

MR 509
Permit No. 21-14407-06

Office Use Only

State of Ohio
Department of Transportation
Permit

County or Jurisdiction FRA
Rte SR317
Log Pt 2.15-2.69
Acc Cat

[1] Subject to all terms, conditions, and restrictions printed, written below and on the reverse side hereof, or attached,

Name: Managing Principal Pinchal Company - Brian W McMackin
Address: 4400 Post Oak Parkway, suite 2350, Houston, TX 77027
Company Phone:

is hereby granted a permit under Section 5515.01 and 5515.02 of Ohio Revised Code, and permission to perform work necessary in the manner described and at the location indicated in the following or attached to this permit.

Other - Road Improvements (see attached sheets)

Description of Work: ##DescOfWork##

[2] This permit shall be in the possession of employees /agents of permittee on site at all times who are in charge of the work and shall be shown, upon request, to any employee of the Department of Transportation.

Contact ODOT Representative 3 days before work begins, also contact ODOT Representative when work is completed for final inspection.

Failure to notify the ODOT Representative could result in work stoppage!

[3] No work authorized by this permit shall begin until the permittee has contacted and received instructions from

ODOT Representative
Phone
614.327.2134
Harold Nance

NOTE: Any work performed by the permittee may be stopped if this requirement is not met.

[4] Prior to any excavation in the highway right-of-way, the Ohio811 <https://www.oups.org/excavators> must be contacted in accordance with ORC Section 3781.25 to 3781.32. Ohio811 can be reached at 1-800-362-2764 or 811.

[5] If your utility is above ground in any way, you must mark your utility with a fluorescent colored marker that corresponds with the universal OUPS color code. The marker must be no shorter than six feet in height and you must maintain the marker. Guide wires must be marked a fluorescent yellow. Failure to mark as described, will result in the Department of Transportation being held harmless and no reimbursement for damage to your property.

[6] All work requiring persons or vehicles within ODOT right of way shall comply with all applicable requirements of the Ohio Manual of Uniform Traffic Control Devices and Item 614 (Maintaining Traffic) of the Construction and Material Specifications, latest editions. Failure to comply with these requirements will be cause for immediate revocation or suspension of the permit until the proper traffic control devices have been provided.

[7] The permittee accepts the conditions, terms, and requirements printed, written on, or attached to this permit and understands that failure to comply fully with those conditions, terms, and requirements or any change in the use of the permit inconsistent with its terms and conditions will be considered a violation and cause for suspension, revocation, or annulment of the permit thereby rendering the permit illegal and subject to appropriate Department action, up to an including removal of the installation at the permittee's expense.

[8] Performance Bond Required? ☐ Yes ☐ No Company _____
Effective Date _____ Expiration Date _____ Amount \$ _____

[9] This permit shall be void if the work described herein does not comply with the conditions, terms, and requirements applicable to this permit, and if the work is not completed by 02/24/2022

Dated 08/24/2021

Rev 5/6/2021

(the remainder of this page is left blank intentionally)

General Provisions Applicable to All Permits
(Sections 5515.01 and 5515.02 of O.R.C.)

- [1] This permit is not a substitute for satisfying the rights or obligations of any other party who may have an interest in the underlying fee interest.
- [2] The granting of this permit does not convey to the permittee or to the property served any rights, title, or interest in state highway rights of way or in the design or operation of the state highway; or in any way abridge the right of the Director of the Department of Transportation in his jurisdiction over state highways. If, in the process of any future work or for the benefit of the traveling public, it becomes necessary, in the opinion of the Director of Transportation to order the removal, reconstruction, relocation, or repair of any of the fixtures, or work performed under this permit, said removal, reconstruction, relocation, or repair shall be wholly at the expense of the owners thereof or the permittee and be made as directed by the Director of Transportation and within the time determined by the Director. Such changes in the state highway design or operation, necessary for improved safety and operation or for the benefit of the traveling public, shall not require a permit modification since the permit confers no private rights to the permittee over the control of the state highway.
- [3] The District Deputy Director acts for and on behalf of the Director in issuing and carrying out the provisions of all permits. The District Deputy Director has full authority to ensure that all provisions of the permit are met and to reject any materials, design, and workmanship that do not meet applicable Department standards. The District Deputy Director, at his/her discretion, may require a performance bond or certified check as a prerequisite to the issuance of a permit.
- [4] Failure on the part of the permittee to comply fully with the provisions and conditions of the permit will be cause for suspension, revocation, or annulment of the permit thereby rendering the permit illegal and subject to appropriate Departmental action. By accepting the permit, the permittee agrees to comply with all conditions, terms, and restrictions printed or written on or attached to the permit. If the permittee or its agent performs any work contrary to the conditions of the permit or to the instructions of the District Deputy Director and, after due notice, fails to correct the problem, the Department of Transportation may, with or without notice, correct or remove such work and the permittee shall reimburse the Department for the costs and shall hold the Department harmless for all results of such work.
- [5] The permittee shall indemnify and hold harmless the State of Ohio, Department of Transportation, its officers, representatives and assigns, from any and all loss, liability, damages, litigation costs, and claims for injury or death to any person, property, or business caused by or resulting from any act, omission, event, consequence, or occurrence, negligent or otherwise of the permittee, its employees, agents, or assigns as a result of the issuance of this permit.
- [6] All work authorized under the permit shall be performed to the Department's satisfaction, and the entire expense shall be borne by the permittee. No work shall be performed until the permittee has contacted the Department's appointed representative named on the permit and received instructions. The Department's representative may inspect all work covered by the permit, or the Department reserves the right, during the time any or all of the work is being performed, to appoint an inspector over the work who shall represent the interest of the State on the work and any compensation arranged for shall be paid wholly by the permit holder. Work not in compliance shall be halted and the District Deputy Director shall be notified of the cause. The permittee shall be notified of the Department's determination and given an opportunity to correct the problem. If the problem is not corrected timely or to the satisfaction of the Department, this permit will be revoked.
- [7] Failure to complete all work within the time specified on the permit shall void the permit, thereby making the permit illegal and subject to appropriate Departmental action. The permittee may request an extension in writing from the District Office, explaining why the extension is necessary and when the work is expected to be completed.
- [8] All work infringing on the pavement or shoulders shall comply with applicable standards and requirements regarding traffic control devices. Failure to comply will be cause for revocation or suspension of the permit. Any closure of lanes or shoulders shall be described in terms of location, duration, time of day, etc. Such work shall not begin until all traffic control devices are in place.

[9] If any grading, sidewalk, or other work allowed by a permit interferes with the drainage of the highway in any way, such catch basins and outlets as necessary shall be constructed to take proper care of said drainage and any materials such as pipes and tiles damaged during any installation or repair by the permittee or its employees or agents shall be repaired immediately at the sole cost of the permittee. Permittee shall timely notify the Department of any such damage and repairs thereto. Failure of the permittee to immediately repair the damage after it is discovered shall result in the Department performing the repair and the permittee shall reimburse the Department for the costs and shall hold the Department harmless for all the results of such work which may include removal of the permittee's facilities.

[10] Any damage to ODOT or another's property caused by the work shall be repaired by the permittee or permittee's agent or contractor in a timely manner and at the sole cost of permittee. If any emergency repairs to ODOT property are needed that cannot be performed by the permittee or permittee's agent or contractor, ODOT shall cause the repairs to be performed at the sole cost of permittee.

[11] Upon completion of the work, the permittee shall leave the highway clean of all rubbish, excess materials, temporary structures and equipment, and all parts of the highway shall be left in a condition acceptable to the Department. Upon satisfactory completion of the work authorized by the permit, the Department's appointed representative shall complete the Permit Inspection Certificate, Form No. MR 678 certifying that the permittee has complied with the terms of the permit.

[12] Except as herein authorized, no excavation shall be made or obstacle placed within the limits of the highway so as to interfere with the travel over the road.

[13] All pole lines are to be built in accordance with Rule 4901:3-1-08 of Ohio Administrative Code promulgated and enforced by the Public Utilities Commission of Ohio.

[14] All underground utilities shall be installed at a depth and horizontal distance from the road surface and any appurtenances in accordance with state and national safety standards and as pre-approved by the Department. After installation, the exact location of the utility shall be provided to the Department. The Department shall be held harmless for any damage to utilities due to insufficient or inaccurate installation or identification and all repairs shall be at the sole cost of the permittee.

[15] The permittee shall comply with the Air Pollution requirements of Rule 3745-17-08 of the Ohio Administrative Code promulgated and enforced by the Ohio Environmental Protection Agency.

[16] The permittee certifies that he or she is fully authorized to sign this permit. This permit shall apply to and be binding upon the permittee and any successors in interest. No change in ownership of the underlying property or of the facility owned by permittee shall in any way alter the permittee's obligations under this permit.

[17] The permittee(s) for herself/himself/themselves/itself, her/his/their/its personal representatives, and her/his/their/its successors in interest and assigns, as a part of the consideration hereof, do/does hereby covenant and agree that:

(1) No person on the grounds of race, color, or national origin, shall be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in the use of the utility/facilities/ services of the permittee.

(2) In the construction of any improvements on, over, or under the above described property and the furnishing of services thereon, no person on the grounds of race, color, national origin, sex, age, or disability shall be excluded from the participation in, be denied the benefits of, or be otherwise subjected to discrimination.

(3) The above described property shall be used in a manner that at all times is in compliance with all other requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. DOT, Subtitle A, Office of the Secretary, Part 21, Non-discrimination in Federally-assisted programs of the U.S. DOT — Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations may be amended.

(4) In the event that this instrument grants a lease, license, or permit and any of the above non-discrimination covenants is breached, then the State of Ohio, Department of Transportation, shall have the unfettered right to terminate

the lease, license or permit and to re-enter and repossess the above-described property and hold the same as if said lease, license or permit had never been made or issued.

This permit is granted subject to the following attached conditions:

Permittee shall make Road Improvements as per plans and specifications attached.

The permittee is responsible for meeting the conditions of the OEPA general construction permit.

(the remainder of this page is left blank intentionally)




Ohio Department of Transportation District Six
Permit and Local Let
Closure and Restriction Notification Form



* Indicates a Mandatory Field

* Permit Number	<input type="text"/>	* Traffic Restriction Start Date/Time	* Date 4/15/2020	* Time <input type="text"/>
* County	<input type="text"/>			
City	<input type="text"/>	* Traffic Restriction Completion Date/Time	* Date 4/24/2015	* Time <input type="text"/>
Find Coordinates	<input type="text"/>	* Are Restrictions 24-hours a Day please clarify below in the description		
* Road (SR, US, or I-)	<input type="text"/>	Start Mile Marker (SLM)	<input type="text"/>	
* Road Status	<input type="text"/>	* Closest Intersecting Road	<input type="text"/>	
Type of work	<input type="text"/>	End Mile Marker (SLM)	<input type="text"/>	
* Work completed by	<input type="text"/>	* Closest Intersecting Road	<input type="text"/>	
Maintenance of Traffic (MOT)	<input type="text"/>	* Direction	<input type="text"/>	
* Your Name	<input type="text"/>	* Lanes of Traffic Maintained Include total number of lanes available (E.G. 1 of 2 lanes maintained) If project has both directions specify for each	<input type="text"/>	
* Your Email	<input type="text"/>	* Person Responsible for work (This is the contact name for the person on site E.G. contractor or permit holder)	<input type="text"/>	
* Your Phone Number	<input type="text"/>	* On Site Phone Number (with area code)	<input type="text"/>	
Your Cell Phone Number	<input type="text"/>			

Please see  for more information/examples

* Description of Work

The following information is additional required information for special hauls.

* Lane Closure/Restrictions If there is a restriction, specify available lane width Available Lane Width (edge line to edge line) Feet: <input type="text"/> Inches: <input type="text"/> Available Pavement Width Feet: <input type="text"/> Inches: <input type="text"/>	* Ramp Closure/Restrictions: If there is a restriction, specify available lane width Available Lane Width (edge line to edge line) Feet: <input type="text"/> Inches: <input type="text"/> Available Pavement Width Feet: <input type="text"/> Inches: <input type="text"/>
---	--

Bridge Work	Vertical Bridge Clearance	Feet: <input type="text"/> Inches: <input type="text"/>
	Available Roadway Width	Feet: <input type="text"/> Inches: <input type="text"/>
	* Bridge Direction	<input type="text"/>

* Listed Detour if Applicable: (if not applicable state N/A)

Additional Closure/Restriction Information:

* What type of Traffic control is being utilized? (e.g. portable barrier, drums, temp signal, flaggers etc.)

* What standard construction drawings are being used and/or Typical Applications (TAs) If SCD or TAs are not applicable MOT drawings must be attached

* Who will be setting up the Traffic control? (List name of contractor or subcontractor and contact number.)

TYPICAL APPLICATIONS FOR MAINTENANCE OF TRAFFIC

THE FOLLOWING TYPICAL APPLICATION(S) FROM THE 2012 EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES & ODOT OFFICE OF ROADWAY ENGINEERING STANDARD CONSTRUCTION DRAWINGS SHOULD BE USED, AS NECESSARY, FOR TRAFFIC CONTROL ON THIS PROJECT AS DESCRIBED IN THE MANUAL:
PER MOT PLAN PROVIDED

HOURS OF OPERATION IN ROW

ALLOWABLE HOURS SHALL BE FROM 9AM TO 3PM M-F, ALL DAY SAT & SUN.

LANES OPEN DURING HOLIDAYS AND SPECIAL EVENTS

NO WORK SHALL BE PERFORMED AND THE SAME NUMBER OF LANES AS WERE AVAILABLE AT THE START OF THE PROJECT SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS AND EVENTS:

HOLIDAYS

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

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

DAY OF HOLIDAY	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00 NOON FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00 NOON FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00 NOON MONDAY THROUGH 6:00 AM WEDNESDAY
WEDNESDAY	12:00 NOON TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00 NOON WEDNESDAY THROUGH 6:00 AM FRIDAY
THANKSGIVING	5:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00 NOON THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00 NOON FRIDAY THROUGH 6:00 AM MONDAY

SPECIAL EVENTS

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA WIDE.

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE COUNTY MANAGER, THE DISTRICT 6 PUBLIC INFORMATION OFFICE AT D06.PIO@DOT.OHIO.GOV AND THE DISTRICT WORK ZONE TRAFFIC MANAGER AT GARY.FETHEROLF@DOT.OHIO.GOV IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE BUT IS NOT LIMITED TO ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF

WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER OR ODOT.

NOTIFICATION TIME FRAME TABLE			
ITEM	DURATION OF CLOSURE	NOTIFICATION DUE TO DISTRICT 6 COMMUNICATIONS OFFICE	SIGN DISPLAYED TO PUBLIC
RAMP & ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE	14 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE	7 CALENDAR DAYS PRIOR TO CLOSURE
	<=12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE	2 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE	
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE	
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION	

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE COUNTY MANAGER, THE DISTRICT 6 PUBLIC INFORMATION OFFICE AND THE DISTRICT WORK ZONE TRAFFIC MANAGER USING THE NOTIFICATION TIME FRAME TABLE.

APPLICANT SHALL FILL OUT AND SUBMITTED TO PIO & DWZTM ODOT DISTRICT SIX - PERMIT AND LOCAL LET CLOSURE AND RESTRICTION FORM EXCEL WHEN NOTIFYING THEM OF THE UPCOMING TRAFFIC RESTRICTION.

BORE PITS, EARTHWORK AND TRENCHES BEYOND THE SHOULDER

BORE PITS, EARTHWORK AND TRENCHES WITHIN ODOT RIGHT-OF-WAY MUST BE OUTSIDE OF THE DITCH SECTION AND PROTECTED IN ACCORDANCE WITH ODOT'S STANDARD CONSTRUCTION DRAWING MT-101.90. "DROPOFFS IN WORK ZONES".

- A PIT/TRENCH 4 TO 12 FEET FROM THE EDGE OF TRAVELED LANE AND GREATER THAN 12 INCHES DEEP MUST HAVE DRUMS DURING THE DAY AND PCB AT NIGHT UNLESS SECURELY PLATED OR BACKFILLED TO WITHIN 12 INCHES. SEE PIS 2010190 FOR ADDITIONAL INFORMATION.
- A PIT/TRENCH 12 TO 30 FEET FROM THE EDGE OF TRAVELED LANE AND GREATER THAN 24 INCHES DEEP MUST HAVE DRUMS DURING THE DAY AND PCB AT NIGHT UNLESS SECURELY PLATED OR BACKFILLED TO WITHIN 24 INCHES. SEE MT-101.90 FOR ADDITIONAL INFORMATION.

THE LENGTH OF THE TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

MUD, DIRT AND DEBRIS

THE TRACKING OR SPILLAGE OF MUD, DIRT OR DEBRIS UPON STATE HIGHWAYS IS PROHIBITED AND ANY SUCH OCCURRENCE SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR.

VEHICLE PARKING

VEHICLES ARE NOT TO BE PARKED ON THE PAVEMENT. ALL VEHICLES ARE TO BE PARKED AT LEAST 5 FEET FROM THE EDGE OF PAVEMENT.

PERSONAL PROTECTIVE EQUIPMENT

ODOT REQUIRES ALL CONTRACTORS' PERSONNEL TO WEAR THE CORRECT PPE WHILE WITHIN ODOT RIGHT-OF-WAY. ALL VEHICLES SHALL HAVE THE CORRECT SAFETY EQUIPMENT ALSO.

ACCESS TO PRIVATE PROPERTY

ACCESS TO DRIVES SHALL BE MAINTAINED VIA EXISTING PAVEMENT, TEMPORARY PAVEMENT OR ITEM 304. IN THE EVENT THAT A DRIVE CANNOT BE MAINTAINED AND A CLOSURE IS NEEDED THE CONTRACTOR WILL COORDINATE WITH THE PROPERTY OWNER TO MINIMIZE THE IMPACT TO THE OWNER.

COMMERCIAL PROPERTY WITH MULTIPLE DRIVES MAY HAVE ONE DRIVE CLOSED WHEN WORKING IN THE AREA OF THE DRIVE. COMMERCIAL PROPERTY WITH ONLY ONE DRIVEWAY OR DRIVEWAYS WITH ONE DIRECTION TRAFFIC USE WILL BE CONSTRUCTED PART WIDTH. THE CONTRACTOR WILL COORDINATE WITH THE PROPERTY OWNER TO MINIMIZE THE IMPACT TO THE OWNER.

MAINTAIN ACCESS TO RESIDENTIAL PROPERTIES AT ALL TIMES. WHEN A RESIDENTIAL DRIVE IS CLOSED FOR CONSTRUCTION, MAINTAIN ALTERNATE ACCESS TO THE PROPERTY. IT MAY BE REQUIRED FOR THE CONTRACTOR TO MAINTAIN ONE PASSABLE LANE WITHIN A CLOSURE IN ORDER FOR VEHICLES TO ACCESS RESIDENCY WITH A VEHICLE.

SUCCESSFULLY NOTIFY THE OCCUPANTS/OWNERS OF COMMERCIAL OR RESIDENTIAL DRIVES TO BE CLOSED AND COORDINATE THE CLOSURE AT LEAST 48 HOURS BEFORE THE CLOSURE BEGINS (SIMPLY LEAVING A WRITTEN NOTICE OR PHONE MESSAGE IS NOT SUFFICIENT). COORDINATE ALTERNATE ACCESS TO RESIDENTIAL PROPERTIES WITH THE OWNER/OCCUPANT.

PROTECTION FROM DROP OFF CONDITIONS IN THE WORK ZONE

ALL DROP-OFF CONDITIONS WITHIN THE WORK ZONE MUST BE PROTECTED IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING MT-101.90.

GENERAL LANE CLOSURE POLICIES

TRAFFIC BACK-UPS CAUSED BY THEIR OPERATION OF OVER 0.75 MILES IN LENGTH ANY TIME IS NOT PERMITTED.

ODOT RESERVES THE RIGHT TO REVOKE THE PERMIT IF THE MOT GUIDELINES ARE NOT MET.

INDEX OF SHEETS

TITLE SHEET	1
SCHEMATIC PLAN	2
TYPICAL SECTIONS	3 - 4
GENERAL NOTES	5 - 6
MAINTENANCE OF TRAFFIC	7 - 12
STORM WATER POLLUTION PREVENTION PLAN	13 - 16
GENERAL SUMMARY	17 - 20
DEMOLITION PLAN	21 - 24
PLAN AND PROFILE SHEETS	25 - 29
CROSS SECTIONS	30 - 40
INTERSECTION DETAILS	41 - 42
STORM PROFILES	43
SIGNING AND PAVEMENT MARKING PLAN	44 - 47
TRAFFIC SIGNAL PLAN AND DETAILS	48 - 52
LIGHTING	53 - 54

PROJECT DESCRIPTION

PAVEMENT WIDENING TO ACCOMMODATE THE ADDITION OF A 295' WESTBOUND LEFT TURN LANE ON LONDON GROVEPORT RD ALONG WITH THE INSTALLATION OF A TRAFFIC SIGNAL AND PEDESTRIAN CROSSINGS AT THE LONDON GROVEPORT - LASALLE DR INTERSECTION.

FUTURE OWNER/DEVELOPER

EXXCEL PROJECT MANAGEMENT
328 CIVI CENTER DRIVE
COLUMBUS, OHIO 43215
CONTACT: JEFF WIATER
PHONE: (614) 621-4500
EMAIL: JWIATER@EXXCEL.COM

CURRENT OWNER

LONDON GROVEPORT ROAD STS, LLC
C/O PINCHAL & COMPANY
4400 POST OAK PARKWAY, SUITE 2350
HOUSTON, TX 77027
CONTACT: BRIAN MCMACKIN
PHONE: (713) 961-4488
FAX: (713) 961-4487
EMAIL: BRIAN@PINCHAL-CO.COM

BASIS OF BEARINGS

BEARINGS ARE BASED ON THE CENTERLINE OF LONDON-GROVEPORT ROAD BETWEEN FCGS #5848 AND A RAILROAD SPIKE FOUND BEARING S 86°28'29" E AT 2332.37 FEET OBSERVED, AS REFERENCED TO THE OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD83 (NSRS 2007) AS ESTABLISHED BY GPS OBSERVATIONS USING THE ODOT VRS SYSTEM.

HORIZONTAL CONTROL

OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAS 83 (NSRS 2007) REFERENCED TO SAID COORDINATE SYSTEM BY GPS OBSERVATIONS OF SELECTED STATIONS IN THE OHIO DEPARTMENT OF TRANSPORTATION VIRTUAL REFERENCE STATION NETWORK.

H-1 5/8-INCH IRON PIN WITH CAP MARKED "ROLLING & HOCEVAR"
N = 667319.141
E = 1839241.047
H-2 5/8-INCH IRON PIN WITH CAP MARKED "ROLLING & HOCEVAR"
N = 667185.477
E = 1840500.535

VERTICAL CONTROL

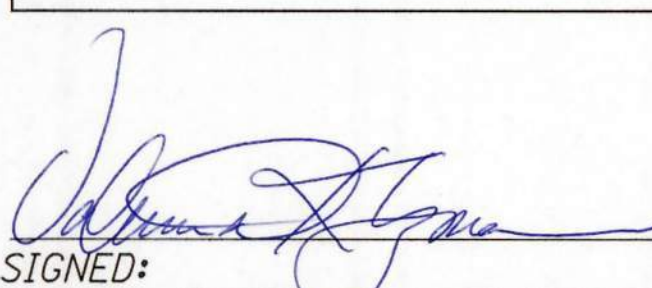
NAVD88 (12B) REFERENCED TO SAID DATUM BY GPS OBSERVATIONS OF SELECTED STATIONS IN THE OHIO DEPARTMENT OF TRANSPORTATION VIRTUAL REFERENCE STATION NETWORK.

TBM #1 TOP OF CASTING EX. SANITARY MANHOLE LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF LASALLE DRIVE AND LONDON-GROVEPORT ROAD.
ELEVATION = 733.16
TBM #2 TOP OF CASTING OF THE WESTERLY EX. SANITARY MANHOLE LOCATED AT THE TUNNEL SHAFT COMPOUND AREA.
ELEVATION = 732.28
TBM #3 5/8-INCH IRON PIN WITH CAP MARKED "ROLLING & HOCEVAR"
ELEVATION = 727.92

DESIGN ENGINEER:
ASIA DOSS, EI
ADOSS@STRUCTUREPOINT.COM
PHONE: 614-901-2235

*WATER QUALITY DETENTION AND WATER QUALITY TREATMENT ARE ADDRESSED AND ACCOUNTED FOR UNDER PLAN STORM CC-19165.

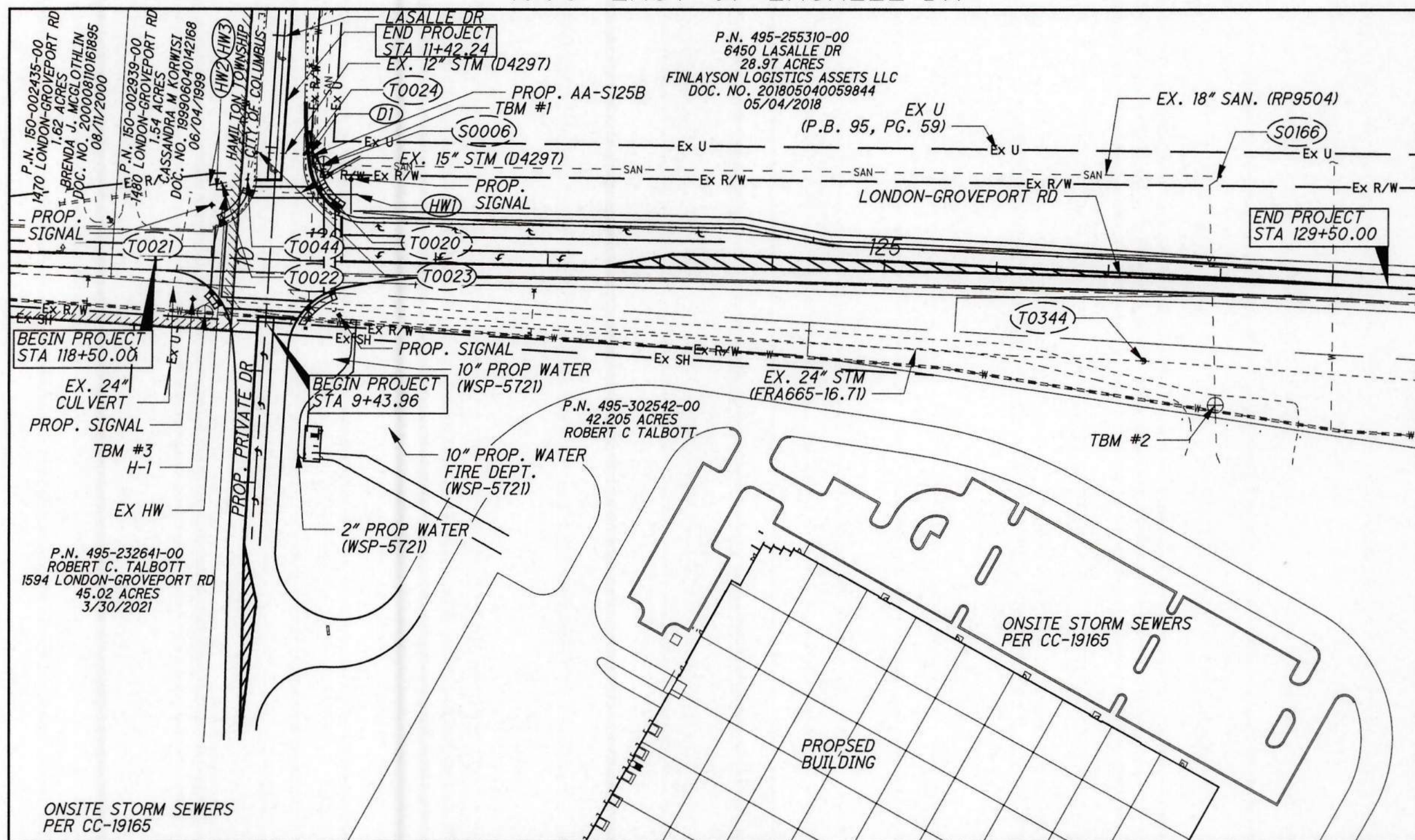
PLAN PREPARED BY:
AMERICAN
STRUCTUREPOINT
INC.
2550 CORPORATE EXCHANGE DR, STE 300
COLUMBUS, OH 43221
TEL 614.901.2235 FAX 614.901.2236
www.structurepoint.com

SIGNED:  DATE: 7/29/2021

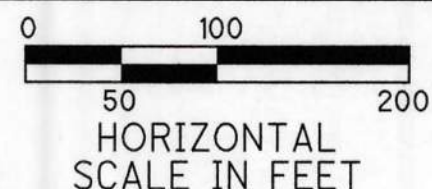
ENGINEERS SEAL:



CITY OF COLUMBUS, OHIO
DEPARTMENT OF PUBLIC SERVICE
DIVISION OF DESIGN AND CONSTRUCTION
IMPROVEMENTS OF
LONDON-GROVEPORT ROAD
FROM 100' WEST OF LASALLE DR TO
1000' EAST OF LASALLE DR



INDEX MAP
SCALE: 1" = 200'



SITE DATA

TOTAL SITE AREA: 2.00 ACRES
LIMITS OF DISTURBANCE AREA WITHIN R.O.W.: 0.98 ACRES
PRE DEV. IMPERVIOUS AREA: 1.02 ACRES
POST DEV. IMPERVIOUS AREA: 1.21 ACRES
OEPA NOI #: 4GC07838*AG

SEE STORM CC-19165

100 YEAR STORM PONDING TABLE*

STRUCTURE	VOLUME REQUIRED AC/FT	VOLUME REQUIRED (CF)	PONDING ELEVATION	PONDING AVAILABLE ELEVATION (#)
EXTENDED WET RETENTION BASIN	618,604	529,370	72.4	727.2

* = EMERGENCY SPILLWAY ELEVATION THAT WAS RELOCATED IN THE EXISTING RETENTION BASIN SEE SHEET 5 FOR LOCATION & SHEET 5 FOR DETAIL.

SITE COMPLIANCE PLAN 20345-530
WATER SERVICE PLANS WSP-5721
STORM SEWER PLAN CC-19165
ODOT PERMIT #:

ZONING

DEVELOPMENT NAME: LONDON GROVEPORT ROAD SPEC I
ZONING CASE NUMBER: Z95-030
ZONING ADDRESS: 1594 LONDON-GROVEPORT ROAD
CITY COUNCIL ORDINANCE NUMBER: 0978-95

SUMMARY OF POST-CONSTRUCTION STORMWATER CONTROL FACILITIES*

CONTROL/OUTLET STRUCTURE NO. (AS REFERENCED ON PLANS)	PLAN VIEW & DETAIL PAGE FOR NUMBERS FOR BMP	CONTROL FUNCTION	DRAINAGE AREA TO CONTROL FACILITY (ACRES)	FACILITY TYPE
EXTENDED WET RETENTION BASIN	5 & 9	FLOOD CONTROL & WATER QUALITY	51.33	WET DETENTION BASIN

COLUMBUS STANDARD CONSTRUCTION DRAWINGS

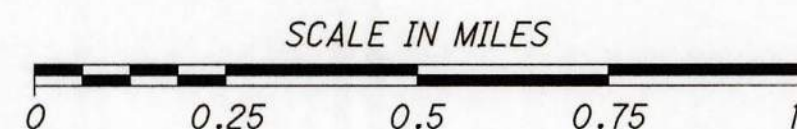
						CONSTRUCTION DRAWINGS		SPECIFICATIONS		
1441	4/22/19	2303	7/1/20	4163	7/1/20	AA-S119	BP-3.1	1/17/20	SS-1611	2/1/13
1500	9/15/15	2310	7/1/20	4164	10/1/20	AA-S125B	BP-5.1	1/18/19	SS-1630	11/13/09
1550	9/15/15	2319	7/1/20	4170	10/1/18	AA-S128	MGS-1.1	1/19/18	MIS-1	
2000	3/30/18	4020	10/1/18	4200	8/1/15	AA-S149	MGS-2.1	1/19/18	MIS-2	
2020	3/30/18	4021	7/1/20	4202	8/10/17	AA-S150	MGS-4.3	1/18/13	MIS-3	
2130	7/1/20	4022	7/1/20	4205	5/1/14	AA-S151	MT-97.10	4/19/19	MIS-4	
2135	3/30/18	4051	5/1/14	4230	10/1/18	AA-S165	MT-101.70	1/17/20	MIS-54	
2161	4/30/18	4101	8/10/17	4253	5/1/14	AA-S168	MT-101.75	7/15/16	MIS-59	
2179	7/1/20	4105	8/10/17	4330	8/10/17		MT-101.90	7/21/17	MIS-403	
2185	3/30/18	4110	10/1/18	4331	5/1/14				MIS-500	
2230	4/30/18	4160	10/1/18						MIS-601	MIS-900
2300	4/30/18	4162	7/1/20						MIS-700	MIS-902

ODOT STANDARD CONSTRUCTION DRAWINGS

COLUMBUS SUPPLEMENTAL SPECIFICATIONS

LOCATION MAP

LATITUDE: 39°49'53" LONGITUDE: 82°57'36"



PORTIONS TO BE IMPROVED

2018 SPECIFICATIONS

THE CITY OF COLUMBUS CONSTRUCTION AND MATERIALS SPECIFICATIONS (CMSC), 2018 EDITION, INCLUDING ALL REVISIONS AND SUPPLEMENTS IN EFFECT AT THE TIME OF SIGNATURE BY THE DIRECTOR OF PUBLIC SERVICE, SHALL GOVERN ALL CONSTRUCTION ITEMS THAT ARE A PART OF THIS PLAN UNLESS NOTED OTHERWISE.

CITY OF COLUMBUS APPROVALS

CITY OF COLUMBUS SIGNATURES ON THIS PLAN SIGNIFY ONLY CONCURRENCE WITH THE GENERAL PURPOSES AND GENERAL LOCATION OF THE PROJECT. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE ENGINEER PREPARING THE PLANS.

CITY ENGINEER/ADMINISTRATOR DIVISION OF DESIGN AND CONSTRUCTION DATE

ADMINISTRATOR, DIVISION OF POWER DATE

ADMINSTRATOR, DIVISION OF SEWERAGE AND DRAINAGE DATE

ADMINISTRATOR, DIVISION OF WATER DATE

DIRECTOR, DEPARTMENT OF RECREATION AND PARKS DATE

FIRE PREVENTION BUREAU, DIVISION OF FIRE DATE

REF. NO.	REVISION DESCRIPTION	SHEET(S)	INITIAL	DATE



3771-E



0 100 200
HORIZONTAL
SCALE IN FEET

CALCULATED
AMD
CHECKED
VDK

TITLE SHEET

IMPROVEMENTS OF
LONDON-GROVEPORT ROAD
FROM 100' WEST OF LASALLE DR
TO 1000' EAST OF LASALLE DR

1
54

adoss
7/29/2021 12:17:45 PM
2020\03242\Drawings\Design\Roadway\Sheets\03242_GB001.dgn

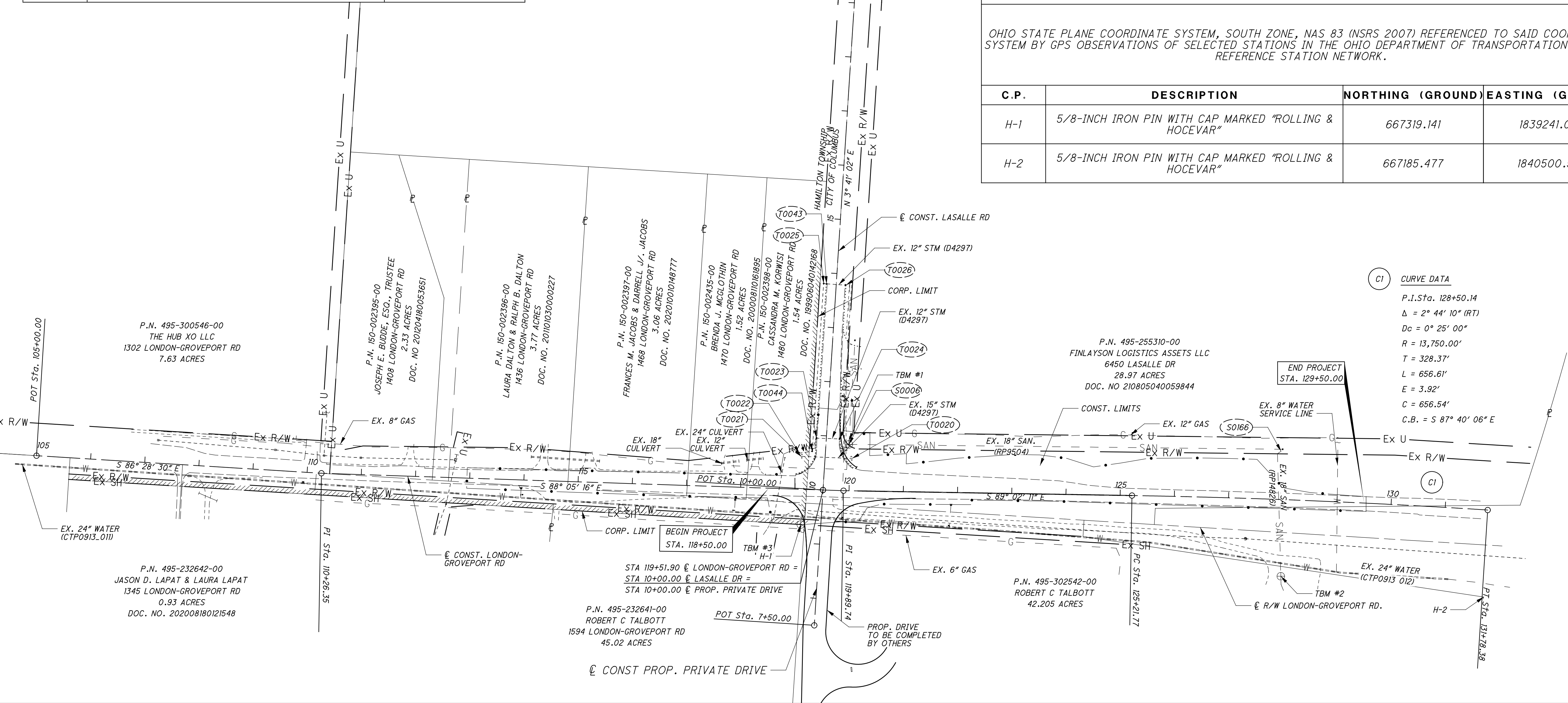
VERTICAL CONTROL		
NAVD88 (12B) REFERENCED TO SAID DATUM BY GPS OBSERVATIONS OF SELECTED STATIONS IN THE OHIO DEPARTMENT OF TRANSPORTATION VIRTUAL REFERENCE STATION NETWORK.		
B.M.	DESCRIPTION	ELEVATION
TBM #1	TOP OF CASTING EX. SANITARY MANHOLE LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF LASALLE DRIVE AND LONDON-GROVEPORT ROAD.	733.16
TBM #2	TOP OF CASTING OF WESTERLY EX. SANITARY MANHOLE LOCATED AT THE TUNNEL SHAFT COMPOUND AREA.	732.28
TBM #3	5/8-INCH IRON PIN WITH CAP MARKED *ROLLING & HOCEVAR*	727.920

CL CONST. LONDON GROVEPORT RD CONTROL POINTS						
CL R/W LONDON GROVEPORT RD		CL CONST. LONDON GROVEPORT RD		PROJECT COORDINATES		DESCRIPTION
STATION	OFFSET	STATION	OFFSET	NORTHING (Y)	EASTING (X)	
110+26.35	0.00'	110+26.35	0	667413.657	1838357.157	PI CL CONST. LONDON GROVEPORT RD
119+51.90	26.07' LT	119+51.90	0	667382.779	1839282.110	CL CONST. LONDON GROVEPORT AT CL CONST. LASALLE DR
125+21.77	50.93' LT	125+21.77	0	667372.569	1839851.889	PC CL CONST. LONDON GROVEPORT RD
131+78.38	64.55' LT	131+78.38	0	667345.860	1840507.889	PT CL CONST. LONDON GROVEPORT RD

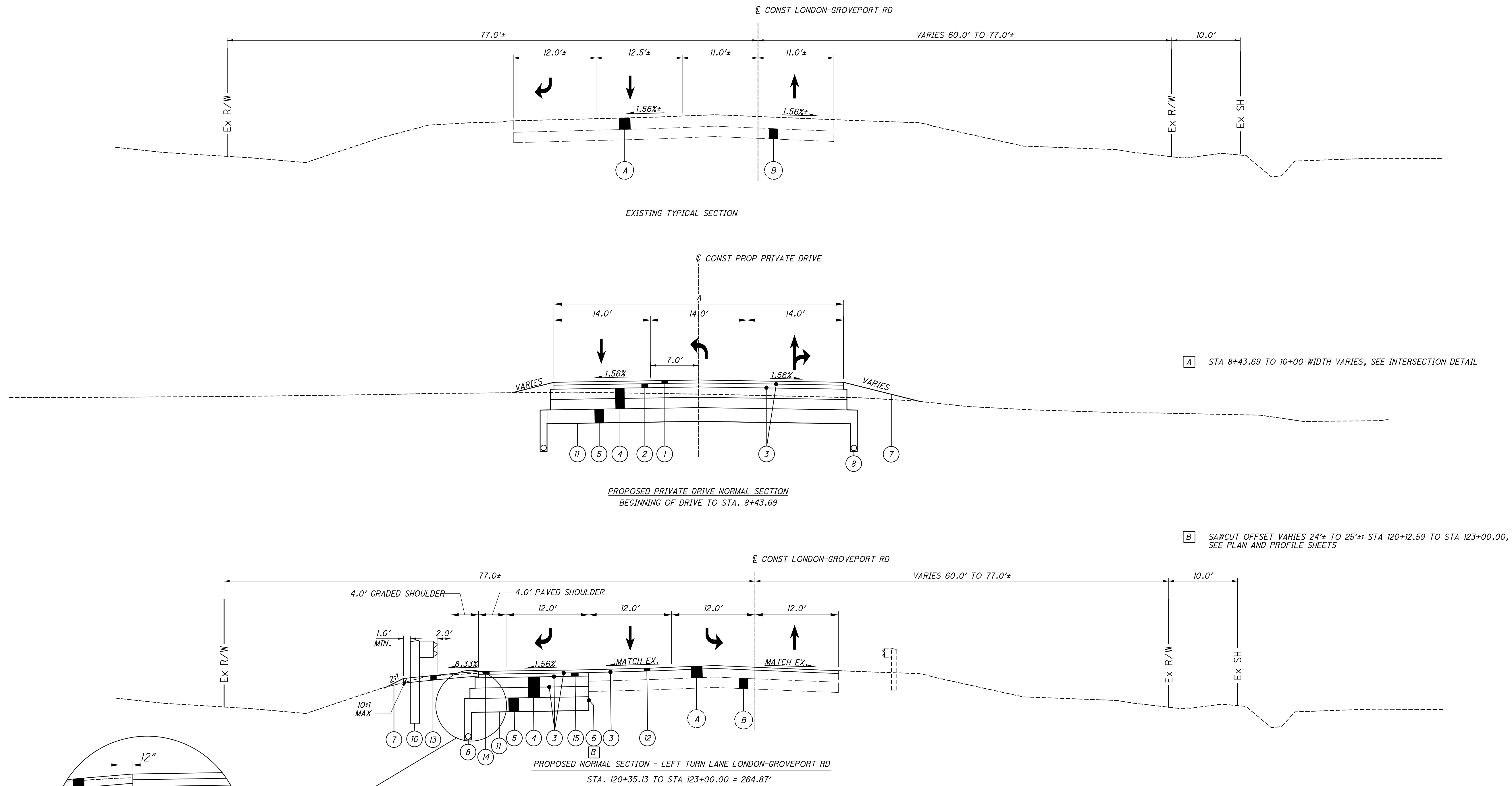
BASIS OF BEARINGS

BEARINGS ARE BASED ON THE CENTERLINE OF LONDON-GROVEPORT ROAD BETWEEN FCGS #5848 AND A RAILROAD SPIKE FOUND BEARING S 86°28'29" E AT 2332.37 FEET OBSERVED, AS REFERENCED TO THE OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD83 (NSRS 2007) AS ESTABLISHED BY GPS OBSERVATIONS USING THE ODOT VRS SYSTEM.

