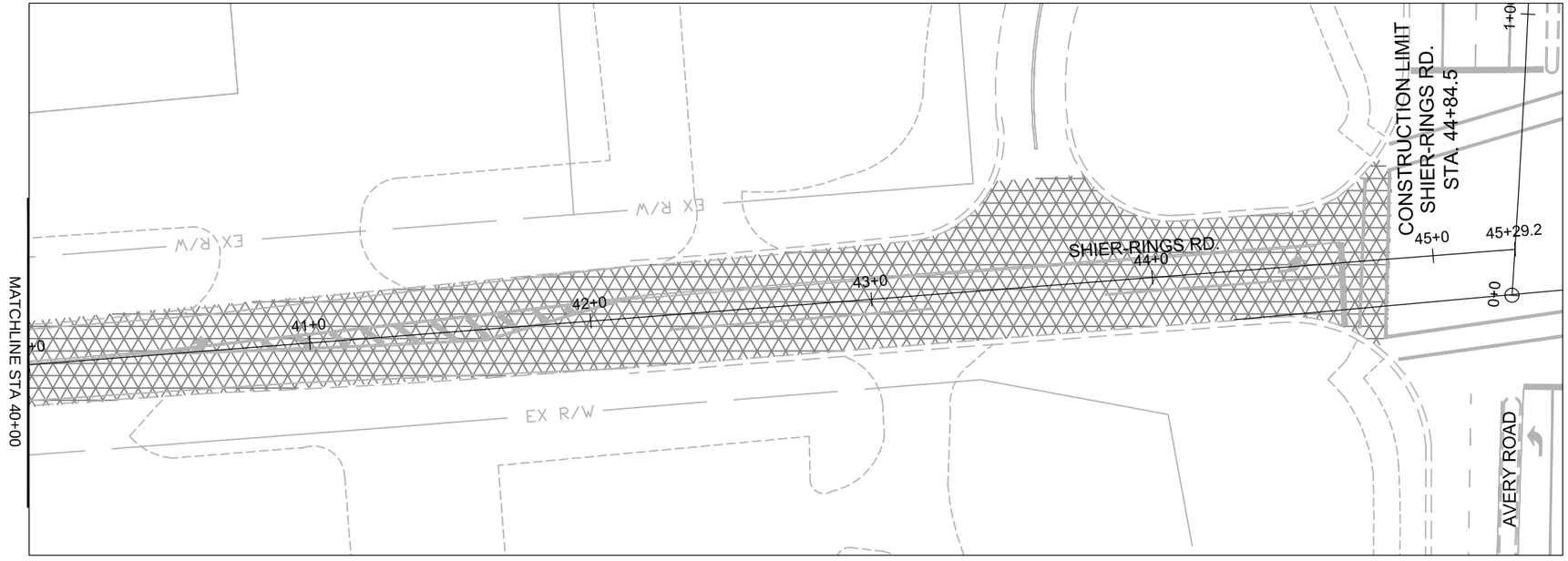
DRAWN BY DAL
REVISED NONE

OSHAUGHNESSY AREA
CONSTRUCTION NOTES AND DETAILS

16-001-CIP

ITEM 254 PAVEMENT PLANING, 3" A.P.P.
TRACKLESS TACK COAT (.1 GAL/SY)
1.75" ITEM 441 ASPHALTIC CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), PG64-22
TRACKLESS TACK COAT (.075 GAL/SY)
1.5" ITEM 441 ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22