HORIZONTAL CONTROL			
OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAS 83 (NSRS 2007) REFERENCED TO SAID COORDINATE SYSTEM BY GPS OBSERVATIONS OF SELECTED STATIONS IN THE OHIO DEPARTMENT OF TRANSPORTATION VIRTUAL REFERENCE STATION NETWORK.			
C.P.	DESCRIPTION	NORTHING (GROUND)	EASTING (GROUND)
H-1	5/8-INCH IRON PIN WITH CAP MARKED "ROLLING & HOCEVAR"	667319.141	1839241.047
H-2	5/8-INCH IRON PIN WITH CAP MARKED "ROLLING & HOCEVAR"	667185.477	1840500.535



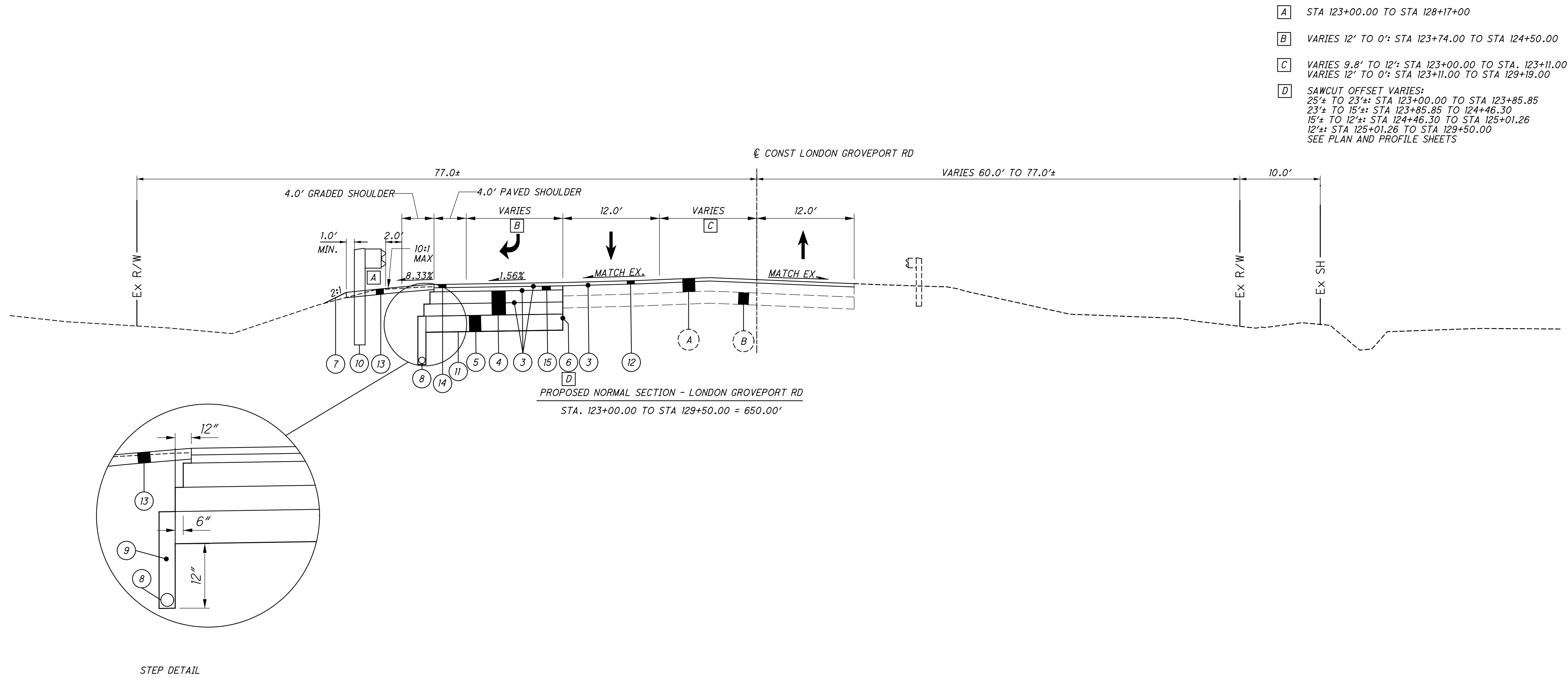
adoss
7/29/2021 12:17:45 PM
O:\2020\03242.D Drawings\Design\Roadway\Sheets\03242_GY001.dgn



TYPICAL SECTIONS

IMPROVEMENTS OF
LONDON-GROVEPORT ROAD
FROM 100' WEST OF LASALLE DR
TO 1000' EAST OF LAELLE DR

adoss
7/29/2021 12:17:46 PM
O:\2020\03242.D Drawings\Design\Roadway\Sheets\03242_GY002.dgn



(A) ASPHALT CONCRETE (DEPTH VARIES)

(B) AGGREGATE BASE (DEPTH VARIES)

(1) ITEM 441 - 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M

(2) ITEM 441 - 1.75" ASPHALT CONCRETE INTERMEDIATE, TYPE 2, (448)

(3) ITEM 407 - TRACKLESS TACK COAT - PER TABLE 407.06-1

(4) ITEM 301 - 9" ASPHALT CONCRETE BASE
PLACED IN TWO LIFTS OF 4.5"
(TACK COAT TO BE PLACED IN BETWEEN
EACH LIFT)

(5) ITEM 304 - 6" AGGREGATE BASE

(6) SAWCUT LINE

(7) ITEM 659 - SEEDING AND MULCHING, CLASS 3B
ITEM 659 - SEEDING AND MULCHING, CLASS 1 (FOR SLOPES FLATTER THAN 3:1)

(8) ITEM 605 - 4" PIPE UNDERDRAIN

(9) NO. 8 OR NO. 57 AGGREGATE

(10) ITEM 606 - GUARDRAIL, TYPE MGS

(11) ITEM 204 - SUBGRADE COMPACTION

(12) ITEM 254 - 1.5" PAVEMENT PLANING, ASPHALT CONCRETE

(13) ITEM 411 - 6" STABILIZED CRUSHED AGGREGATE

(14) ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448)

(15) ITEM 442 - 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448)

NOTE:
IF IT IS DETERMINED THAT DURING CONSTRUCTION THAT THE EXISTING SUBGRADE ELEVATION IS
LOWER THAN THE PROPOSED WIDENING SUBGRADE ELEVATION, THE PROPOSED SUBGRADE
ELEVATION SHOULD BE LOWERED TO MATCH THE EXISTING SUBGRADE ELEVATION.
AGGREGATE BASE MATERIAL MAY BE THICKENED TO MAKE UP THE DIFFERENCE IN DEPTH.
THE BASE UNDER THE WIDENING SHOULD BE SLOPED AWAY FROM THE EXISTING PAVEMENT AND
DRAINAGE PROVIDED.

WHEN REMOVING PAVEMENT, REPLACE UNTIL FULL DEPTH PAVEMENT IS ENCOUNTERED UNDER
EXISTING PAVEMENT.

TYPICAL SECTIONS

IMPROVEMENTS OF
LONDON-GROVEPORT ROAD
FROM 100' WEST OF LASALLE DR
TO 1000' EAST OF LASALLE DR

4
54

3771-E

adoss
7/29/2021 12:17:46 PM
C:\2020\03242\Drawings\Design\Roadway\Sheets\03242_GN001.dgn

REFERENCE SPECIFICATIONS-

THE CITY OF COLUMBUS CONSTRUCTION AND MATERIALS SPECIFICATIONS (CMSC), 2018 EDITION INCLUDING ALL REVISIONS AND SUPPLEMENTS IN EFFECT AT THE TIME OF SIGNATURE BY THE DIRECTOR OF PUBLIC SERVICE, SHALL GOVERN ALL CONSTRUCTION ITEMS THAT ARE A PART OF THE PLANS UNLESS NOTED OTHERWISE.

ANY MODIFICATION TO THE WORK AS SHOWN ON THESE DRAWINGS MUST HAVE PRIOR WRITTEN APPROVAL BY THE CITY ENGINEER/ADMINISTRATOR, DIVISION OF DESIGN AND CONSTRUCTION, CITY OF COLUMBUS.

APPROVAL OF THIS PLAN IS CONTINGENT UPON ALL EASEMENTS REQUIRED FOR CONSTRUCTION OF THE IMPROVEMENT WORK, BE SECURED BY THE OWNER.

INSPECTION-

INSPECTION ON THIS PROJECT SHALL BE PROVIDED BY REPRESENTATIVES OF THE CITY OF COLUMBUS.

PRIOR TO CONSTRUCTION, THE DEVELOPER SHALL ENTER INTO A CONSTRUCTION AGREEMENT, POST SURETY AND DEPOSIT INSPECTION FEES WITH THE CITY OF COLUMBUS PUBLIC SERVICE DEPARTMENT FOR THE TOTAL ESTIMATED COSTS OF CONSTRUCTION IN ACCORDANCE WITH COLUMBUS CITY CODE SECTION 901.01.

THE CONTRACTOR SHALL NOTIFY THE CITY OF COLUMBUS DEPARTMENT OF PUBLIC SERVICE (614) 645-0433 AND DIVISION OF SEWERS AND DRAINS (614) 645-7102 AT LEAST 24 HOURS PRIOR TO CONSTRUCTION.

PERMITS-

THE CONTRACTOR IS TO OBTAIN ALL NECESSARY PERMITS. AN ORIGINAL PERMIT WITH RED SIGNATURES SHALL BE KEPT ONSITE AT ALL TIMES.

WHEN EXCAVATING WITHIN COLUMBUS PUBLIC RIGHT OF WAY LIMITS, THE CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT FROM CITY OF COLUMBUS, DEPARTMENT OF PUBLIC SERVICE - PERMIT OFFICE BETWEEN THE HOURS OF 7:30 AM AND 4:00 PM MONDAY THROUGH FRIDAY.

PHONE: (614) 645-7497; FAX: (614) 645-1876
EMAIL: colspemrits@columbus.gov

UTILITIES-

THE IDENTITY AND LOCATION OF EXISTING UNDERGROUND UTILITIES LOCATED IN AND AROUND THE CONSTRUCTION AREA HAVE BEEN SHOWN AND LABELED ON THE PLANS BY USING INFORMATION PROVIDED BY THE RESPECTIVE UTILITY OWNERS. THE CITY OF COLUMBUS OR THE CONSULTING ENGINEER WILL NOT ASSUME RESPONSIBILITY FOR THE ACCURACY OF LOCATION OR DEPTH OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THE PLAN.

SUPPORT AND PROTECTION OF ALL UTILITIES AND APPURTENANCES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. COSTS FOR THE REPAIR AND RESTORATION OF EXISTING UTILITIES DAMAGED BY THE CONTRACTOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CITY OF COLUMBUS UTILITIES WILL ONLY LOCATE AND MARK MAIN LINE FACILITIES. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL SERVICE LATERAL AND LINES. COSTS ASSOCIATED WITH THE ABOVE WORK AND RESPONSIBILITIES SHALL BE INCLUDED IN THE PRICE BID FOR VARIOUS ITEMS.

PRIOR TO EXCAVATION, THE CONTRACTOR SHALL GIVE A 48-HOUR NOTICE TO THE OHIO UTILITIES PROTECTION SERVICE (OUPS) BY CALLING (800) 362-2764. A 48-HOUR NOTICE SHALL BE GIVEN TO THE OWNERS OF UNDERGROUND UTILITIES SHOWN ON THE PLANS WHO ARE NOT MEMBERS OF A REGISTERED UNDERGROUND PROTECTION SERVICE.

LISTED BELOW ARE UTILITY COMPANIES THAT HAVE FACILITIES LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT AND SUBSCRIBE TO OUPS.

AEP COLUMBUS SOUTHERN POWER ATTN: PAUL PAXTON 700 MORRISON RD GAHANNA, OH 43230 PH: (740) 348-5322 AEP SOLUTION CENTER: (800) 277-2177	COLUMBUS DIVISION OF WATER 910 DUBLIN ROAD COLUMBUS, OH 43215 PH: (614) 645-7788
COLUMBUS FIBERNET ATTN: MATT BLACKSTONE 1600 WALCUTT ROAD COLUMBUS, OH 43228 PH: (614) 351-6265	CITY OF COLUMBUS DPU - DIVISION OF SEWERAGE AND DRAINAGE SEWER MAINTENANCE MANAGER 1250 FAIRWOOD AVENUE COLUMBUS, OH 43206 PH: (614) 645-7102
CITY OF COLUMBUS DEPARTMENT OF PUBLIC SERVICE TRAFFIC MANAGEMENT 1820 EAST 17TH AVE COLUMBUS, OH 43219 OFFICE: (614) 645-7799	COLUMBUS DIVISION OF POWER CHIEF ENGINEER 3500 INDIANOLA AVENUE COLUMBUS, OHIO 43214 PH: (614) 645-7627 VOICE

COLUMBIA GAS OF OHIO
ATTN: ROB CALDWELL
3350 JOHNNY APPLESEED COURT
COLUMBUS, OH 43231
PH: (614) 818-2104
CUSTOMER SERVICE:
(800) 344-4077
DAMAGE PREVENTION:
(866) 632-6243

CITY OF COLUMBUS
DEPARTMENT OF TECHNOLOGY
1355 MCKINLEY AVENUE
BUILDING C
COLUMBUS, OHIO 43222
CONTRACTOR LINE: (614) 645-7756

EMERGENCY PROVISIONS-

THE CONTRACTOR SHALL PROVIDE TO THE CITY OF COLUMBUS PROJECT REPRESENTATIVE A LIST OF 24 HOUR EMERGENCY TELEPHONE NUMBERS (IN WRITING) PRIOR TO THE START OF CONSTRUCTION.

SECURING EXCAVATIONS & TRENCHES FOR NON-WORKING HOURS-

EXCAVATIONS AND TRENCHES OVER 24 INCHES DEEP SHALL BE SECURELY PLATED OR BACKFILLED DURING NON-WORKING HOURS

CONSTRUCTION LIMITS-

THE CONSTRUCTION LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE OF THESE CONSTRUCTION LIMITS.

MISCELLANEOUS WORK ITEMS-

THE CONTRACTOR SHALL PERFORM ALL ITEMS OF WORK CALLED FOR ON THE PLANS, FOR WHICH NO SPECIFIC METHOD OF PAYMENT IS PROVIDED. THE COST OF THESE ITEMS SHALL BE INCLUDED IN THE VARIOUS UNIT PRICES BID FOR THE PROJECT IMPROVEMENT.

BENCHMARKS AND SURVEY MONUMENTS-

DO NOT DISTURB ANY FRANKLIN COUNTY CERTIFIED BENCHMARKS (VERTICAL AND/OR HORIZONTAL) LOCATED WITHIN THE WORKING LIMITS OF THE PROJECT. CONTRACTOR SHALL CONTACT THE FRANKLIN COUNTY SURVEY DEPARTMENT (614) 525-3026, PRIOR TO CONSTRUCTION , TO COORDINATE THE PROPER PROCEDURES FOR THE RESETTNG, RELOCATION, OR REPLACEMENT OF ANY FRANKLIN COUNTY CERTIFIED BENCHMARK OR SURVEY MONUMENT.

COMPACTION TESTING AT UTILITY CROSSINGS-

PRIOR TO CONSTRUCTION OF THE PUBLIC ROADWAY, SOIL TESTS SHALL BE MADE ON ALL OPEN CUT UTILITY TRENCHES WHICH CROSS THE PROPOSED PAVEMENTS OR WHICH LIE SUCH THAT THE PROPOSED PAVEMENTS ARE LOCATED WITHIN ANY PART OF THE INFLUENCE LINE OF SAID TRENCH. WHERE SAID RESULTS INDICATE THAT THE TRENCH BACKFILL DOES NOT MEET THE COMPACTION REQUIREMENTS OF CMSC 912, ALL BACKFILL MATERIAL SHALL BE REMOVED, REPLACED, AND RE-TESTED UNTIL COMPLIANCE IS ACHIEVED.

NEW CURB RADIUS-

INTERSECTION CORNERS OR HORIZONTAL CURVES SHALL MATCH THE EXISTING RADIUS UNLESS NOTED OTHERWISE.

COLUMBIA GAS DAMAGE PREVENTION CENTER-

FOR INFORMATION CONCERNING COLUMBIA GAS LINES OR EQUIPMENT, OR IF DAMAGE OCCURS TO GAS LINES OR EQUIPMENT, THE CONTRACTOR CAN CALL THE COLUMBIA GAS DAMAGE PREVENTION CENTER @ (614) 280-7372 OR TOLL FREE @ (866) 632-6243.

CONTINGENCY QUANTITIES-

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK SHOWN, LABELED, OR LISTED AS 'CONTINGENCY' OR REFERENCED BY PLAN NOTE TO BE USED 'AS DIRECTED BY THE ENGINEER,' UNLESS AUTHORIZED BY THE ENGINEER, OR A REPRESENTATIVE OF THE CITY OF COLUMBUS, DIVISION OF DESIGN AND CONSTRUCTION.

CONCRETE WALKS-

ALL EXISTING CONCRETE SIDEWALKS BEING REPLACED WITH NEW CONCRETE SIDEWALKS SHALL BE REMOVED AT AN EXISTING JOINT AND REPLACED PER STANDARD DRAWING 2300. INSTALL EXPANSION JOINT WHERE NEW CONCRETE ADJOINS EXISTING SIDEWALK.

ALL EXISTING CONCRETE SIDEWALKS NOT SCHEDULED FOR REPLACEMENT BUT BEING CROSSED BY THE INSTALLATION OF TRAFFIC ITEMS, ELECTRICAL CONDUIT, PIPING, ETC. SHALL BE FULLY REMOVED AT AN EXISTING JOINT AND REPLACED PER STANDARD DRAWING 2300 UNLESS NOTED OTHERWISE.

PAYMENT SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 608 - CONCRETE WALK.

SAW CUTTING IS INCLUDED-

THE COST OF SAW CUTTING FOR THE REMOVAL OF PAVEMENT, CURB, WALKS, ETC. SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 202 WORK ITEMS. SAW CUTTING IS REQUIRED TO PROVIDE SMOOTH STRAIGHT EDGES FOR REMOVAL PURPOSES.

FOR THE DIVISION OF POWER-

THE DIVISION OF POWER (DOP) MAY HAVE UNDERGROUND OR OVERHEAD PRIMARY POWER, SECONDARY POWER, AND CONDUIT SYSTEMS AND STREET LIGHTING AT THIS WORK LOCATION. THE CONTRACTOR IS HEREBY REQUIRED TO CONTACT OUPS AT 811 OR 1-800-362-2764 FORTY-EIGHT HOURS PRIOR TO CONDUCTING ANY ACTIVITY WITHIN THE CONSTRUCTION AREA.

ANY REQUIRED RELOCATION, SUPPORT, PROTECTION, OR ANY OTHER ACTIVITY CONCERNED WITH THE CITY'S ELECTRICAL FACILITIES IN THE CONSTRUCTION AREA IS TO BE PERFORMED BY THE CONTRACTOR UNDER THE DIRECTION OF DOP PERSONNEL AND AT THE EXPENSE OF THE PROJECT. DOP SHALL MAKE ALL FINAL CONNECTIONS TO DOP'S EXISTING ELECTRICAL SYSTEM AT THE EXPENXE OF THE PROJECT.

THE CONTRACTOR SHALL USE MATERIAL AND MAKE REPAIRS TO A CITY OF COLUMBUS STREET LIGHTING SYSTEM BY FOLLOWING DOP'S MATERIAL AND INSTALLATION SPECIFICATIONS" (MIS) AND THE CITY OF COLUMBUS "CONSTRUCTION AND MATERIAL SPECIFICATIONS" (CMS). ANY NEW OR RE-INSTALLED UNDERGROUND STREETLIGHT SYSTEM SHALL REQUIRE TESTING AS REFERRED TO IN SECTION 1001.18 OF THE CMS MANUAL. THE CONTRACTOR SHALL CONFORM TO DOP'S EXISTING STREET LIGHTING LOCKOUT/TAGOUT (LOTO) PROCEDURE, MIS-01, COPIES OF WHICH ARE AVAILABLE FROM DOP.

IF ANY ELECTRIC FACILITY BELONGING TO DOP IS DAMAGED IN ANY MANNER BY THE CONTRACTOR, ITS AGENTS, SERVANTS, OR EMPLOYEES, AND REQUIRES EMERGENCY REPAIRS, THE DOP DISPATCH OFFICE SHOULD BE CONTACTED IMMEDIATELY AT (614) 645-7627. DOP SHALL MAKE ALL NECESSARY REPAIRS, AND THE EXPENSE OF SUCH REPAIRS AND OTHER RELATED COSTS SHALL BE PAID BY THE CONTRACTOR TO THE DIVISION OF POWER, CITY OF COLUMBUS, OHIO.

PAVEMENT PLANING 'AS PER PLAN'

UNDER THIS ITEM, ASPHALT SHALL BE MILLED FROM DESIGNATED STREETS TO A MINIMUM 1" DEPTH (TYPICAL 1.5"), OR AS INDICATED WITHIN THESE PLANS. PLANING DEPTHS INDICATED MAY BE ADJUSTED IN THE FIELD AT THE ENGINEER'S DISCRETION. INCREASED OR DECREASED PAVEMENT PLANING THICKNESS SHALL BE PERFORMED AT NO ADDITIONAL COST. ALL STREET PLANING SHALL MAINTAIN THE EXISTING CROWN. IF THE CROWN IS REMOVED AS A RESULT OF THE CONTRACTOR'S ERROR OR WITHOUT THE ENGINEER'S PRIOR APPROVAL, NO ADDITIONAL ASPHALT ABOVE THE PLAN QUANTITY FOR EACH SHEET SHALL BE PAID. THE CONTRACTOR SHALL LOCATE ALL EXISTING LOOP DETECTORS PRIOR TO PLANING. IN THE EVENT A LEAD-IN CABLE IS DAMAGED, THE CONTRACTOR SHALL REPAIR. NO SEPARATE PAYMENT SHALL BE MADE FOR LOOP DETECTOR REPAIRS.

PAVEMENT CUTTING, SAWING, AND EXCAVATION OPERATIONS-

ALL PUBLIC AGENCIES AND PRIVATE CONTRACTORS PERFORMING PAVEMENT-CUTTING OPERATIONS ON CITY OF COLUMBUS STREETS AND ROADWAYS SHALL PROTECT THE ENVIRONMENT FROM DISCHARGES CREATED BY THEIR PAVEMENT CUTTING OPERATIONS. NOTE THAT COLUMBUS CITY CODE 1145 PROHIBITS NON-STORMWATER DISCHARGE INTO THE CITY OF COLUMBUS SEWER SYSTEM, CURB INLETS, AND ANY PART OF ITS MS4 (MUNICIPAL SEPARATE STORM SEWER SYSTEM).

THE REQUIREMENT INCLUDES BUT IS NOT LIMITED TO WET OR DRY SAW-CUTTING, JACK HAMMERING, EXCAVATION EQUIPMENT USE, ETC. THE PUBLIC AGENCY AND/OR PRIVATE CONTRACTOR WORK CREWS SHALL RECOVER AND DISPOSE OF DETRITUS, POLLUTED WATERS, OR OTHER SUCH DISCHARGES RESULTING FROM THEIR PAVEMENT CUTTING OPERATIONS AND PROTECT ALL STORM SEWER INLETS FROM RECEIVING ANY DISCHARGES FROM THE CONSTRUCTION OPERATIONS. THE AGENCY OR CONTRACTOR RESPONSIBLE FOR EACH PAVEMENT CUTTING ACTIVITY SHALL BE SOLELY LIABLE FOR NOTICE OF VIOLATIONS (NOV/VS) AND FINES ISSUED BY CITY OF COLUMBUS AND/OR STATE OF OHIO AUTHORITIES.

EQUIPMENT, MATERIALS, AND METHODS SHALL BE PROVIDED BY THE RESPONSIBLE PUBLIC AGENCY AND/OR PRIVATE CONTRACTOR TO WORK CREWS PERFORMING THE PAVEMENT CUTTING ACTIVITY AND MADE AVAILABLE TO WORK CREWS FOR USE IN CLEANING UP DISCHARGES RESULTING FROM SUCH CUTTING ACTIVITIES AND PREVENTING RUNOFF. ALL WORK CREWS SHALL BE TRAINED TO EXERCISE AND EMPLOY EQUIPMENT, MATERIALS, AND ENVIRONMENTAL PROTECTIVE MEASURES TO PREVENT POLLUTED DISCHARGES FROM ENTERING THE CITY OF COLUMBUS STORM SEWER SYSTEM AND WATERS OF THE STATE OF OHIO.

THE PUBLIC AGENCY AND/OR PRIVATE CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING THAT THE INLET PROTECTION IS ADEQUATE. THE MOST STRINGENT PROJECT PLANS, NOTES AND/OR DRAWINGS INCLUDING STORMWATER POLLUTION PREVENTION PLAN (SWPPP) OR SPILL PREVENTION/REMEDIATION PLAN SHALL APPLY TO ALL PAVEMENT CUTTING, SAWING, OR EXCAVATION OPERATIONS.

PUBLIC TREE PRESERVATION NOTE-

ALL PUBLIC TREES AND THE GROUND BELOW THEIR RESPECTIVE DRIP LINES, WHETHER SHOWN OR NOT SHOWN ON THE PLANS, ARE TO BE PRESERVED UNLESS APPROVAL TO REMOVE OR PRUNE IS GIVEN IN WRITING BY COLUMBUS RECREATION & PARKS (CRPD)/CITY FORESTER OR IF THE PUBLIC TREE REMOVAL HAS BEEN DESIGNATED ON THE APPROVED FINAL SITE COMPLIANCE PLAN. TREES APPROVED FOR REMOVAL BY EITHER OF THE CRPD/CITY FORESTER SHALL BE PAID FOR UNDER CMSC ITEM 201, CLEARING AND GRUBBING, UNLESS OTHERWISE PROVIDED FOR BY UNIT PRICE BID UNDER ITEM 201. THE CONTRACTOR SHALL PROTECT TREES NEAR OR ADJACENT TO THE WORK AREA TO AVOID DAMAGE TO ALL TREES THAT ARE TO REMAIN. ALL TREES REMOVED SHALL INCLUDE STUMP REMOVAL TO EIGHTEEN (18) INCHES BELOW GRADE. ALL CLEARING AND GRUBBING DONE ON CRPD PROPERTY, RIGHT-OF-WAY, OR ANY CITY OF COLUMBUS PROPERTY SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. HEAVY EQUIPMENT WILL NOT BE ALLOWED TO COMPACT THE SOIL OVER THE ROOT ZONE OF EXISTING PUBLIC TREES. RESTRICTED EQUIPMENT ACCESS ROUTES SHALL BE COORDINATED WITH CRPD INSPECTOR, KEITH MAY, AT (614) 645-3014 OR KAMAY@COLUMBUS.GOV BEFORE WORK IS BEGINS. TEMPORARY PAVING MATERIALS, SUCH AS PLYWOOD, LUMBER OR RUBBER MATTING, SPREAD OVER THE ROOT ZONE OF PUBLIC TREES MAY BE REQUIRED TO PREVENT COMPACTION. IF A PUBLIC TREE NEEDS TO BE REMOVED, THE CONTRACTOR SHALL PROVIDE A TREE MITIGATION PLAN TO JIM LONG AT (614) 645-2864 OR JALONG@COLUMBUS.GOV AND EMAIL AND REFER TO THE CRPD TREE MITIGATION PLAN GUIDANCE, ANSI A300 AND/OR CITY OF COLUMBUS EXECUTIVE ORDER 2015-01 FOR TREE REPLACEMENT STANDARDS.

PUBLIC TREE PROTECTION NOTE-

A TREE PROTECTION PLAN WITH A DRAWING OF ANY WORK LOCATED WITHIN THE DRIP LINE OF A PUBLIC TREE SHALL BE INCLUDED IN THE APPROVED FINAL SITE COMPLIANCE PLAN(IFSCP). REFER TO CRPD STANDARD DRAWING FOR TREE PROTECTION. CONSTRUCTION MATERIALS, EXCAVATION DEBRIS, FUEL, EQUIPMENT OR VEHICLES ARE NOT TO BE STOCKPILED, STORED, DUMPED OR PARKED WITHIN THE DRIP LINE OF PUBLIC TREES. ALL TREES MUST BE PROTECTED AGAINST INJURY OR DAMAGE TO BRANCHES, TRUNKS, OR ROOTS FROM CONSTRUCTION AND EXCAVATION, AS DESCRIBED IN THE "BEST MANAGEMENT PRACTICES MANAGING TREES DURING CONSTRUCTION" A COMPANION PUBLICATION TO ANSI A300 PART 5. IF THERE IS A QUESTION WHETHER A TREE OR NOT NEEDS TO BE PROTECTED, THE CONTRACTOR MUST CONTACT THE CITY FORESTRY REPRESENTATIVE JIM LONG AT (614) 645-2864 OR JALONG@COLUMBUS.GOV . FAILURE TO CONTACT THE CITY FORESTRY REPRESENTATIVE IN ADVANCE OF CONSTRUCTION WILL RESULT IN THE CONTRACTOR REIMBURSING CITY FORESTRY FOR THE COST OF ANY AND ALL DAMAGE AS DETERMINED BY THE CURRENT ANSI A300/CITY OF COLUMBUS EXECUTIVE ORDER 2015-01 FOR TREE PROTECTION AND REPLACEMENT.

BENCHING OF FOUNDATION SLOPES

ALTHOUGH CROSS-SECTIONS INDICATE SPECIFIC DIMENSIONS FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. BENCH ALL OTHER SLOPED EMBANKMENT AREAS AS SET FORTH IN SECTION 203.05 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS). NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF SECTION 203.05.

CALCULATED
AMD
CHECKED
VDK

GENERAL NOTES

IMPROVEMENTS OF
LONDON-GROVEPORT ROAD
FROM 100' WEST OF LASALLE DR
TO 1000' EAST OF LASELLE DR

adoss
7/29/2021 12:17:47 PM
O:\2020\03242\Drawings\Design\Roadway\Sheets\03242_GN002.dgn

EROSION AND SEDIMENT CONTROL

EROSION AND SEDIMENT CONTROL MEASURES ARE REQUIRED AS PART OF THIS PROJECT. EROSION AND SEDIMENT CONTROL MEASURES SPECIFIC TO THIS SITE MAY BE FOUND ON SHEET NO(S). 12 - 15 OF THIS PLAN. LAND-DISTURBING ACTIVITIES MUST COMPLY WITH ALL PROVISIONS OF THE DIVISION OF SEWERAGE AND DRAINAGE EROSION AND SEDIMENT CONTROL REGULATION. ALL LAND-DISTURBING ACTIVITIES SHALL BE SUBJECT TO INSPECTION AND SITE INVESTIGATION BY THE CITY OF COLUMBUS AND/OR THE OHIO EPA.

ALL EROSION SEDIMENTATION CONTROL PRACTICES ARE SUBJECT TO FIELD MODIFICATIONS AT THE DISCRETION OF THE CITY OF COLUMBUS, PROJECT ENGINEER AND/OR THE OHIO EPA.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE CITY OF COLUMBUS TWO (2) WORKING DAYS PRIOR TO COMMENCEMENT OF INITIAL SITE LAND DISTURBANCE ON ANY SITE OF ONE (1) OR MORE ACRES. THIS INCLUDES SITE CLEARING, GRUBBING, AND ANY EARTH MOVING. PRIMARY EROSION AND SEDIMENT CONTROL PRACTICES ARE MANDATED BY REGULATIONS TO BE IN PLACE FROM THE BEGINNING OF THE CONSTRUCTION ACTIVITY. PLEASE CONTACT THE STORMWATER MANAGEMENT OFFICE AT 614-645-6700 OR BY FAX AT 614-645-1506. DETAILS OF THIS REQUIREMENT MAY BE FOUND IN THE EROSION AND SEDIMENT POLLUTION CONTROL REGULATION (ADOPTED JUNE 1, 1994). FAILURE TO COMPLY MAY RESULT IN ENFORCEMENT ACTION AS DETAILED IN THE COLUMBUS CITY CODES SECTION 1145.80.

THE NPDES PERMIT HOLDER SHALL PROVIDE QUALIFIED PERSONNEL TO CONDUCT SITE INSPECTIONS ENSURING PROPER FUNCTIONALITY OF THE EROSION AND SEDIMENTATION CONTROLS. ALL EROSION AND SEDIMENTATION CONTROLS ARE TO BE INSPECTED ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A *9#32 STORM EVENT OR GREATER THAT OCCURS OVER A 24 HOUR PERIOD. RECORDS OF THE SITE INSPECTIONS SHALL BE KEPT BY THE CONTRACTOR AND MADE AVAILABLE TO JURISDICTIONAL AGENCIES IF REQUIRED.

THIS PLAN MUST BE POSTED ON SITE. A COPY OF THE SWPPP PLAN AND THE APPROVED EPA STORMWATER PERMIT (WITH THE SITE-SPECIFIC NOI NUMBER) SHALL BE KEPT ON SITE AT ALL TIMES.

ABBREVIATION LIST

THE FOLLOWING ABBREVIATIONS ARE USED THROUGHOUT THE PLANS.

- ALT - ALTERNATE
- ATG - ADJUST TO GRADE
- CGI - CURB AND GUTTER INLET
- CLR - CLEARANCE
- CMP - CORRUGATED METAL PIPE
- CON - CONCRETE PIPE
- CONST - CONSTRUCTION
- CPA - CORNER POST ASSEMBLY
- CPP - CORRUGATED PLASTIC PIPE
- CR - COUNTY ROAD
- DND - DO NOT DISTURB
- EL - ELEVATION
- EMERG - EMERGENCY
- EOP - EDGE OF PAVEMENT
- EPA - END POST ASSEMBLY
- EX - EXISTING
- HW - HEADWALL
- IPA - INTERMEDIATE POST ASSEMBLY
- MAX - MAXIMUM
- MIN - MINIMUM
- NC - NORMAL CROWN
- NDC - NORMAL DESIGN CRITERIA
- NO - NUMBER
- PCC - PORTLAND CEMENT CONCRETE
- PG - PROFILE GRADE
- PLAST - PLASTIC PIPE
- PROP - PROPOSED
- R/W - RIGHT-OF-WAY
- RCP - ROCK CHANNEL PROTECTION
- REQ'D - REQUIRED
- RTG - RECONSTRUCT TO GRADE
- SLM - STRAIGHT LINE MILEAGE
- SMP - SMOOTH METAL PIPE
- STL - STEEL PIPE
- TBA - TO BE ABANDONED
- TBR - TO BE REMOVED
- TBRL - TO BE RELOCATED BY OTHERS

CONVENTIONAL SYMBOLS

- County Line
- Township Line
- Section Line
- Corporation Line
- Fence Line (Ex)
- Fence Line, Wood Plank (Ex)
- Center Line
- Right of Way (Ex)
- Right of Way (Pr)
- Standard Highway Ease.(Ex)
- Sewer Ease.(Ex)
- Sewer Ease.(Pr)
- Temporary Const Ease.
- Channel Ease. (Pr)
- Utility Ease. (Pr)
- Permanent Ease. (Pr)
- Utility Ease. (Ex)
- Railroad
- Guardrail (Ex)
- Construction Limits
- Edge of Pavement (Ex)
- Edge of Pavement (Pr)
- Traffic Interconnect Conduit (Ex)
- Traffic Interconnect Conduit (Pr)
- Ditch / Creek (Ex)
- Ditch / Creek (Pr)
- Tree Line (Ex)
- Ownership Hook Symbol
- Property Line Symbol
- Break Line Symbol
- Tree (Pr)
- Tree (Ex)
- Shrub (Ex)
- Tree (Remove)
- Shrub (Remove)
- Evergreen (Ex)
- Stump
- Evergreen (Remove)
- Stump (Remove)
- Wetland (Pr)
- Grass (Pr)
- Aerial Target
- Post (Ex)
- Mailbox (Ex)
- Mailbox (Pr)
- Light (Ex)
- Telephone Marker (Ex)
- Fire Hydrant (Ex)
- Water Meter (Ex)
- Water Valve (Ex)
- Utility Valve Unknown (Ex.)
- Telephone Pole (Ex)
- Power Pole (Ex)
- Light Pole (Ex)
- Flag Pole(Ex)
- Boulder(Ex)
- Edge of Shoulder (Ex)
- Edge of Shoulder (Pr)
- Water Line (Ex)
- Gas Line (Ex)
- Fiber Optic (Ex.)
- Overhead Telecom (ex.)
- Overhead Electric (Ex.)

GENERAL NOTES

IMPROVEMENTS OF
LONDON-GROVEPORT ROAD
FROM 100' WEST OF LASALLE DR
TO 1000' EAST OF LAELLE DR

adocss
7/29/2021 12:17:48 PM
C:\2020\03242\Drawings\Design\MOT_Sheets\03242_MN001.dgn

TEMPORARY TRAFFIC CONTROL

1. ALL TEMPORARY TRAFFIC CONTROL (TTC) DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (OMUTCD), (CURRENT EDITION). COPIES ARE AVAILABLE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, OFFICE OF CONTRACTS, 1980 WEST BROAD STREET, COLUMBUS, OHIO, 43216. NOTE: ALL DEVICES SHALL COMPLY, FOR CONDITION AND LOCATION, WITH THE CURRENT EDITION OF THE NCHRP 350 AND MASH CRASH TESTING GUIDELINES.

2. CONSTRUCTION OPERATIONS SHALL NOT BEGIN UNTIL ALL TRAFFIC CONTROL IS IN PLACE AND APPROVED BY THE DEPARTMENT OF PUBLIC SERVICE INSPECTOR. IF THE CONTRACTOR DOES NOT COMPLY WITH THE STANDARDS, INCLUDING THE INSTALLATION OF TEMPORARY PAVEMENT MARKINGS AND THE REMOVAL OF CONFLICTING TRAFFIC CONTROLS, THEIR PERMIT SHALL BE REVOKED AND ALL WORK SHALL BE TERMINATED. TEMPORARY PAVEMENT MARKINGS TO INCLUDE, BUT NOT LIMITED TO, CHANNELIZING LINES, EDGE LINES, AND CENTERLINES SHALL BE INSTALLED AND MAINTAINED ON ALL CONSTRUCTION OPERATIONS LASTING A MINIMUM OF 14 CALENDAR DAYS OR AS DIRECTED BY THE TEMPORARY TRAFFIC CONTROL COORDINATOR OR THE PROJECT ENGINEER.

3. THE CONTRACTOR SHALL GIVE ADVANCE NOTIFICATION (WRITTEN AND VERBALLY) TO THE TEMPORARY TRAFFIC CONTROL COORDINATOR AT 614-645-0355 OR 614-645-5845, WRITTEN NOTIFICATION TO PAVING THE WAY AT PAVINGTHEWAY@MORPC.ORG OR VERBAL TO 614-233-4200 , PROJECT ENGINEER, AND THE SENIOR SERVICE PLANNER OF COTA AT 614-308-4373 OR FAX 614-275-5933, INFORMING THEM OF ALL UPCOMING MAINTENANCE OF TRAFFIC CHANGES ON A WEEKLY BASIS. NOTIFICATION SHALL INCLUDE, BUT NOT BE LIMITED TO, WHAT, WHERE, WHEN, AND HOW PEDESTRIAN AND VEHICULAR TRAFFIC WILL BE AFFECTED, AND THE TEMPORARY TRAFFIC CONTROL PROCEDURES THE CONTRACTOR IS PLANNING TO USE. THE TYPE OF TRAFFIC CHANCE SHALL DETERMINE THE LENGTH OF ADVANCE NOTIFICATION REQUIRED:

TYPE OF CHANGE	ADVANCE NOTIFICATION NEEDED
DETOURS/ROAD CLOSURES	30-DAY NOTIFICATION PRIOR TO CLOSURE
LANE CLOSURES LASTING 2 WEEKS OR MORE	2-WEEKS
LANE CLOSURES OF LESS THAN 2 WEEKS	3-DAYS
LANE CLOSURES OF 2 DAYS OR LESS	1-DAY

THE COTA SENIOR SERVICE PLANNER SHALL BE CONTACTED 30 DAYS PRIOR TO ANY PLANNED CLOSURE ON ASSIGNED COTA ROUTES. ANY OTHER UNFORESEEN IMPACTS TO TRAFFIC SHALL BE IMMEDIATELY REPORTED AS THEY OCCUR.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND SAFE MOVEMENT OF PEDESTRIANS THROUGH, AROUND, OR DETOURED AWAY FROM THE CONSTRUCTION SITE. TRAFFIC CONTROL FOR PEDESTRIAN MOVEMENT SHALL BE AS PER CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS, CITY OF COLUMBUS STANDARD CONSTRUCTION DRAWINGS, AND FIGURES 6H-28 (TA-28) AND 6H-29 (TA-29) OF PART VI OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. WHEN NOT SHOWN ON A SIGNED PLAN, ALL SIDEWALK DIVERSIONS AND TEMPORARY MID-BLOCK CROSSINGS SHALL BE PRE-APPROVED BY THE PROJECT ENGINEER OR THE TEMPORARY TRAFFIC CONTROL COORDINATOR. ACCESS FOR PEDESTRIAN AND VEHICULAR TRAFFIC TO ALL ADJOINING PROPERTIES SHALL BE MAINTAINED AT ALL TIMES.

5. THE CONTRACTOR SHALL MAINTAIN ALL PERMANENT TRAFFIC CONTROLS NOT IN CONFLICT WITH THE TEMPORARY TRAFFIC CONTROLS THROUGHOUT THIS PROJECT. PERMANENT TRAFFIC CONTROLS MAY BE TEMPORARILY RELOCATED OR COVERED, AS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL ASSUME ALL LIABILITY FOR MISSING, DAMAGED OR IMPROPERLY PLACED SIGNS.

6. ANY WORK DONE BY THE DEPARTMENT OF PUBLIC SERVICE, INCLUDING INSTALLATION, RELOCATION, REMOVAL AND/OR REPLACEMENT OF TEMPORARY TRAFFIC CONTROL DEVICES AS RESULT OF WORK DONE BY THE CONTRACTOR OR AS A RESULT OF NEGLIGENCE OF THE CONTRACTOR, SHALL BE AT THE CONTRACTOR'S EXPENSE.

7. THE ROADWAY SHALL NOT BE OPENED TO NON-CONSTRUCTION TRAFFIC UNTIL THE CRITICAL PERMANENT TRAFFIC CONTROL ARE IN PLACE, OR UNTIL TEMPORARY TRAFFIC CONTROLS APPROVED BY THE ENGINEER, ARE INSTALLED. THE CRITICAL PERMANENT TRAFFIC CONTROLS ARE STOP, YIELD, ONE-WAY, DO NOT ENTER, RESTRICTED TURN SIGNS AND ALL STREET NAME SIGNS. OTHER CRITICAL SIGNS MAY BE NOTED ON THE PLANS AS WELL. THE CONTRACTOR ASSUMES ALL LIABILITY FOR THE PREMATURE REMOVAL OF TEMPORARY TRAFFIC CONTROLS.