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SCALE IN FEET

DRAWN BY: DAL
REVISED NONE

SHIER-RINGS ROAD
ROADWAY

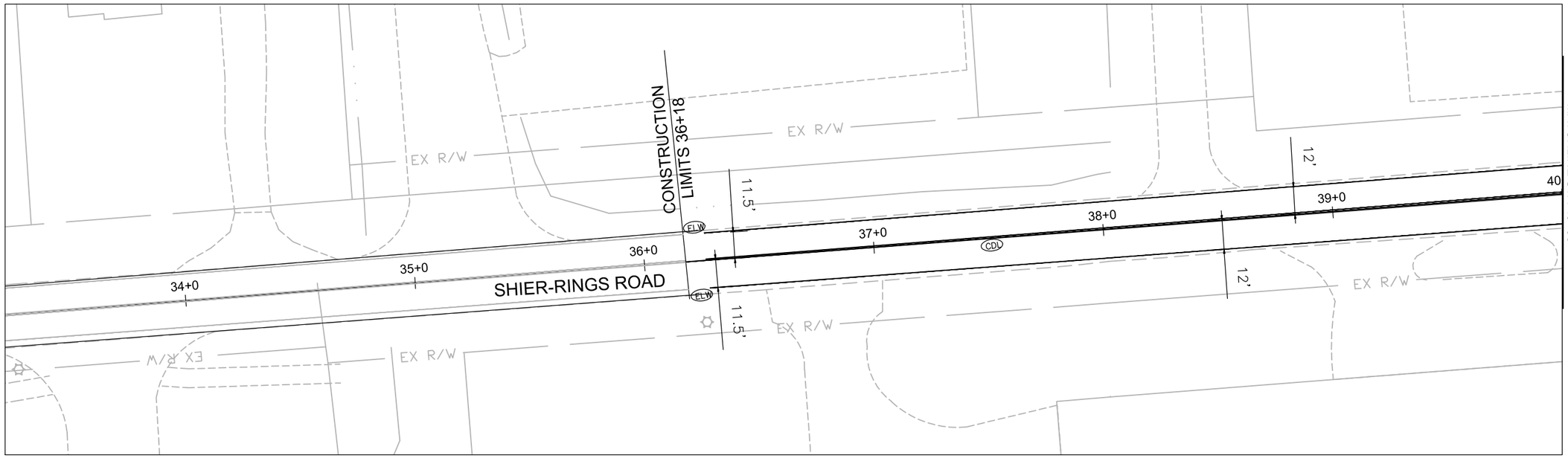
16-001-CIP

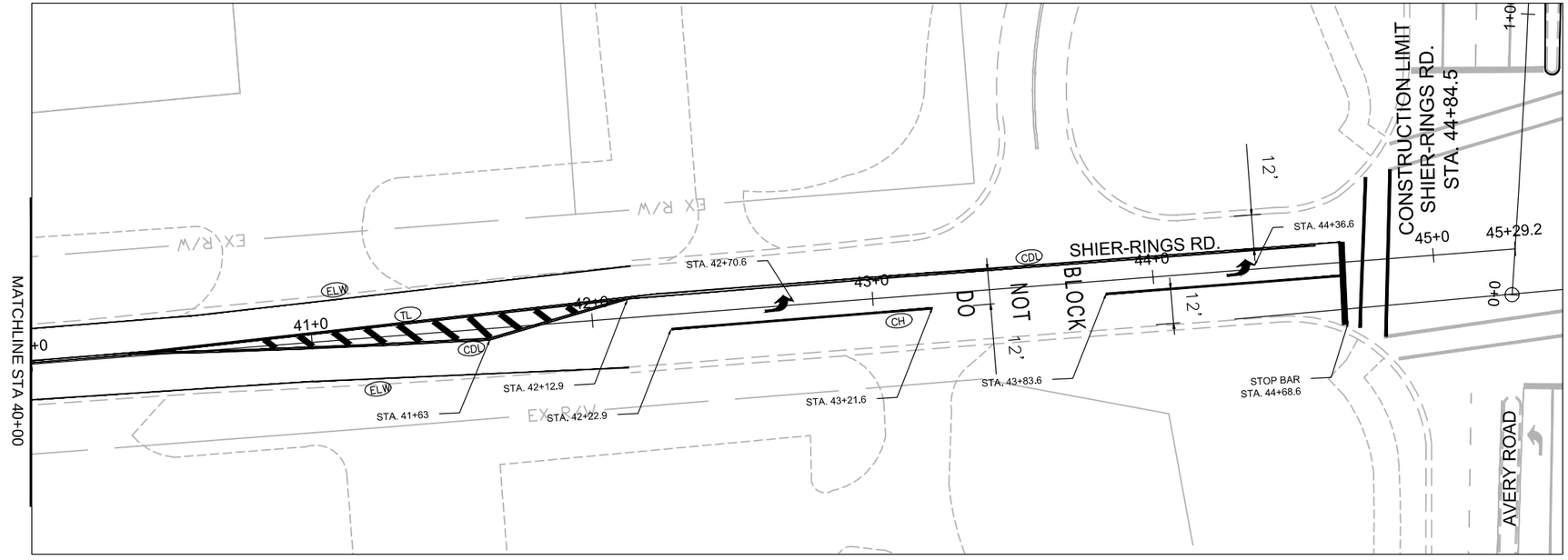
CDL ITEM 644 CENTERLINE DOUBLE YELLOW

ELW ITEM 644 EDGE LINE WHITE

TL ITEM 644 24" TRANSVERSE, YELLOW

CH ITEM 644 CHANNELIZING LINE, 8"





SCALE IN FEET 0 25 50

DRAWN BY: DAL

REVISED NONE

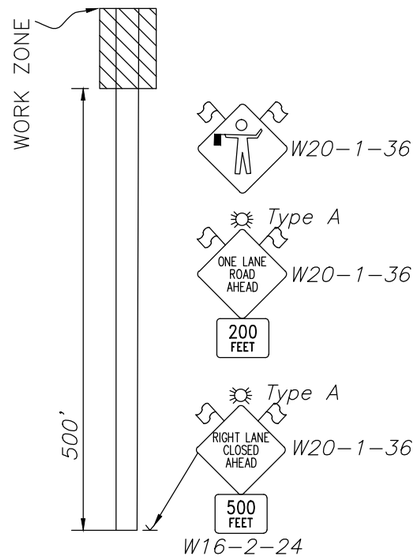
SHIER-RINGS ROAD

ROADWAY

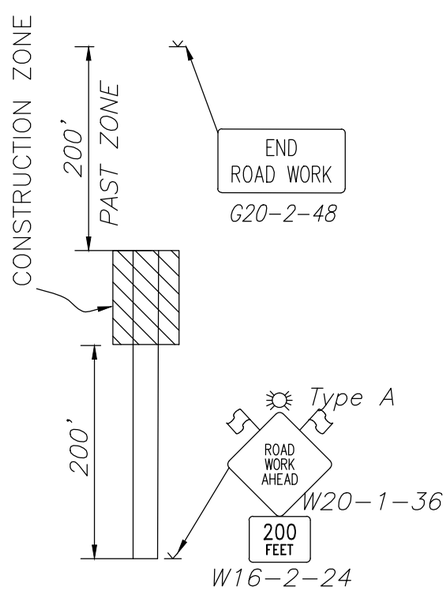
16-001-CIP

ADVANCE SIGNANGE EXAMPLE FOR LANE CLOSURE FOR SHIER-RINGS ROAD
SEE MT-97.12 FOR WORK ZONE DETAILS

WORK ZONE SIGNAGE SHALL ALSO BE PLACED ALONG
AVERY ROAD.



ADVANCE WARNING SIGNS FOR ONE LANE WORK ZONE
TAPER LENGTHS SHOULD CONFORM TO MUTCD
(Typical Both Directions)



ADVANCE WARNING SIGNS FOR ROAD WORK
(Typical Both Directions)

	SHIER-RINGS ROAD ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
254	Pavement Planing, 3",A.P.P.	SY	3212
407	NTSS-1HM TracklessTack Coat	GAL	562
441	Asphaltic Concrete Intermediate Course, Type-2, (448), PG64-22	TN	315
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	260
614	LEO w/ Patrol Car	HR	16
614	Flagger	HR	16
614	Detector Loop, A.P.P.	EA	-
644	Crosswalk Line, 12"	LF	120
644	Center Line- Double-(Yellow, Solid of Dashed)	MI	0.23
644	Edge Line (White	MI	0.22
644	Lane Arrow, 72"	EA	2
644	Channelizing Line, 8"	LF	238
644	Stop Bar, 24"	LF	30
644	Text on Pavemet, "DO NOT BLOCK" (72")	EA	1

CONSTRUCTION NOTES:

1. CONTRACTOR SHALL PROVIDE AT LEAST 5 WORKING DAYS NOTICE PRIOR TO COMMENCEMENT OF WORK
2. WORK HOURS ARE BETWEEN 9 A.M. AND 3:30 P.M., MONDAY THROUGH FRIDAY
3. LEO'S SHALL BE USED AT THE INTERSECTION OF SHIER-RINGS ROAD AND AVERY ROAD
4. ONE LANE TWO WAY TRAFFIC SHALL BE MAINTAINED
   SEE ODOT SCD MT-97.12