8. ITEM 614 - MAINTAINING TRAFFIC
ALL COSTS THAT CONSIST OF MAINTAINING AND PROTECTING VEHICULAR AND PEDESTRIAN TRAFFIC ACCORDING TO THE LATEST EDITION OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS, THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR THE STREETS AND HIGHWAYS (OMUTCD), AND PER THE REQUIREMENTS DESIGNATED IN THE PLAN INCLUDING ALL LAW ENFORCEMENT OFFICER (LEO) AND FLAGGER HOURS SHALL BE INCLUDED IN THE LUMP SUM ITEM 614.

IN ADDITION TO THE REQUIREMENTS HEREIN, AND THE LATEST EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, A UNIFORMED LAW ENFORCEMENT OFFICER (LEO) SHALL BE PROVIDED FOR CONTROLLING TRAFFIC UNDER THE FOLLOWING CONDITIONS:

- WORK WITHIN A SIGNALIZED INTERSECTION, DEFINED AS THE AREA BOUNDED BY THE REAR CROSSWALK LINES
- WHEN FLAGGING WITHIN THE INTERSECTION OF TWO ARTERIAL ROADWAYS
- WHEN SPECIFIED IN THE MAINTENANCE OF TRAFFIC PLAN OR WHEN DIRECTED BY THE PROJECT ENGINEER
- WHEN SHIFTING TRAFFIC LEFT OF CENTER, THROUGH A SIGNALIZED INTERSECTION, WITHOUT SHIFTING SIGNAL HEADS

A FLAGGER SHALL BE UTILIZED TO ASSIST IN CONTROLLING TRAFFIC WHILE EQUIPMENT IS ENTERING OR EXITING AN INTERSECTION OR WORK ZONE. THE CONTRACTOR MAY UTILIZE HIS OWN FLAGGER OR LEO UNDER PAY ITEM 614 MAINTAINING TRAFFIC, LUMP SUM.

FLAGGERS AND LEO'S SHALL BE EQUIPPED ACCORDING TO THE STANDARDS FOR FLAGGING TRAFFIC CONTAINED IN THE OMUTCD. FLAGGING OPERATIONS PERFORMED BY LEO'S OR DESIGNATED FLAGGERS SHALL ONLY BE PERMITTED AS LONG AS ALL TRAFFIC CONTROL IS IN PLACE ACCORDING TO FIGURE 6H-10 (TA-10) IN THE OHIO MANUAL. PATROL CARS SHALL NOT BE USED IN FLAGGING OPERATIONS.

IF THE CONTRACTOR WISHES TO UTILIZE LEO'S WITH OR WITHOUT PATROL CARS FOR TRAFFIC CONTROL OTHER THAN FOR THAT REQUIRED IN THE PLANS, THEY MAY DO SO AT THEIR OWN EXPENSE. THE CONTRACTOR SHALL MAKE ARRANGEMENT THROUGH THE COLUMBUS POLICE DIVISION AT (614) 645-4795.

LEO'S SHALL BE CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACTIONS. ALTHOUGH EMPLOYED BY THE CONTRACTOR, THE CITY REPRESENTATIVE SHALL HAVE CONTROL OVER THEIR PLACEMENT. LEO'S SHALL NOT HAVE THE AUTHORITY TO CHANGE, EDIT OR MODIFY ANY MAINTENANCE OF TRAFFIC SCHEME WITHOUT THE PERMISSION OF THE TEMPORARY TRAFFIC CONTROL COORDINATOR OR PROJECT ENGINEER UNLESS AN EMERGENCY DEVELOPS.

IF A SAFETY HAZARD DEVELOPS, A LEO MAY BE ASSIGNED BY THE COLUMBUS PUBLIC SAFETY AND/OR THE PUBLIC SERVICE DIRECTOR AT THE CONTRACTOR'S EXPENSE.

ITEM 614 - LAW ENFORCEMENT OFFICER (LEO) WITH PATROL CAR, AS PER PLAN

IN ADDITION TO THE LEO AND FLAGGER HOURS INCLUDED IN ITEM 614 MAINTAINING TRAFFIC, LUMP SUM; THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER OR AN ACCEPTABLE REPRESENTATIVE FOR THE CITY OF COLUMBUS. THE OFFICIAL PATROL CAR WITH TOP MOUNTED EMERGENCY FLASHING LIGHTS SHALL BE A PUBLIC SAFETY VEHICLE AS REQUIRED BY THE OHIO REVISED CODE. THE CONTRACTOR SHALL BE PAID FOR THIS BID ITEM ONLY IF DIRECTED BY THE ENGINEER.

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR, AS PER PLAN - 100 HOURS

ITEM 614 - LAW ENFORCEMENT OFFICER (LEO) WITHOUT PATROL CAR, AS PER PLAN

IN ADDITION TO THE LEO AND FLAGGER HOURS INCLUDED IN ITEM 614 MAINTAINING TRAFFIC, LUMP SUM; THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER OR AN ACCEPTABLE REPRESENTATIVE FOR THE CITY OF COLUMBUS. THE CONTRACTOR SHALL BE PAID FOR THIS BID ITEM ONLY IF DIRECTED BY THE ENGINEER.

ITEM 614 - LAW ENFORCEMENT OFFICER WITHOUT PATROL CAR, AS PER PLAN - 40 HOURS

9. PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE INSTALLED A MINIMUM OF 7 DAYS PRIOR TO CLOSURE OF A ROADWAY. THE MESSAGE SHALL ADVISE THE MOTORIST OF THE DATES, TIMES, AND DURATION OF THE CLOSURE. THE PCMS SHALL REMAIN IN PLACE FOR 7 DAYS AFTER THE START OF THE CLOSURE.

10. WHEN NOT INCLUDED IN A SIGNED PLAN, A TTC PLAN (TTCP) INCLUDING PEDESTRIAN CONTROL SHALL BE SUBMITTED TO THE TTC COORDINATOR AT 614-645-0355 OR 614-645-5845 AT THE PRE-CONSTRUCTION MEETING OR A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO BEGINNING WORK FOR APPROVAL. COPIES OF THE APPROVED TTCP SHALL BE GIVEN TO THE PROJECT ENGINEER AND KEPT ON SITE ALONG WITH THE STREET CLOSURE/OCCUPANCY PERMIT.

11. TYPE C STEADY-BURN OR TYPE D 360-DEGREE STEADY-BURN WARNING LIGHTS SHALL BE REQUIRED ON ALL BARRICADES, DRUMS, AND SIMILAR TRAFFIC CONTROL DEVICES IN USE AT NIGHT. ONLY 42" REFLECTORIZED CHANNELIZING DEVICES (CONES) SHALL BE PERMITTED FOR NIGHTTIME WORK WITH THE APPROVAL OF THE TTC COORDINATOR AT 614-645-0355 OR 614-645-5845 PER O.D.O.T. STANDARDS.

12. A FLASHING ARROW PANEL (48" X 96"-TYPE C) SHALL BE USED IN LANE CLOSURES AS PER THE OHIO MANUAL.

13. ALL TRENCHES WITHIN THE ROAD RIGHT OF WAY SHALL BE BACKFILLED OR SECURELY PLATED PER (CITY OF COLUMBUS GENERAL POLICY ON STEEL PLATE USAGE DATED 11/15/2006 AND STD. DWG. 1441, LATEST EDITION) DURING NON-WORKING HOURS.

14. TWO-WAY, TWO-LANE (ONE-LANE EACH DIRECTION) TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON LONDON GROVEPORT ROAD DURING PHASE ONE CONSTRUCTION EXCEPT WHILE INSTALLING TEMPORARY PAVEMENT WHEN TRAFFIC SHALL BE MAINTAINED VIA FLAGGER PER ODOT SCD MT-97.10.

15. TWO-WAY, TWO-LANE (ONE-LANE EACH DIRECTION) TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON LONDON GROVEPORT ROAD DURING PHASE TWO BY USE OF EXISTING, PROPOSED, OR TEMPORARY PAVEMENT PER CITY OF COLUMBUS MAINTENANCE OF TRAFFIC, STANDARD CONSTRUCTION DRAWING 1510 AND FIGURE 6H-32 TYPICAL APPLICATION 32 (TA-32) OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

17. THE CONTRACTOR SHALL CONTACT OHIO UTILITY PROTECTION SERVICE (OUPS) TO LOCATE AND MARK ALL UNDERGROUND TRAFFIC CONTROL CABLES PRIOR TO THE BEGINNING OF ANY WORK WITHIN 450 FEET OF ANY SIGNALIZED INTERSECTIONS(S) OR WITHIN ANY POSTED AREA WHERE THE DEPARTMENT HAS UNDERGROUND CABLE. THE SIGNAL OPERATION ENGINEER (614-645-6418) SHALL BE NOTIFIED SIX (6) WEEKS IN ADVANCE FOR SIGNAL REVISIONS OR POLE RELOCATIONS.

18. WHEN ANY TRAFFIC CONTROL DEVICE, CONDUIT, OR CABLE IS DAMAGED, THE CONTRACTOR SHALL NOTIFY SIGNAL OPERATION PERSONNEL AT 614-645-0423 (CELL 614-419-4501) BETWEEN 7:00 A.M. AND 4:00 P.M., MONDAY THROUGH FRIDAY. IF UNABLE TO MAKE CONTACT THROUGH THE OTHER NUMBERS, CALL 614-645-7393.

19. THE ROADWAY OR ANY SECTION OF ROADWAY SHALL NOT BE OPENED TO NON-CONSTRUCTION TRAFFIC UNTIL ALL TEMPORARY, NON-REFLECTIVE, BLACKOUT TAPE HAS BEEN COMPLETELY REMOVED FROM NON-CONFLICTING PERMANENT PAVEMENT MARKINGS FOR THAT AREA OF THE ROADWAY, OR UNLESS OTHERWISE DIRECTED IN WRITING BY THE ENGINEER. THIS IS SUPPLEMENTAL TO THE CMS-614.1I-G, AND SHALL BE PAID FOR THROUGH THE 614 - LUMP SUM.

20. WHENEVER YELLOW CENTER LINES OR TURN-LANE LINE ARE PAVED OVER, REMOVED, OR OTHERWISE UNSERVICEABLE, THE CONTRACTOR SHALL INSTALL CLASS II TEMPORARY STRIPING (MINIMUM 4' LONG SEGMENTS). TEMPORARY PAINT SHALL BE USED ON ALL MILLED SURFACES. TEMPORARY TAPE SHALL BE USED ON ALL FINAL COURSES OF ASPHALT. PAINT OR TAPE MAY BE USED ON ALL INTERMEDIATE COURSES OF ASPHALT. IF APPROVED BY THE ENGINEER, DRUMS WITH STEADY BURNING TYPE C OR TYPE D 360 DEGREE WARNING LIGHTS AND "KEEP RIGHT" SIGNS MAY BE SUBSTITUTED FOR CENTERLINE MARKINGS.

21. CLASS II TEMPORARY STRIPING (MINIMUM 4' LONG SEGMENTS) SHALL BE AS PER ITEM 614-WORK ZONE PAVEMENT MARKINGS AND SHALL BE PLACED WITHIN ONE (1) FOOT LONGITUDINAL TOLERANCE OF THE PERMANENT STRIPE(S). ALL TEMPORARY STRIPING NOT TO WITHIN ONE (1) FOOT TOLERANCE SHALL BE REMOVED AND REPLACED IN THE PROPER LOCATION BY THE CONTRACTOR. CLASS II TEMPORARY STRIPING SHALL BE OF THE APPROPRIATE COLOR AND SPACED AT A MAXIMUM OF FORTY (40) FEET CENTER TO CENTER.

ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

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

- DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.
- DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAYE.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

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

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

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

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

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL

CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

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

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT.

THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

BORE PITS, EARTHWORK AND TRENCHES BEYOND THE SHOULDER

BORE PITS, EARTHWORK AND TRENCHES WITHIN ODOT RIGHT-OF-WAY MUST BE OUTSIDE OF THE DITCH SECTION AND PROTECTED IN ACCORDANCE WITH ODOT'S STANDARD CONSTRUCTION DRAWING MT-101.90. "DROPOFFS IN WORK ZONES".
- A PIT/TRENCH 4 TO 12 FEET FROM THE EDGE OF TRAVELED LANE AND GREATER THAN 12 INCHES DEEP MUST HAVE DRUMS DURING THE DAY AND PCB AT NIGHT UNLESS SECURELY PLATED OR BACKFILLED TO WITHIN 12 INCHES. SEE PIS 2010190 FOR ADDITIONAL INFORMATION.
- A PIT/TRENCH 12 TO 30 FEET FROM THE EDGE OF TRAVELED LANE AND GREATER THAN 24 INCHES DEEP MUST HAVE DRUMS DURING THE DAY AND PCB AT NIGHT UNLESS SECURELY PLATED OR BACKFILLED TO WITHIN 24 INCHES. SEE MT-101.90 FOR ADDITIONAL INFORMATION.
THE LENGTH OF THE TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

MUD, DIRT AND DEBRIS

THE TRACKING OR SPILLAGE OF MUD, DIRT OR DEBRIS UPON STATE HIGHWAYS IS PROHIBITED AND ANY SUCH OCCURRENCE SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR.

VEHICLE PARKING

VEHICLES ARE NOT TO BE PARKED ON THE PAVEMENT. ALL VEHICLES ARE TO BE PARKED AT LEAST 5 FEET FROM THE EDGE OF PAVEMENT.

PERSONAL PROTECTIVE EQUIPMENT

ODOT REQUIRES ALL CONTRACTORS' PERSONNEL TO WEAR THE CORRECT PPE WHILE WITHIN ODOT RIGHT-OF-WAY. ALL VEHICLES SHALL HAVE THE CORRECT SAFETY EQUIPMENT ALSO.

ACCESS TO PRIVATE PROPERTY

ACCESS TO DRIVES SHALL BE MAINTAINED VIA EXISTING PAVEMENT, TEMPORARY PAVEMENT OR ITEM 304. IN THE EVENT THAT A DRIVE CANNOT BE MAINTAINED AND A CLOSURE IS NEEDED THE CONTRACTOR WILL COORDINATE WITH THE PROPERTY OWNER TO MINIMIZE THE IMPACT TO THE OWNER.

COMMERCIAL PROPERTY WITH MULTIPLE DRIVES MAY HAVE ONE DRIVE CLOSED WHEN WORKING IN THE AREA OF THE DRIVE. COMMERCIAL PROPERTY WITH ONLY ONE DRIVEWAY OR DRIVEWAYS WITH ONE DIRECTION TRAFFIC USE WILL BE CONSTRUCTED PART WIDTH. THE CONTRACTOR WILL COORDINATE WITH THE PROPERTY OWNER TO MINIMIZE THE IMPACT TO THE OWNER.

MAINTAIN ACCESS TO RESIDENTIAL PROPERTIES AT ALL TIMES. WHEN A RESIDENTIAL DRIVE IS CLOSED FOR CONSTRUCTION, MAINTAIN ALTERNATE ACCESS TO THE PROPERTY. IT MAY BE REQUIRED FOR THE CONTRACTOR TO MAINTAIN ONE PASSABLE LANE WITHIN A CLOSURE IN ORDER FOR VEHICLES TO ACCESS RESIDENCY WITH A VEHICLE.

SUCCESSFULLY NOTIFY THE OCCUPANTS/OWNERS OF COMMERCIAL OR RESIDENTIAL DRIVES TO BE CLOSED AND COORDINATE THE CLOSURE AT LEAST 48 HOURS BEFORE THE CLOSURE BEGINS (SIMPLY LEAVING A WRITTEN NOTICE OR PHONE MESSAGE IS NOT SUFFICIENT). COORDINATE ALTERNATE ACCESS TO RESIDENTIAL PROPERTIES WITH THE OWNER/OCCUPANT.

PROTECTION FROM DROP OFF CONDITIONS IN THE WORK ZONE

ALL DROP-OFF CONDITIONS WITHIN THE WORK ZONE MUST BE PROTECTED IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING MT-101.90.

adoss
7/29/2021 12:17:49 PM
\\O:\2020\03242\Drawings\DOT\Sheets\03242_MN002.dgn

EXISTING PERMANENT TRAFFIC CONTROL

1. ANY WORK DONE BY THE DEPARTMENT OF PUBLIC SERVICE, INCLUDING INSTALLATION, RELOCATION, REMOVAL AND/OR REPLACEMENT OF PERMANENT TRAFFIC CONTROL DEVICES AS A RESULT OF WORK DONE BY THE CONTRACTOR OR AS A RESULT OF NEGLIGENCE OF THE CONTRACTOR, SHALL BE AT THE CONTRACTORS' EXPENSE.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REINSTALLATION AND/OR REPLACEMENT OF ALL PERMANENT TRAFFIC CONTROL DEVICES DAMAGED OR REMOVED DURING CONSTRUCTION. PERMANENT TRAFFIC CONTROL NO LONGER IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SHALL BE REPLACED IMMEDIATELY.

3. THE CONTRACTOR SHALL REPLACE ALL PAVEMENT MARKINGS, INCLUDING RAISED PAVEMENT MARKERS (RPM) SHOWN IN CONFLICT, REMOVED DUE TO CONSTRUCTION OR MAINTENANCE OF TRAFFIC SET UP, DESTROYED, OR RENDERED UNSERVICEABLE BY THE PROJECT ENGINEER OR THE PUBLIC SERVICE PAVEMENT MARKING MANAGER. ALL PAVEMENT MARKING MATERIALS SHALL BE REPLACED IN-LIKE KIND IF NOT SHOWN IN THE PLAN OR PERMIT INCLUDING RAISED PAVEMENT MARKERS. ALL PAVEMENT MARKINGS SHALL BE REPLACED IN FULL. NO PARTIAL LENGTH OR SECTIONS OF PAVEMENT MARKINGS SHALL BE REPLACED WITHOUT REMOVING THE ENTIRE MARKING BY USE OF THE WATER BLAST METHOD. REMOVAL BY ABRASIVE WHEEL GRINDING SHALL ONLY BE APPROVED BY THE PUBLIC SERVICE PAVEMENT MARKING MANAGER.

4. ALL OVERHEAD CABLE, AND DOWN GUYS OR BACK GUYS SHALL NOT BLOCK ANY PORTION OF A TRAFFIC SIGNAL, TRAFFIC CONTROL SIGN, OR OTHER TRAFFIC CONTROL DEVICE SUCH THAT VISIBILITY OR OPERATION OF THE TRAFFIC CONTROL DEVICE IS IMPAIRED.

5. ALL PERMANENT PAVEMENT MARKINGS AND TRAFFIC CONTROL SIGNS AS SHOWN ON THIS PLAN SHALL BE INSTALLED BY THE CONTRACTOR AT THE PROJECTS EXPENSE. THE PROJECT ENGINEER SHALL BE NOTIFIED TO DIRECT APPROPRIATE PERSONNEL A MINIMUM OF FORTY-EIGHT (48) HOURS (EXCLUDING SAT. & SUN.) PRIOR TO THE INSTALLATION OF PERMANENT MARKINGS TO INSPECT AND APPROVE THE PAVEMENT MARKING LAYOUT PRIOR TO PLACING THE PERMANENT MARKINGS.

6. PERMANENT STRIPING OR CLASS I TEMPORARY STRIPING SHALL BE INSTALLED NO LATER THAN FOURTEEN (14) CALENDAR DAYS AFTER THE FINAL PAVING COURSE IS COMPLETED. THE PAVING CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY THE STRIPING CONTRACTOR TO INSURE THE PERMANENT STRIPING IS INSTALLED WITHIN THE FOURTEEN (14) CALENDAR DAY LIMIT.

7. IF THE DEPARTMENT OF PUBLIC SERVICE IS TO INSTALL PERMANENT STRIPING, THE PROJECT ENGINEER SHALL BE NOTIFIED TO DIRECT APPROPRIATE PERSONNEL A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO THE APPLICATION OF THE FINAL COURSE OF PAVEMENT.

LANES OPEN DURING HOLIDAYS AND SPECIAL EVENTS

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

CHRISTMAS	FOURTH OF JULY
NEW YEARS	LABOR DAY
MEMORIAL DAY	THANKSGIVING

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

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

NO EXTENSTIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA WIDE.

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER OR COUNTY MANAGER, THE DISTRICT 6 PUBLIC INFORMATION OFFICE AT D06.PIO@DOT.OHIO.GOV AND THE DISTRICT WORK ZONE TRAFFIC MANAGER AT GARY.FETHEROLF@DOT.OHIO.GOV IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

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

NOTIFICATION TIME FRAME TABLE			
ITEM	DURATION OF CLOSURE	NOTIFICATION DUE TO DISTRICT 6 COMMUNICATIONS OFFICE	SIGN DISPLAYED TO PUBLIC
RAMP & ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE	14 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE	7 CALENDAR DAYS PRIOR TO CLOSURE
	<= 12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE	2 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE	
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE	
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION	

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT MANAGER OR COUNTY MANAGER, THE DISTRICT 6 PUBLIC INFORMATION OFFICE AND THE DISTRICT WORK ZONE TRAFFIC MANAGER USING THE NOTIFICATION TIME FRAME TABLE. APPLICANT SHALL FILL OUT AND SUBMIT TO PIO & DWZTM ODOT DISTRICT SIX - PERMIT AND LOCAL LET CLOSURE AND RESTRICTION FORM EXCEL WHEN NOTIFYING THEM OF THE UPCOMING TRAFFIC RESTRICTION.

PERMITS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS IN ADVANCE OF ANY WORK BEING DONE IN ALL LOCAL AGENCIES RIGHT OF WAY BY THE CONTRACTOR OR SUB CONTRACTORS AS REQUIRED BY CMS 107.02.

WORK SITE LIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR, AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

MAINTAINING TRAFFIC

1. ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A TEMPORARY PAVEMENT SHALL BE PAID FOR PER SQUARE YARD. AN ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY. IN ADDITION TO THE LOCATIONS DETAILED IN THE PLAN, TEMPORARY PAVEMENT SHALL BE USED TO TRANSITION BETWEEN BASE PAVEMENT COURSE ELEVATIONS AND PAVER INTERSECTION ELEVATIONS DURING INDIVIDUAL MAINTENANCE OF TRAFFIC PHASES. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THIS ITEM.

ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC 500 SY

3. ITEM 616 - DUST CONTROL
THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER 20 M. GAL

DELINEATION OF PORTABLE AND PERMANENT BARRIER

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER (PB) USED FOR TRAFFIC CONTROL; AND, ON PERMANENT CONCRETE BARRIER (INCLUDING BRIDGE PARAPETS) LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE.

BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THE SPACING SHALL BE AS PER TRAFFIC SCD MT-101.70. OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614.03 AND SCD MT-101.70. WHEN THE PB CONTAINS GLARE SCREEN, ONE SET OF THREE VERTICAL STRIPES OF SHEETING SHALL BE CONSIDERED EQUIVALENT TO AN OBJECT MARKER, ONE-WAY.

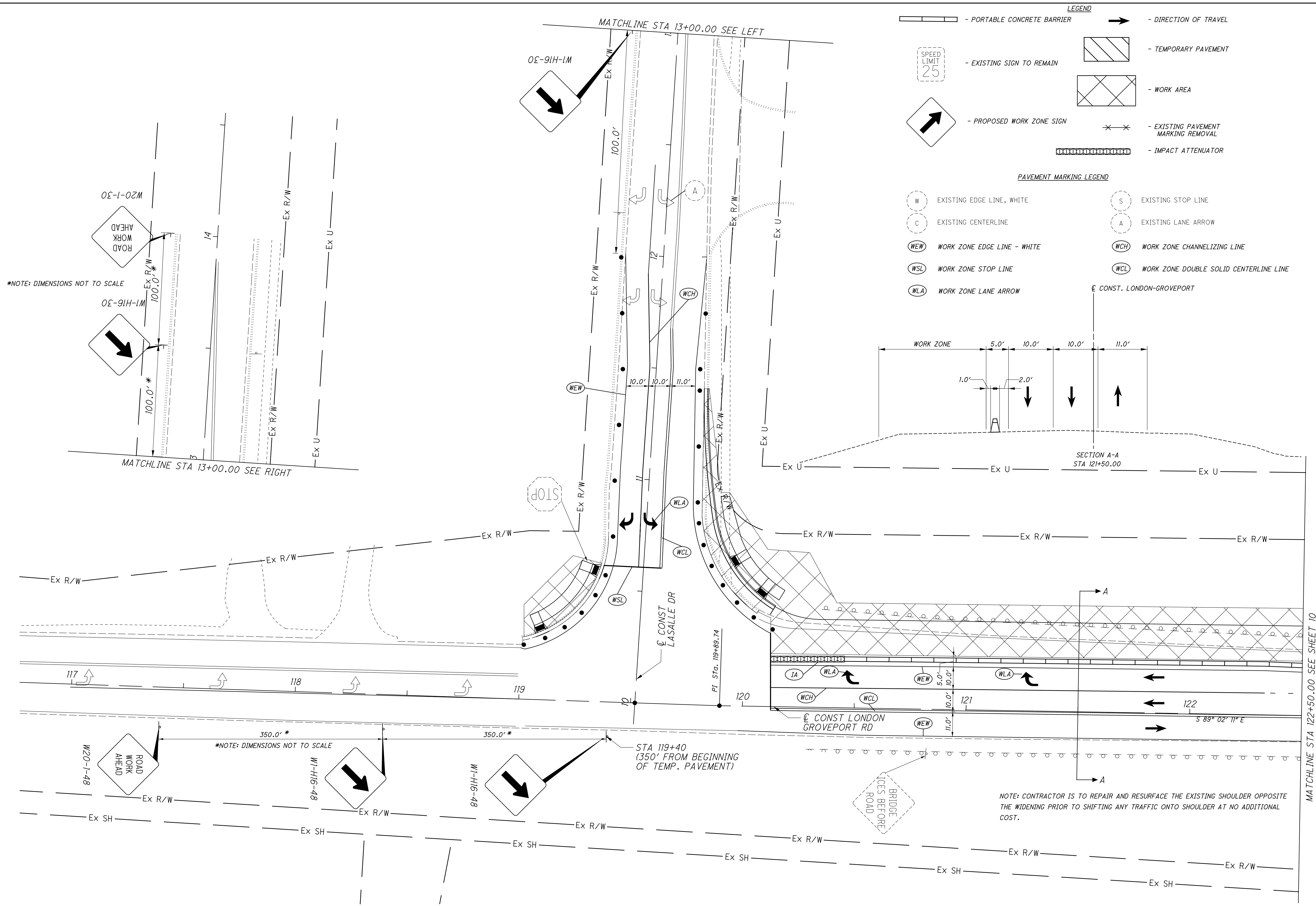
THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

ITEM 614, BARRIER REFLECTOR, TYPE 1 ONE-WAY 24 EACH
ITEM 614, OBJECT MARKER, ONE-WAY 24 EACH

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING EACH OF THE ABOVE ITEMS.

NOTE: CONTRACTOR IS TO REPAIR THE EXISTING SHOULDER OPPOSITE THE WIDENING PRIOR TO SHIFTING ANY TRAFFIC ONTO SHOULDER AT NO ADDITIONAL COST.

adoss
7/29/2021 12:17:49 PM
O:\2020\03242.D Drawings\Design\MOT_Sheets\03242_MP001.dgn



*NOTE: DIMENSIONS NOT TO SCALE

*NOTE: DIMENSIONS NOT TO SCALE

NOTE: CONTRACTOR IS TO REPAIR AND RESURFACE THE EXISTING SHOULDER OPPOSITE THE WIDENING PRIOR TO SHIFTING ANY TRAFFIC ONTO SHOULDER AT NO ADDITIONAL COST.

LEGEND

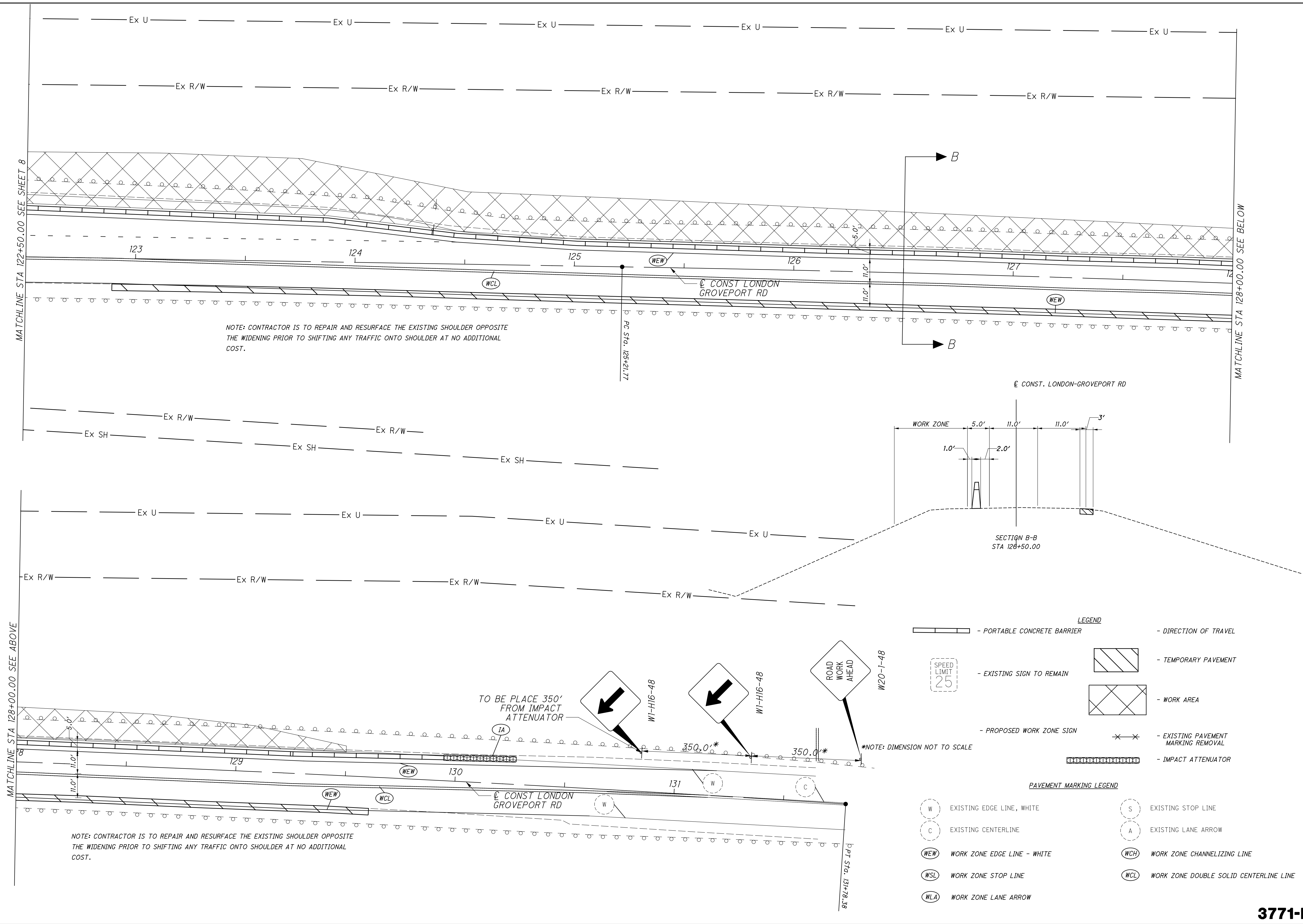
- PORTABLE CONCRETE BARRIER
- EXISTING SIGN TO REMAIN
- PROPOSED WORK ZONE SIGN
- DIRECTION OF TRAVEL
- TEMPORARY PAVEMENT
- WORK AREA
- EXISTING PAVEMENT MARKING REMOVAL
- IMPACT ATTENUATOR

PAVEMENT MARKING LEGEND

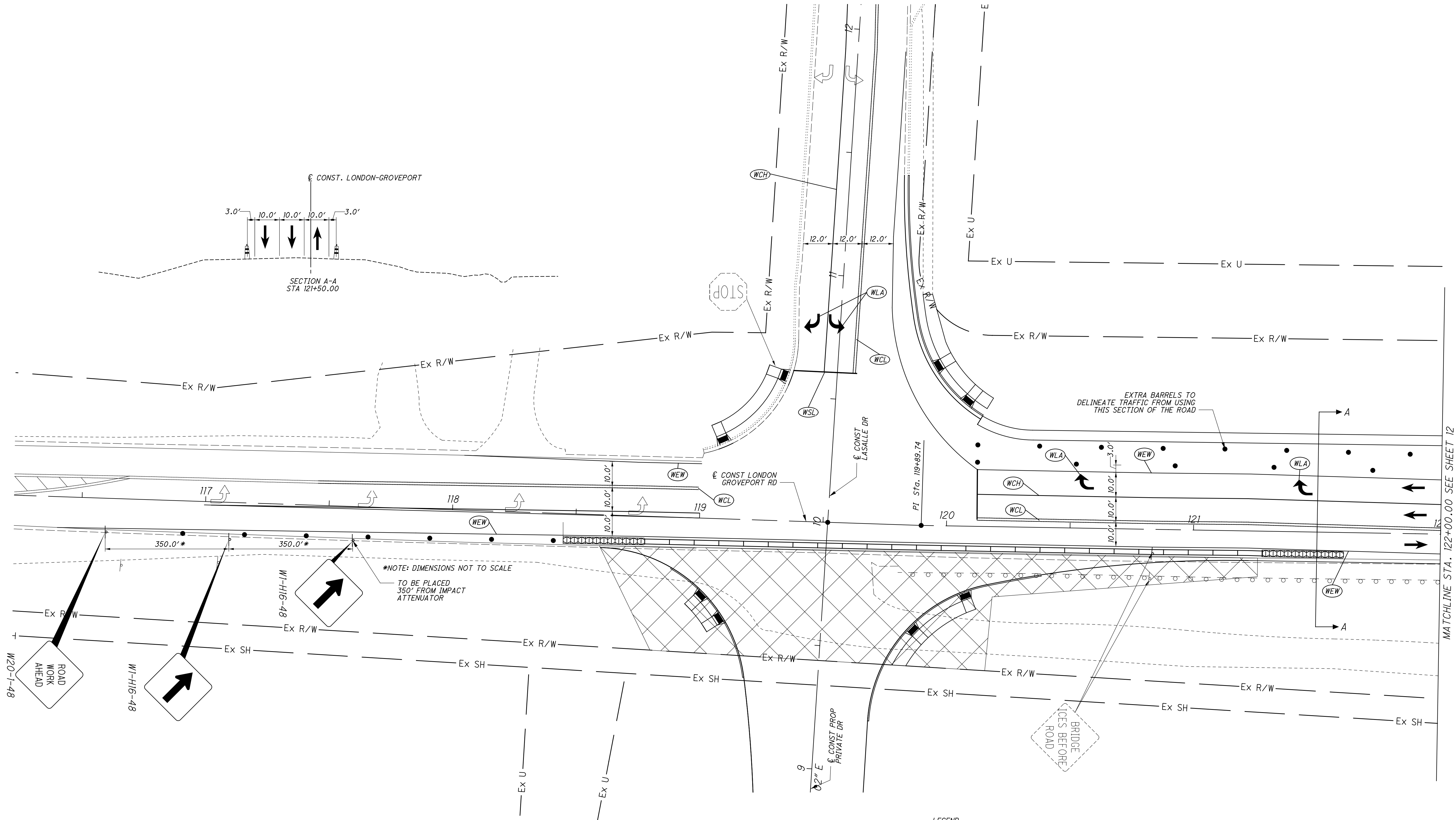
(W)	EXISTING EDGE LINE, WHITE	(S)	EXISTING STOP LINE
(C)	EXISTING CENTERLINE	(A)	EXISTING LANE ARROW
(WEW)	WORK ZONE EDGE LINE - WHITE	(WCH)	WORK ZONE CHANNELIZING LINE
(WSL)	WORK ZONE STOP LINE	(WCL)	WORK ZONE DOUBLE SOLID CENTERLINE LINE
(WLA)	WORK ZONE LANE ARROW		

CALCULATED AMD **CHECKED** VDK

adoss
7/29/2021 12:17:50 PM
\\0\2020\03242\Drawings\Design\MOT\Sheets\03242_MP002.dgn

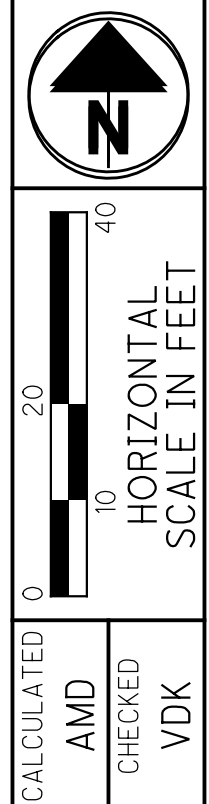


sdoss
7/29/2021 12:17:51 PM
O:\2020\03242\Drawings\MOT\Sheets\03242_MP003.dgn



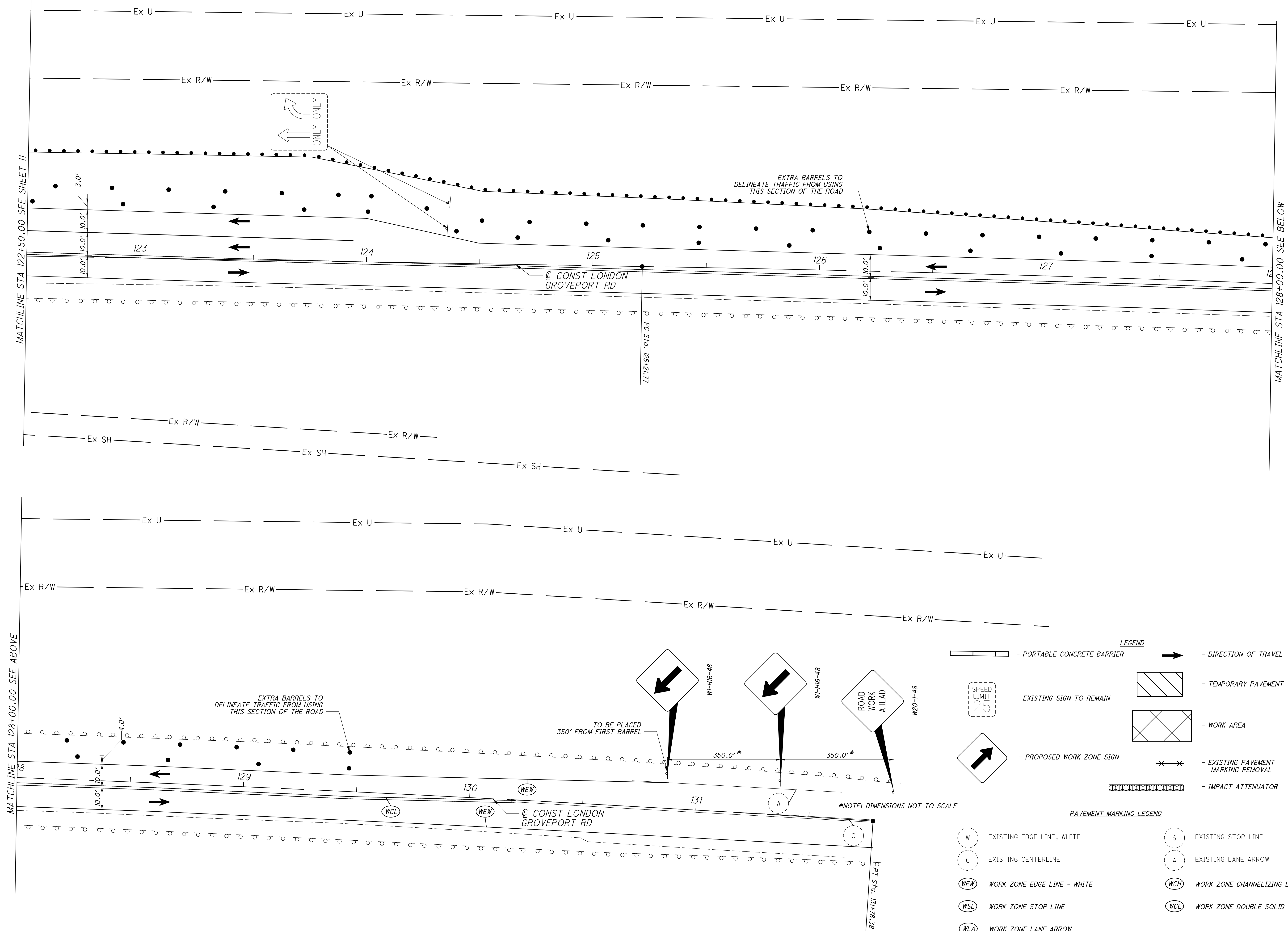
- PAVEMENT MARKING LEGEND**
- | | | | |
|-------|-----------------------------|-------|--|
| (W) | EXISTING EDGE LINE, WHITE | (S) | EXISTING STOP LINE |
| (C) | EXISTING CENTERLINE | (A) | EXISTING LANE ARROW |
| (WEW) | WORK ZONE EDGE LINE - WHITE | (WCH) | WORK ZONE CHANNELIZING LINE |
| (WSL) | WORK ZONE STOP LINE | (WCL) | WORK ZONE DOUBLE SOLID CENTERLINE LINE |
| (WLA) | WORK ZONE LANE ARROW | | |

- LEGEND**
- | | | | |
|-------|---------------------------|---|-------------------------------------|
| • • • | - DRUMS | ➔ | - DIRECTION OF TRAVEL |
| | - EXISTING SIGN TO REMAIN | | - TEMPORARY PAVEMENT |
| | - PROPOSED WORK ZONE SIGN | | - WORK AREA |
| | - IMPACT ATTENUATOR | | - EXISTING PAVEMENT MARKING REMOVAL |

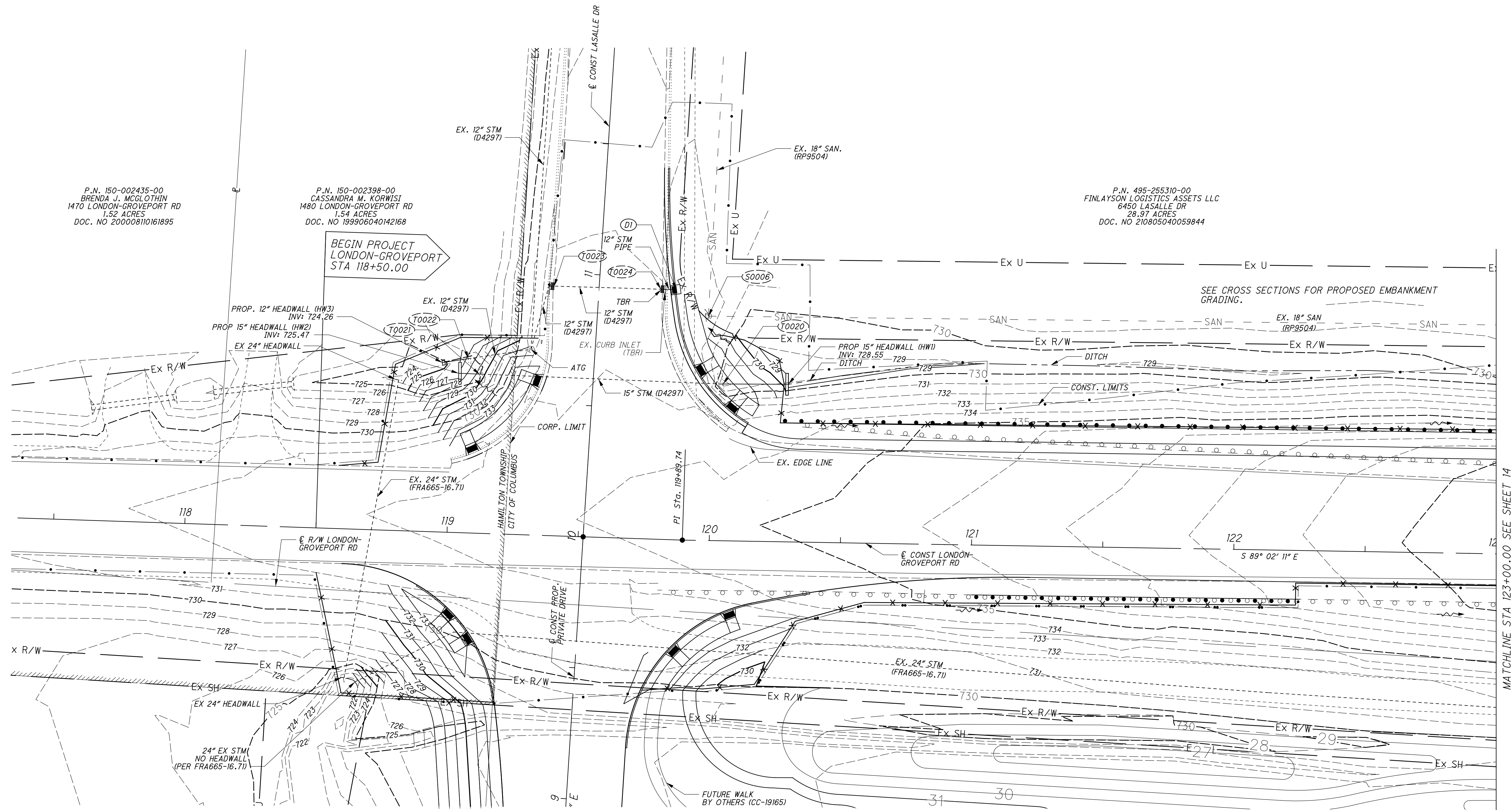


MAINTENANCE OF TRAFFIC - PHASE 2

IMPROVEMENTS OF
LONDON-GROVEPORT ROAD
FROM 100' WEST OF LASALLE DR
TO 1000' EAST OF LASALLE DR



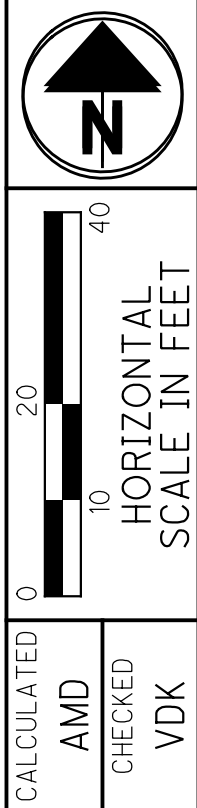
adoss
7/29/2021 12:17:53 PM
O:\2020\03242.D Drawings\Design\Roadway\Sheets\03242_DE001.dgn



LEGEND	
	PERIMETER FILTER FABRIC FENCE
	FLOW ARROW

NOTE: ANY EXISTING STORM INLETS IMPACTED BY THE NEW CONSTRUCTION ACTIVITY WILL NEED THE APPROPRIATE INLET PROJECTION FOR SEDIMENT CONTROL.

SEE CROSS SECTIONS FOR PROPOSED EMBANKMENT GRADING.

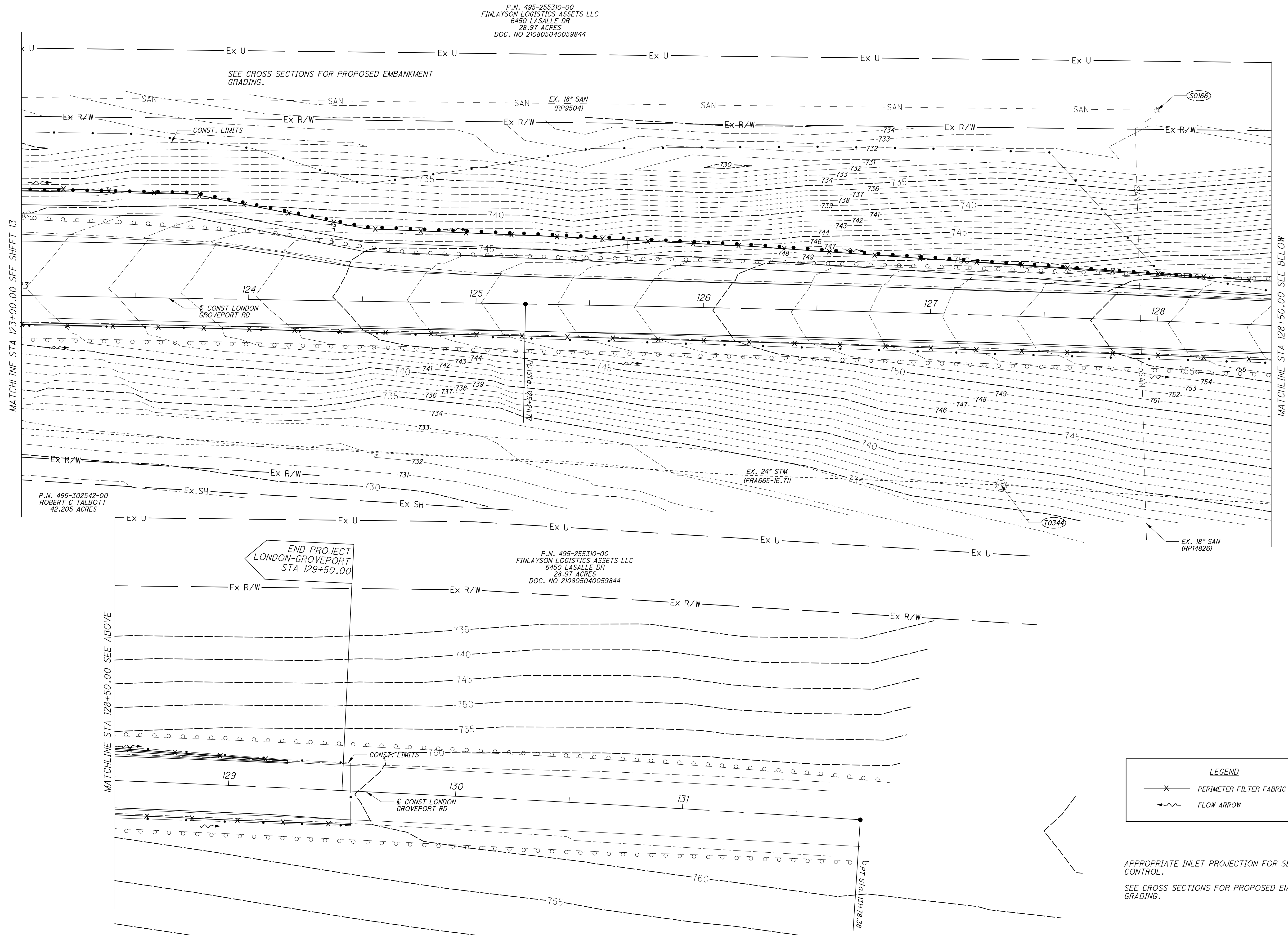


STORM WATER POLLUTION PREVENTION

IMPROVEMENTS OF
LONDON-GROVEPORT ROAD
FROM 100' WEST OF LASALLE DR
TO 1000' EAST OF LASALLE DR

MATCHLINE STA 123+00.00 SEE SHEET 14

adoss
7/29/2021 12:17:53 PM
O:\2020\03242.D Drawings\Design\Roadway\Sheets\03242_DE002.dgn



↑

2

0 20 40

HORIZONTAL SCALE IN FEET

CALCULATED

AMD

CHECKED

VDK

STORM WATER POLLUTION PREVENTION

IMPROVEMENTS OF
LONDON-GROVEPORT ROAD
FROM 100' WEST OF LASALLE DR
TO 1000' EAST OF LASALLE DR

14

54

addes
7/29/2021 12:17:54 PM
\\01\2020\03242\Drawings\Design\Roadway\Sheets\03242_DE003.dgn

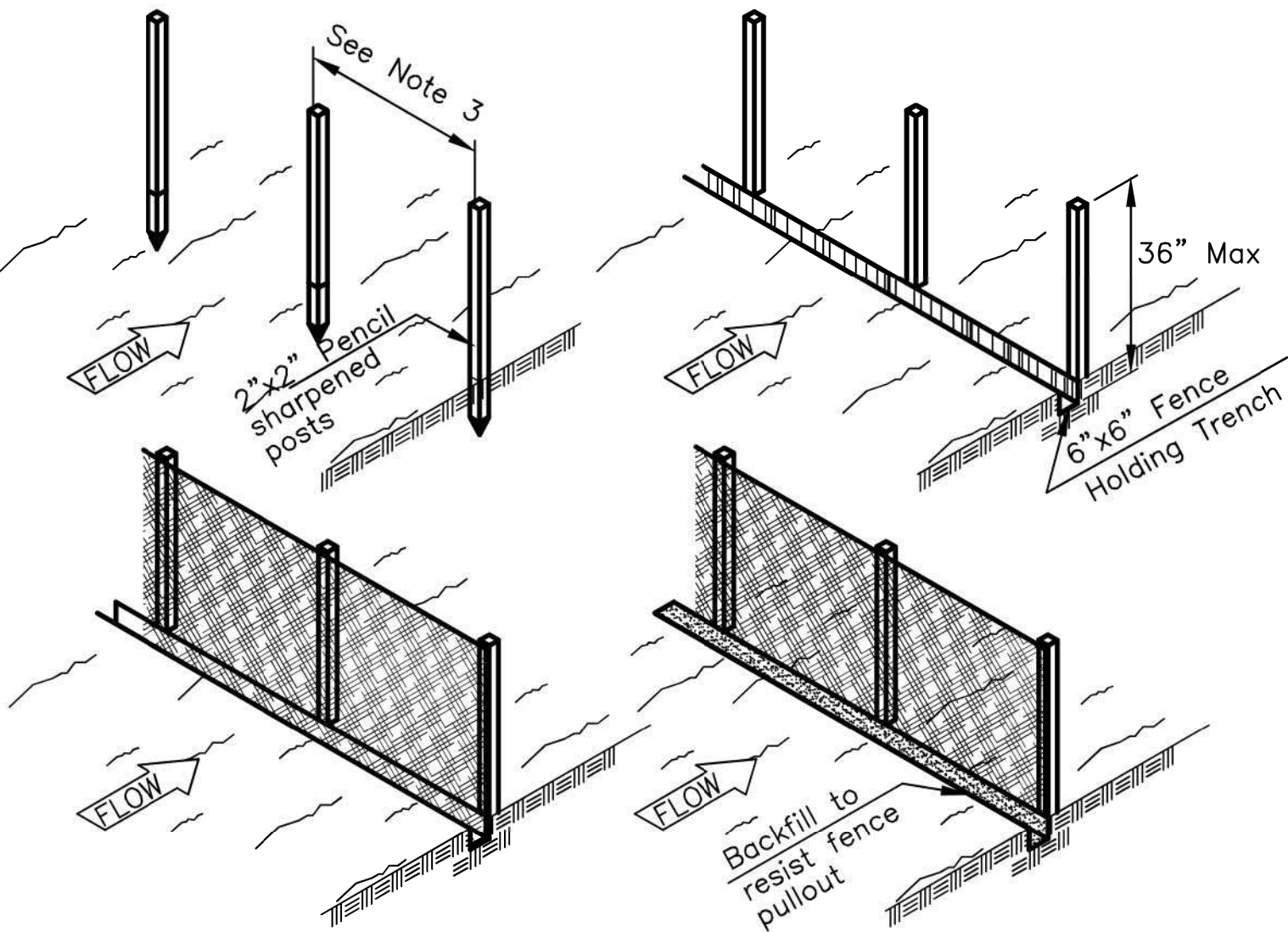
SITE NARRATIVE			EROSION CONTROL NOTES:			DISPOSAL OF SOLID/SANITARY/TOXIC WASTE:			POST FLOOD EVENT SITE MAINTENANCE:					
<div>PLAN DESIGNER AMERICAN STRUCTUREPOINT, INC. 2550 CORPORATE EXCHANGE DR., STE 300 COLUMBUS, OHIO 43231 CONTACT: MICHAEL W. RAUBENOLT PHONE: (614) 376-6995 EMAIL: mraubenolt@structurepoint.com</div> <div>OWNER EXXCEL PROJECT MANAGEMENT 328 CIVIC CENTER DRIVE COLUMBUS, OH 43215 CONTACT: JEFF WAITER PHONE: (614) 621-4500 EMAIL: jwaiter@exxcel.com</div> <div>SITE CONTACT EXXCEL PROJECT MANAGEMENT 328 CIVIC CENTER DRIVE COLUMBUS, OH 43215 CONTACT: JEFF WAITER PHONE: (614) 621-4500 EMAIL: jwaiter@exxcel.com</div>														
EXISTING SITE CONDITIONS:			RURAL AREA											
PROJECT DESCRIPTION:			PAVEMENT WIDENING TO ACCOMMODATE THE ADDITION OF A 295' WESTBOUND TURN LANE ON LONDON GROVEPORT RD ALONG WITH THE INSTALLATION OF A TRAFFIC SIGNAL AND PREDESTRIAN CORSSINGS AT THE LONDON GROVEPORT - LASSALE DR INTERSECTION.											
RECEIVING STREAM:			UNNAMED DITCHES TO ODOT RIGHT OF WAY, EVENTUALLY DRAINING TO SCIOTO RIVER.											
DISTURBED AREA:			0.98 ACRES											
OEPA NOI #:			4GC07838*AG											
SITE BMPS:			FINAL LOCATIONS OF ALL SITE BMPS, INCLUDING DUMPSTERS, VEHICLE FUELING AREAS, CONCRETE TRUCK WASH, MATERIAL STORAGE, AND TOPSOIL STOCKPILES SHALL BE DETERMINED BY CONTRACTOR. IF FINAL LOCATION OF BMPS DIFFER FROM THE LOCATIONS SHOWN, CONTRACTOR SHALL MODIFY SWPPP AND INFORM OHIO EPA OF NEW LOCATIONS OF BMPS.											
ADJACENT AREAS:			EAST: RURAL AREA NORTH: RURAL AREA WEST: RURAL AREA SOUTH: RURAL AREA											
GRADING REQUIREMENTS:			DISTURBED AREAS WILL BE PROTECTED BY SILT FENCE AS SHOWN ON THE PLAN. AREAS WILL BE STABILIZED WHEN GRADED TO PREVENT EROSION ON THE SITE.											
EROSION & SEDIMENT			A COMBINATION OF MEASURES WILL BE USED TO PROVIDE EROSION & SEDIMENT CONTROL MEASURES: CONTROL, INCLUDING SILT FENCE AND SEEDING. PROVIDE INLET PROTECTION AT ALL NEW AND EXISTING DRAINAGE STRUCTURES. ANY OFF SITE BORROW OR SPOIL AREAS SHALL BE SUBJECT TO THE REQUIREMENTS SET FORTH BY THE OHIO EPA. ALL EROSION AND SEDIMENT CONTROL MEASURES FOR OFF-SITE AREAS NOT COVERED BY A SEPARATE NOI OR SWPPP SHALL BE COORDINATED WITH THE OHIO EPA. ALL TRENCH OR EXCAVATION GROUNDWATER CONTAINING SEDIMENT MUST BE EFFECTIVELY TREATED PRIOR TO DISCHARGE INTO THE STORM SEWER SYSTEM. USE ALL MEANS NECESSARY TO CONTROL DUST ON THE SITE AND PREVENT TRACKING SOIL OFF SITE.											
PERMANENT STABILIZATION:			THE SITE WILL BE STABILIZED BY THE USE OF SEEDING OR SODDING IN LAWN AREAS.											
MAINTENANCE:			ALL EROSION CONTROL DEVICES ARE TO BE INSPECTED BY THE CONSTRUCTION SUPERINTENDENT WEEKLY AND AFTER SIGNIFICANT RAINFALLS. ANY DAMAGED FACILITIES ARE TO BE REPLACED OR REPAIRED IMMEDIATELY AS MAY BE NECESSARY.											
GENERAL CONSTRUCTION			(UNLESS NOTED OTHERWISE, ALL EROSION AND SEDIMENT CONTROL MEASURES SEQUENCE: FROM THE BEGINNING OF EARTH DISTURBING ACTIVITIES TO FINAL COMPLETION OF THE PROJECT ARE THE RESPONSIBILITY OF THE CONTRACTOR) 1 - ESTABLISH CONSTRUCTION AREA 2 - CONSTRUCT TEMPORARY SEDIMENT CONTROLS AND PERIMETER EROSION CONTROL MEASURES, INCLUDING CONSTRUCTION ENTRANCE, AND SILT FENCE. MEASURES SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING AND WITHIN 7 DAYS OF FIRST GRUBBING. 3 - CLEAR AND GRUB 4 - STRIP AND STOCKPILE TOPSOIL. SEED STOCKPILES. PROVIDE PERIMETER SILT FENCE AT TOE OF STOCKPILE SLOPE. 5 - PERFORM ROUGH GRADING AND EXCAVATION. STABILIZE AREAS AS INDICATED HEREIN. 6 - INSTALL TEMPORARY SEDIMENT BASINS AND TEMPORARY OUTLET STRUCTURE. 7 - INSTALL STORM SEWERS, OUTLET STRUCTURE, AND INLET FILTERS. 8 - COMPLETE ALL PAVEMENT ACTIVITIES 9 - COMPLETE FINE GRADING OF SEEDED AREAS AND STABILIZE DISTURBED AREAS. 10 - ONCE FINAL SEED HAS BEEN ESTABLISHED, CONTRACTOR TO REMOVE TEMPORARY EROSION CONTROL MEASURES AND CLEAN ALL SEDIMENT FROM STRUCTURES AND PAVEMENT. SEDIMENT/WATER QUALITY BASIN SHALL BE CLEANED OF ALL ACCUMULATED SEDIMENT AND RESTORED TO THE ORIGINAL DESIGN CONTOURS SHOWN ON THESE PLANS. 11 - PRIOR TO FINISHING WORK, ALL AREAS OF THE SITE DISTURBED BY CONSTRUCTION ACTIVITY (INCLUDING, BUT NOT LIMITED TO MATERIAL STORAGE AREAS, TRAILER AREAS, FUELING AREAS, TRUCK WASH AREAS, EQUIPMENT PATHS, HAUL ROADS, ETC.) SHALL BE RESTORED TO THEIR ORIGINAL CONDITIONS, OR IF IN AREAS OF PROPOSED IMPROVEMENTS, TO THEIR PROPOSED CONDITIONS. ALL STONE, TRASH, AND DEBRIS SHALL BE REMOVED FROM THE SOIL. THE UPPER 12" OF SOIL SHALL BE SCARIFIED, AND AREA SHALL BE GRADED TO SUBGRADE WITH SUITABLE MATERIALS. FURNISH 6" MINIMUM OF TOPSOIL AND SEED ALL AREAS.											
SCHEDULE:			THE CONTRACTOR SHALL PROVIDE A SCHEDULE OF OPERATIONS TO THE OWNER. SEDIMENTATION AND EROSION CONTROL FEATURES SHALL BE PLACED IN ACCORDANCE WITH THIS SCHEDULE.											
JURISDICTION:			ALL EROSION AND SEDIMENT CONTROL PRACTICES ARE SUBJECT TO FIELD MODIFICATIONS AT THE DISCRETION OF THE CITY OF GROVE CITY AND/OR THE OHIO EPA.											
OEPA NOI:			4GC07838*AG											

adoss
7/29/2021 12:17:55 PM
O:\2020\03242\Drawings\Design\Roadway\Sheets\03242_DE004.dgn

FILTER FABRIC FENCE

THIS SEDIMENT BARRIER UTILIZES STANDARD STRENGTH OR EXTRA STRENGTH SYNTHETIC FILTER FABRICS. IT IS DESIGNED FOR SITUATIONS IN WHICH ONLY SHEET OR OVERLAND FLOWS ARE EXPECTED.

1. THE HEIGHT OF A SEDIMENT FENCE SHALL NOT EXCEED 36 INCHES (HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE).
2. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6 INCH OVERLAP, AND SECURELY SEALED.
3. POSTS SHALL BE SPACED A MAXIMUM OF 10 FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 12 INCHES). WOOD POSTS WILL BE A MINIMUM OF 32 IN LONG. WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL NOT EXCEED 6 FEET.
4. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 6 INCHES WIDE AND 6 INCHES DEEP ALONG THE LINE OF POSTS AND UP SLOPE FROM THE BARRIER.
5. WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UP SLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH LONG, TIE WIRES, OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2 INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
6. THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 8 INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
7. WHEN EXTRA STRENGTH FILTER FABRIC AND CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF ITEM NO. 6 APPLYING.
8. THE TRENCH SHALL BE BACKFILLED AND SOIL COMPACTED OVER THE FILTER FABRIC.
9. SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UP SLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
10. TO PREVENT WATER PONDED BY THE SILT FENCE FROM FLOWING AROUND THE ENDS, EACH END SHALL BE CONSTRUCTED UPSLOPE SO THAT THE ENDS ARE AT A HIGHER ELEVATION.



PERIMETER FILTER FABRIC FENCE DETAIL

SEDIMENT FENCES AND/OR COMPOST FILTER SOCKS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

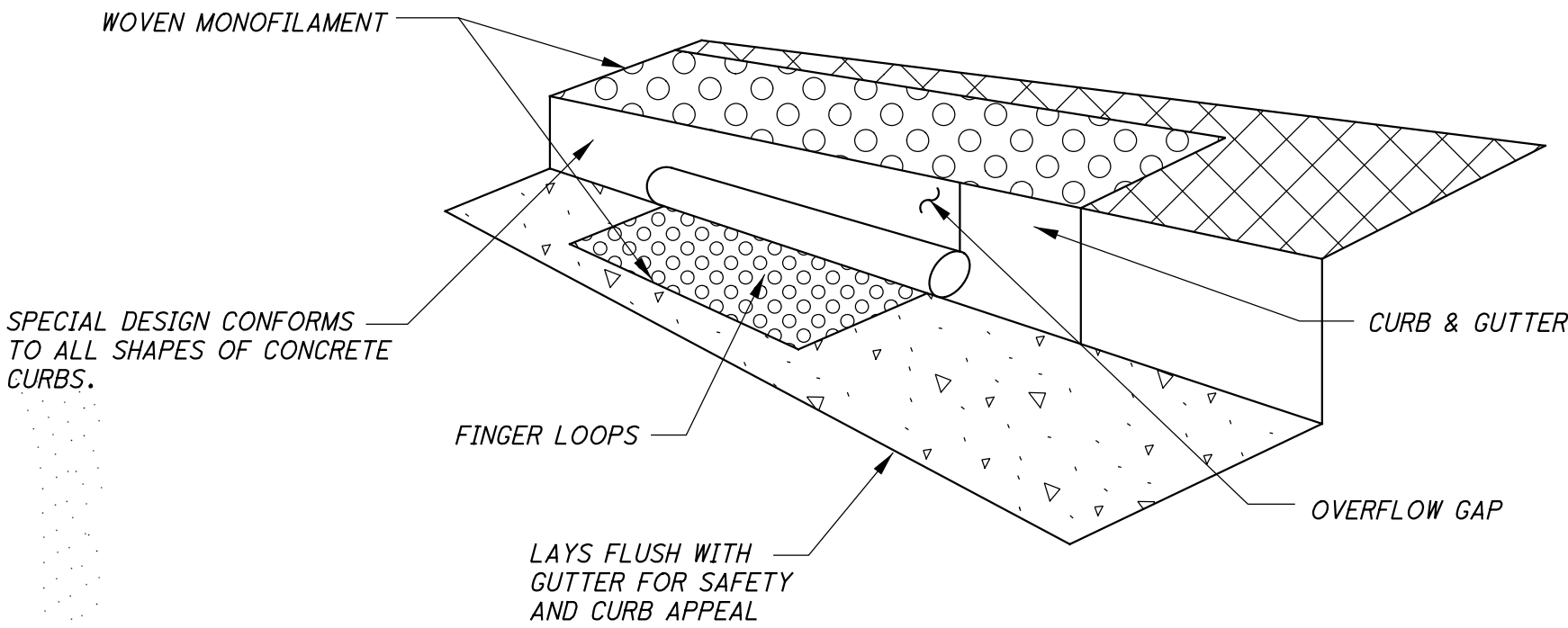
SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.

SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.

ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED, AND SEEDED.

THE USE OF STRAW WATTLES HAS PROVEN TO BE A VERSATILE AND EFFECTIVE ESC BMP, ESPECIALLY IN RESIDENTIAL SETTINGS. STRAW WATTLES MAY BE SUBSTITUTED FOR SILT FENCE. STRAW WATTLES OR COMPOST ROLLS HAVE TO BE A MINIMUM OF 12 INCHES IN DIAMETER NOW (OEPA).

THE USE OF COMPOST FILTER SOCKS AND COMPOST BLANKETS ARE GAINING WIDER ACCEPTANCE NATIONWIDE. THEY ARE NOW APPROVED FOR USE ON ALL COLUMBUS SWP3 PLANS AND CONSTRUCTION SITES.

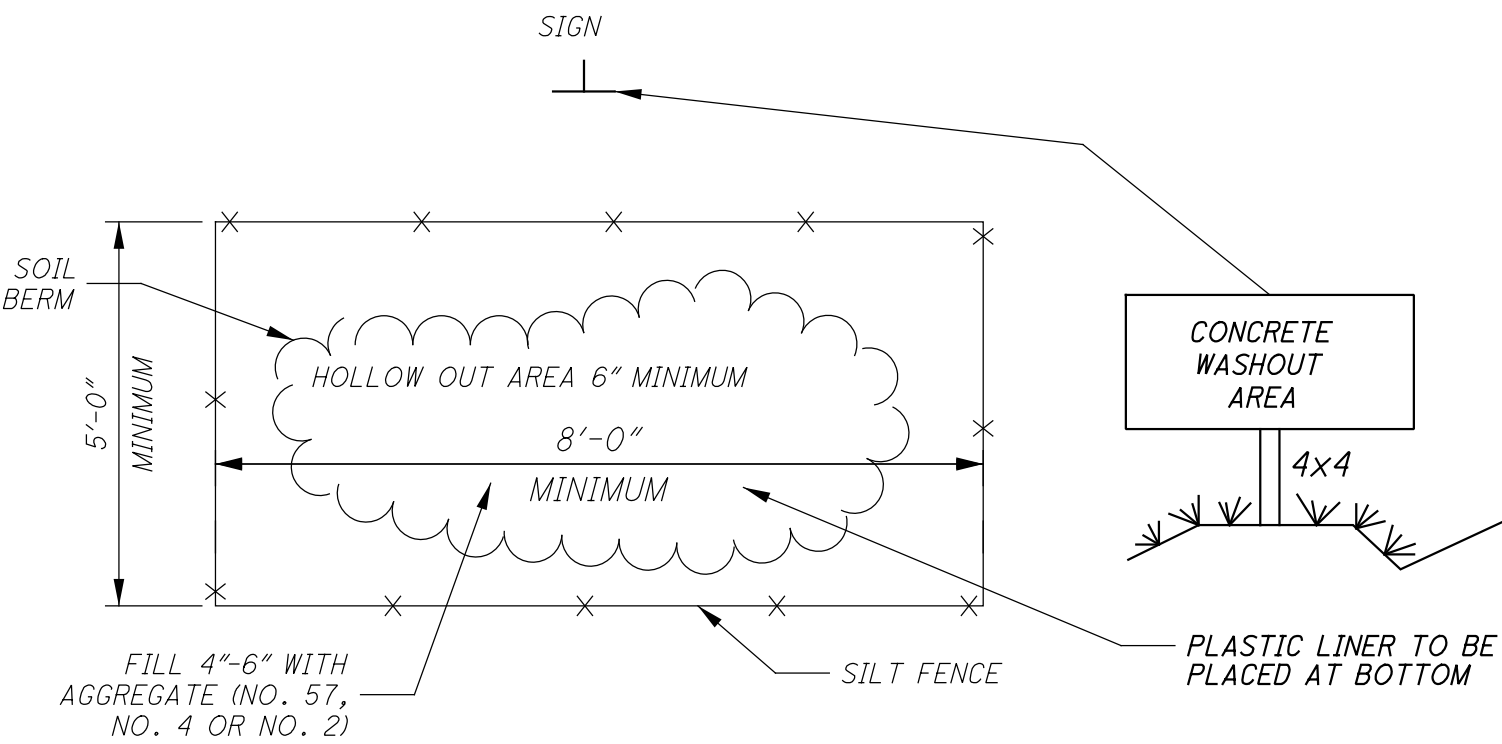


TO INSPECT CATCH BASIN: REMOVE UNIT WITH GRATE INSIDE, INSPECT CATCH BASIN AND REPLACE UNIT NO NEED TO REINSTALL

MAINTENANCE: REMOVE DRIED SEDIMENT FROM SURFACE OF UNIT AS NEEDED WITH STIFF BROOM OR SQUARE POINT SHOVEL. REMOVE FINE MATERIAL FROM INSIDE ENVELOPE AS NEEDED.

CURB INLET PROTECTION

TO BE USED ON STRUCTURES: EX STRUCTURES ALONG THE ROADWAY



CONCRETE WASHOUT AREA DETAIL

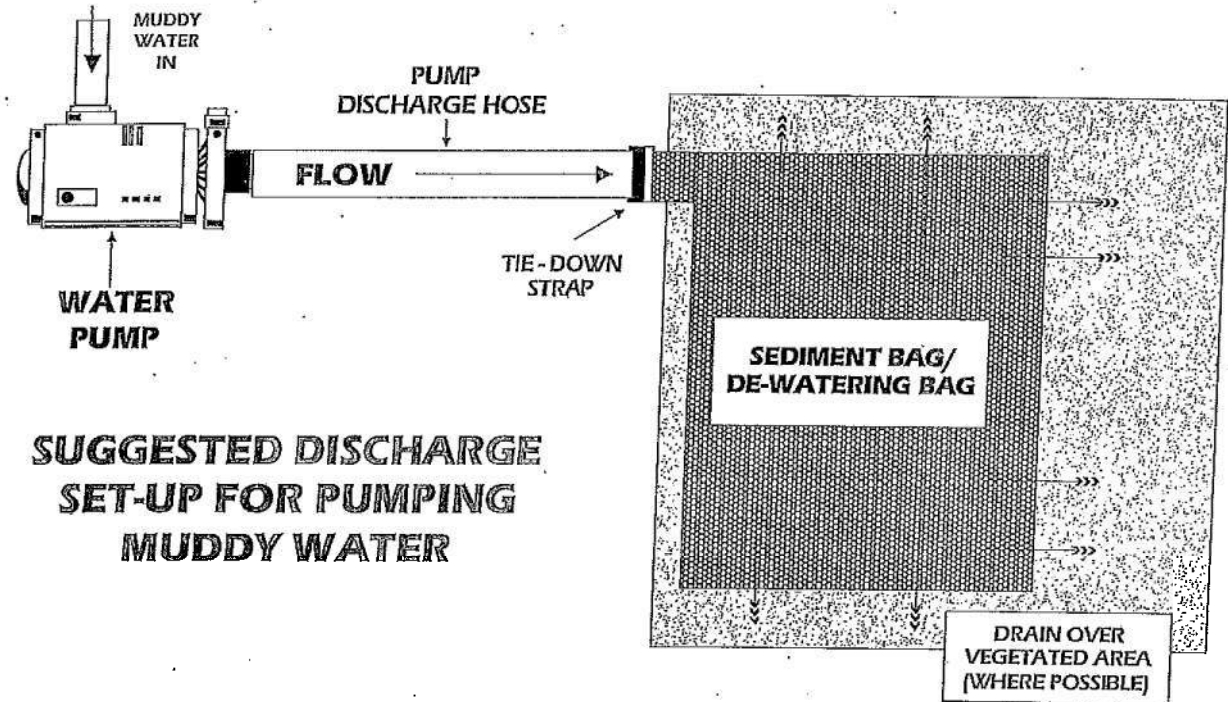
THE USE OF PORTABLE CONCRETE WASHOUT UNITS IS APPROVED (AND ENCOURAGED) FOR ALL CONSTRUCTION AREAS IN THE CITY OF COLUMBUS

NOTICE:

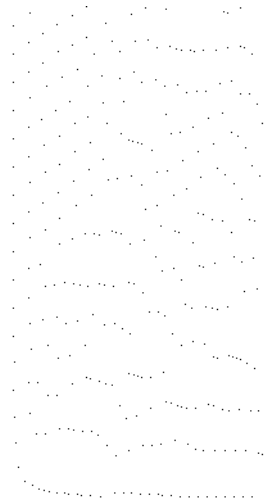
THE PUMPING OR DIRECT DISCHARGE OF SEDIMENT-LADEN (MUDDY) WATER TO THE CITY'S SEWERS SYSTEM OR A RECEIVING STREAM IS A VIOLAION OF OHIO EPA AND THE CITY OF GROVE CITY REGULATIONS.

ALL INLETS RECEIVING FLOW FROM RUNOFF, PUMPING ACTIVITIES, OR OTHER DIRECT DISCHARGES SHALL BE FITTING WITH AN INLET PROTECTION DEVICE THAT IS PROPERLY SIZED AND SECURED TO REDUCE THE DISCHARGE OF SEDIMENT INTO THE STORM SEWER SYSTEM AND RECEIVING STREAM. INLET PROTECTION IS REQUIRED ON ALL INLETS RECEIVING DISCHARGE REGARDLESS OF WHETHER OR NOT THE INLET IS TRIBUTARY TO ANY DOWNSTREAM EROSION AND SEDIMENT CONTROLS.

DISCHARGE HOSES USED DURING PUMPING ACTIVITIES SHALL BE FITTED WITH SEDIMENT BAGS THAT ARE PROPERLY SIZED PER MANUFACTURER'S RECOMMENDATIONS REGARDLESS OF WHAT OTHER SEDIMENT CONTROLS ARE IN PLACE FURTHER DOWNSTREAM. SEDIMENT BAGS MUST BE PROPERLY SECURED TO THE DISCHARGE HOSE AND PLACED OVER VEGETATED AREAS, WHERE FEASIBLE, DURING DISCHARGE. SEE DETAIL BELOW OF TYPICAL SEDIMENT BAG INSTALLATION.



SUGGESTED DISCHARGE SET-UP FOR PUMPING MUDDY WATER



adoss
7/29/2021 12:18:07 PM
\\O:\2020\03242\Drawings\Design\Roadway\Sheets\03242_GG001.dgn

GENERAL SUMMARY												ITEM	TOTAL	UNIT	DESCRIPTION
SHEET 13	SHEET 14	SHEET 24	SHEET 25	SHEET 26	SHEET 27	SHEET 28	SHEET 30	SHEET 43	SHEET 45	SHEET 46	SHEET 47				
															ROADWAY
												201	1	LS	CLEARING AND GRUBBING
		903										202	903	FT	GUARDRAIL REMOVED
		111										202	111	FT	COMBINATION CURB AND GUTTER REMOVED
		145										202	145	SF	WALK REMOVED
		1										202	1	EA	STORM HEADWALL REMOVAL
		1										202	1	EA	STORM CATCH BASIN REMOVED
		2146										202	2146	SF	PAVEMENT REMOVED
		3328					626					203	3954	CY	EXCAVATION
							2308					203	2308	CY	EMBANKMENT
												204	6	hour	PROOF ROLLING
			8	972	699	25						204	1704	SY	SUBGRADE COMPACTION
			300	550	25							606	875	FT	GUARDRAIL, TYPE MGS
			2									606	2	EA	TYPE E, ANCHOR ASSEMBLY
			850									608	850	SF	8" CONCRETE WALK
									2118	443	205	608	2766	SF	4" CONCRETE WALK
			64									608	64	SF	DETECTABLE WARNING, TYPE A
			8									608	8	EA	CURB RAMP
			77			43						609	120	FT	COMBINATION CURB AND GUTTER, SPECIAL 8"
			174									609	174	FT	CURB, STRAIGHT 18"
															EROSION CONTROL
889	1285											207	2174	FT	PERIMETER FILTER FABRIC FENCE
							374					659	374	SY	SEEDING AND MULCHING, CLASS 1
							2112					659	2112	SY	SEEDING AND MULCHING, CLASS 3B
												659	276	CY	TOPSOIL, 4"
												659	0.34	TON	COMMERCIAL FERTILIZER
												659	0.51	ACRE	LIME
												659	14	M GAL	WATER
												659	6	MSF	MOWING
												659	125	SY	REPAIR SEEDING AND MULCHING
												659	125	SY	INTER-SEEDING
												659	0.01	TON	COMMERCIAL FERTILIZER
												659	0.34	M GAL	WATER
															DRAINAGE
			1									604	1	EA	DOUBLE CURB INLET, AA-125B (AA-S128 HEAVY DUTY FRAME/GRATE)
			1									604	1	EA	HEADWALL (PRECAST AA-S165)
			2									604	2	EA	HEADWALL (PRECAST AA-S168)
			1									604	1	EA	MANHOLE ADJUSTED TO GRADE
			272	552	126							605	950	FT	4" PIPE UNDERDRAIN
								2				607	2	EA	CONCRETE COLLAR - SPECIAL ITEM
			16									901	16	FT	12" STORM PIPE W/ TYPE 1 BEDDING
			40									901	40	FT	15" STORM PIPE W/ TYPE 1 BEDDING

s4doss
7/29/2021 12:18:08 PM
\\O:\2020\03242\Drawings\Design\Roadway\Sheets\03242_GG002.dgn

GENERAL SUMMARY												
SHEET	SHEET	SHEET	SHEET	SHEET	SHEET	SHEET	SHEET	SHEET	ITEM	TOTAL	UNIT	DESCRIPTION
24	25	26	27	28	44	45	46	47				
												PAVEMENT
	2114	1696	404	219					254	4433	SY	PAVEMENT PLANING, ASPHALT CONCRETE (1.5")
	250	180	12	1					301	443	CY	9" ASPHALT CONCRETE BASE
	171	126	8	1					304	306	CY	6" AGGREGATE BASE
	304	228	31	16					407	579	GAL	TACK COAT (0.06 GAL/SY)
	30	70	2						411	102	CY	6" STABILIZED CRUSHED AGGREGATE
	22								441	22	CY	1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M
	26								441	26	CY	1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 (448)
	19	29	2						442	50	CY	1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448)
	22	34	2						442	58	CY	1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448)
												WATER WORK
	1								807	1	EA	VALVE BOX ADJUSTED TO GRADE
												TRAFFIC CONTROL
					6	36		5	621	47	EA	RPM, TWO-WAY WHITE/RED
					31	28	29	23	621	111	EA	RPM, TWO-WAY YELLOW
					24	30	31		621	85	EA	RPM, ONE-WAY WHITE
1					1	1	1		630	4	EA	REMOVAL OF GROUND MOUNTED SIGN AND DELIVERY
					1	1	1		630	3	EA	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DELIVERY
					30	120	15	15	630	180	FT	GROUND MOUNTED SUPPORT, NO 3 POST
					23	84	10	9	630	126	SF	SIGN, FLAT SHEET
5									642	5	EA	LANE ARROWS REMOVED (BY WATERBLASTING)
23									642	23	FT	STOP LINE REMOVED (BY WATERBLASTING)
400									642	400	FT	CHANNELIZING LINE REMOVED (BY WATERBLASTING)
0.23									642	0.23	MI	CENTERLINE REMOVED (BY WATERBLASTING)
0.41									642	0.41	MI	EDGE LINE REMOVED (BY WATERBLASTING)
220									642	220	FT	TRANSVERSE LINE REMOVED (BY WATERBLASTING)
2									642	2	EA	RPM REMOVED
						0.17	0.23	0.09	644	0.49	MI	CENTER LINE
						817	7	106	644	930	FT	CHANNELIZING LINE, 10"
						120			644	120	FT	STOP LINE
						83	303	166	644	552	FT	TRANSVERSE LINE
						0.11	0.23		644	0.34	MI	EDGE LINE
						543			644	543	FT	CROSSWALK LINE
						11		2	644	13	EA	LANE ARROW

GENERAL SUMMARY										
SHEET	SHEET	SHEET	SHEET	SHEET	SHEET	SHEET	ITEM	TOTAL	UNIT	DESCRIPTION
8	9	10	11	12	50	53				
										MAINTENANCE OF TRAFFIC
		2	2				614	4	EA	WORK ZONE IMPACT ATTENUATOR
	0.07	0.16	0.10	0.14			614	0.47	MI	WORK ZONE CENTER LINE, CLASS 1
	0.12	0.3	0.18	0.34			614	0.94	MI	WORK ZONE EDGE LINE, CLASS 1
	21		20				614	41	FT	WORK ZONE STOP LINE
	17	196					614	213	FT	WORK ZONE DOTTED LINE
	221		638	144			614	1003	FT	WORK ZONE CHANNELIZING LINE
	4		2				614	6	MI	WORK ZONE LANE ARROW
24							614	24	EA	BARRIER REFLECTOR, TYPE 1 ONE-WAY
24							614	24	EA	OBJECT MARKER, ONE-WAY
500							615	500	SY	TEMPORARY PAVEMENT
20							616	20	M. GAL	WATER
	205	745	250				622	1200	FT	PORTABLE CONCRETE BARRIER, 32"
							614	1	LS	MAINTAINING TRAFFIC
							619	3	MO	FIELD OFFICE, TYPE A
							624	1	LS	MOBILIZATION
										TRAFFIC SIGNAL
					15		625	15	EA	GROUND ROD
					335		625	335	FT	NO. 4 AWG 600 VOLT DISTRIBUTION CABLE
					2		625	2	EA	PULL BOX, 725.06, 12"x18" (TRAFFIC)
					3		625	3	EA	PULL BOX, 27"
					1		625	1	EA	PULL BOX, 32"
					188		625	188	FT	TRENCH, AS PER PLAN
					358		625	358	FT	CONDUIT, 2", 725.051
					38		625	38	FT	CONDUIT, 3", 725.051
					34		625	34	FT	CONDUIT, CONCRETE ENCASED, 2" 725.051
					1		625	1	EA	BRACKET ARM, 30', AS PER PLAN
					27		630	27	SF	STREET NAME SIGN
					1		630	1	LUMP	SIGNING MISC.: TRAFFIC SIGNAL SIGNS
					8		632	8	EA	VEHICULAR SIGNAL HEAD, L.E.D., 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE
					8		632	8	EA	PEDESTRIAN SIGNAL HEAD
					4		632	4	EA	PEDESTRIAN PUSHBUTTON
					1		632	1	EA	SIGNALIZATION MISC.: DILEMMA ZONE RADAR DETECTION SYSTEM
					1		632	1	EA	SIGNALIZATION MISC.: STOP LINE RADAR DETECTION SYSTEM
					3		632	3	EA	STRAIN POLE FOUNDATION
					1		632	1	EA	STRAIN POLE FOUNDATION, 24', AS PER PLAN
					8		632	8	EA	PEDESTAL FOUNDATION
					3		632	3	EA	SIGNALIZATION MISC.: FOUNDATION PRE-EXCAVATION

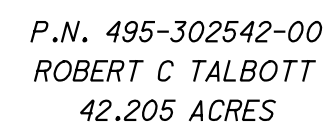
adoss
7/29/2021 12:18:21 PM
\\O:\2020\03242\Drawings\Design\Roadway\Sheets\03242_GG004.dgn