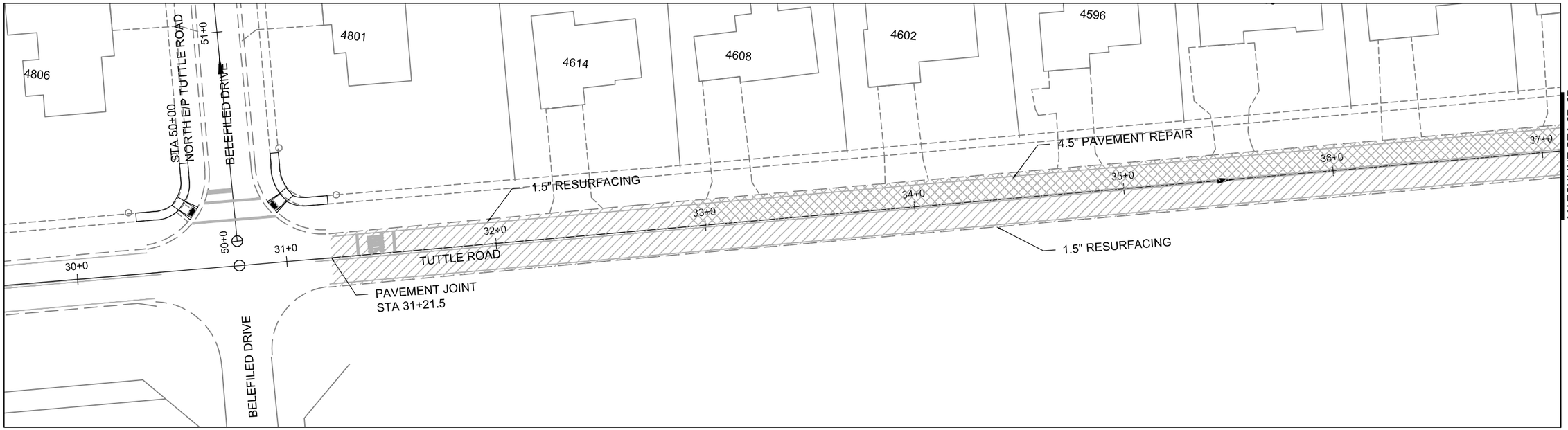
N

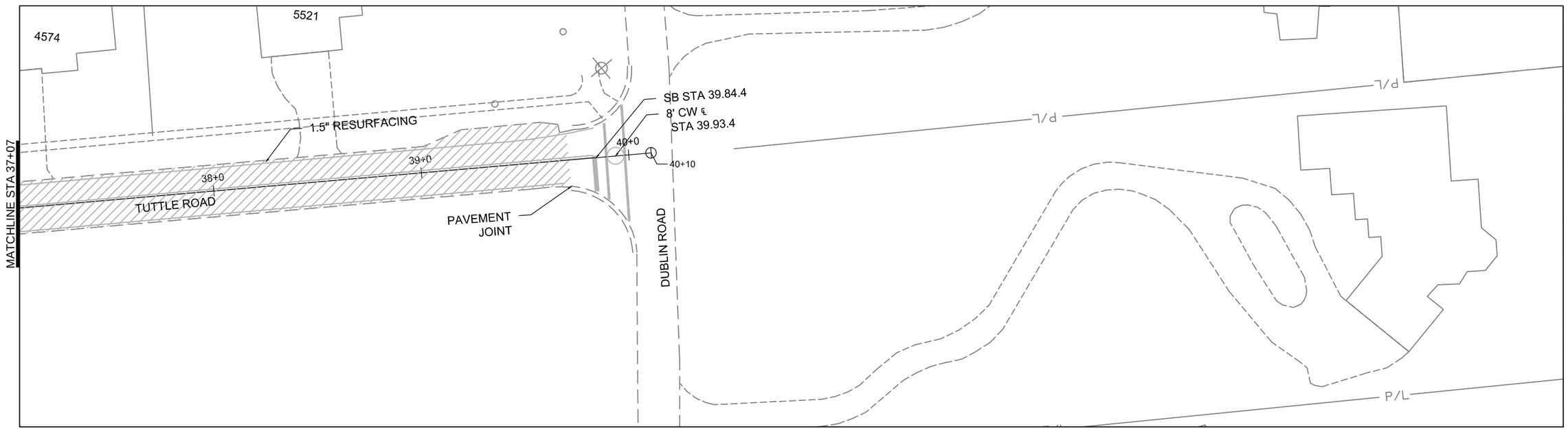
0 25 50
SCALE IN FEET

DRAWN BY: DAL
REVISED NONE

SHIER-RINGS ROAD
CONSTRUCTION NOTES AND ESTIMATED QUANTITIES

16-001-CIP





FOR PAVING WORK:
LAW ENFORCEMNET OFFICER WITH PATROL CAR TO BE USED AT
INTERSECTION OF TUTTLE ROAD AND DUBLINROAD
FLAGGER TO BE USED AT BELEFIELD DRIVE AND TUTTLE ROAD

STRIPING AND BERM WORK:
FLAGGERS ARE TO BE USED AT EITHER END OF WORK ZON

4.5" PAVEMENT PLANING
3" ITEM 301 BITUMINOUS AGGREGATE BASE
1.5" 448-I ASPHALTIC CONCRETE SURFACE COURSE, PG64-22, MT

1.5" PAVEMENT PLANING
TRACKLESS TACK COAT (.1 GAL/SY)
1.5" 448-I ASPHALTIC CONCRETE SURFACE COURSE, PG64-22, MT

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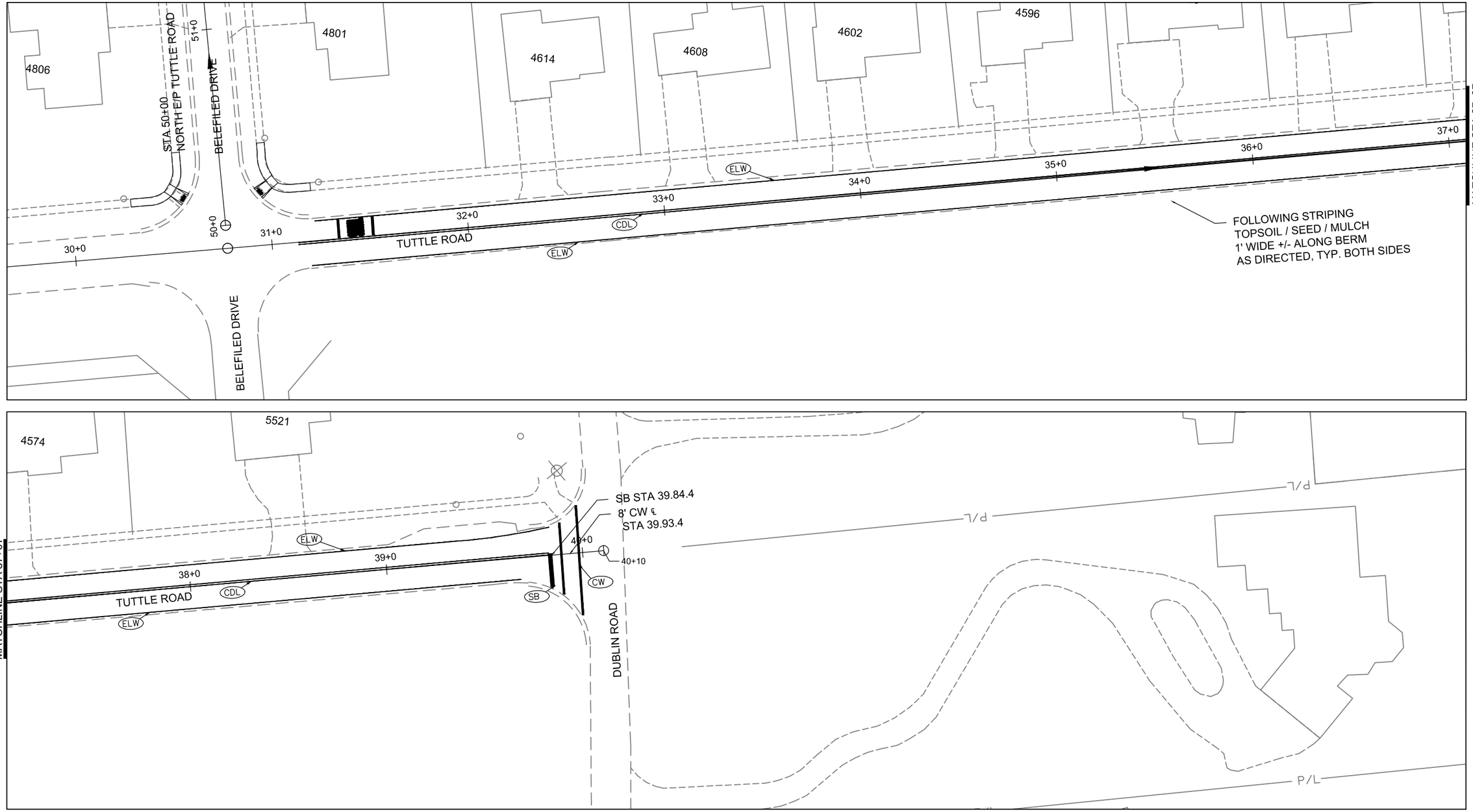
0 25 50
SCALE IN FEET