GENERAL SUMMARY						
SHEET	SHEET	SHEET	ITEM	TOTAL	UNIT	DESCRIPTION
24	50	53				
						TRAFFIC SIGNAL (CONT'D)
	3		632	3	EA	STRAIN POLE, TYPE 4170, DESIGN 13, AS PER PLAN
	1		632	1	EA	COMBINATION STRAIN POLE, TYPE 4170, DESIGN 13, AS PER PLAN
	8		632	8	EA	PEDESTAL SUPPORT, 10.7', TRANSFORMER BASE
1			632	1	EA	PEDESTAL RELOCATED
	405		632	405	FT	MESSANGER WIRE, 7 STRAND, 1/2 INCH DIA. WITH ACCESSORIES
	405		632	405	FT	TETHER WIRE, WITH ACCESSORIES
	1685		632	1685	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG
	364		632	364	FT	SIGNAL CABLE, 9 CONDUCTOR, NO. 14 AWG
	892		632	892	FT	LOOP DETECTOR LEAD-IN CABLE, IMSA 50-2
	38		632	38	FT	POWER CABLE, 2 CONDUCTOR, NO. 6 AWG
	60		632	60	FT	POWER CABLE, 3 CONDUCTOR, NO. 6 AWG
	1		632	1	EA	POWER SERVICE, AS PER PLAN
	1		632	1	EA	SIGNALIZATION, MISC.: POWER METER CABINET TYPE I, BASE MOUNT, WITH FOUNDATION
	1		632	1	EA	CONDUIT RISER, 2" SCH 80 (GRAY), 725.053
	8		632	8	EA	COVERING OF VEHICULAR SIGNAL HEAD
	8		632	8	EA	COVERING OF PEDESTRIAN SIGNAL HEAD
	4		632	4	EA	COVERING OF PEDESTRIAN PUSHBUTTON
	1		632	1	EA	SIGNALIZATION, MISC.: CELLULAR ETHERNET COMMUNCATIONS UNIT
	1		633	1	EA	CONTROLLER UNIT, TYPE TS2/A2, W/CABINET 16 CH, SIZE 6, GROUND MOUNTED, AS PER PLAN
	1		633	1	EA	CABINET FOUNDATION
	1		633	1	EA	CONTROLLER WORK PAD
	1		633	1	EA	CONTROLLER ITEM, MISC.: LAYER 2 ETHERNET SWITCH
	2		633	2	EA	CONTROLLER ITEM, MISC.: FIBER OPTIC ETHERNET TRANSCEIVER, SHORT RANGE
	8		632	8	EA	COVERING OF PEDESTRIAN SIGNAL HEAD
	4		632	4	EA	COVERING OF PEDESTRIAN PUSHBUTTON
	1		632	1	EA	SIGNALIZATION, MISC.: CELLULAR ETHERNET COMMUNCATIONS UNIT
	1		633	1	EA	CONTROLLER UNIT, TYPE TS2/A2, W/CABINET 16 CH, SIZE 6, GROUND MOUNTED, AS PER PLAN
	1		633	1	EA	CABINET FOUNDATION
	1		633	1	EA	CONTROLLER WORK PAD
	1		633	1	EA	CONTROLLER ITEM, MISC.: LAYER 2 ETHERNET SWITCH
	2		633	2	EA	CONTROLLER ITEM, MISC.: FIBER OPTIC ETHERNET TRANSCEIVER, SHORT RANGE

GENERAL SUMMARY						
SHEET	SHEET	SHEET	ITEM	TOTAL	UNIT	DESCRIPTION
24	50	53				
						LIGHTING
					NONPAY	STREET LIGHT LOCKOUT/TAGOUT (LOTO) (MIS-1)
					NONPAY	GUIDELINES FOR INSPECTION & ACCEPTANCE OF STREET LIGHTING SYSTEMS (MIS-2)
					NONPAY	GUIDELINES FOR STREET LIGHTING "MATERIALS FOR APPROVAL" SUBMITTAL PACKAGES (MIS-3)
					NONPAY	INSPECTION CHECKLIST (MIS-4)
		1	1001	1	EA	PULL BOX (MIS-54), AS PER PLAN
		1	1001	1	EA	CT METER CABINET, 480 VOLT SCP FED LIGHTING CIRCUITS (MIS-59), AS PER PLAN
		184	1001	184	CKT-FT	UNDERGROUND CIRCUIT, 2 WIRE (MIS-403)
		1	1001	1	EA	POLE TO BE WIRED, 2 WIRE (MIS-500)
		1	1001	1	EA	CONTROLLER, 2 WIRE, 480V, PAD MOUNT (MIS-601)
		103	1001	103	FT	2" CONDUIT, CONCRETE ENCASED (MIS-700)
		1	1001	1	EA	FOUNDATION REMOVAL (MIS-900)
			1001		LUMP	EXISTING UNDERGROUND SYSTEM REMOVAL (MIS-902)

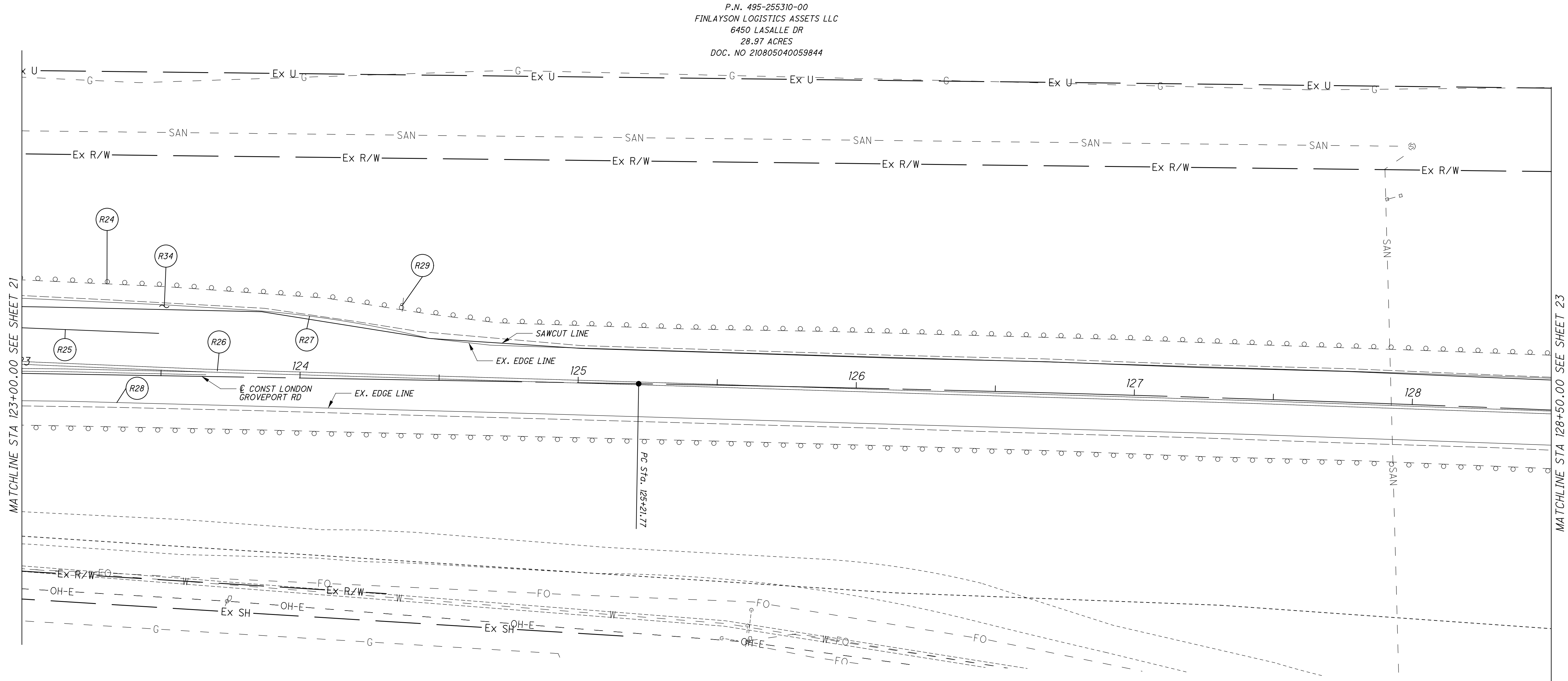
GENERAL SUMMARY

IMPROVEMENTS OF
LONDON-GROVEPORT ROAD
FROM 100' WEST OF LASALLE DR
TO 1000' EAST OF LASELLE DR



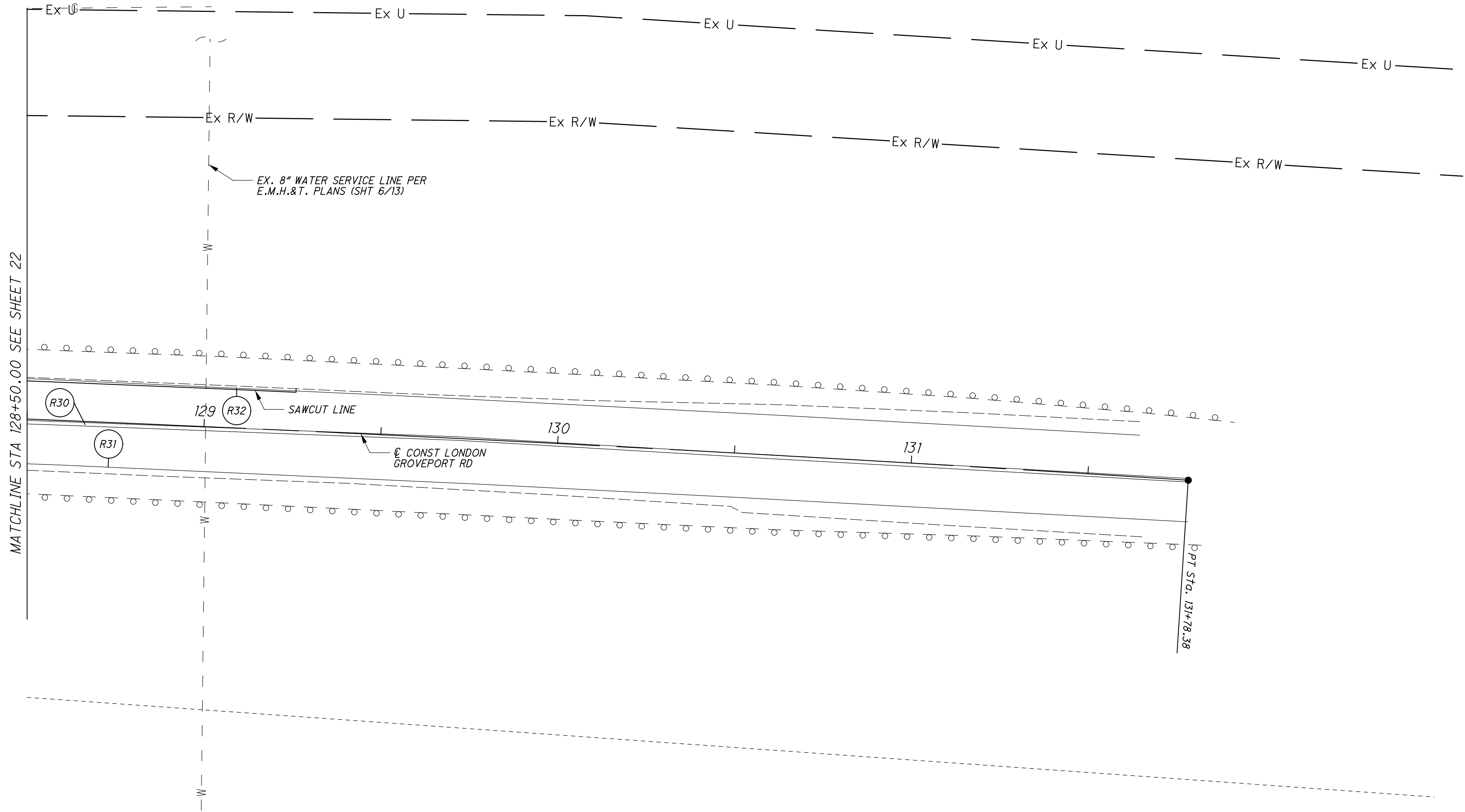
NOTE:
***CONTRACTOR SHALL CONFIRM THAT OH ELECTRIC LINES HAVE BEEN RELOCATED TO PROVIDE CLEARANCE TO PROPOSED SIGNAL STRAIN POLE AND SPAN AS REQUIRED BY OSHA PRIOR TO INSTALLATION OF STRAIN POLES.**
****CONTRACTOR SHALL CONFIRM THAT OH-FO WILL NOT BLOCK VISIBILITY OF TRAFFIC SIGNAL HEADS OR REST ON TRAFFIC SIGNAL SPAN. FO SHALL BE RELOCATED IF NECESSARY.**

adoss
7/29/2021 12:18:22 PM
O:\2020\03242.D Drawings\Design\Roadway\Sheets\03242_G0002.dgn



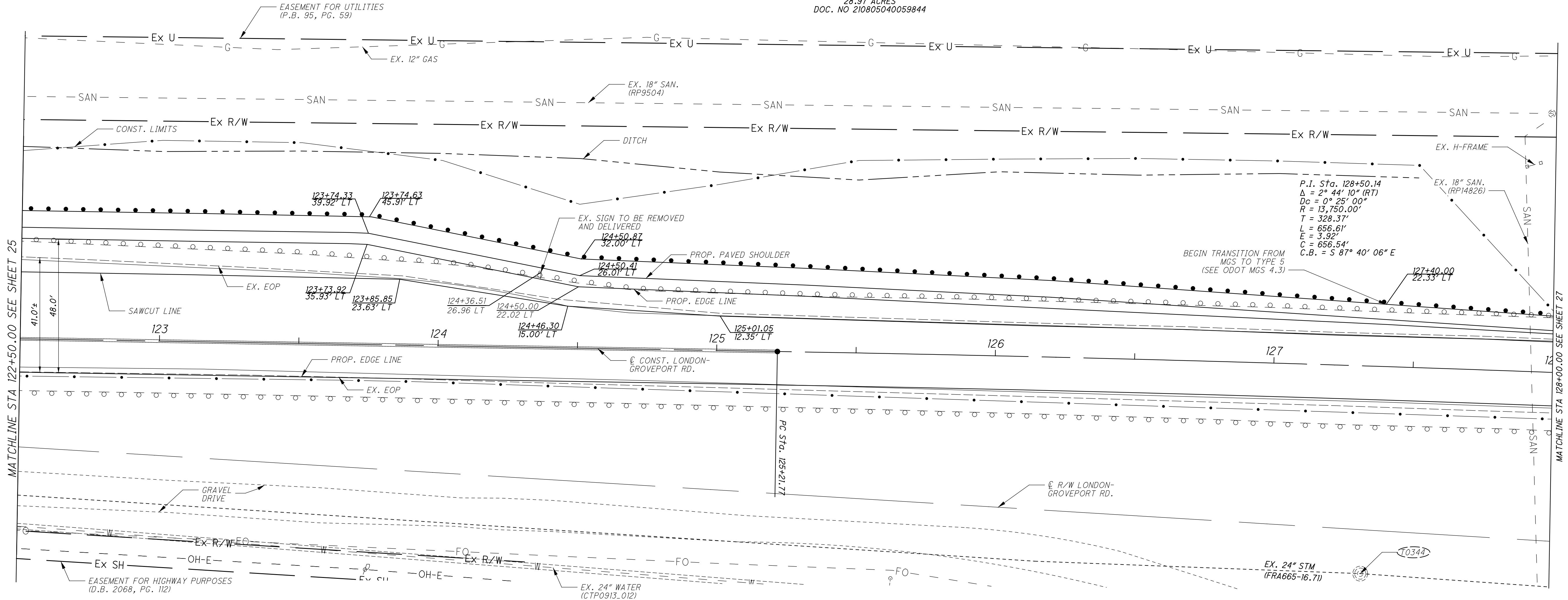
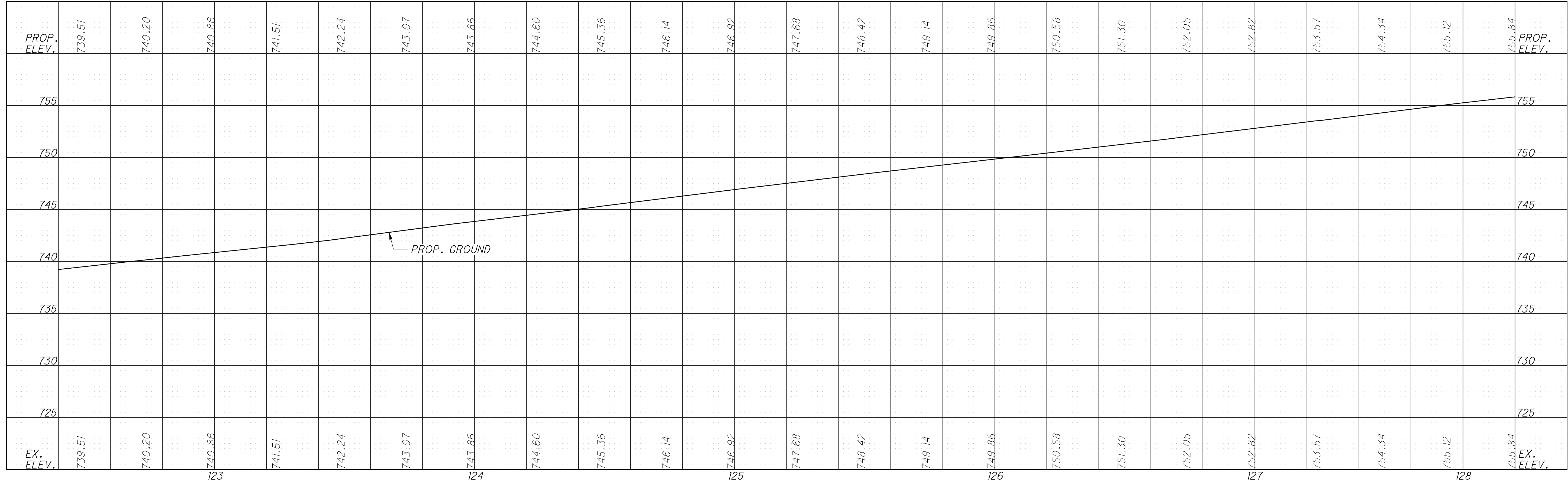
DEMOLITION PLAN

IMPROVEMENTS OF
LONDON-GROVEPORT ROAD
FROM 100' WEST OF LASALLE DR
TO 1000' EAST OF LASALLE DR



REFERENCE. NO.	LOCATION	STATION		SIDE	202	202	202	202	202	202	203	630	642	642	642	642	642	642	642
		FROM	TO		GUARDRAIL REMOVED FT	COMBINATION CURB AND GUTTER REMOVED FT	WALK REMOVED SF	CURB INLET REMOVED EA	EXCAVATION SF	PAVEMENT REMOVAL SF	HEADWALL REMOVED EA	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EA	LANE ARROWS REMOVED EA	STOP LINE REMOVED FT	CHANNELIZING LINE REMOVED FT	CENTERLINE REMOVED MI	EDGE LINE REMOVED MI	TRANSVERSE LINE REMOVED FT	RPM REMOVED EA
R1	LONDON-GROVEPORT RD	118+60	120+18	RT					3033										
R2	LONDON-GROVEPORT RD	119+81	121+00	RT	120														
R3	LASALLE DR	12+07	11+42	LT		111													
R4	LASALLE DR	10+56	10+95	RT			145												
R5	LONDON-GROVEPORT RD	120+35	123+00	LT	265														
R6	LONDON-GROVEPORT RD	120+06	123+00	LT					295										
R7	LONDON-GROVEPORT RD	120+04		LT							1								
R8	LONDON-GROVEPORT RD	120+06	123+00	LT					1939										
R9	LONDON-GROVEPORT RD	118+50	119+00	RT											50				1
R10	LONDON-GROVEPORT RD	118+77		LT									1						
R11	LONDON-GROVEPORT RT	118+50	119+00	LT												0.01			1
R12	LASALLE DR	10+60	10+61	LT/RT										23					
R13	LASALLE DR	10+61	10+71	LT											10				
R14	LASALLE DR	10+61	10+72	RT												0.01			
R15	LONDON-GROVEPORT RT	120+07	123+00	LT													0.06		
R16	LONDON-GROVEPORT RD	120+06	123+00	LT/RT												0.12			
R17	LONDON-GROVEPORT RD	120+42		LT									1						
R18	LONDON-GROVEPORT RD	120+09	123+00	LT											291				
R19	LONDON-GROVEPORT RD	121+02		LT									1						
R20	LONDON-GROVEPORT RD	118+59	123+00	RT													0.09		
R21	LONDON-GROVEPORT RD	121+82		LT									1						
R22	LONDON-GROVEPORT RD	121+81		LT									1						
R23	LONDON-GROVEPORT RD	120+06	123+00	LT														220	
R24	LONDON-GROVEPORT RD	123+00	128+00	LT	518														
R25	LONDON-GROVEPORT RD	123+00	123+49	LT											49				
R26	LONDON-GROVEPORT RD	123+00	128+50	RT												0.06			
R27	LONDON-GROVEPORT RD	123+00	128+50	LT													0.11		
R28	LONDON-GROVEPORT RD	123+00	128+50	RT													0.11		
R29	LONDON-GROVEPORT RD	124+37		LT								1							
R30	LONDON-GROVEPORT RD	128+50	129+72	RT												0.03			
R31	LONDON-GROVEPORT RD	128+50	129+50	RT													0.02		
R32	LONDON-GROVEPORT RD	128+50	129+50	LT													0.02		
R33	LASALLE DR	10+96		RT				1											
R34	LONDON-GROVEPORT RD	123+00	128+50	LT					207										
TOTALS CARRIED TO GENERAL SUMMARY					903	111	145	1	3328	2146	1	1	5	23	400	0.23	0.41	220	2

adoss
7/29/2021 12:18:26 PM
D:\2020\03242\Drawings\Design\Roadway\Sheets\03242_GPO02.dgn



P.N. 495-255310-00
FINLAYSON LOGISTICS ASSETS LLC
6450 LASALLE DR
28.97 ACRES
DOC. NO 210805040059844

SEE SHEET 44 - 47 FOR PROPOSED SIGNING AND PAVEMENT MARKINGS



CALCULATED
AMD
CHECKED
VDK

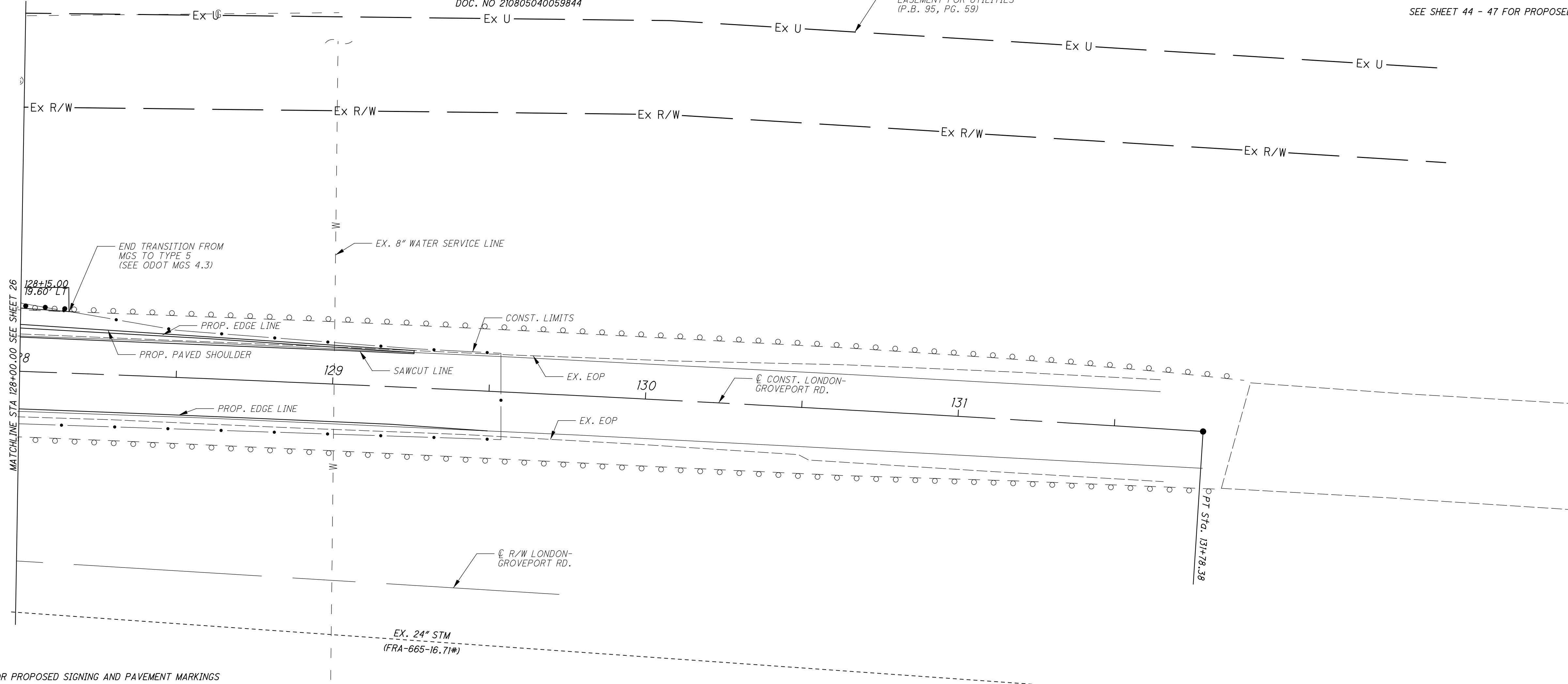
PLAN AND PROFILE
STA 122+50.00 TO STA 128+00.00

IMPROVEMENTS OF
LONDON-GROVEPORT ROAD
FROM 100' WEST OF LASALLE DR
TO 1000' EAST OF LASALLE DR

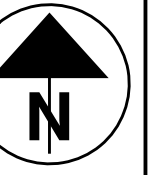
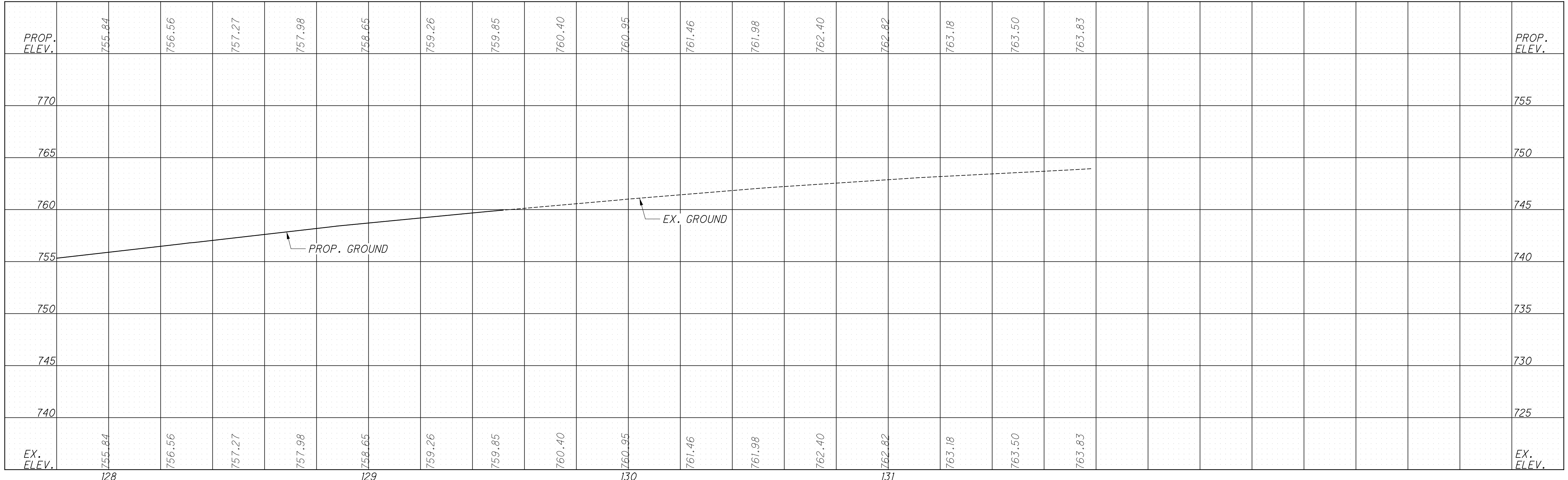
P.N. 495-255310-00
FINLAYSON LOGISTICS ASSETS LLC
6450 LASALLE DR
28.97 ACRES
DOC. NO 210805040059844

- EASEMENT FOR UTILITIES
(P.B. 95, PG. 59)

SEE SHEET 44 - 47 FOR PROPOSED SIGNING AND PAVEMENT MARKINGS



SEE SHEET 44 - 47 FOR PROPOSED SIGNING AND PAVEMENT MARKINGS



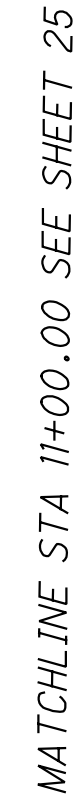
HORIZONTAL
SCALE IN FEET

AMD
CHECKED
VDK

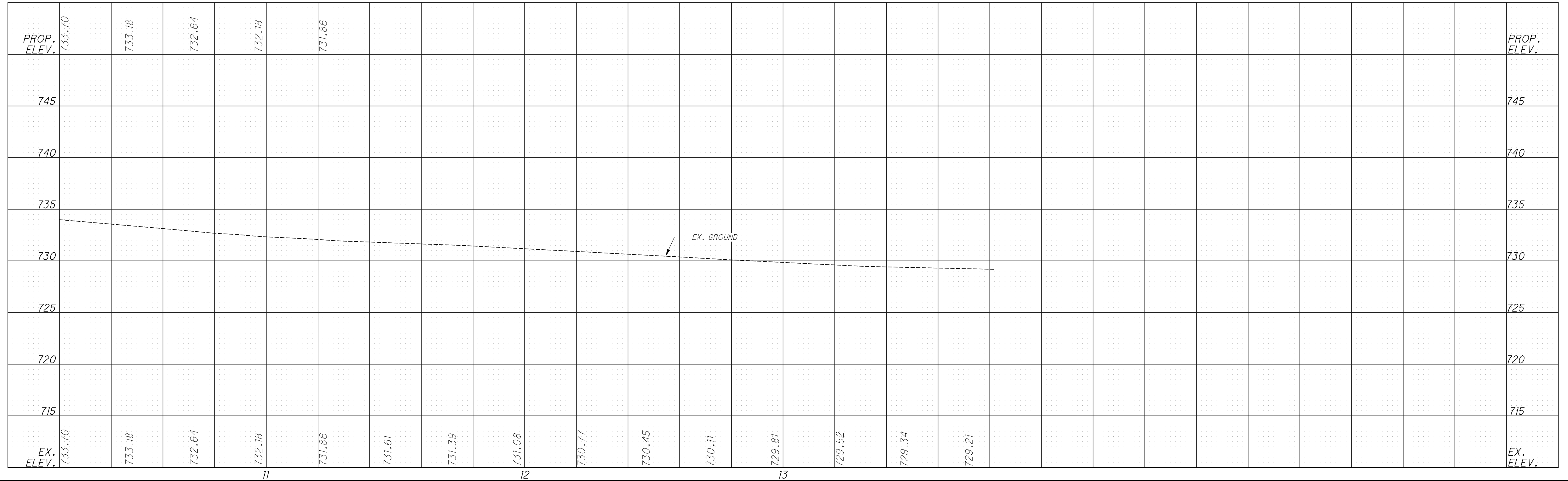
PLAN AND PROFILE
STA 128+00.00 TO END OF PROJECT