DRAWN BY DAL
REVISED
NONE

TUTTLE ROAD
ROADWAY PAVEMENT REPAIRS

16-001-CIP



STRIPING AND BERM WORK:
FLAGGERS ARE TO BE USED AT EITHER END OF WORK ZONE

CDL ITEM 644 CENTERLINE DOUBLE YELLOW

ELW ITEM 644 EDGE LINE WHITE, 4"

CW ITEM 644 CROSSWALK LINE, 12"

SB ITEM 644 STOP BAR, 24"

N

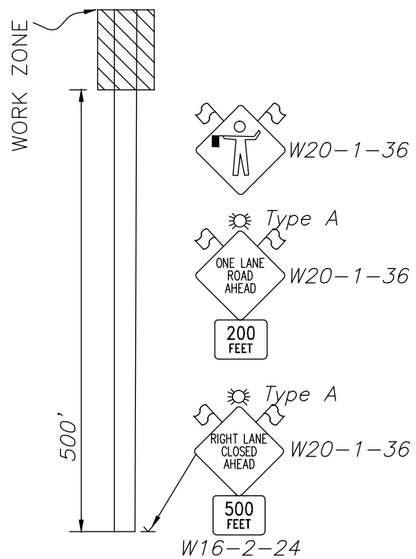
0 25 50
SCALE IN FEET

DRAWN BY DAL
REVISED
NONE

TUTTLE ROAD
TRAFFIC AND STRIPING

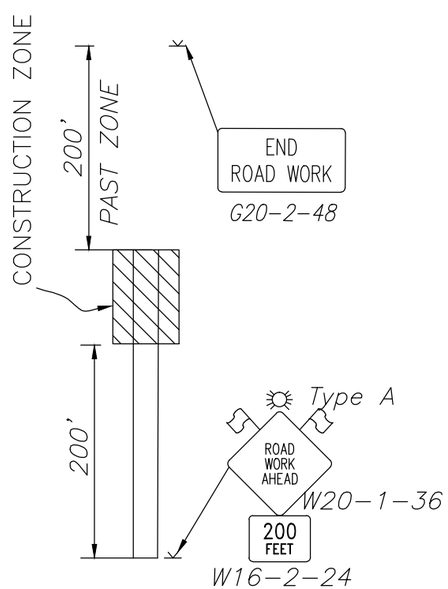
16-001-CIP

ADVANCE SIGNANGE EXAMPLE FOR LANE CLOSURE FOR TUTTLE ROAD
SEE MT-97.12 FOR WORK ZONE DETAIL
WORK ZONE SIGNAGE SHALL ALSO BE PLACED ALONG
DUBLIN ROAD AND BELEFIELD DRIVE. S



ADVANCE WARNING SIGNS FOR ONE LANE WORK ZONE
TAPER LENGTHS SHOULD CONFORM TO MUTCD
(Typical Both Directions)

	TUTTLE ROAD ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
254	Pavement Planing, 1.5", A.P.P.	SY	1829
254	Pavement Planing, 4.5",A.P.P.	SY	572
301	Asphalt Concrete Base	TN	97
407	NTSS-1HM TracklessTack Coat	GAL	239
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	203
614	LEO w/ Patrol Car	HR	9
614	Flagger	HR	24
644	4" Edge Line (White)	MILE	0.34
644	Center Line- Double (Yellow, Solid or Dashed)	MILE	0.17
644	Crosswalk Line, 12"	LF	92
644	Stop Bar, 24"	LF	16
644	School Symbol	EA	1
617	Recondition Shoulders A.P.P. (Item 653 Pulverized Topsoil, A.P.P.)	CY	12
659	Vegetation (Seed/Mulch), A.P.P.	SY	260