LONDON-GROVEPORT ROAD
FROM 100' WEST OF LASALLE DR
TO 1000' EAST OF LASELLE DR

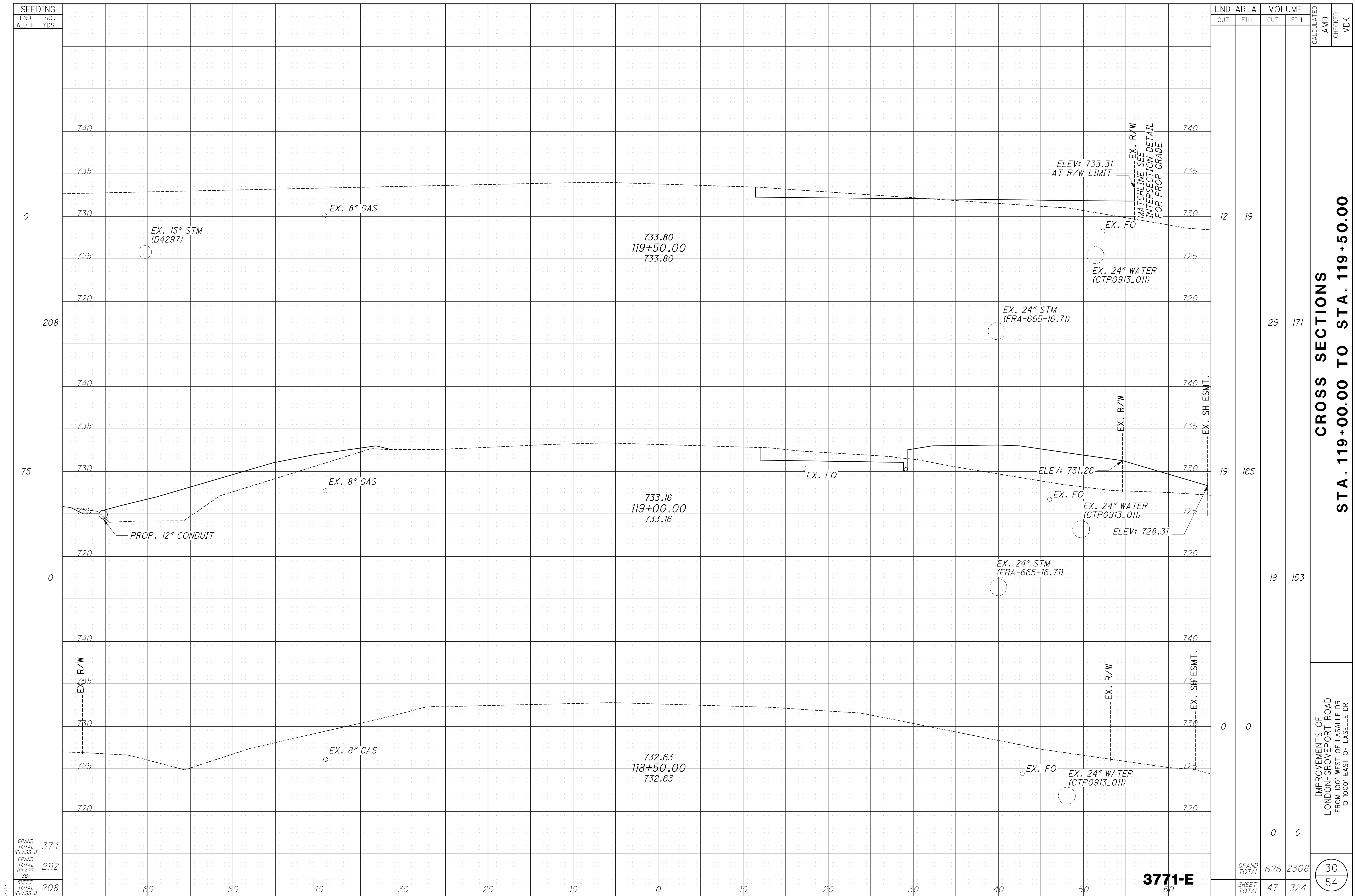
$$\frac{27}{54}$$

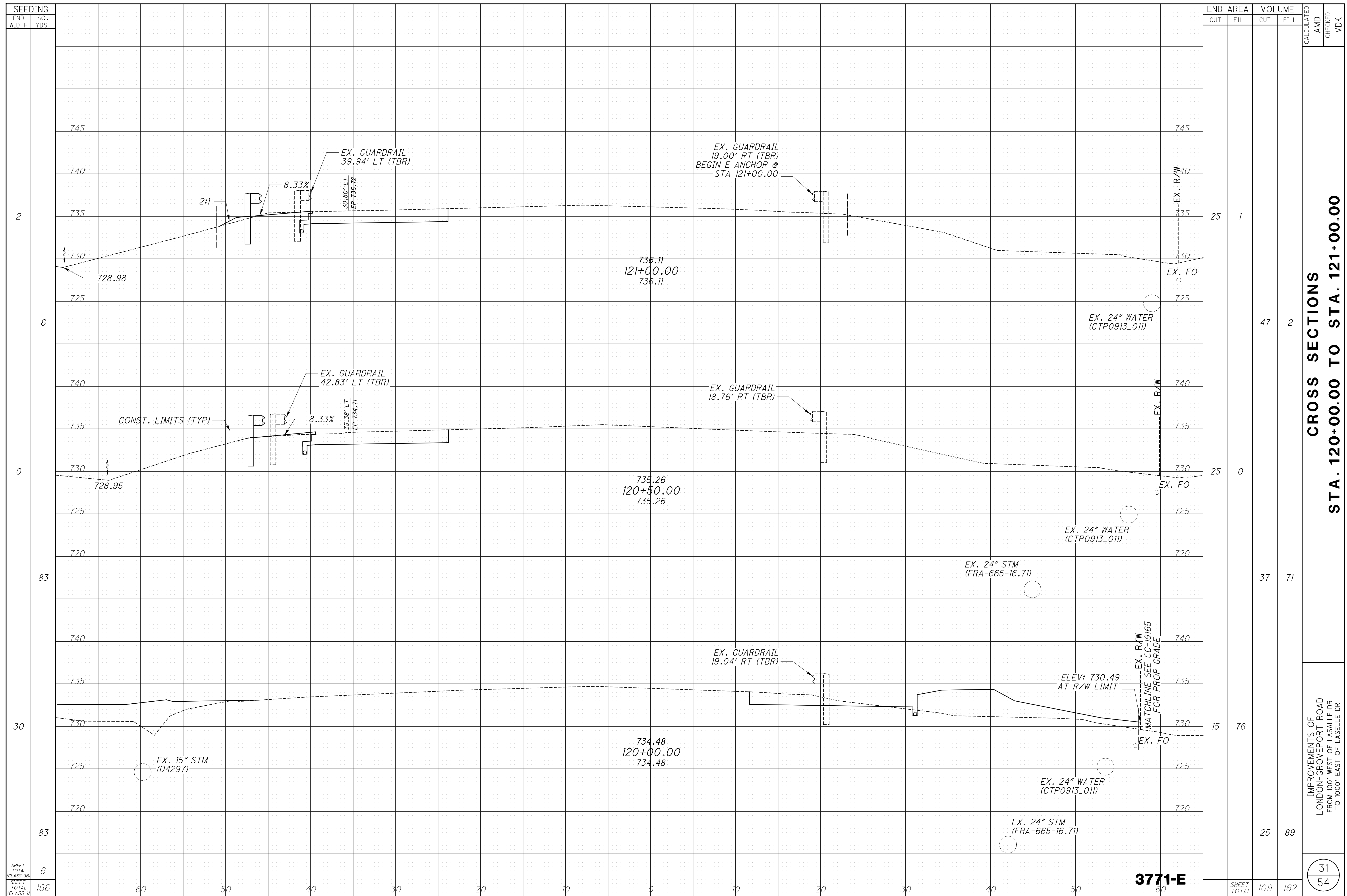


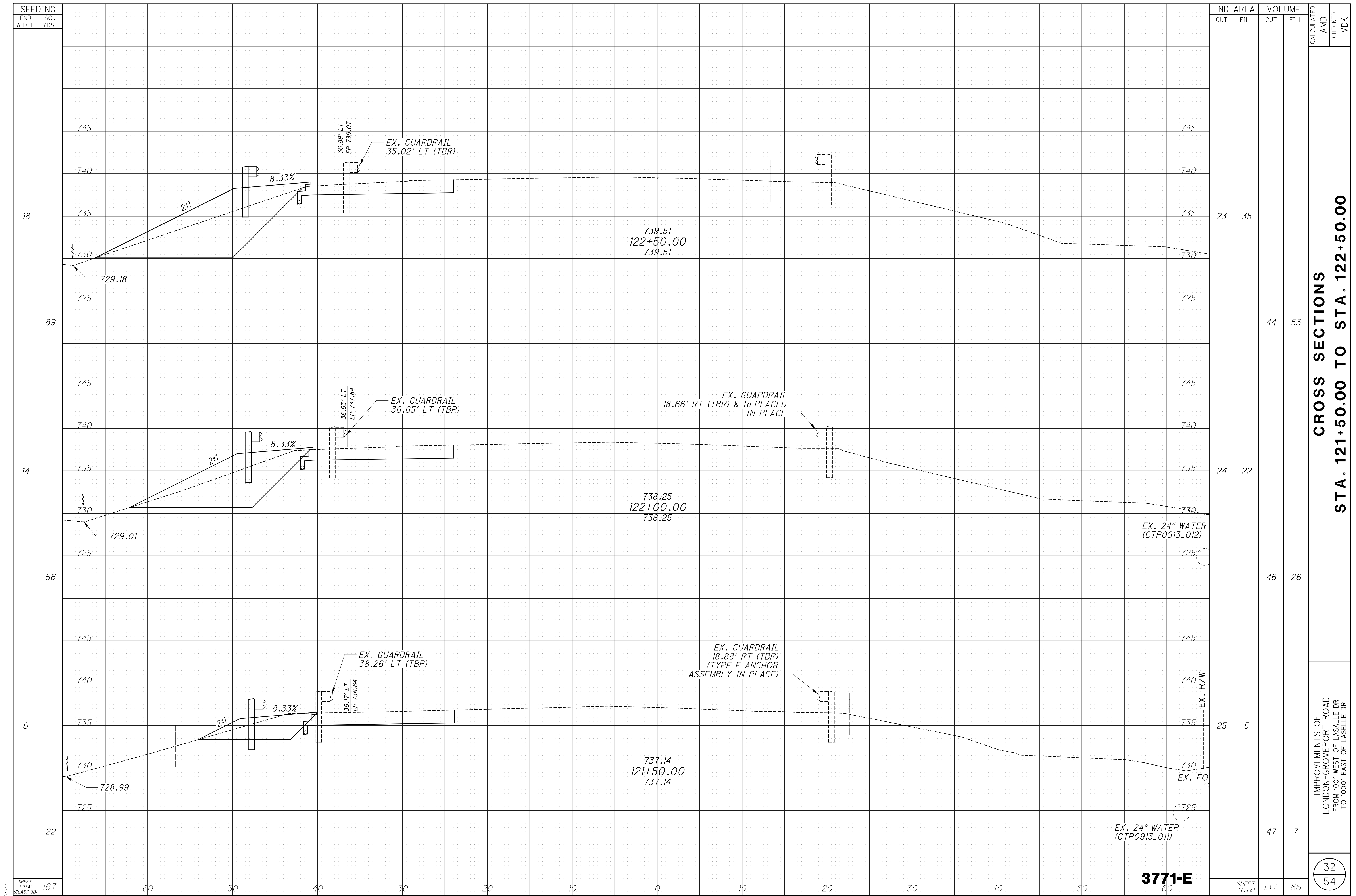
SEE SHEET 44 - 47 FOR PROPOSED SIGNING AND PAVEMENT MARKINGS

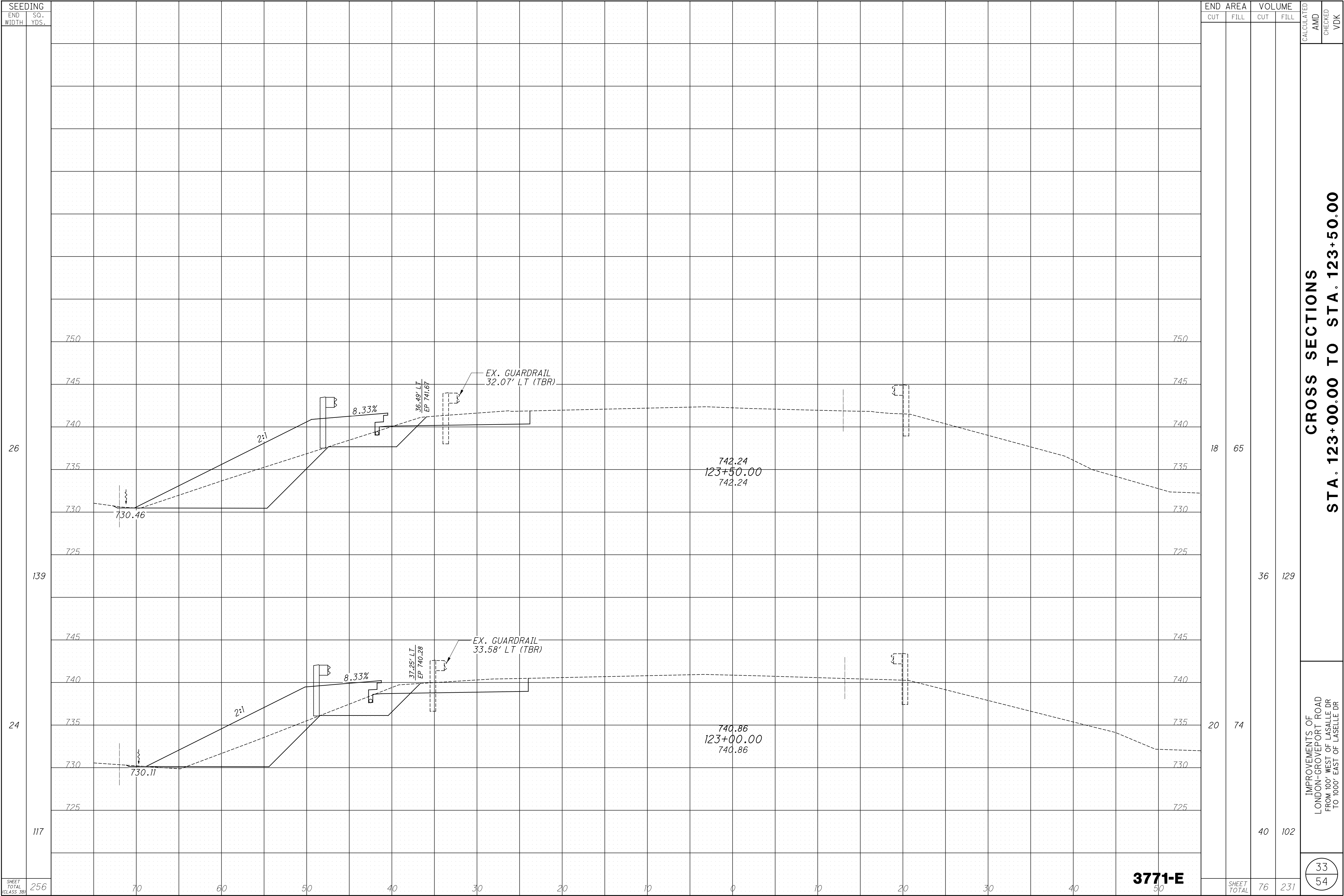


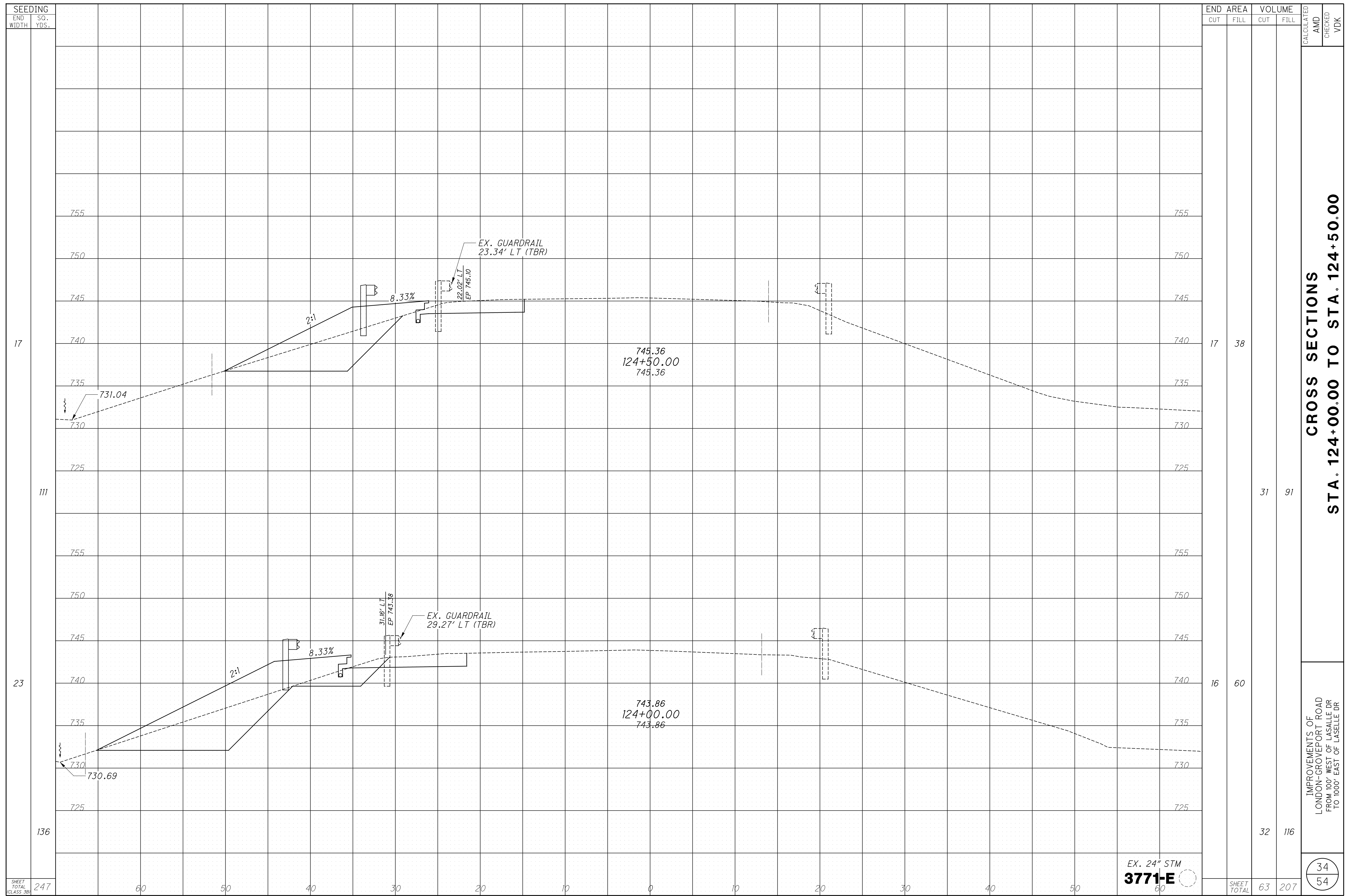




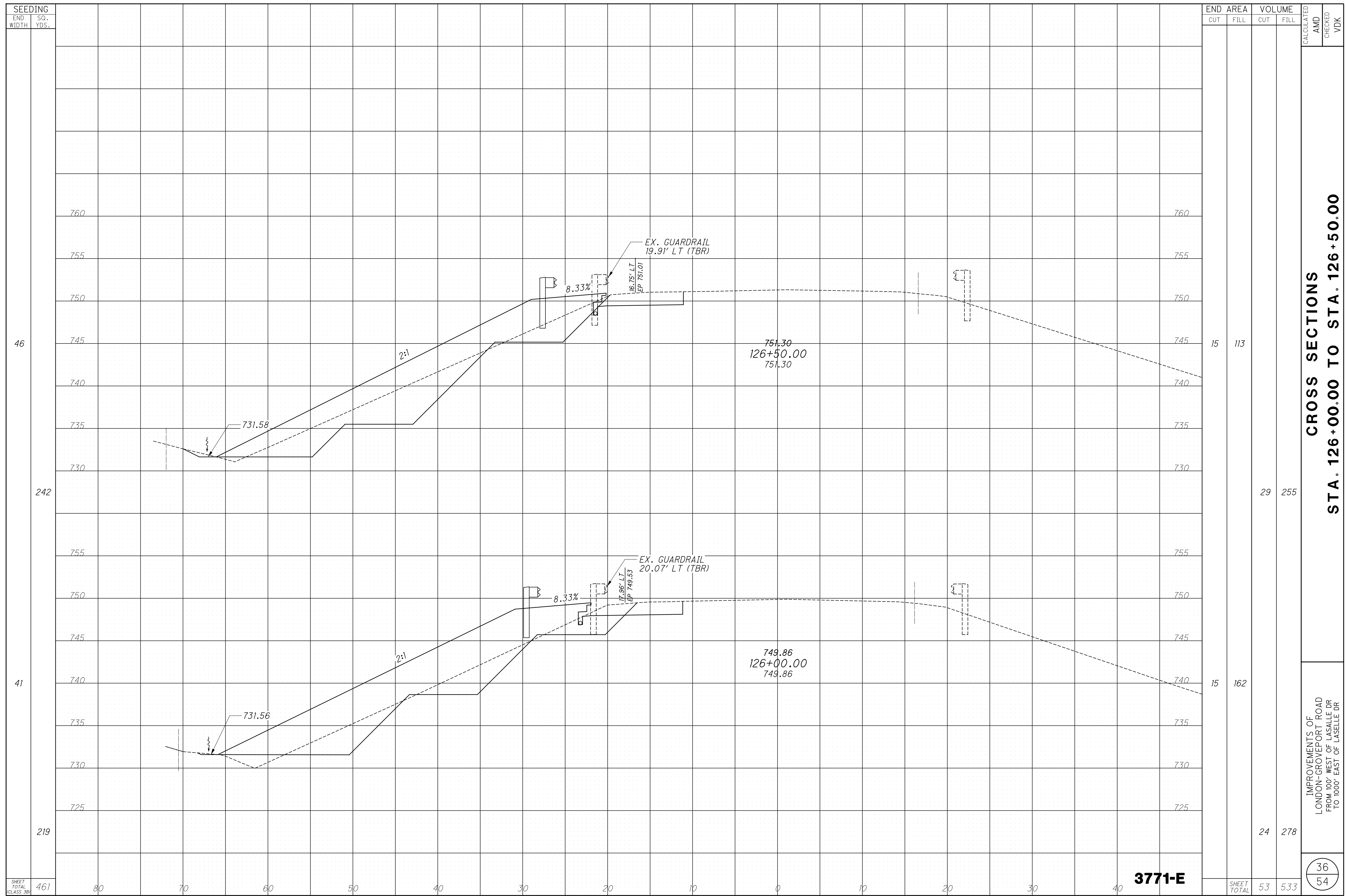


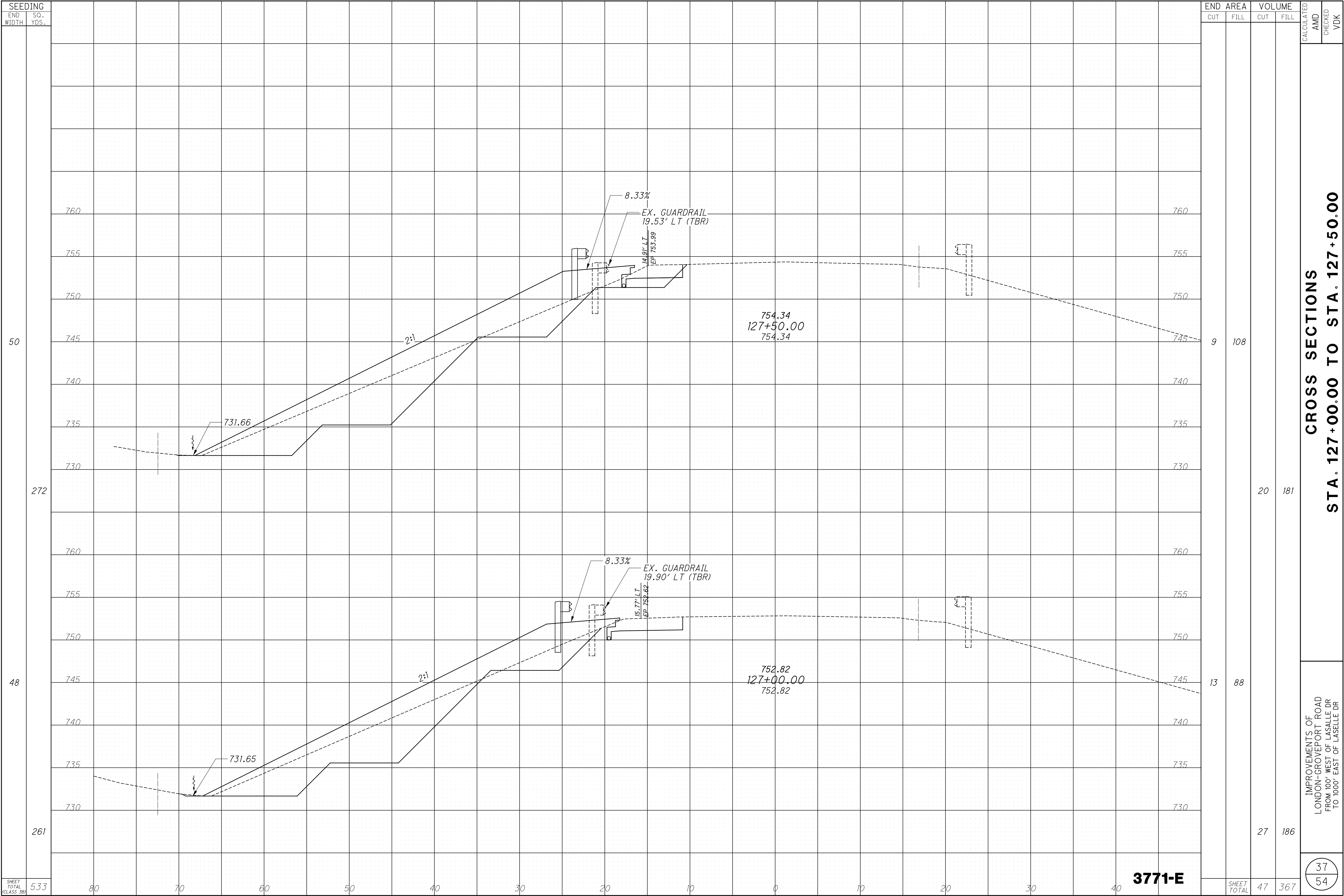


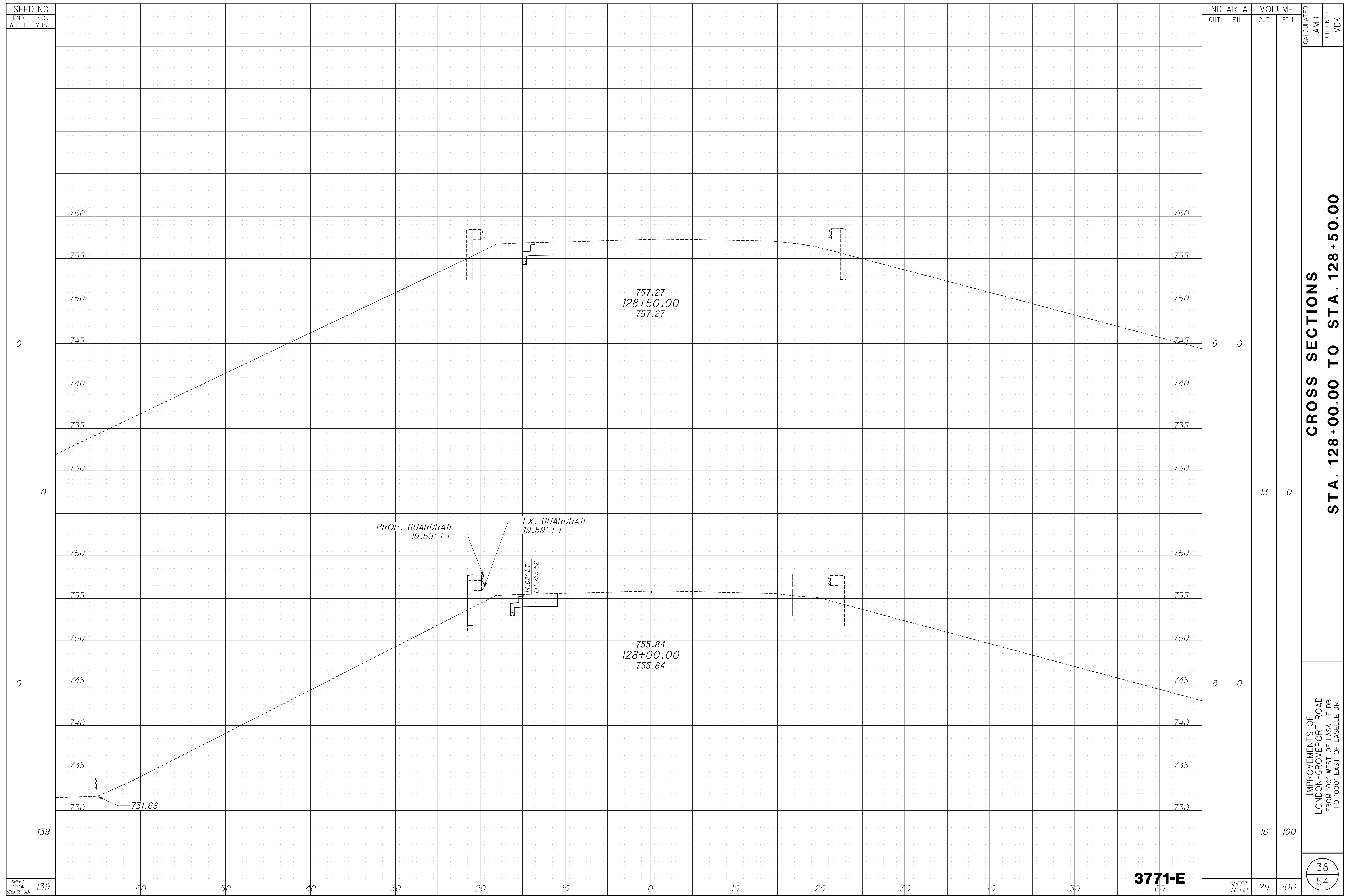


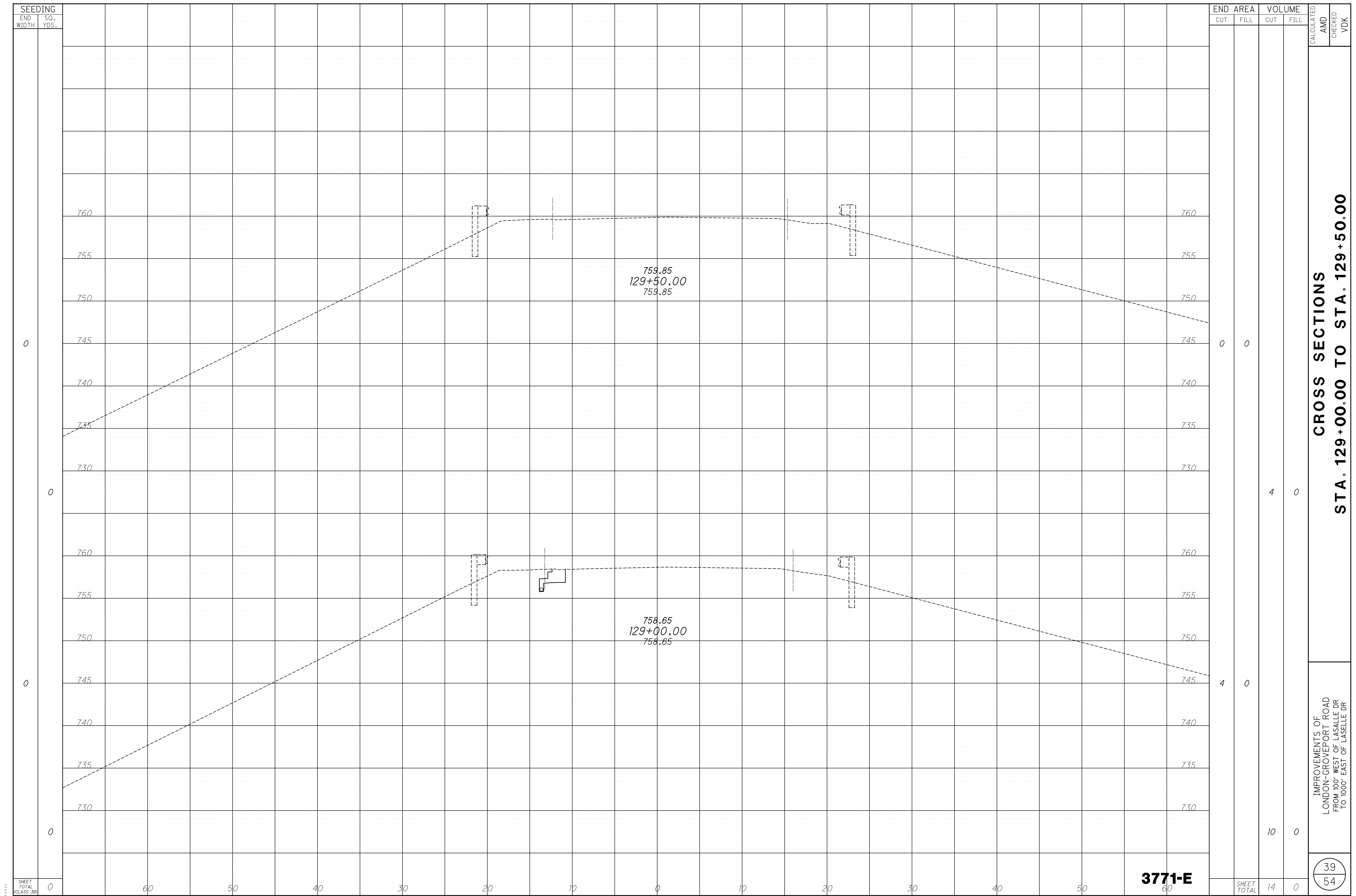


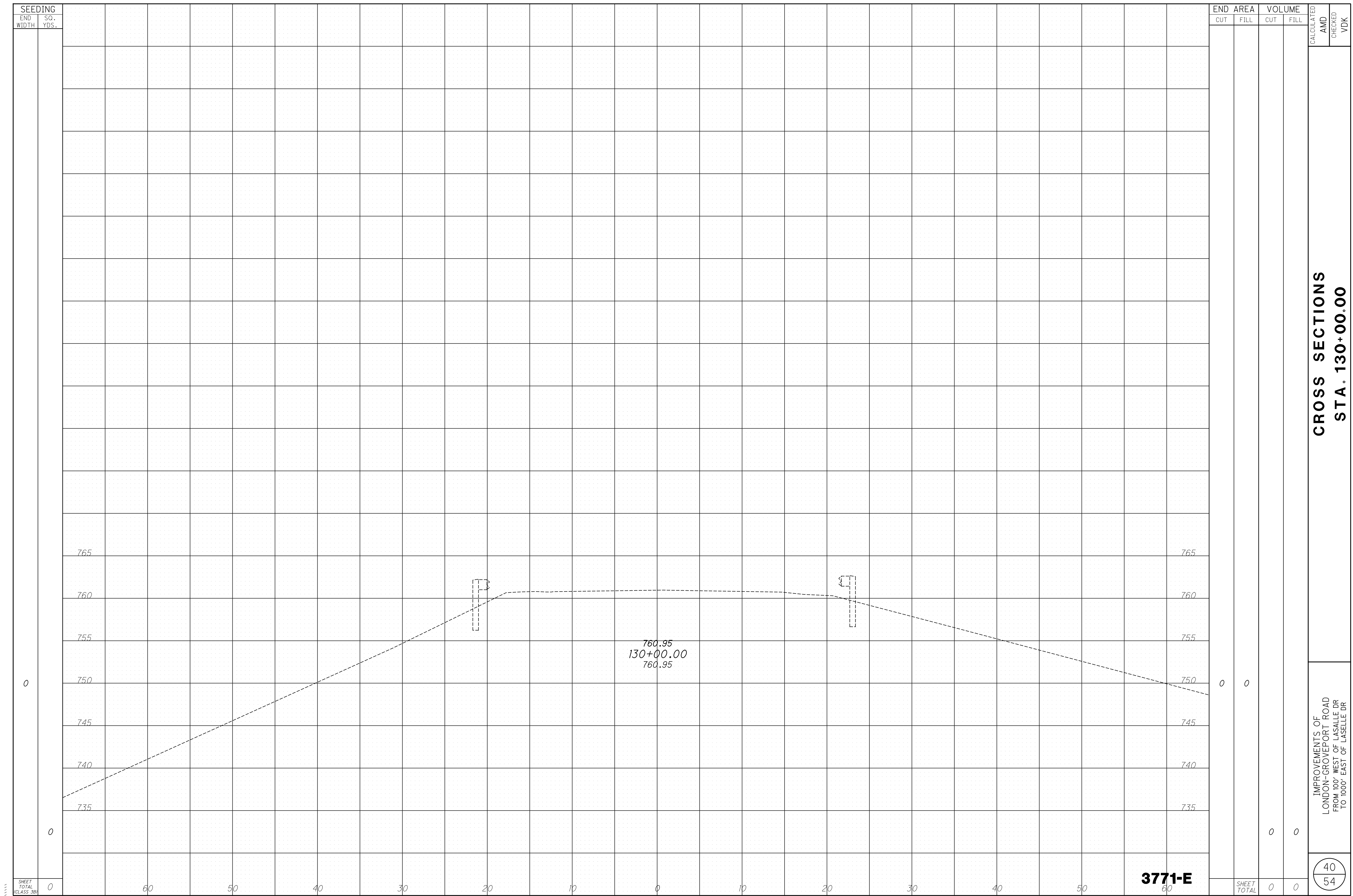
SEEDING																END AREA		VOLUME		CALCULATED		CHECKED			
END WIDTH	SQ. YDS.															CUT	FILL	CUT	FILL	AMD	VDK				
38																11	137								
181																23	195								
27																14	73								
122																28	103								
SHEET TOTAL (CLASS 3B)		303																SHEET TOTAL		51		298		35 54	











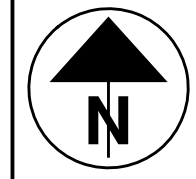
**NOTE:
TAPER CURB HEIGHT TO 0
OVER THE LAST 10' FOR
CURB ENDS

Sta. 118+60.79, 73.26' Rt.
Sta. 9+23.96, 88.8' Lt.
 $\Delta = 81^\circ 19' 42''$
 $R = 60.00'$
 $L = 85.17'$

**NOTE:
TAPER CURB HEIGHT TO 0
OVER THE LAST 10' FOR
CURB ENDS

* = TC ELEVATION/EP ELEVATION

Sta. 9+20.95, 81.27' Rt.
Sta. 120+29.33, 82.19' Rt.
 $\Delta = 74^\circ 54' 51''$
 $R = 60.00'$
 $L = 78.45'$

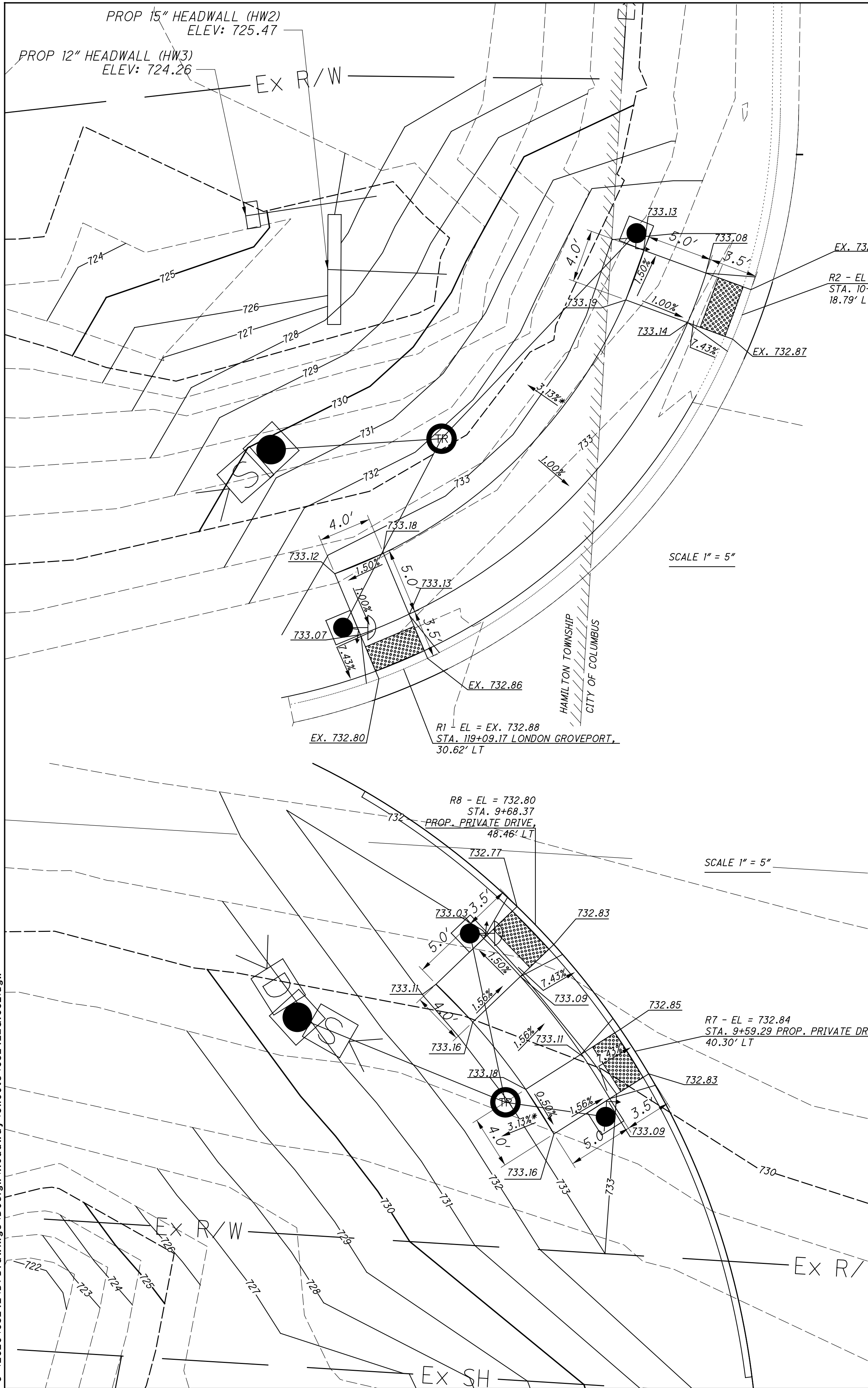


CALCULATED	AMD	CHECKED	VDK
------------	-----	---------	-----

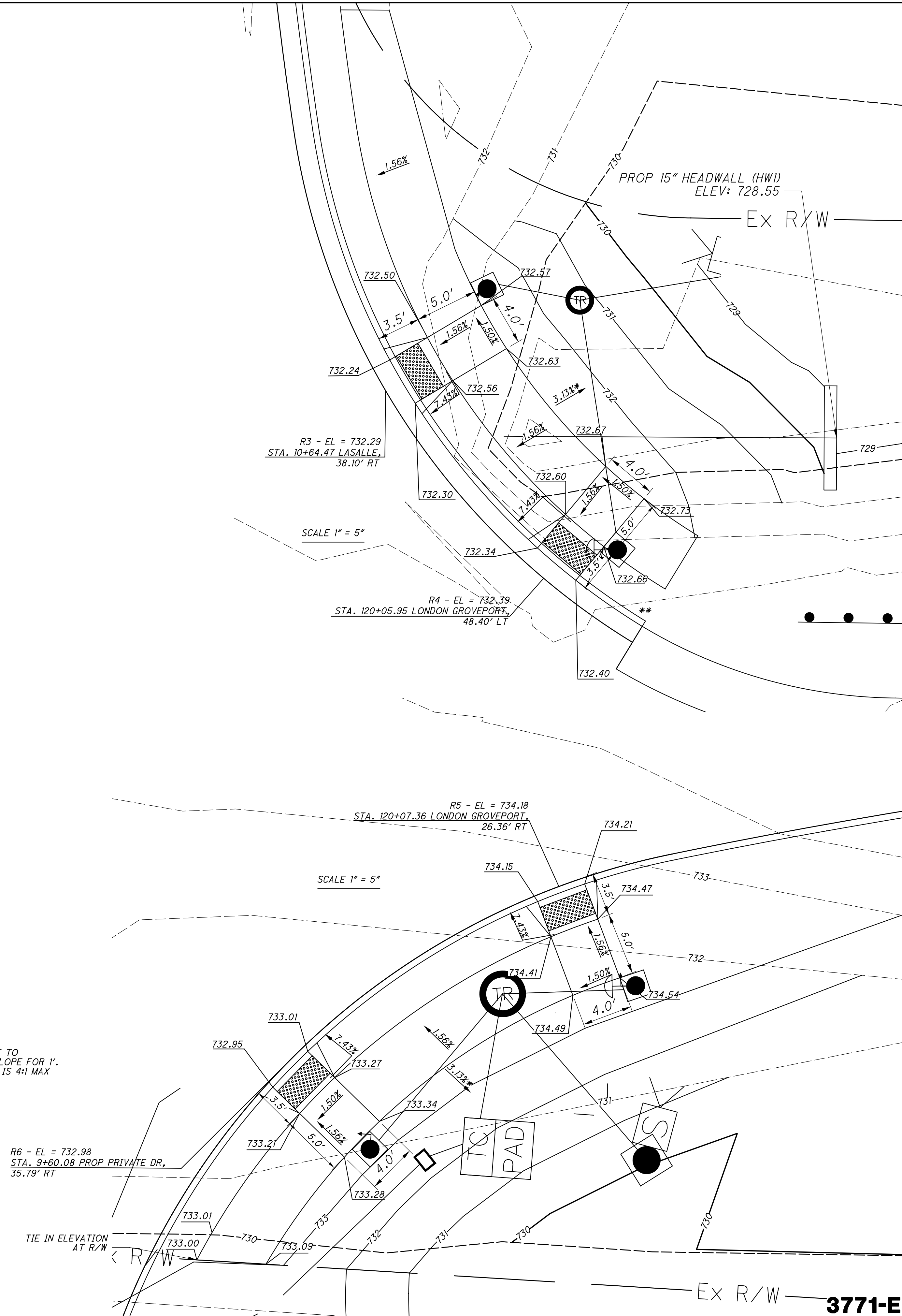
INTERSECTION AND CURB RAMP DETAILS LONDON-GROVEPORT ROAD

IMPROVEMENTS OF
LONDON-GROVEPORT ROAD
FROM 100' WEST OF LASALLE DR
TO 1000' EAST OF LASALLE DR

sdoss
7/29/2021 12:18:46 PM
O:\2020\03242.D Drawings\Design\Roadway\Sheets\03242_G1002.dgn



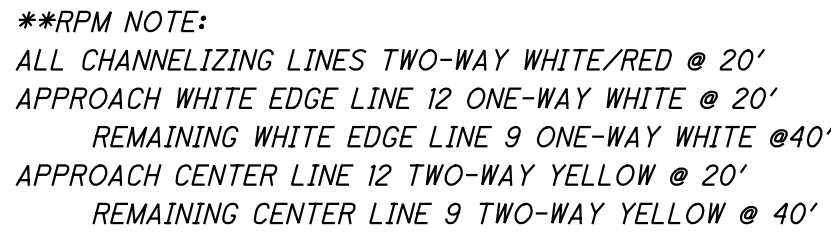
*NOTE:
GRASS AREA ADJACENT TO
SIDEWALK HAS 3.13% SLOPE FOR 1'.
ADJACENT FORESLOPE IS 4:1 MAX

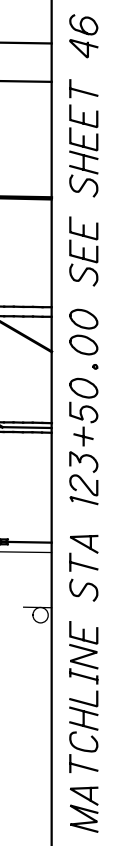


CURB RAMP AND GRADING DETAILS
LONDON-GROVEPORT ROAD

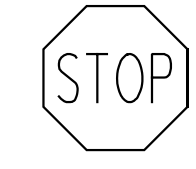
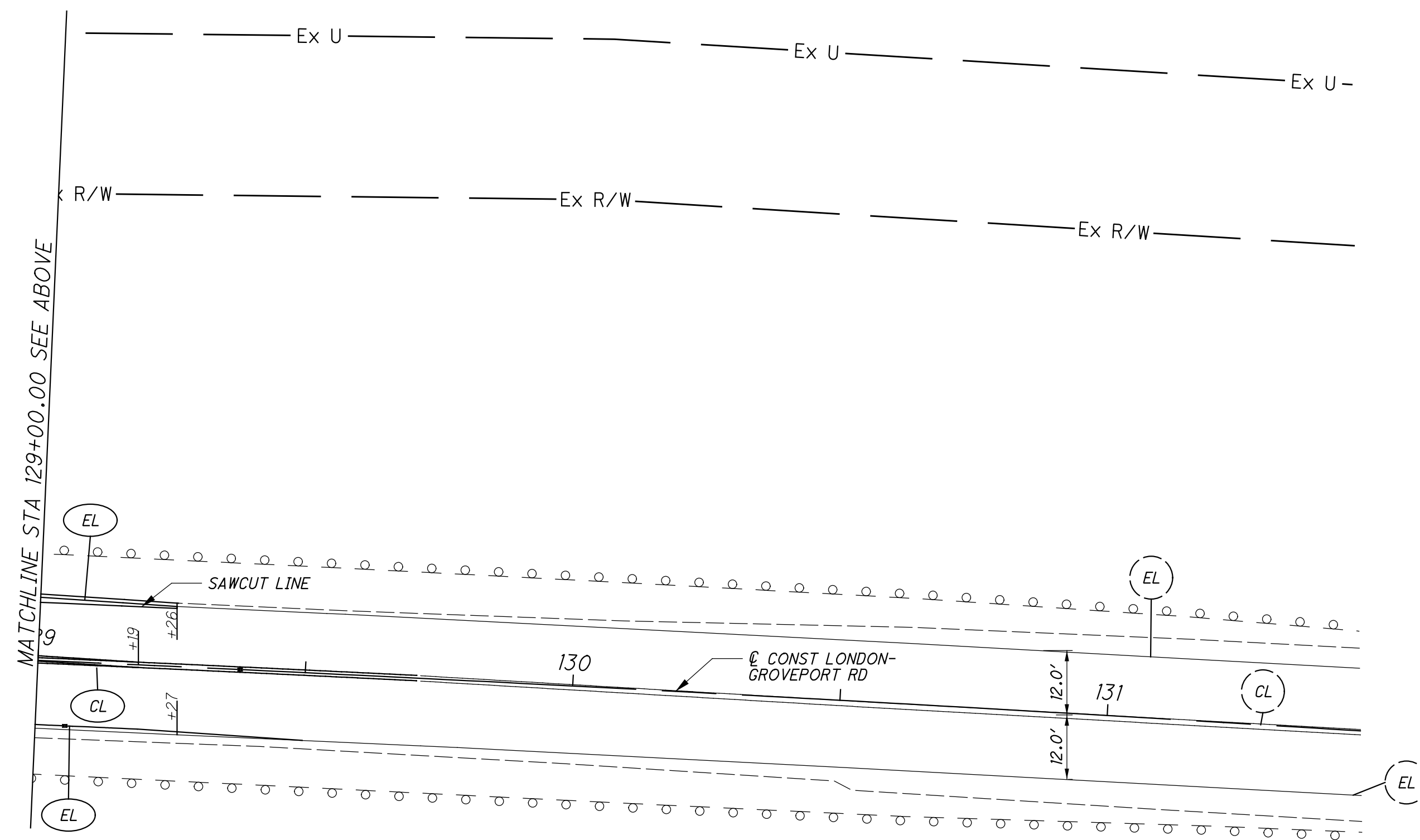
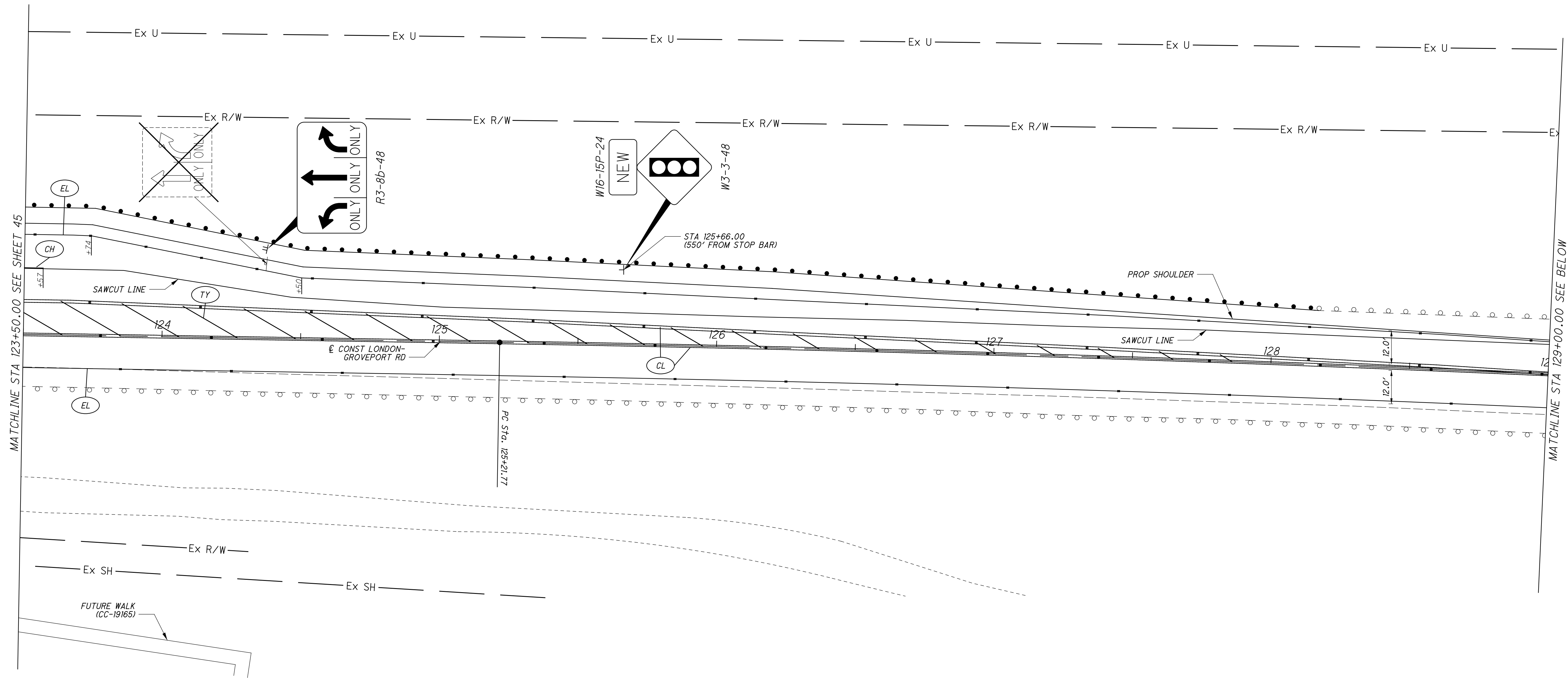
IMPROVEMENTS OF
LONDON-GROVEPORT ROAD
FROM 100' WEST OF LASALLE DR
TO 1000' EAST OF LASALLE DR