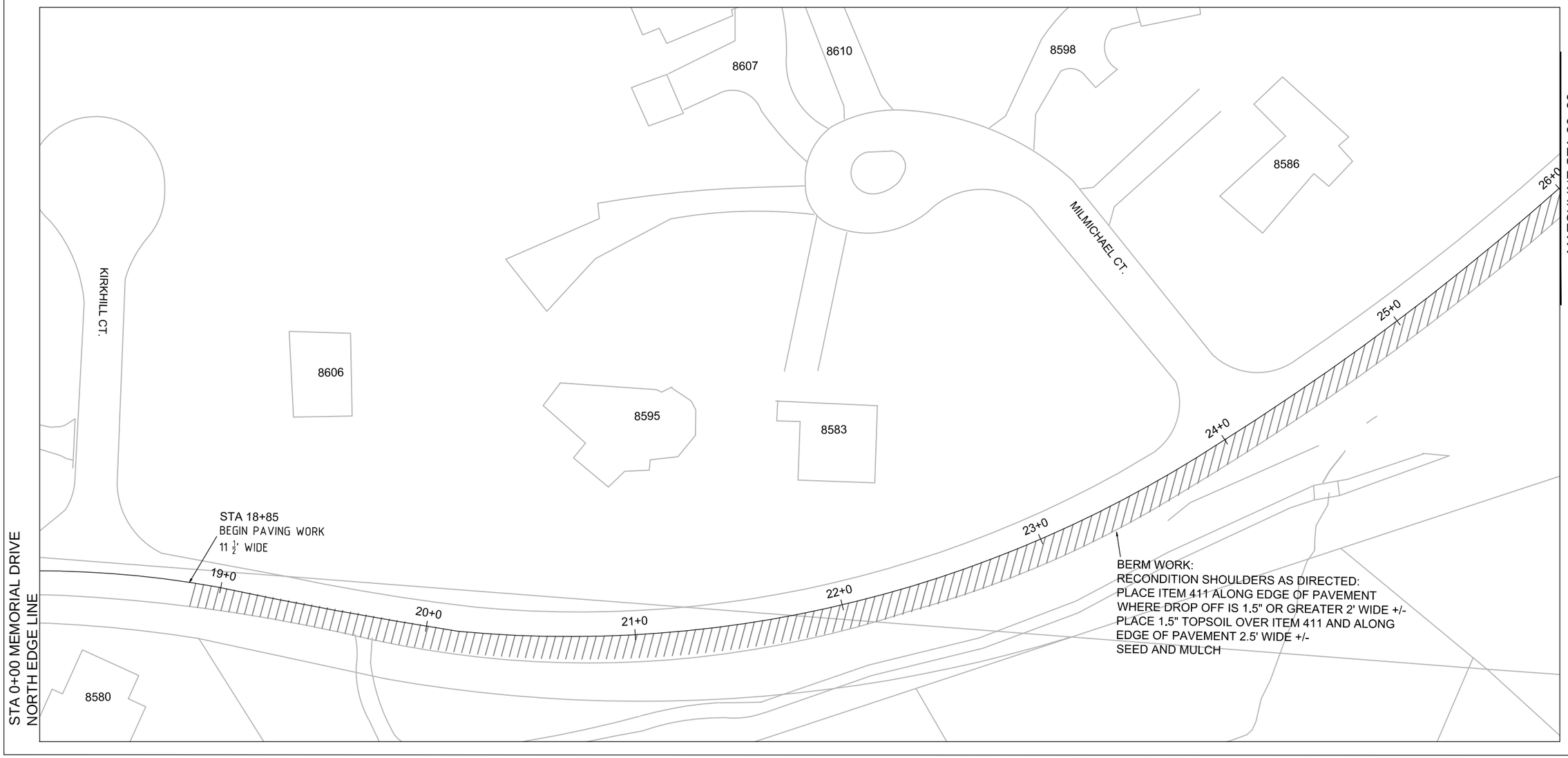
ADVANCE WARNING SIGNS FOR ROAD WORK
(Typical Both Directions)