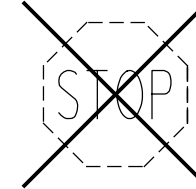




3771-E



PROPOSED SIGN



EX SIGN TO BE REMOVED AND DELIVERED



EX SIGN TO REMAIN

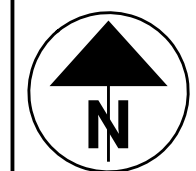
LEGEND

- | | | | |
|------|---|-------|----------------------------|
| (CL) | CENTER LINE, DOUBLE SOLID | (XW) | CROSSWALK LINE |
| (SL) | STOP LINE | (EL) | EDGE LINE, WHITE |
| (CH) | CHANNELIZING LINE | (LA) | LANE ARROW |
| (TY) | TRANSVERSE/DIAGONAL LINE, YELLOW | (DL) | DASHED LINE |
| (CL) | EXISTING CENTER LINE | (EL) | EXISTING EDGE LINE |
| (TY) | EXISTING TRANSVERSE/DIAGONAL LINE, YELLOW | (CH) | EXISTING CHANNELIZING LINE |
| (LA) | EXISTING LANE ARROW | (RPM) | RPM |

LINE SPECIFICATIONS

- EL - EDGE LINE, 5" WHITE
LL - LANE LINE, 5" WHITE
CL - CENTER LINE, 5" DOUBLE SOLID
CH - CHANNELIZING LINE, 10"
SL - STOP LINE, 20" WHITE
XW - CROSSWALK LINE, 10" WHITE
TY - TRANSVERSE LINE, 20" YELLOW
*ALL PAVEMENT MARKING REMOVALS ARE TO BE DONE BY WATERBLASTING, PER ITEM 642

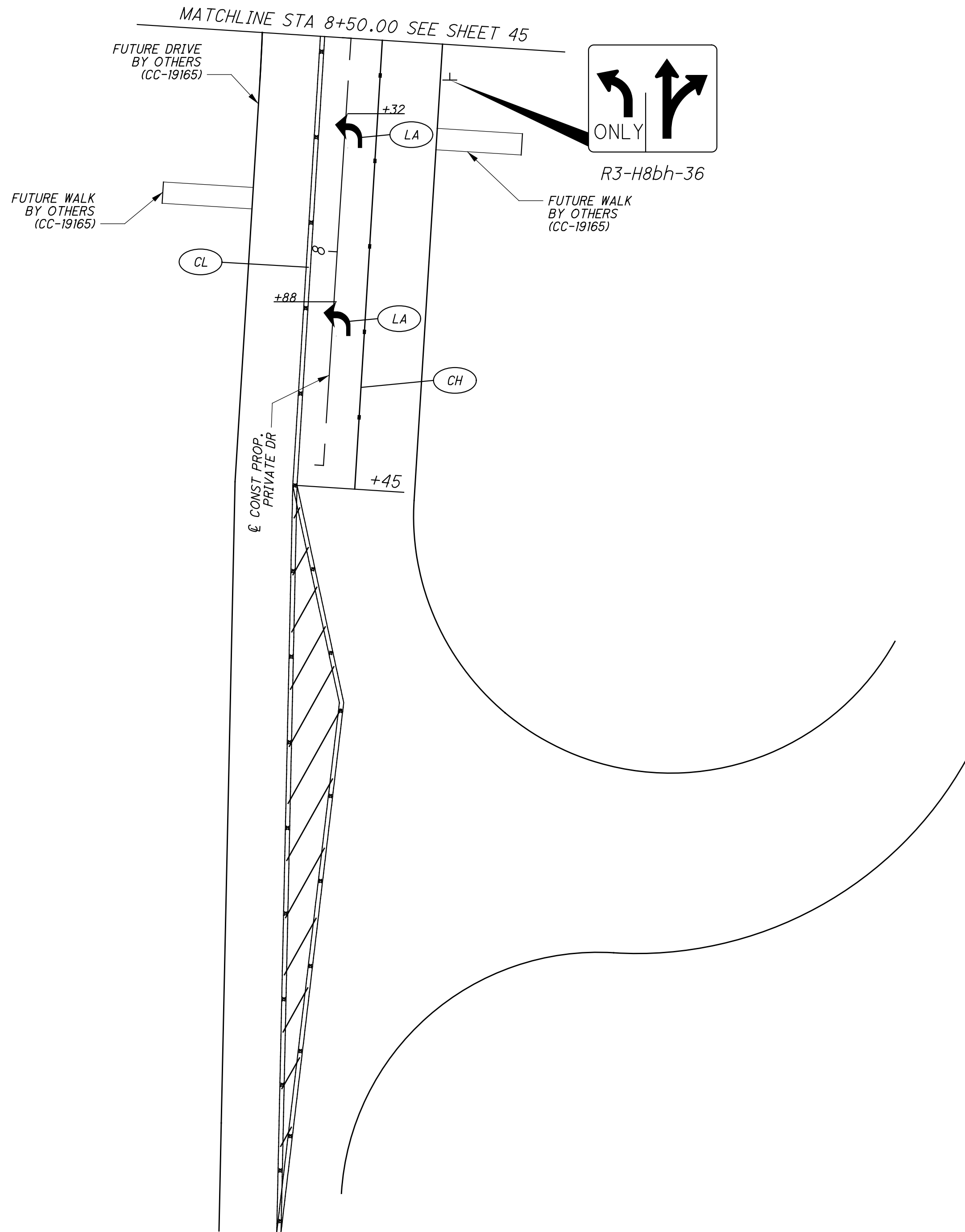
**RPM NOTE:
ALL CHANNELIZING LINES TWO-WAY WHITE/RED @ 20'
APPROACH WHITE EDGE LINE ONE-WAY WHITE @ 20'
REMAINING WHITE EDGE LINE ONE-WAY WHITE @ 40'
APPROACH CENTER LINE TWO-WAY YELLOW @ 20'
REMAINING CENTER LINE TWO-WAY YELLOW @ 40'



CALCULATED
AMD
CHECKED
VDK

SIGNING AND PAVEMENT MARKING PLAN

IMPROVEMENTS OF
LONDON-GROVEPORT ROAD
FROM 100' WEST OF LASALLE DR
TO 1000' EAST OF LASALLE DR



LINE SPECIFICATIONS

EL - EDGE LINE, 5" WHITE
LL - LANE LINE, 5" WHITE

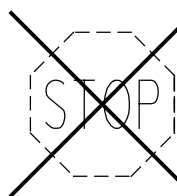
CL - CENTER LINE, 5" DOUBLE SOLID

CH - CHANNELIZING LINE, 10"
SL - STOP LINE, 20" WHITE
XW - CROSSWALK LINE, 10" WHITE
TY - TRANSVERSE LINE, 20" YELLOW

*ALL PAVEMENT MARKING REMOVALS ARE TO BE DONE BY WATERBLASTING, PER ITEM 642



PROPOSED SIGN



EX SIGN TO BE REMOVED AND DELIVERED



EX SIGN TO REMAIN

LEGEND

CL CENTER LINE, DOUBLE SOLID

SL STOP LINE

CH CHANNELIZING LINE
TRANSVERSE/
DIAGONAL LINE,
YELLOW

CL EXISTING
CENTER LINE

TY EXISTING TRANSVERSE/
DIAGONAL LINE,
YELLOW

LA EXISTING LANE
ARROW

XW CROSSWALK LINE

EL EDGE LINE, WHITE

LA LANE ARROW

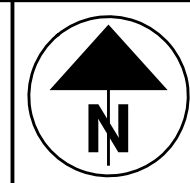
DL DASHED LINE

EL EXISTING
EDGE LINE

CH EXISTING
CHANNELIZING LINE

RPM

**RPM NOTE:
ALL CHANNELIZING LINES TWO-WAY WHITE/RED @ 20'
APPROACH WHITE EDGE LINE ONE-WAY WHITE @ 20'
REMAINING WHITE EDGE LINE ONE-WAY WHITE @40'
APPROACH CENTER LINE TWO-WAY YELLOW @ 20'
REMAINING CENTER LINE TWO-WAY YELLOW @ 40'



CALCULATED
AMD
CHECKED
VDK

SIGNING AND PAVEMENT MARKING PLAN

IMPROVEMENTS OF
LONDON-GROVEPORT ROAD
FROM 100' WEST OF LASALLE DR
TO 1000' EAST OF LASALLE DR

adoss
7/29/2021 12:18:51 PM
C:\2020\03242.D Drawings Design Traffic Sheets\03242_CNO01.dgn

GENERAL

THE DIVISION OF DESIGN AND CONSTRUCTION IS A SUBUNIT OF THE CITY OF COLUMBUS DEPARTMENT OF PUBLIC SERVICE AND IS OWNER OF PART OR ALL OF THE FACILITIES COVERED BY THESE PLANS.

ALL INCIDENTAL WORK ITEMS CALLED FOR IN THESE PLANS FOR WHICH NO SPECIFIC METHOD OF PAYMENT IS PROVIDED SHALL BE PERFORMED BY THE CONTRACTOR AND THE TOTAL COST OF SAID ITEMS SHALL BE INCLUDED IN THE PRICE OF ITS ASSOCIATED BID ITEM.

PLAN SPECIFICATION COMPLIANCE

THE CONTRACTOR SHALL FURNISH AND INSTALL TRAFFIC SIGNAL DEVICES IN COMPLIANCE WITH THESE PLANS AND SPECIFICATIONS, THE 2018 CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS AND ITS SUPPLEMENTAL SPECIFICATIONS, OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, AND THE STANDARD CONSTRUCTION DRAWINGS ISSUED BY THE CITY OF COLUMBUS. THE CITY OF COLUMBUS, SHALL DETERMINE WHETHER THE SUPPLIED ITEMS MEET OR EXCEED THESE SPECIFICATIONS.

TRAFFIC SIGNAL CONTROL EQUIPMENT SHALL MEET OR EXCEED THE STANDARDS SPECIFIED IN THE FOLLOWING DOCUMENTS:

- (A) SPECIFICATIONS LISTED IN THIS PLAN;
- (B) APPLICABLE SECTIONS OF NEMA STANDARDS PUBLICATION NO. TS2-1998 AND/OR TSI 1989;
- (C) 2018 CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS 625, 632, 633, 725, 732 & 733;
- (D) CITY OF COLUMBUS STANDARD CONSTRUCTION DRAWINGS

IN CASE OF A CONFLICTING SPECIFICATION STATEMENT, THE SPECIFICATION DOCUMENT HIERARCHY SHALL BE IN THE ORDER LISTED FROM (A) HIGHEST, TO (D) LOWEST.

MAINTENANCE OF TRAFFIC SIGNAL INSTALLATIONS

A) PROPOSED TRAFFIC SIGNAL INSTALLATION

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL PROPOSED TRAFFIC SIGNAL DEVICES UNDER THE FOLLOWING CONDITIONS FROM THE TIME OF INSTALLATION UNTIL THE DEVICE HAS BEEN ACCEPTED BY THE CITY.

THE CONTRACTOR SHALL PROVIDE 2 OR MORE CONTACTS WHO CAN RECEIVE ALL DEVICE OUT-OF-SERVICE CALLS THAT FALL UNDER THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL DISPATCH MAINTENANCE PERSONNEL TO CORRECT THE PROBLEM. THE CONTRACTOR SHALL PROVIDE THE CITY AND THE PROJECT ENGINEER WITH ADDRESSES AND PHONE NUMBERS OF THESE CONTACTS. MAINTENANCE PERSONNEL MAY BE USED TO PERFORM OTHER DUTIES AS LONG AS PROMPT ATTENTION IS GIVEN TO THESE CALLS AND A PERSON IS CONTINUOUSLY AVAILABLE 24 HOURS A DAY AND 7 DAYS A WEEK. THE CONTRACTOR SHALL PROVIDE MAINTENANCE SERVICE ENTIRELY WITH HIS PERSONNEL.

THE CONTRACTOR SHALL CORRECT ALL BULB OUTAGES, DEVICE MALFUNCTIONS OF ANY TYPE, INTERNAL CABINET POWER LOSSES, SPAN OR CABLE PROBLEMS AND MISALIGNED OR DAMAGED VEHICULAR OR PEDESTRIAN SIGNAL HEADS WITHIN 2 HOURS AFTER THE CONTRACTOR'S CONTACT PERSON HAS BEEN NOTIFIED OF ANY ONE OF THE ABOVE. IN THE EVENT A NEW SIGNAL DEVICE IS DAMAGED PRIOR TO ACCEPTANCE, THE DAMAGED DEVICE, EXCEPT POLES, SHALL BE REPLACED OR REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY. ANY DAMAGED CABINET ASSEMBLY DEVICE IF REPAIRED SHALL BE TESTED ONCE AGAIN BY THE CITY BEFORE THE DEVICE CAN BE INSTALLED.

IN THE EVENT OF A LOSS OF POWER TO THE SIGNAL INDICATIONS OTHER THAN AN ELECTRIC COMPANY GENERAL POWER OUTAGE, THE CONTRACTOR, AT HIS EXPENSE, SHALL IMMEDIATELY TAKE ACTION (WITHIN 30 MINUTES) TO PROPERLY ERECT TEMPORARY STOP SIGN(S) AND PROVIDE POLICE OFFICER(S) TO DIRECT TRAFFIC UNTIL THE SIGNAL IS BACK ON "FLASH" OR OPERATING PROPERLY.

IF A TRAFFIC STRAIN, SUPPORT OR PEDESTAL POLE IS DAMAGED AND THAT DAMAGE CAUSES POLE INSTABILITY, THEN THE CONTRACTOR SHALL TAKE IMMEDIATE ACTION (WITHIN 2 HOURS) TO STABILIZE IT. THE CONTRACTOR SHALL STILL BE RESPONSIBLE FOR PROVIDING THE PROJECT WITH A NEW UNDAMAGED POLE.

WHERE OUT-OF-SERVICE CALLS ARE THE DIRECT RESULT OF A VEHICULAR ACCIDENT, THE RESPONSE OF THE CONTRACTOR SHALL BE AS OUTLINED ABOVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COLLECTION OF ANY COMPENSATION FROM THOSE PARTIES RESPONSIBLE FOR THE DAMAGE TO THE CONTRACTOR'S MATERIALS.

WHERE THE CONTRACTOR HAS FAILED TO RESPOND OR CANNOT RESPOND TO AN OUT-OF-SERVICE CALL WITHIN THE TIME PERIOD SPECIFIED ABOVE AT LOCATIONS UNDER HIS RESPONSIBILITY, THE CITY MAY TAKE ACTION AS IT DEEMS NECESSARY TO CORRECT THE SITUATION. THIS ACTION MAY INCLUDE CONTROLLING THE INTERSECTION USING COLUMBUS POLICE OFFICERS, COMPLETELY REMOVING OR REPLACING ANY MALFUNCTIONING TRAFFIC CONTROL DEVICE, AND/OR INSTALLING ANY DEVICE(S) REQUIRED TO RETURN THE INTERSECTION TO REGULAR SIGNAL OPERATION. ALL COSTS ASSOCIATED WITH THESE ACTIONS SHALL BE BILLED DIRECTLY TO THE CONTRACTOR AND NOT INCLUDED IN ITEM 614 MAINTAINING TRAFFIC, AS PER PLAN.

ANY NON-OPERATING VEHICULAR OR PEDESTRIAN SIGNAL HEAD OR PUSHBUTTON SHALL BE COVERED AS REFERENCED IN THESE PLANS. ALL SIGNAL HEADS, WHILE COVERED, SHALL BE DARK BY DISCONNECTING POWER TO THE SIGNAL INDICATIONS. NO COVERED HEAD SHALL BLOCK THE VIEW OF AN OPERATING HEAD. A MINIMUM OF 2 VEHICULAR SIGNAL HEADS PER TRAVELLED DIRECTION (SPACED 8 FT. APART MINIMUM AND 12 FT. MAXIMUM) SHALL BE OPERATING AT ALL TIMES.

GROUNDING AND BONDING

REQUIREMENTS OF THE CURRENT EDITION OF THE CMSC AND THE CITY OF COLUMBUS STANDARD CONSTRUCTION DRAWINGS ARE MODIFIED AS FOLLOWS:

- 1. ALL NON-CURRENT CARRYING METALLIC PARTS CONTAINING

ELECTRICAL CONDUCTORS SHALL BE PERMANENTLY JOINED TO FORM AN EFFECTIVE GROUND FAULT CURRENT PATH BACK TO THE GROUNDING CONDUCTOR AT THE TRAFFIC SIGNAL CONTROLLER CABINET OR POWER METER CABINET, AS NOTED BELOW.

PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN METALLIC CONDUITS (725.04)/POLYVINYL CHLORIDE CONDUITS (725.051) AND POLYETHYLENE CONDUITS (725.052) IN ADDITION TO THE CONDUCTORS SPECIFIED.

METAL PULL BOX FRAMES SHALL BE BONDED BY ATTACHMENT OF THE EQUIPMENT GROUNDING CONDUCTOR TO THE FRAME AS ILLUSTRATED ON SCD 4021 THROUGH 4023.

IF MULTIPLE CONDUIT RUNS BEGIN AND END AT THE SAME POINTS, EQUIPMENT GROUNDING CONDUCTORS SHALL BE PROVIDED AS SHOWN IN THE DETAILS.

THE MESSENGER WIRE AT SIGNALIZED INTERSECTIONS SHALL BE USED AS THE CONDUCTIVE PATH FROM CORNER TO CORNER IF CONDUIT IS NOT PROVIDED UNDER THE ROADWAY. WHEN CONDUIT CONNECTS THE CORNERS OF AN INTERSECTION, AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE USED IN THE CONDUIT UNLESS OTHERWISE DIRECTED BY THE CITY.

2. CONDUITS.

THE 725.04 CONDUIT SHALL HAVE HEAVY DUTY GROUNDING BUSHINGS INSTALLED AT ALL TERMINATION POINTS. THE BUSHING MATERIAL SHALL BE COMPATIBLE WITH GALVANIZED STEEL CONDUIT AND THE GROUNDING LUG MATERIAL SHALL BE COMPATIBLE FOR USE WITH COPPER WIRE. THREADED OR COMPRESSION TYPE BUSHINGS MAY BE USED.

THE 725.05 CONDUIT SHALL HAVE THE INSIDE AND OUTSIDE DIAMETERS OF THE CONDUIT DEBURRED AT ALL TERMINATION POINTS. BOTH ENDS OF METALLIC CONDUIT SHALL BE BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.

3. WIRE FOR GROUNDING AND BONDING.

USE INSULATED COPPER WIRE FOR THE EQUIPMENT GROUNDING CONDUCTOR. BONDING JUMPERS IN BOXES AND ENCLOSURES MAY BE BARE OR INSULATED COPPER WIRE. WIRE SHALL BE AS FOLLOWS:

USE 4 AWG BETWEEN THE POWER SERVICE AND SUPPORTS, POLES, PEDESTALS, CONTROLLER OR FLASHER CABINETS. THE INSULATION SHALL BE GREEN WITH TWO (2) YELLOW STRIPES (TRACERS).

SPICES IN THE GROUNDING AND BONDING CABLE SHALL NOT BE PERMITTED IN PULL BOXES.

4. GROUND ROD.

THE TYPICAL GROUNDING CONDUCTOR (GROUND WIRE) SHALL BE 4 AWG INSULATED COPPER.

5. POWER SERVICE.

FOR LOCATIONS WITH A POWER METER CABINET:

- A. AT THE POWER METER CABINET, THE GROUNDING ELECTRODE CONDUCTOR (GROUND WIRE) FROM THE BREAKER BOX NEUTRAL (AC-) BAR TO THE GROUND ROD SHALL BE A CONTINUOUS UN-SPliced CONDUCTOR.
- B. THE SERVICE NEUTRAL (AC-) SHALL ONLY BE CONNECTED TO GROUND AT THE MAIN POWER SERVICE IN THE POWER METER CABINET.
- C. POWER SERVICE DISCONNECT SWITCHES ARE NOT USED BETWEEN THE SECONDARY SIDE OF THE TRANSFORMER SUPPLYING POWER SERVICE AND THE CONTROLLER CABINET.
- D. A POWER SERVICE MAIN CIRCUIT BREAKER IS USED IN THE METER CABINET AND THE CONTROLLER CABINET BETWEEN THE SECONDARY SIDE OF THE TRANSFORMER SUPPLYING POWER SERVICE AND THE CONTROLLER CABINET.

GROUNDING AND BONDING SHALL BE CONSIDERED INCIDENTAL TO ITEM 625, NO. 4 AWG, 600 VOLT DISTRIBUTION CABLE, AS PER PLAN. 3/1/18

ITEM 625 TRENCH, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF 625.13, THE INSTALLATION DEPTH OF THE PROPOSED CONDUIT SHALL CORRELATE TO THE DEPTH OF THE PULL BOX STRUCTURE SERVICING THE CONDUIT RUN. CONDUIT ENTERING 18 INCH PULL BOXES SHALL BE 24 INCHES DEEP. CONDUIT ENTERING 27 INCH PULL BOXES SHALL BE 30 INCHES DEEP. CONDUIT ENTERING 32 INCH PULL BOXES SHALL BE 30 TO 36 INCHES DEEP. CONDUIT ENTERING 48 INCH PULL BOXES SHALL BE 39 INCHES DEEP. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MODIFY THE DEPTH OF THE CONDUIT TO ACCOMMODATE THE VARIOUS TERMINATION DEPTHS AND UTILITY CONFLICTS. SHARP CHANGES IN CONDUIT ELEVATION WILL NOT BE PERMITTED. IF BOTH ENDS OF A CONDUIT RUN ENTER THE SAME SIZE STRUCTURE, THEN THE ENTIRE LENGTH OF CONDUIT SHALL BE PLACED AT THAT DEPTH. IF THE TWO ENDS ENTER DIFFERENT DEPTH STRUCTURES, THE CHANGE IN ELEVATION SHALL BE MADE OVER THE ENTIRE LENGTH OF THE CONDUIT RUN. TRENCH UNDER PROPOSED ROADWAYS SHALL HAVE A MINIMUM OVERALL DEPTH OF 36 INCHES AND OR A MINIMUM DEPTH OF 24 INCHES UNDER THE FINAL PAVEMENT SUBGRADE, WHICHEVER IS DEEPEST. INCIDENTAL TO THIS ITEM IS THE REPAIR OF SIDEWALK, ROADWAY, BRICK, CURB, CURB RAMPS, AND LANDSCAPING. 5/17/16

ITEM 630 SIGNING, MISC.: TRAFFIC SIGNAL SIGNS

WHEN USED, THE CONTRACTOR SHALL INSTALL W3-3-36 "SIGNAL AHEAD" SIGNS WITH W16-15P-24 "NEW" SUPPLEMENTAL PLACARDS AND POSTS IF REQUIRED JUST PRIOR TO THE SIGNAL BEING PLACED ON FLASH. THE "NEW SIGNAL" AND "SIGNAL AHEAD" SIGNS SHALL BE COVERED UNTIL THE SIGNAL IS PLACED ON REGULAR OPERATION AT WHICH TIME THE CONTRACTOR SHALL UNCOVER THEM.

WHEN USED, THE CONTRACTOR SHALL INSTALL THE W23-H2B-30 "SIGNAL OPERATION CHANGED" SIGN JUST PRIOR TO ACTIVATING THE CHANGE IN SIGNAL OPERATION. THE "SIGNAL OPERATION CHANGED" SIGN SHALL BE COVERED UNTIL THE SIGNAL OPERATION CHANGE IS IN EFFECT AT WHICH TIME THE CONTRACTOR SHALL UNCOVER IT. IN ORDER TO INSTALL THE "SIGNAL OPERATION CHANGED" SIGN AS SHOWN IN THE PLANS, THE CONTRACTOR SHALL SHIFT AN ADJACENT PERMANENT SIGN, WHEN NECESSARY, TO CREATE ENOUGH SPACE TO INSTALL THE "SIGNAL OPERATION CHANGED" SIGN IN THE LOCATION SHOWN IN THE PLANS.

THE CONTRACTOR SHALL REMOVE THESE ITEMS 3 WEEKS AFTER THEY ARE UNCOVERED. AT THE SAME TIME, THE CONTRACTOR SHALL RETURN ANY PERMANENT SIGN, WHICH HAS BEEN TEMPORARILY SHIFTED IN ORDER TO ACCOMMODATE THE "SIGNAL OPERATION CHANGED" SIGN, TO THE LOCATION SPECIFIED IN THE PLANS. FAILURE TO REMOVE THESE ITEMS AND RELOCATE PERMANENT SIGNS SHALL RESULT IN THE CITY REMOVING THEM, ALONG WITH RELOCATING PERMANENT SIGNS, AND BILLING THE CONTRACTOR FOR ALL COSTS INVOLVED. ALL REMOVED MATERIAL SHALL BE CONSIDERED FORFEITED TO THE CITY. MOUNTING HARDWARE AND POSTS SHALL BE INCIDENTAL TO THIS BID ITEM.

PAYMENT SHALL BE PER THE UNIT PRICE BID TO INSTALL AND REMOVE ALL NECESSARY SIGNS AT EACH INTERSECTION. 11/5/15

ITEM 632 POWER SERVICE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF 632.24, THE CONTRACTOR SHALL CONTACT THE SERVICE PROVIDER AND MAKE ARRANGEMENTS FOR THE CONNECTION OF POWER FOR THE TRAFFIC SIGNAL CONTROLLER CABINET. THE CONTRACTOR SHALL CONTACT THE POWER SERVICE PROVIDER A MINIMUM OF 120 CALENDAR DAYS IN ADVANCE OF THE NEED FOR POWER WITH THE ADDRESS OF THE TRAFFIC SIGNAL CONTROLLER CABINET AS PROVIDED IN THE PLANS.

POWER SHALL BE SUPPLIED BY SOUTH CENTRAL POWER. POWER SHALL BE 120/240 VAC. POWER SERVICE SHALL BE FROM THE APPROXIMATE LOCATION(S) AS SHOWN ON THE PLANS. CONTACT (SOUTH CENTRAL POWER CUSTOMER SERVICE (1-800-282-5064).

INTERSECTION	INTERSECTION NUMBER	TRAFFIC SIGNAL CONTROLLER CABINET ADDRESS	POWER SERVICE PROVIDER
LASALLE DR AT LONDON GROVEPORT RD	2220	1507 LONDON GROVEPORT RD	SOUTH CENTRAL POWER

6/1/20

ITEM 632 SIGNALIZATION, MISC.: STOP LINE RADAR DETECTION SYSTEM

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING A WAVETRONIX SMARTSENSOR MATRIX RADAR DETECTION SYSTEM. EACH RADAR DETECTOR UNIT SHALL BE MOUNTED DIRECTLY TO A POLE, MAST ARM, OR BRACKET ARM AS SHOWN ON THE PLAN OR AS RECOMMENDED BY THE MANUFACTURER. MOUNTING HARDWARE AND CABLE CONNECTIONS SHALL BE INSTALLED PER CURRENT MANUFACTURER SPECIFICATIONS. THE SENSOR SHALL BE GROUNDED TO THE GROUND LUG OF THE SIGNAL POLE PER CURRENT MANUFACTURER SPECIFICATIONS.

THE DETECTION SYSTEM SHALL INCLUDE THE FOLLOWING:

- 1. WAVETRONIX MATRIX DETECTOR UNITS AS SHOWN IN THE PLANS.
- 2. WAVETRONIX CLICK 656 CABINET INTERFACE DEVICE TO PROVIDE POWER, SURGE PROTECTION, AND ETHERNET CONNECTIVITY FOR THE RADAR DETECTOR UNITS.
- 3. CONTACT CLOSURE DEVICES IF NECESSARY OR AS RECOMMENDED BY THE MANUFACTURER TO CONNECT TO THE TRAFFIC CONTROLLER AND BE COMPATIBLE WITH CITY OF COLUMBUS SIGNAL CABINETS. IF USED, THE DEVICES SHALL BE SECURED TO A SINGLE PANEL THAT CAN BE MOUNTED INTERIOR TO THE TRAFFIC SIGNAL CABINET.
- 4. SENSOR CABLE(S) SHALL BE PROVIDED AS REQUIRED AND AS RECOMMENDED BY THE MANUFACTURER. THE CABLE SHALL BE SUITABLE FOR INSTALLATION IN CONDUIT AND OVERHEAD WITH APPROPRIATE SPAN WIRE. THE DETECTOR CABLE SHALL BE RUN CONTINUOUSLY FROM THE DETECTOR UNIT TO THE CONTROLLER CABINET (NO SPLICES).
- 5. AN ETHERNET CABLE (MINIMUM 7 FEET).

A CITY SIGNAL MAINTENANCE REPRESENTATIVE SHALL BE ON SITE DURING INSTALLATION AND TESTING OF THE UNIT.

PAYMENT FOR ITEM 632 SIGNALIZATION, MISC.: STOP LINE RADAR DETECTION SYSTEM SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH SYSTEM, COMPLETE AND IN PLACE INCLUDING ALL REQUIRED DETECTOR UNITS, CABINET HARDWARE, MOUNTING BRACKETS, CABLES, AND CONNECTIONS TESTED AND ACCEPTED. 10/30/17

ITEM 632 SIGNALIZATION, MISC.: DILEMMA ZONE RADAR DETECTION SYSTEM

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING A WAVETRONIX SMARTSENSOR ADVANCE RADAR DETECTION SYSTEM. EACH RADAR DETECTOR UNIT SHALL BE MOUNTED DIRECTLY TO A POLE, MAST ARM, OR BRACKET ARM AS SHOWN ON THE PLAN OR AS RECOMMENDED BY THE MANUFACTURER. MOUNTING HARDWARE AND CABLE CONNECTIONS SHALL BE INSTALLED PER CURRENT MANUFACTURER SPECIFICATIONS. THE SENSOR SHALL BE GROUNDED TO THE GROUND LUG OF THE SIGNAL POLE PER CURRENT MANUFACTURER SPECIFICATIONS.

THE DETECTION SYSTEM SHALL INCLUDE THE FOLLOWING:

- 1. WAVETRONIX ADVANCE DETECTOR UNITS AS SHOWN IN THE PLANS.
- 2. N/A
- 3. CONTACT CLOSURE DEVICES IF NECESSARY OR AS RECOMMENDED BY THE MANUFACTURER TO CONNECT TO THE TRAFFIC CONTROLLER AND BE COMPATIBLE WITH CITY OF COLUMBUS SIGNAL CABINETS. IF USED, THE DEVICES SHALL BE SECURED TO A SINGLE PANEL THAT CAN BE MOUNTED INTERIOR TO THE TRAFFIC SIGNAL CABINET.

4. SENSOR CABLE(S) SHALL BE PROVIDED AS REQUIRED AND AS RECOMMENDED BY THE MANUFACTURER. THE CABLE SHALL BE SUITABLE FOR INSTALLATION IN CONDUIT AND OVERHEAD WITH APPROPRIATE SPAN WIRE. THE DETECTOR CABLE SHALL BE RUN CONTINUOUSLY FROM THE DETECTOR UNIT TO THE CONTROLLER CABINET (NO SPLICES).

5. AN ETHERNET CABLE (MINIMUM 7 FEET).

A CITY SIGNAL MAINTENANCE REPRESENTATIVE SHALL BE ON SITE DURING INSTALLATION AND TESTING OF THE UNITS.

PAYMENT FOR ITEM 632 SIGNALIZATION, MISC.: DILEMMA ZONE RADAR DETECTION SYSTEM SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH SYSTEM, COMPLETE AND IN PLACE INCLUDING ALL REQUIRED DETECTOR UNITS, CABINET HARDWARE, MOUNTING BRACKETS, CABLES, AND CONNECTIONS TESTED AND ACCEPTED. 6/8/18

ITEM 632 SIGNALIZATION, MISC.: FOUNDATION PRE-EXCAVATION

THE SIGNAL SUPPORT OR PEDESTAL FOUNDATIONS FOR S/W-3 S/E-1, AND S/E-3 SHALL BE EXCAVATED OR VACUUM EXCAVATED TO TEST FOR CONFLICTS PRIOR TO SHOP DRAWINGS APPROVAL.

PAYMENT FOR ITEM 632 SIGNALIZATION, MISC.: FOUNDATION PRE-EXCAVATION SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH FOUNDATION REQUIRING PRE-EXCAVATION. 3/16/18

ITEM 632 SIGNALIZATION, MISC.: POWER METER CABINET (TYPE I), BASE MOUNT, WITH FOUNDATION

THIS ITEM SHALL INCLUDE THE POWER METER CABINET, POWER METER SOCKET, LOAD CENTER PANEL, CONCRETE FOUNDATION, GROUNDING, AND INCIDENTALS AS DESCRIBED HEREIN.

THE CONDUIT AND FOUR (4) ANCHOR BOLTS AND REQUIRED CONDUIT ELLS AND THEIR INSTALLATION SHALL BE INCIDENTAL TO THE COST OF THIS ITEM.

THE POWER METER CABINET SUPPLIED SHALL BE A MILBANK SLIMLINE SERIESCOMMERCIAL PEDESTAL (CATALOG NO. CP3A51C1VIAOSP3-CITY OF COLUMBUS).

THE POWER METER SOCKET SUPPLIED SHALL BE A MILBANK CATALOG NO. U9551-RR1, TALON CATALOG NO. 40405-02QG, OR APPROVED EQUAL. THE LOAD CENTER SHALL BE A SCHNEIDER ELECTRIC Q024L60NRNM, EATON CH2L70RP, OR APPROVED EQUIVALENT.

THE WORK AS DESCRIBED WILL BE MEASURED AS THE NUMBER OF POWER METER CABINETS FURNISHED AND INSTALLED AND SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND INCIDENTALS, INCLUDING HUBS, CONDUITS ELLS AND FLEXIBLE CONDUIT, AND WIRING IN THE POWER METER CABINET, NECESSARY TO COMPLETE THE WORK SPECIFIED, COMPLETE IN PLACE. 10/1/20

ITEM 633 CONTROLLER UNIT TS2/A2, W/CABINET 16 CH, SIZE, MOUNTING TYPE, AS PER PLAN

IN ADDITION TO THE OTHER REQUIREMENTS OF 633 & 733, THE CONTROLLER (TS2, TYPE 2/TSI COMPATIBLE) SHALL BE PER THE CITY'S OPL AND INCLUDE AN ETHERNET MODULE THE CABINET ASSEMBLY SHALL MEET ALL CITY STANDARDS AS SET FORTH BETWEEN THE SUPPLIERS AND THE DIVISION OF TRAFFIC MANAGEMENT.

IN ADDITION TO THE OTHER SPECIFICATION DOCUMENTS, THE CABINET ASSEMBLY SHALL MEET THE FOLLOWING SPECIFICATIONS.

- (A) ALL LABELS SHALL BE PERMANENTLY SECURED TO THE CABINET. PLASTIC LABEL MAKER TAPE IS NOT CONSIDERED TO BE PERMANENT. CROY TYPE LABELS ARE ACCEPTABLE.
- (B) THE 120 VAC, CONVENIENCE OUTLET ASSEMBLY (GFI TYPE) SHALL BE MOUNTED ON THE RIGHT SIDE PANEL OF THE CABINET NEAR THE DOOR HINGE AREA OR THE CENTER PORTION OF THE DOOR. THE OUTLET SHALL NOT INTERFERE WITH THE REMOVAL OR INSTALLATION OF ANY EQUIPMENT.
- (C) LOAD SWITCHES SHALL BE EDI MODEL 510 WITH LIGHTS PERMANENTLY LABELLED AS R, Y, G OR A, B, C. A LOAD SWITCH SHALL BE PROVIDED FOR EACH BACK PANEL LOAD SWITCH SOCKET POSITION WHETHER USED OR UNUSED. ALL LOAD SWITCHES SHALL REST IN A SUPPORT RACK. LOAD SWITCHES 9-12 SHALL BE USED FOR THE PEDESTRIAN SIGNAL HEADS AND LOAD SWITCHES 13-16 SHALL BE USED FOR OVERLAPS.
- (D) LIGHTNING PROTECTION DEVICES SUCH AS ITT, SURRESTOR, GENERAL ELECTRIC, OR APPROVED EQUAL (AS DETERMINED BY THE DIVISION OF TRAFFIC MANAGEMENT) SHALL BE PROVIDED.
- (E) THE NEMA TYPE 4 CABINET SHALL BE PER THE CITY'S OPL. ALL EXTERIOR CABINET SEAMS SHALL BE EITHER CONTINUOUSLY WELDED, TACK WELDED, SEALED WITH A 15 TO 20 YEAR SILICONE SEALER, AND/OR OVERLAPPED SUCH THAT WATER DOES NOT ENTER THE CABINET. ALL CABINET EDGES SHALL BE SMOOTH (FREE OF ANY SHARP EDGES). THE CABINET DOOR FRAME OPENING SHALL BE DOUBLE-FLANGED ON ALL FOUR SIDES. THE CABINET DOOR SHALL BE HINGED USING A HEAVY GAUGE CONTINUOUS HINGE THAT HAS A STAINLESS STEEL HINGE PIN. THE HINGE SHALL BE BOLTED TO THE CABINET SO THE DOOR CAN BE REMOVED. THE BOLTS AND NUTS SHALL BE MADE OF STAINLESS STEEL, TAMPERPROOF AND SECURELY FASTENED TO PREVENT VIBRATIONS FROM LOOSENING THE NUTS. THE DOOR SHALL BE EQUIPPED WITH A THREE (3) POINT LATCHING MECHANISM AND A HANDLE WHICH CAN BE PADLOCKED. IN ADDITION TO THE DOOR STOP POSITIONS LISTED IN NEMA TS-2, THE DOOR SHALL BE DESIGNED SUCH THAT IT INCLUDES A DOOR STOP AT 135 DEGREES. THE POLICE DOOR AND MAIN CABINET DOOR SHALL HAVE A KEYHOLE COVER. BOLT PATTERN SHALL CONSIST OF AN ANCHOR BOLT POSITIONED IN EACH CABINET CORNER.
- (F) A THYRECTOR SURGE PROTECTOR WITH A RMS INPUT OF 150 VOLTS AND INPUT PEAK OF 210 VOLTS SHALL BE PROVIDED IN ADDITION TO ANY LIGHTNING PROTECTION DEVICE. THE THYRECTOR SHALL BE PLACED ACROSS THE INPUT AC POWER LINE.

adoss
7/29/2021 12:18:59 PM
C:\2020\03242\03242.D Drawings\Design\Traffic\Sheets\03242_CN002.dgn

- (G) TWO (2) CIRCUIT SOLID STATE FLASHER, EDI MODEL 810, RATED AT 15 AMPS (MINIMUM) PER CIRCUIT SHALL BE PROVIDED (NEMA TYPE 3). CIRCUIT 1 SHALL CONTROL THE MAINLINE FLASHING SIGNAL INDICATIONS. CIRCUIT 2 SHALL CONTROL THE SIDE STREET FLASHING SIGNAL INDICATIONS.
- (H) THE MAIN CIRCUIT BREAKER AND AUXILIARY CIRCUIT BREAKER, AS REQUIRED BY NEMA TS-2, SHALL BE LABELED AS "MAIN" AND "AUX," RESPECTIVELY.
- (I) THE CABINET ASSEMBLY SHALL CONTAIN ALL PEDESTRIAN SIGNAL CIRCUITRY FOR EACH NEMA DEFINED THROUGH PHASE.
- (J) A POLICE DOOR MOUNTED SIGNAL SHUTDOWN SWITCH WITH SWITCH POSITIONS LABELED AS "SIG ON" AND "SIG OFF" SHALL BE INSTALLED.
- (K) A POLICE DOOR MOUNTED SIGNAL FLASH SWITCH WITH SWITCH POSITIONS LABELED AS "ON SIG" AND "ON FLASH" SHALL NOT ONLY PLACE THE SIGNALS ON FLASH BUT ALSO STOP-TIME THE CONTROLLER UNIT. A RUN/STOP-TIME SWITCH WITH SWITCH POSITIONS LABELED AS "CONT. RUN" AND "STOP-TIME" SHALL BE INSTALLED ON THE INSIDE OF THE CABINET DOOR. THE RUN/STOP-TIME SWITCH SHALL ALLOW THE CONTROLLER UNIT TO TIME NORMALLY BUT KEEP THE SIGNALS ON FLASH. THE SIGNAL FLASH SWITCH SHALL NOT RETURN THE SIGNALS TO NORMAL OPERATION UNLESS THE RUN/STOP-TIME SWITCH IS RESET TO THE STOP-TIME POSITION SO THE SIGNAL FLASH SWITCH CAN AGAIN STOP-TIME THE CONTROLLER UNIT. THE SIGNAL FLASH SWITCH SHALL NOT REMOVE POWER TO THE CONTROLLER UNIT OR ITS AUXILIARY EQUIPMENT.
- (L) A POLICE DOOR MOUNTED AUTO-MANUAL TRANSFER SWITCH WITH SWITCH POSITIONS LABELED AS "AUTO" AND "MANUAL" SHALL BE INSTALLED. A MANUAL PUSH BUTTON CONTROL SHALL NOT BE INSTALLED UNLESS SPECIFIED, BUT WIRING FOR A PUSH BUTTON CONTROL SHALL BE PROVIDED UP TO THE POINT WHERE THE PUSH BUTTON WOULD HAVE BEEN CONNECTED.
- (M) A CONTROLLER SHUTDOWN SWITCH WITH SWITCH POSITIONS LABELED AS "CONT ON" AND "CONT OFF" AND A COORDINATED/FREE SWITCH WITH SWITCH POSITIONS LABELED AS "COORD" AND "FREE" SHALL BE INSTALLED INSIDE THE CABINET NEXT TO THE RUN/STOP-TIME SWITCH. A COORDINATED/FREE SWITCH SHALL NOT BE REQUIRED IF THE CONTROLLER HAS A BUILT-IN COORD/FREE SWITCH.
- (N) THE WATCH DOG TIMER SHALL CAUSE THE CONTROLLER TO GO INTO A FLASH OPERATION IF A MICROPROCESSOR FAILURE IS DETECTED.
- (O) ALL BACK PANEL HARDWARE SHALL BE MOUNTED WITH SCREWS. ALL SCREWS SHALL BE COMPLETELY SCREWED DOWN. RIVETS OR OTHER NON-REMOVABLE FASTENERS ARE NOT ACCEPTABLE. WIRE CONNECTIONS ON THE BACK PANEL SHALL BE MADE WITH CRIMP TERMINALS AND THREADED FASTENERS. TELEPHONE TYPE KNIFE CONNECTORS (SOLDERED OR OTHERWISE) ARE NOT ACCEPTABLE.
- (P) ALL WIRES FASTENED TO THE LOAD SWITCH AND FLASHER PLUGS SHALL BE SOLDERED IN PLACE.
- (Q) THE BACK PANEL AND POWER DISTRIBUTION PANEL SHALL HAVE SILK SCREENED TERMINAL/ SOCKET FUNCTION IDENTIFICATION LABELS SUCH AS AC COM, PHASE 3 GREEN, 115 VAC, SIGNAL BUS, ETC. REFERENCE NUMBERS SHALL NOT BE ACCEPTABLE IN LIEU OF FUNCTION LABELS BUT THEY CAN SUPPLEMENT THEM. ADDITIONAL TERMINAL BLOCKS AND AUXILIARY PANELS SHALL USE SILK SCREENED REFERENCE NUMBERS TO IDENTIFY TERMINAL CONNECTIONS.
- (R) ALL TERMINAL STRIPS IN CLOSE PROXIMITY OF SHELF MOUNTED CONTROL DEVICE EQUIPMENT SHALL BE COVERED WITH NON-CONDUCTIVE MATERIAL TO PREVENT ACCIDENTAL CONTACT WITH THE DEVICES. ALL TERMINAL STRIPS SHALL BE READILY ACCESSIBLE WITHOUT REMOVAL OF ANY EQUIPMENT.
- (S) IN ADDITION TO THE ALUMINUM SHELF WITH INTERNAL STORAGE AS SPECIFIED BY 733 B.10, THE CABINET SHALL HAVE ONE NON-VENTED (SOLID) SHELF. THE SHELVES SHALL BE SPACED AT LEAST 9" APART. BOTH SHELVES SHALL HAVE A WIDTH OF 13" AND THE BACK EDGE OF THE SHELF SHALL BE LIPPED WITH THE LIP POINTING UP. THE FRONT EDGE OF THE SHELF SHALL BE LIPPED WITH THE LIP POINTING DOWN. ALL LIP EDGES SHALL BE ROUNDED. THE SHELVES SHALL BE ATTACHED TO THE CABINET SIDE PANELS. THE SHELF ARRANGEMENT SHALL BE DESIGNED SO ALL SHELF DEVICES FIT ON THEM.
- (T) THERE SHALL BE A MINIMUM OF ONE (1) INCH EMPTY SPACE BETWEEN ALL ITEMS ATTACHED TO THE DOOR AND ALL SHELF-MOUNTED DEVICES INCLUDING ITS CONNECTING HARNESS(ES), ALL LOAD SWITCHES, FLASHER AND ALL SIDE-PANEL-MOUNTED ITEMS.
- (U) ALL CABINETS SHALL HAVE TWO VENTILATION FANS. THE THERMOSTAT CONTROLLING THE VENTILATING FAN CIRCUIT SHALL BE SET AT 95 DEGREES FAHRENHEIT.
- (V) ALL FLASH TRANSFER RELAYS SHALL BE WIRED FOR FAIL-SAFE OPERATION (ENERGIZED DURING NORMAL OPERATION) AND WIRED WITH A MAXIMUM OF TWO PHASES PER RELAY.