DRAWN BY: DAL
REVISED NONE

TUTTLE ROAD
ESTIMATED QUANTITIES AND NOTES

16-001-CIP

1.5" PAVEMENT PLANING
TRACKLESS TACK COAT (.1 GAL/SY)
1.5" 448-1 ASPHALTIC CONCRETE SURFACE COURSE, PG64-22, MT



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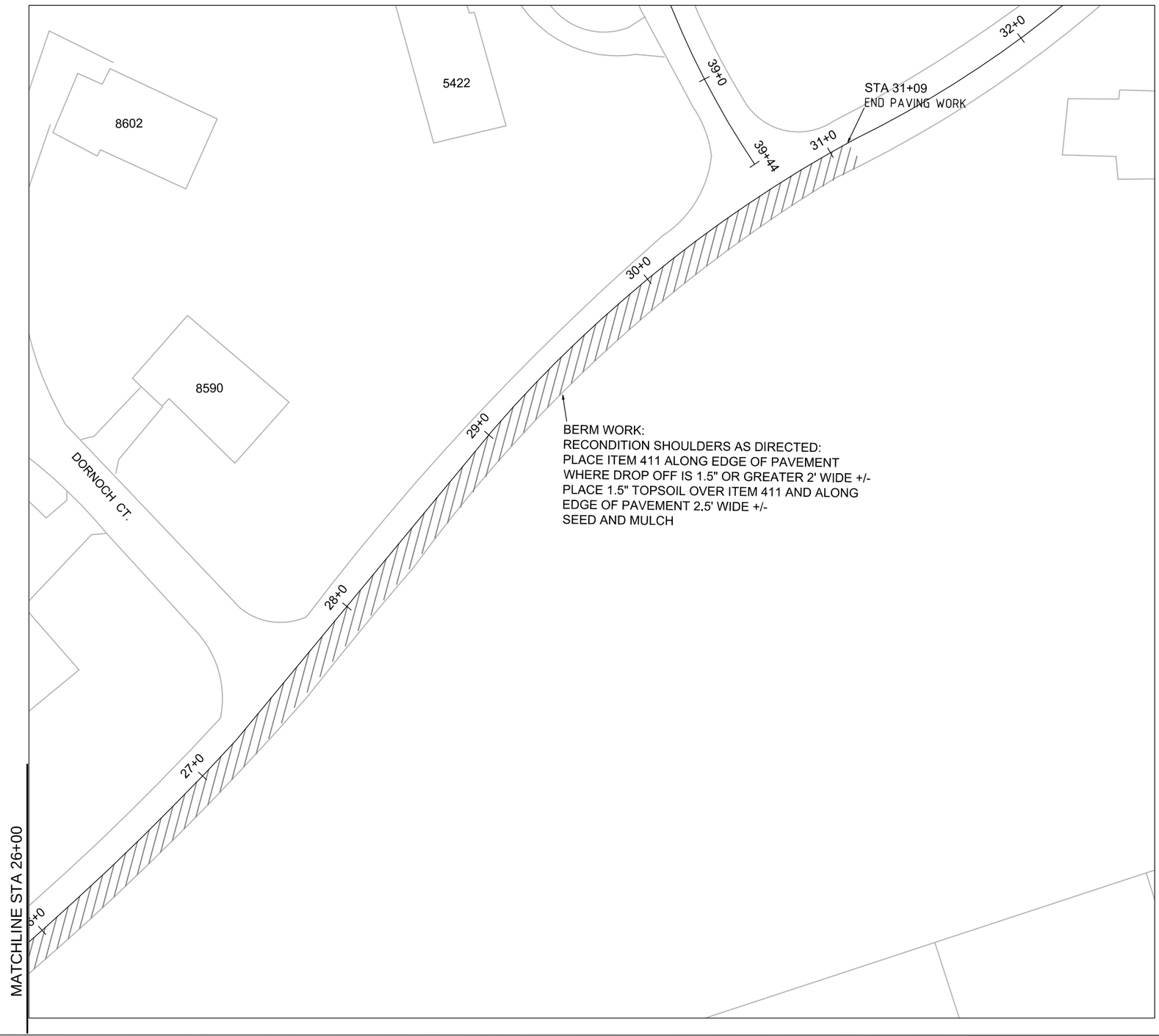
0 25 50
SCALE IN FEET

DRAWN BY: DAL
REVISED NONE

DUNNIKER PARK DRIVE
ROADWAY PAVEMENT REPAIRS

16-001-CIP

1.5" PAVEMENT PLANING
TRACKLESS TACK COAT (.1 GAL/SY)
1.5" 448-1 ASPHALTIC CONCRETE SURFACE COURSE, PG64-22, MT



N

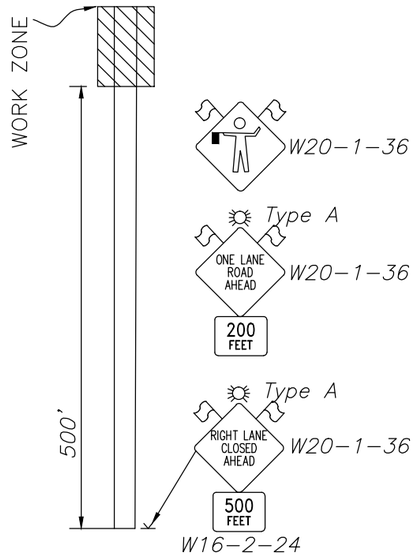
0 25 50
SCALE IN FEET

DRAWN BY: DAL
REVISED NONE

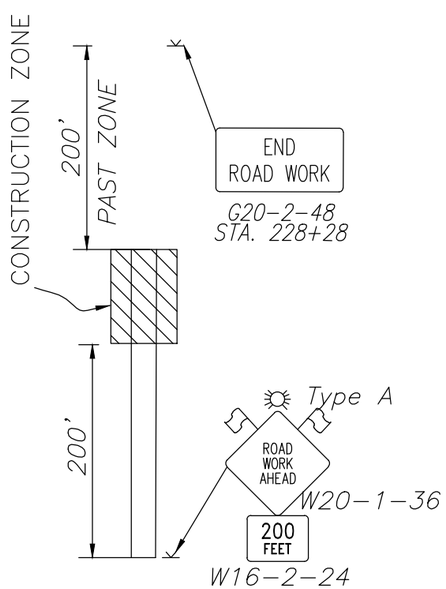
DUNNIKER PARK DRIVE
ROADWAY PAVEMENT REPAIRS

16-001-CIP

ADVANCE SIGNANGE EXAMPLE:
SEE MT-97.11 FOR WORK ZONE DETAILS



ADVANCE WARNING SIGNS FOR ONE LANE WORK ZONE
TAPER LENGTHS SHOULD CONFORM TO MUTCD
(Typical Both Directions)



ADVANCE WARNING SIGNS FOR ROAD WORK
(Typical Both Directions)

	DUNNIKER PARK DRIVE ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
254	Pavement Planing, 1.5", A.P.P.	SY	1564
407	NTSS-1HM TracklessTack Coat	GAL	156
441	Asphaltic Concrete Surface Course, Type-1, (448), PG64-22	TN	132
614	Flagger	HR	20
617	Recondition Shoulders, A.P.P.	SY	400
617	Recondition Shoulders A.P.P. (Item 411 Aggregate)	CY	50
617	Recondition Shoulders A.P.P. (Item 653 Pulverized Topsoil, A.P.P.)	CY	25
659	Vegetation (Seed/Mulch), A.P.P.	SY	400

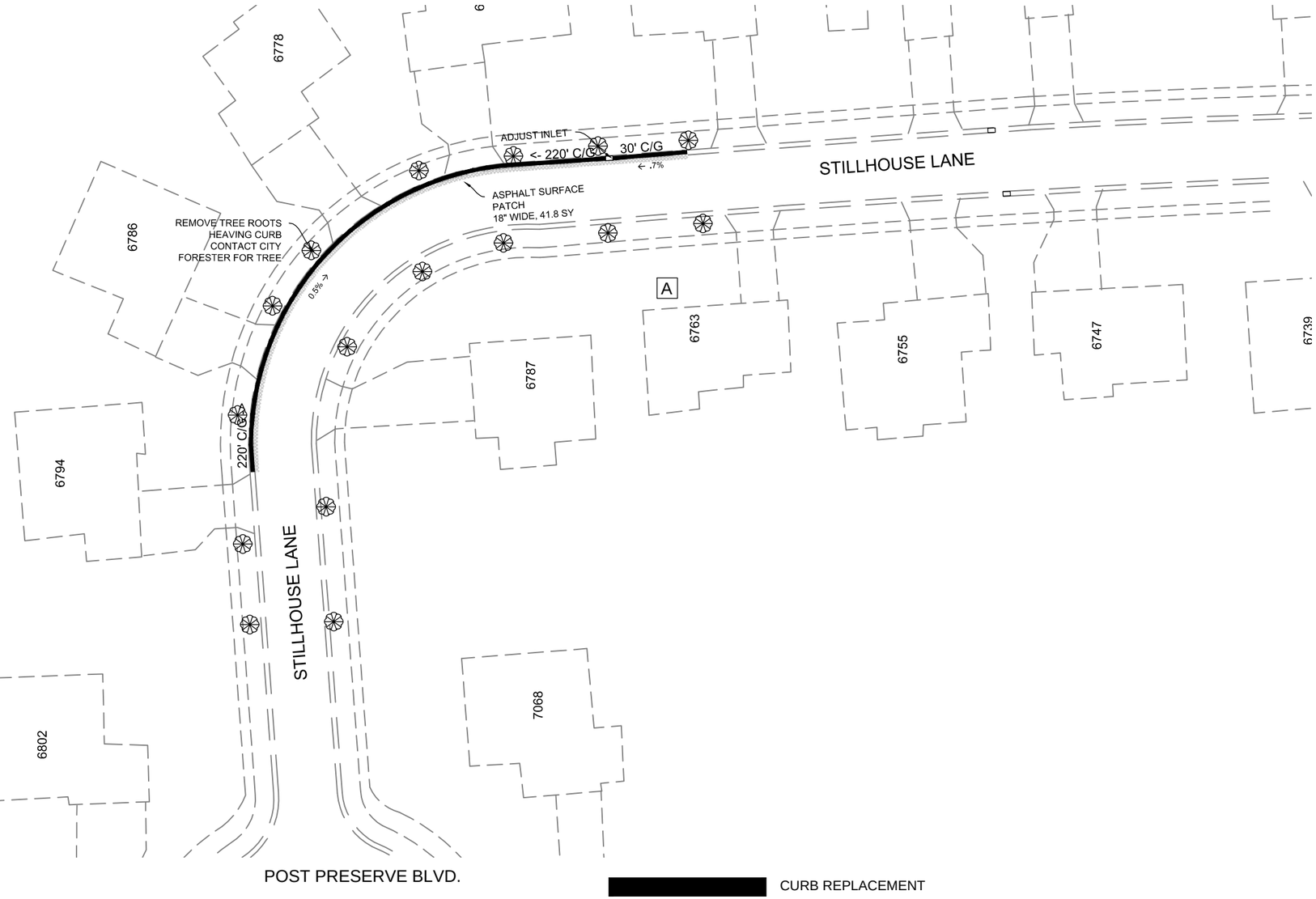
N

0 25 50
SCALE IN FEET

DRAWN BY: DAL
REVISED
NONE

DUNNIKER PARK DRIVE
ESTIMATED CONSTRUCTION QUANTITIES AND NOTES

16-001-CIP



CURB REPLACEMENT

ITEM 251 ASPHALT SURFACE PATCH - MISCELLANEOUS, 2"
-TACK COAT (.1 GAL/SY)
-2" ITEM 441, ASPHALTIC CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
-JOINT SEAL

	CONCRETE SPOT REPAIR ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	QUANTITY
	STILLHOUSE LANE		
202	Curb / Curb and Gutter Removed / Disposed of, A.P.P.	LF	250
251	Asphalt Surface Patch - Miscellaneous, 2"	SY	41.8
604	Structure- Adjust, Inlet, A.P.P.	EA	1
609	Combination Curb/Gutter, A.P.P.	LF	250

N

0 25 50
SCALE IN FEET

DRAWN BY: DAL
REVISED 3/30/2012

STILLHOUSE LANE
CURB AND GUTTER AND PAVEMENT REPAIRS

16-001-CIP