THE POWER CABLE SHALL BE CONNECTED TO AN ACCESSIBLE TERMINAL STRIP THAT SHALL BE OF SUFFICIENT SIZE TO ACCEPT THE GAUGE OF THE SUPPLIED POWER CABLE. THE TERMINAL STRIP SHALL BE COVERED OR SHIELDED TO MINIMIZE ACCIDENTAL CONTACT DURING NORMAL SERVICING OPERATIONS. THE COVER SHALL BE SNAPPED ON/OFF OR SECURED BY STANDARD SCREWS. THE POWER CABLE LUG TERMINAL CONNECTION SHALL BE LOCATED IMMEDIATELY BELOW THE MAIN POWER DISTRIBUTION BREAKER. THERE SHALL BE A MINIMUM OF TWO (2) INCHES CLEARANCE BETWEEN THE POWER TERMINAL AND THE BOTTOM OF THE CABINET.

- (X) A #4 WIRE LUG SHALL BE PROVIDED FOR ATTACHING A GROUNDING WIRE FROM A GROUND ROD.
- FOR LOCATIONS WITHOUT A POWER METER CABINET: THE GROUNDING WIRE SHALL BE ATTACHED TO THE POWER DISTRIBUTION PANEL NEUTRAL BUS. THE NEUTRAL BUS SHALL BE DIRECTLY GROUNDED TO THE CABINET GROUND BUS.
 - FOR LOCATIONS WITH A POWER METER CABINET: THE GROUNDING WIRE SHALL BE ATTACHED TO THE POWER DISTRIBUTION PANEL GROUND BUS. THE NEUTRAL BUS SHALL ONLY BE CONNECTED TO THE GROUND BUS IN THE POWER METER CABINET, NOT THE TRAFFIC SIGNAL CABINET.

- (Y) A SOLID STATE RELAY, CRYDOM PART NO. CWA2450, SHALL BE INSTALLED WHICH WILL ALLOW POWER TO BE REMOVED FROM THE VEHICULAR POWER BUS. THE SOLID STATE RELAY SHALL BE RATED AT 50 AMPS AND 120 VOLTS AND SHALL BE EQUIPPED WITH A PLASTIC COVER.
- (Z) ALL EXTERNAL RELAY COILS SHALL HAVE NOISE SUPPRESSION DEVICES.
- (AA) THE DOOR FILTER (U.L. LISTED CLASS 2, STANDARD 900) SHALL CONSIST OF THREE DISTINCT LAYERS OF FILTERING MEDIA. THE FIRST AIR ENTERING LAYER SHALL BE COMPOSED OF A DUAL FIBER BLEND OF 100% NON-WOVEN POLYESTER TO TRAP LARGER SIZED PARTICLES. THE NEXT LAYER SHALL BE A DUAL PLY, DUAL DENIER, 100% NON-WOVEN POLYESTER OF SMALLER SIZE TO TRAP FINER PARTICLES PASSING THROUGH THE FIRST LAYER. A NON-TOXIC, NON-MIGRATORY, ODORLESS TACKIFIER SHALL BE APPLIED TO THESE LAYERS. ADHESIVES SPRAYED ON THE LAYERS ARE NOT ACCEPTABLE. THE TACKIFIER SHALL BE INCORPORATED INTO THE LAYER MEDIA DURING THE MANUFACTURING PROCESS OF THE RAW MATERIAL. A 10 GAUGE MESH SHALL BE INCORPORATED IN THE FILTER DESIGN FOR RIGIDITY. SUFFICIENT MEDIA OVERLAP SHALL BE PRESENT ABOUT THE WIRE PERIMETER TO INSURE POSITIVE SEAL. THE DOOR FILTER HOLDER SHALL BE DESIGNED SO THE FILTER MAKES POSITIVE CONTACT WITH THE CABINET DOOR AT ALL TIMES AND UNDER ALL CONDITIONS AND SITUATIONS.
- (BB) AN OUTLET RECEPTACLE AND BOX SHALL BE INSTALLED IN THE CABINET TO PROTECT NETWORK EQUIPMENT FROM AN IMBALANCE FLOW OF CURRENT FROM THE HOT TO THE NEUTRAL. THE OUTLET SHALL BE A NEMA DUPLEX 5-15 RECEPTACLE, RATED AT 15 AMPS (MINIMUM) AT 120 VAC. THE OUTLET SHALL MEET OR EXCEED FEDERAL SPECIFICATIONS AND UL 498 STANDARDS AND SHALL BE RATED AS WEATHER-RESISTANT. THE RECEPTACLE SHALL BE INSTALLED WITHIN A METALLIC, SINGLE GANG ELECTRICAL BOX WITH A COVER PLATE. THE ELECTRICAL BOX SHALL BE STANDARD DEPTH (NOMINALLY 2 - 1/8 IN.) AND SHALL BE UL-LISTED. THE OUTLET SHALL BE INSTALLED INSIDE THE CABINET ALONG ONE OF THE SIDE WALLS AND SHALL BE WIRED FROM THE SAME CIRCUIT BREAKER AS THE OTHER OUTLETS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- (CC) A SURGE SUPPRESSION DEVICE SHALL BE INSTALLED IN THE CABINET TO PROVIDE PROTECTED POWER OUTLETS TO NETWORK EQUIPMENT. THE SURGE SUPPRESSION DEVICE SHALL BE SECURELY MOUNTED IN THE CABINET IN A METHOD APPROVED BY THE ENGINEER. THE SURGE SUPPRESSION DEVICE INSTALLED SHALL HAVE 6 NEMA 5-15 OUTLETS AND SHALL BE CAPABLE OF BEING PLUGGED INTO A STANDARD 5-15 OUTLET. THE OUTPUT CURRENT OF THE SURGE SUPPRESSION DEVICE SHALL BE 15 AMPS. THE SURGE SUPPRESSION DEVICE SHALL HAVE AN ENERGY HANDLING RATING OF 1280 JOULES, UL 1499 LET THROUGH RATING OF 330 VOLTS, AND SURGE CURRENT RATING OF 50,000 AMPS.

PROVIDE AN ARC FLASH HAZARD WARNING SIGN ON THE OUTSIDE OF THE FRONT DOOR OF THE CABINET IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE PARAGRAPH 110.16.

FOR LOCATIONS WITHOUT A POWER METER CABINET, PROVIDE AN AVAILABLE FAULT CURRENT SIGN ON THE OUTSIDE OF THE FRONT DOOR OF THE TRAFFIC SIGNAL CONTROLLER CABINET IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE PARAGRAPH 110.24. 10/01/20

ITEM 632 SIGNALIZATION, MISC.: CELLULAR ETHERNET COMMUNICATIONS UNIT

THE CELLULAR ETHERNET COMMUNICATIONS UNIT SHALL BE A FULLY CONTAINED, SHELF MOUNTABLE ENCLOSURE NOT LARGER THAN 6 INCH X 4 INCH X 2 INCH IN SIZE.

THIS ITEM SHALL MEET OR EXCEED THE FOLLOWING REQUIREMENTS AND PERFORMANCE SPECIFICATIONS:

- * APPROVAL OF MAJOR CARRIERS - VERIZON, AT&T, SPRINT
- * SUPPORT TCP/IP, UDP/IP, DNS NETWORK PROTOCOL
- * INCLUDE A MINIMUM OF THREE (3) - 10/100 BASE-T ETHERNET PORTS
- * 100MBPS DOWNLOAD / 60MBPS UPLOAD DATA TRANSMISSION RATES
- * SECURITY FEATURES INCLUDING IPSEC, SSL, IKE ENCRYPTION, PORT FILTERING, MAC ADDRESS FILTERING
- * OPERATIONAL AT TEMPERATURES BETWEEN -20°F AND 155°F
- * MINIMUM IP-64 RATED

THE CONTRACTOR SHALL INSTALL THE CELLULAR ETHERNET COMMUNICATIONS UNIT IN SIGNAL CONTROLLER CABINET AND MAKE CONNECTION TO NETWORK SWITCH.

CONTRACTOR SHALL COORDINATE THE INITIAL SETUP OF CELLULAR SERVICE WITH SERVICE PROVIDER TO ESTABLISH A SERVICE PLAN TO PROVIDE CONNECTIVITY TO CENTRAL SYSTEM THROUGH THE DURATION OF THE PROJECT.

THE WORK AS DESCRIBED WILL BE MEASURED AS ONE UNIT FOR EACH OF THE INSTALLATIONS SPECIFIED, AND SHALL INCLUDE ALL MATERIALS, EQUIPMENT AND INCIDENTALS, COMPLETE IN PLACE. TERMINATIONS, CONNECTIONS, AND OTHER MISCELLANEOUS ITEMS AND MATERIALS SHALL BE INCIDENTAL TO THIS WORK AND NO SEPARATE PAYMENT WILL BE MADE.

ADDITIONALLY, DATA SERVICE CHARGES INCURRED FROM CARRIER THROUGH THE DURATION OF THE PROJECT ARE TO BE INCLUDED WITH THE COST OF THIS PAY ITEM. 1/22/21

ITEM 632 STRAIN POLE FOUNDATION (BY DEPTH), AS PER PLAN

FOR SIGNAL POLES MOUNTED TO DEEP FOUNDATIONS CONSTRUCTED UNDER THIS ITEM, THE ALUMINUM POLE IDENTIFICATION TAG, AS REQUIRED AND IN ACCORDANCE WITH 732.11 AND 732.12, SHALL ALSO BE LABELED WITH "DEEP FOUNDATION" FOLLOWED BY THE DEPTH OF THE FOUNDATION (E.G. DEEP FOUNDATION, 18 FT.) THE FOUNDATION SHALL BE CONSTRUCTED IN ACCORDANCE WITH 632.14, SCD 4160, AND 4161. 5/15/18

ITEM 633 CONTROLLER ITEM, MISC.: LAYER 2 ETHERNET SWITCH

THE CONTRACTOR SHALL PURCHASE AND INSTALL ENVIRONMENTALLY HARDENED LAYER 2 ETHERNET SWITCHES AS SHOWN ON THE PLANS. LAYER 2 ETHERNET SWITCHES SHALL BE COMNET MODEL CNGE1FX3TX8MS THIS WORK IS THE FURNISHING AND INSTALLATION OF A LAYER 2 SWITCH WITH THREE 100/1000BASE-FX SFP PORTS AND EIGHT SWITCHED 10/100/1000BASE-TX RJ45 PORTS.

ALL EQUIPMENT SHALL BE NEW AND IN STRICT ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS AND THE SPECIFICATIONS.

TRAFFIC MAINTENANCE SHALL BE CONTACTED AT 645-7393 14 CALENDAR DAYS PRIOR TO INSTALLATION TO PROGRAM THE SWITCH. THE CONTRACTOR SHALL INSTALL THE SWITCH IN THE CABINET BUT SHALL NOT MAKE ANY CONNECTIONS TO THE SWITCH.

THE TRAFFIC MAINTENANCE MANAGER SHALL INSPECT THE CONDITION OF ALL COMPONENTS UPON INSTALLATION. NO DAMAGED COMPONENT WILL BE ACCEPTED, AND NO COMPONENT SHALL BE CONSIDERED INSTALLED UNTIL THE TRAFFIC MAINTENANCE MANAGER APPROVES OF THE SWITCH INSTALLATION. LAYER 2 ETHERNET SWITCHES SHALL SUPPORT DIRECT CONNECTIVITY TO PROPOSED AND EXISTING NETWORKS CONFIGURED IN RING AND MESH FAULT TOLERANT TOPOLOGIES ENABLING APPLICATIONS TO OPERATE RELIABLY, AND WITH LOW LATENCY.

ALL EQUIPMENT SHALL INCLUDE LICENSES, WHERE REQUIRED, FOR ANY SOFTWARE OR HARDWARE IN THE SYSTEM.

LAYER 2 ETHERNET SWITCHES SHALL SUPPORT DIRECT CONNECTIVITY TO PROPOSED AND EXISTING NETWORKS CONFIGURED IN RING AND MESH FAULT TOLERANT TOPOLOGIES ENABLING APPLICATIONS TO OPERATE RELIABLY, AND WITH LOW LATENCY.

- INSTALL POWER ADAPTER, POWER CABLES, CATEGORY 5E OR CATEGORY 6 PATCH CORDS, AND SINGLE MODE PATCH CABLES AS REQUIRED AND DEPICTED ON COMMUNICATIONS DIAGRAMS.
- SECURELY MOUNT THE SWITCH AND POWER SUPPLY IN THE CABINET.
- MAKE POWER CONNECTION TO AN AVAILABLE OUTLET ON THE INSTALLED SURGE SUPPRESSOR.
- MAKE THE COMMUNICATION CONNECTIONS.
- ESTABLISH AND VERIFY COMMUNICATIONS TO THE NETWORK PRIOR TO TRANSITIONING SIGNAL CONTROLLER TO NEW SYSTEM.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A COMPLETE, FUNCTIONAL SYSTEM INCLUDING ALL NECESSARY CABLES AND CONNECTORS IN ACCORDANCE TO THE SPECIFICATIONS AND AS SPECIFIED ON THE PLANS. ALL MISCELLANEOUS PATCH AND INTERCONNECT CABLES SHALL MEET THE PROPOSED EQUIPMENT SPECIFICATION REQUIREMENTS AND SHALL MEET EIA/TIA TELECOMMUNICATIONS STANDARDS. ADDITIONALLY, FIBER OPTIC PATCH CABLES SHALL CONFORM TO THE PLAN REQUIREMENTS FOR PATCH CABLES. 5/12/20

ITEM 633 CONTROLLER ITEM, MISC.: FIBER OPTIC ETHERNET TRANSCEIVER, SHORT RANGE

THE CONTRACTOR SHALL FURNISH AND INSTALL SINGLE MODE FIBER (SMF), SMALL FORM FACTOR PLUGGABLE (SFP) GIGABIT INTERFACE CONVERTER (GBIC) MODULES AT LOCATIONS AS SHOWN ON THE PLANS.

THE GBIC TRANSCEIVER SHALL BE 1000BASE LX/LH SFP-LC TRANSCEIVER (CISCO PART #GLC-LX-SM-RGD).

THE CONTRACTOR SHALL INSTALL THE SFP MODULE IN THE ETHERNET SWITCH SLOT AND CONFIGURE AS NECESSARY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A COMPLETE, FUNCTIONAL SYSTEM INCLUDING ALL NECESSARY CABLES AND CONNECTORS IN ACCORDANCE TO THE SPECIFICATIONS AND AS SPECIFIED ON THE PLANS. ALL MISCELLANEOUS PATCH AND INTERCONNECT CABLES SHALL MEET THE PROPOSED EQUIPMENT SPECIFICATION REQUIREMENTS AND SHALL MEET EIA/TIA TELECOMMUNICATIONS STANDARDS.

THE WORK AS DESCRIBED WILL BE MEASURED AS ONE UNIT FOR EACH OF THE INSTALLATIONS SPECIFIED, AND SHALL INCLUDE ALL MATERIALS, EQUIPMENT AND INCIDENTALS, COMPLETE IN PLACE. PATCH CABLES, TERMINATIONS, CONNECTIONS, AND OTHER MISCELLANEOUS ITEMS AND MATERIALS SHALL BE CONSIDERED INCIDENTAL TO THIS WORK AND NO SEPARATE PAYMENT WILL BE MADE. 12/2/15

ITEM 625 BRACKET ARM, 30', AS PER PLAN

BRACKET ARM SHALL BE INSTALLED PER SCD 4110 ON SIGNAL POLES AT LOCATIONS AS SHOWN IN THE PLANS TO FACILITATE THE INSTALLATION OF VEHICULAR DETECTION, CCTV, AND WIRELESS RADIO EQUIPMENT IN AREAS CLEAR OF OBSTRUCTIONS.

BRACKET ARM SHALL BE MADE OF ALUMINUM ALLOY TUBING. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS OR VERIFY PLAN DETAILS TO DETERMINE THE SIZE AND CONFIGURATION OF REQUIRED CLAMPS PRIOR TO ORDERING - NO COMPENSATION WILL BE PROVIDED FOR MODIFICATIONS.

ALL STRUCTURAL STEEL PRODUCTS SHALL BE GALVANIZED ON THE INTERIOR AND THE EXTERIOR SURFACES AS PER ASTM A123. THE EXTERIOR SURFACE OF ALL STRUCTURAL STEEL AND ALUMINUM PRODUCTS SHALL BE PROPERLY PREPARED FOR THE APPLICATION OF AN EXTERIOR COATING. THE COATING COLOR ON BOTH STEEL AND ALUMINUM PRODUCTS SHALL MATCH EACH OTHER. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT BOTH PRODUCT MANUFACTURERS MATCH COATING COLORS SO THAT ACONSISTENT END PRODUCT IS ACHIEVED.

ALL EXTERIOR SURFACES, ALL ATTACHMENT HARDWARE, AND ALL CLEVIS HANGERS SHALL HAVE A COATING APPLIED TO THEM. EXTERIOR SURFACES OF ALL BOLT AND SCREW FASTENERS, WASHER NUTS, AND OTHER ATTACHMENT HARDWARE SHALL HAVE A COATING APPLIED TO THEM. FASTENER THREADS SHALL NOT BE CLOGGED WITH COATING MATERIAL.

THE EXTERIOR COATING FOR ALL ITEMS ABOVE SHALL:

- MEET FEDERAL SPEC #595B, BE SEMI-GLOSS AND CONFORM TO COLORS AS SHOWN IN THE PLANS; AND
- BE APPLIED OVER PROPERLY PREPARED GALVANIZING MATERIAL ON STEEL PRODUCTS AND OVER PROPERLY PREPARED ALUMINUM FOR ALUMINUM PRODUCTS; AND
- HAVE A MINIMUM 5-YEAR REPAIR WARRANTY OF COATING DELAMINATION, BLISTERING, OR CORROSION.

ANY ALTERNATIVE PROCESSES FOR FINISH COATING OF BRACKET ARM PROPOSED BY THE CONTRACTOR MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO STARTING WORK.

FOR ALUMINUM PARTS, EACH COATING LAYER SHALL BE PROPERLY CURED BEFORE THE APPLICATION OF THE NEXT COAT. THE APPLICATION PROCEDURE SHALL BE SUCH TO WARRANTY A FINISH WITHOUT DELAMINATION, BLISTERING, OR CORROSION AS PER THE MINIMUM (5) YEAR REPAIR WARRANTY.

- THE COATING PROCESS SHALL INVOLVE SUCH STEPS AS THE FOLLOWING:
- MECHANICAL PREPARATION (BRACKET ARM ASSEMBLY (BRACKET ARM AND ALL CONNECTION COMPONENTS) SHALL BE ROTARY-SANDED TO A SATIN-GROUND FINISH. BRACKETS SHALL BE ETCHED TO A MATTE FINISH. THIS TREATMENT WILL PLACE A ROUGH SURFACE ON THESE ITEMS SO THE BASE COATING LAYER WILL HAVE EXCELLENT ADHESION.
 - CLEANING - THE BRACKET ARM ASSEMBLY SHALL BE IMMERSED IN AN ALCOHOLIC-PHOSPHORIC ACID SOLUTION THAT WILL CHEMICALLY CLEAN THESE ITEMS. THE CLEANING SOLUTIONS SHALL BE KEPT AT A NOMINAL 70°F THESE ITEMS. THE CLEANING SOLUTIONS SHALL BE KEPT AT A NOMINAL 70° FAHRENHEIT. THE BRACKET ARM ASSEMBLY SHALL BE IMMERSED IN THE SOLVENT SOLUTION FOR 5 MINUTES AND THEN COLD-WATER RINSED UNTIL CHEMICALS ARE WASHED OFF.
 - CONVERSION COATING - THE BRACKET ARM ASSEMBLY SHALL THEN BE IMMERSED IN AN AMORPHOUS CHROMATE CONVERSION COATING SOLUTION FOR 5 MINUTES. THE SOLUTION SHALL BE MAINTAINED AT 70° F. THIS TREATMENT WILL RESULT IN THE FORMATION OF A SURFACE FILM IN WHICH THE FILM CHEMICALLY BONDS ITSELF TO THE BASE METAL BY DIFFUSION AND BECOMES A PART OF THE BASE METAL. THE BRACKET AND PEDESTAL ASSEMBLY SHALL BE COLD-WATER RINSED. THIS SURFACE WILL PROVIDE OPTIMUM ADHESION AND GOOD STABILITY FOR THE COLOR FILM SO THAT IT DOES NOT CHIP, PEEL, OR FLAKE.
 - PRIMER COATING - AN ALUMINUM PRIMER SHALL BE APPLIED AS REQUIRED TO THE BRACKET ARM ASSEMBLY TO FURTHER IMPROVE COATIN ADHESION.
 - FINAL COATING - EACH COAT SHALL BE PROPERLY DRIED BEFORE ADDITIONAL COATS ARE APPLIED. THE FINISH COAT OF PAINT SHALL MEET FEDERAL STANDARD #595B AND CONFORM TO COLOR #27038 (SEMI-GLOSS BLACK). THE FINISH COAT SHALL HAVE A MINIMUM 5-YEAR REPAIR WARRANTY OF COATING DELAMINATION, BLISTERING, OR CORROSION.
 - DRYING - THE BRACKET ARM ASSEMBLY SHALL BE THOROUGHLY DRIED THEN PROTECTED FOR SHIPMENT AS OUTLINED BEFORE.

ALL COATED ITEMS SHALL BE SHIPPED IN A MANNER SELECTED BY THE MANUFACTURER, WHICH WILL PROTECT MATERIAL FROM DAMAGE DURING DELIVERY. MATERIALS DAMAGED IN TRANSIT SHALL BE REPAIRED OR REPLACED. ALL COSTS ASSOCIATED WITH CORRECTING DAMAGED MATERIAL SHALL BE BORNE BY THE CONTRACTOR.

THE WORK AS DESCRIBED WILL BE MEASURED AS THE NUMBER BRACKET ARMS FURNISHED AND INSTALLED, COMPLETE IN PLACE. 10/15/19

ITEM 632 COMBINATION STRAIN POLE, TYPE 4170, (BY DESIGN), AS PER PLAN

TRAFFIC SIGNAL POLES SHALL BE PER SCD 4170.

IN ADDITION TO THE REQUIREMENTS OF 732.11 AND 732.12, THE FOLLOWING SHALL ALSO APPLY: THE TOP FINISH COAT OF PAINT SHALL HAVE A MINIMUM 5-YEAR REPAIR WARRANTY OF COATING DELAMINATION, BLISTERING, OR CORROSION.

UNION METAL STRUCTURES SHALL BE EITHER POWDER-COATED WITH THE THOMARIOS POWDER-COATING SYSTEM OR WET-COATED WITH THE SRT WET-COAT SYSTEM.

VALMONT STEEL STRUCTURES SHALL BE EITHER POWDER-COATED WITH FINISH SPECIFICATION F-573 DATED 4-11-07, WHICH INCLUDES EPOXY POWDER PRIME COAT AND PENTABOND POWDER FINISH COAT OR SHALL BE WET-COATED WITH MANUFACTURER RECOMMENDED EQUIVALENT WET-COAT PAINT SYSTEM.

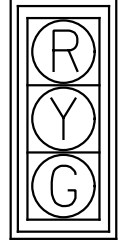
MILLERBERND STRUCTURES SHALL BE WET-COATED WITH THE MILLERBOND PAINTING SYSTEM DESIGNED FOR USE ON CARBON, STAINLESS STEEL, ALUMINUM, AND GALVANIZED POLE PRODUCTS, WHICH INCLUDES A DUAL-CURE CHEMISTRY ORGANIC ZINC RICH URETHANE BASE PRIMER COAT AND DUAL-CURE CHEMISTRY 12 POLYASPARTIC ALIPHATIC POLYUREA FINISH COAT.

ALL COATING SYSTEMS SHALL MEET THE MINIMUM REQUIREMENTS OF ODOT SUPPLEMENTAL SPECIFICATION 916 STANDARD PERFORMANCE BASED PAINT PROCESSES FOR LIGHT POLES, SIGN SUPPORTS AND TRAFFIC SUPPORTS FOR WET-COAT SYSTEMS.

THIS ITEM OF WORK SHALL BE MEASURED AS EACH COMPLETE SIGNAL SUPPORT OR STRAIN POLE IN PLACE IN ESSENTIALLY A VERTICAL POSITION UNDER FULL PLAN LOADING. ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PURCHASE, TRANSPORT, STORE, ERECT, ADJUST, AND REPAIR THE SIGNAL SUPPORT OR STRAIN POLE SHALL BE INCLUDED FOR PAYMENT IN THE BID ITEM.

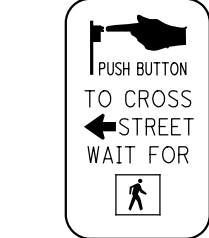
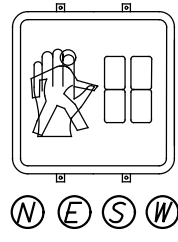
PAYMENT SHALL BE AS PER ITEM 632. 3/16/20

PROPOSED VEHICULAR TRAFFIC
SIGNAL HEAD CONFIGURATION



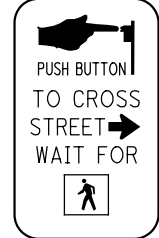
12" HEADS
1,2,3,4
5,6,7,8

PEDESTRIAN
SIGNAL HEAD CONFIGURATION



R10-3A-9 (L) R10-3A-9 (R)

N/W-3
S/E-2



N/E-1
S/W-2

LaSalle Dr

CANTILEVER POLE MTD.
STREET NAME SIGN
D3-1
18" X VARIES

(A)

London-Groveport Rd

CANTILEVER POLE MTD.
STREET NAME SIGN
D3-1
18" X VARIES

(B)

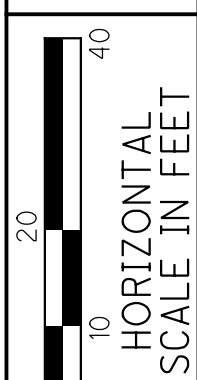
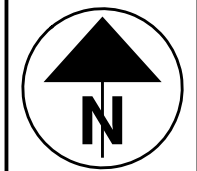
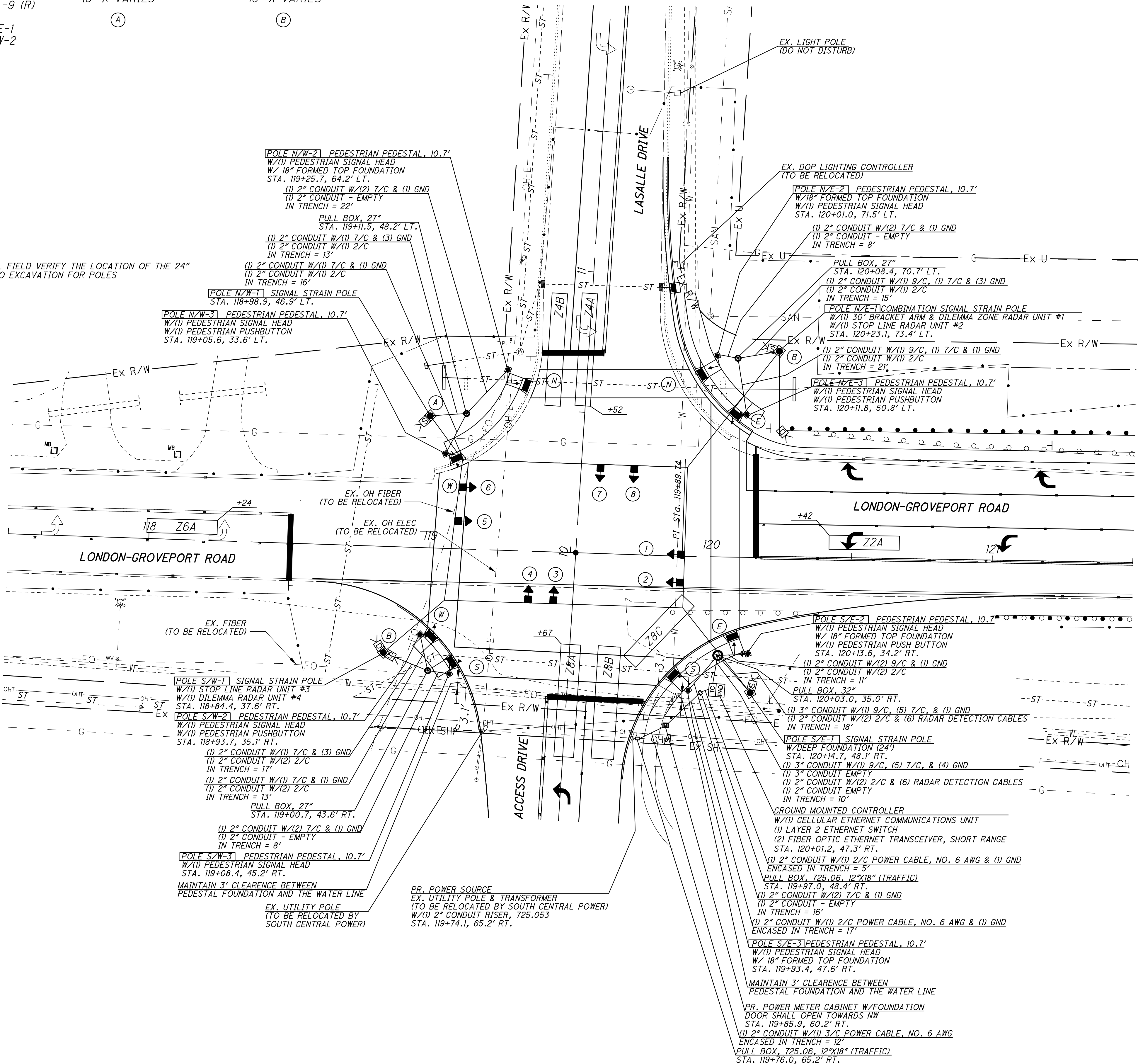
- LEGEND
- SIGNAL HEADS: PROP. VEHICULAR HEAD (B)
PROP. PEDESTRIAN HEAD (W)
SIGNAL POLES: PROP. ANCHOR/STRAIN POLE (M)
PROP. PEDESTAL (P) PUSHBUTTON (PB)
CONTROLLERS & CABINETS: PROP. CABINET W/PAD (C/PAD)
PULL BOXES: PROP. PULL BOX (PB)
DETECTION: RADAR ZONE (Z)
DILEMMA ZONE RADARS (ZD)
STOP LINE RADARS (ZS)

NOTES:

1. THE CONTRACTOR SHALL ENSURE THA ALL PROPOSED SIDEWALKS/PATHWAYS MEET ADA GUIDELINES PER CITY SPECIFICATIONS.
2. THE CONTRACTOR SHALL ENSURE THAT ALL EXISTING SIDEWALKS/PATHWAYS WITHIN THE PROJECT WORK LIMITS MEET ADA GUIDELINES PER CITY SPECIFICATIONS.
3. ALL CABLES, UNLESS SPECIFIED IN THE PLANS, ARE TO BE ROUTED INSIDE THE ANCHOR BASE SIGNAL SUPPORT POLE OR PEDESTAL. CABLES NOT SERVING A GIVEN POLE OR PEDESTAL SHALL NOT BE ROUTED THROUGH THE POLE.
4. POWER, SERVICE AND INTERCONNECT CABLE SHALL BE CONTINUOUS WITH NO SPLICES, EXCEPT AS NOTED.
5. FOR SIGNING AND PAVEMENT MARKINGS, SEE SHEETS 44-47.
6. N/A
7. FOR POLE BASE FOUNDATIONS NOT WITHIN SIDEWALK AREA, THE TOP OF THE POLE BASE FOUNDATION SHALL BE EDGED USING A 1/2" SIDEWALK EDGER INSTEAD OF BEING CHAMFERED.
8. THE CITY OF COLUMBUS SHALL APPROVE BOLT ALIGNMENT, POLE/PEDESTAL FOUNDATION LOCATION, AND ELEVATION PRIOR TO THE CONTRACTOR INSTALLING THE FOUNDATION.
9. TAGGING OF CABLE IN THE PULL BOX IMMEDIATLY ADJACENT TO THE CONTROL CABINET IS NOT REQUIRED EXCEPT FOR TAGGING OF CERTAIN CABLE AS DIRECTED BY THE PROJECT ENGINEER, OR AS PER PLAN.
10. DO NOT ENCASE THE GROUND ROD, THE GROUNDING WIRE, OR THE EMT CONDUIT ENDS IN CONCRETE THAT FALL OUTSIDE OF THE FOUNDATION. FULL ACCESS TO THESE ITEMS MUST BE MAINTAINED AT ALL TIMES. PERMANENTLY MARK THE TOP OF FOUNDATION CONCRETE, WITH A MARKER OR SYMBOL SO THE ROD LOCATION CAN BE IDENTIFIED BY OTHERS.
11. ANY SIGNAL POLE BASE FOUNDATION ADJACENT TO A SIDEWALK AREA SHALL BE FLUSH WITH THE TOP OF THE SIDEWALK UNLESS OTHERWISE STATED. SIGNAL POLE FOUNDATIONS WITHIN SIDEALK AREA SHALL BE PER STD DWG 4161.
12. THE CONTRACTOR SHALL NOT INSTALL POLE FOUNDATIONS UNTIL THE POLE LOCATION AREA IS AT FINISHED GRADE.
13. UNDERGROUND CONDUIT AND TRENCH THAT ARE UNDER PROPOSED SIDEWALK OR ROADWAY AREAS SHALL BE INSTALLED PRIOR TO THE PLACEMENT OF SIDEWALKS OR ANY ASPHALT OR CONCRETE ROADWAY COURSE.
14. THE CONTRACTOR SHALL PROVIDE AND INSTALL POWER CABLE/CONDUIT FROM THE TRAFFIC SIGNAL CONTROLLER CABINET, THROUGH THE POWER METER CABINET AND TO THE POWER/WOOD POLE AT STA 119+76.0, 65.2' RT. COIL ENOUGH CABLE AT THE BOTTOM OF THE POWER POLE TO REACH THE POWER HOOK UP POINT ON THE POLE.
15. N/A
16. N/A
17. N/A
18. THE CONTROL CABINET DOOR SHALL BE LOCATED ON THE (SOUTHEAST) SIDE OF THE CABINET.
19. THE CABINET FOUNDATION SHALL BE PLACED ADJACENT TO THE BACK OF THE SIDEWALK. THE TOP SURFACE OF THE CABINET FOUNDATION LOCATED NEXT TO SIDEWALK AREAS SHALL BE 4" ABOVE THE SURROUNDING WALK. EXPANSION MATERIAL SHALL BE USED BETWEEN ALL FOUNDATIONS AND ADJACENT SIDEWALKS. WORK PAD SIZE SHALL BE 48"W X 36"D X 4"H.
20. USE A SEPERATE CONDUIT FOR EACH GROUPING OF CABLES UNLESS OTHERWISE INDICATED: ONE CONDUIT FOR 120VAC SIGNAL CABLE (3/C, 7/C, 9/C); ONE CONDUIT FOR POWER; ONE CONDUIT FOR 2 CONDUCTOR CABLE (LOOP & PUSHBUTTON); AND ONE CONDUIT FOR INTERCONNECT/COMMUNICATIONS CABLE (TWISTED PAIR, FIBER OPTICS OR COAX). ANY OTHER LOW VOLTAGE CABLE NOT SPECIFIED ABOVE CAN BE PLACED IN THE 2 CONDUCTOR CABLE CONDUIT. POWER CABLE MUST BE PLACED IN ITS OWN CONDUIT.
21. UNLESS OTHERWISE SPECIFIED THE FOLLOWING SHALL APPLY. A PREFORMED PVC CONDUIT ELBOW SHALL BE USED TO CHANGE THE PVC CONDUIT DIRECTION BEYOND WHAT ITS NATURAL BENDING FLEX WOULD YIELD. RIGID METAL CONDUIT CAN BE BENT TO FORM AN ELBOW OR ANY OTHER BENDING ANGLE REQUIRED ONLY IF A PROPER CONDUIT BENDING MACHINE IS USED. THE ELBOW RADIUS FOR ANY NON-INTERCONNECT CONDUIT SHALL BE 24" OR LARGER WHEN USED IN A HORIZONTAL OR VERTICAL MANNER. ANY TYPE OF ELBOW USED FOR INTERCONNECT CONDUIT SHALL HAVE A RADIUS OF 36" OR LARGER WHEN USED IN A HORIZONTAL DIRECTION OR IN A VERTICAL DIRECTION WHEN THE TRENCH IS 36" OR DEEPER. IF THE TRENCH IS LESS THAN 36" THEN THE VERTICAL ELBOW RADIUS SHALL BE 24".
22. ALL CLAMPS AND BANDING MATERIAL SHALL BE PAINTED TO MATCH THE SIGNAL SUPPORTS.
23. N/A
24. N/A

NOTES:

THE CONTRACTOR WILL FIELD VERIFY THE LOCATION OF THE 24" WATER MAIN, PRIOR TO EXCAVATION FOR POLES



CALCULATED JSW
CHECKED SMM

TRAFFIC SIGNAL INSTALLATION PLAN
LA SALLE DRIVE AT LONDON-GROVEPORT ROAD

IMPROVEMENTS OF
LONDON-GROVEPORT ROAD
FROM 100' WEST OF LASALLE DR
TO 1000' EAST OF LASALLE DR

50
54

3771-E

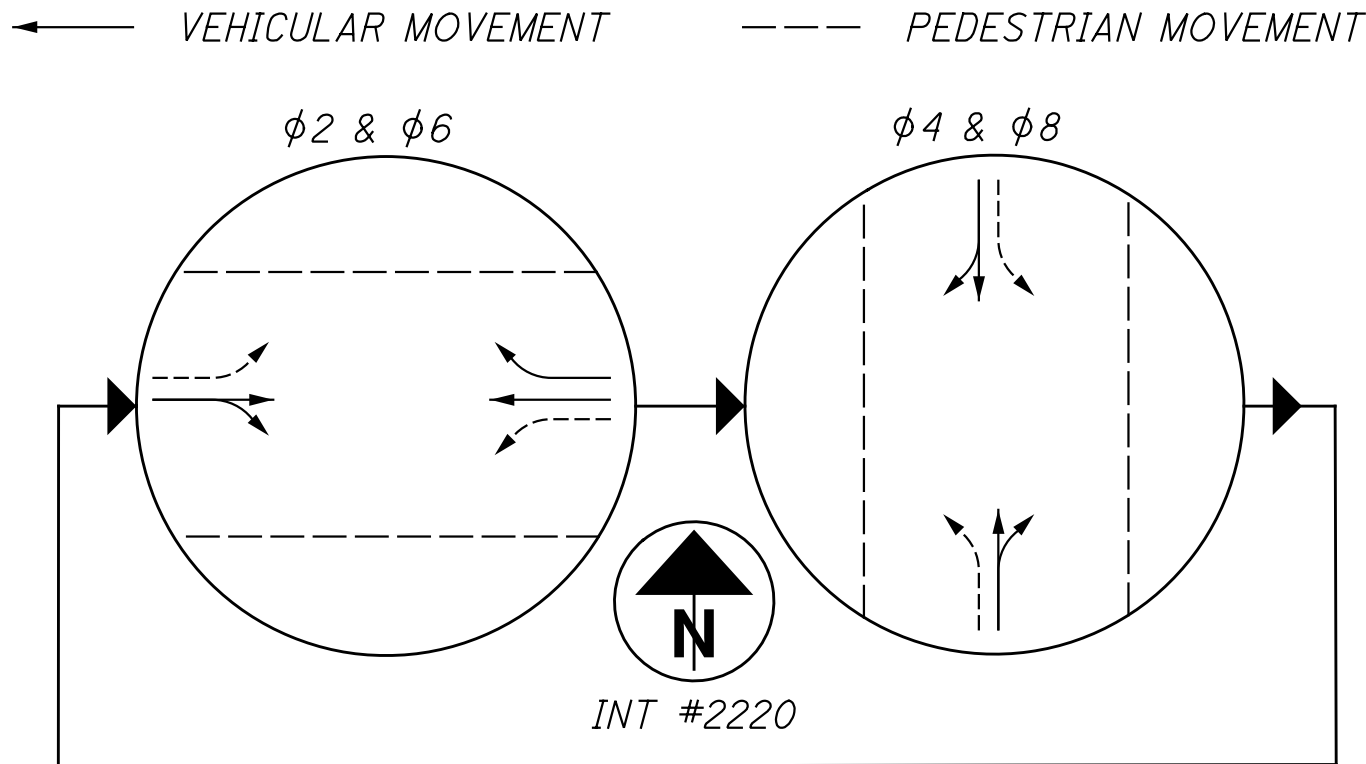
FIELD WIRING HOOK-UP CHART

SIGNAL HEAD #	INDICATION	FIELD TERMINAL	FLASH
1, 2 (EB)	R	φ 6 R	R
	Y	φ 6 Y	
	G	φ 6 G	
3, 4 (SB)	R	φ 4 R	R
	Y	φ 4 Y	
	G	φ 4 G	
5, 6 (WB)	R	φ 2 R	R
	Y	φ 2 Y	
	G	φ 2 G	
7, 8 (NB)	R	φ 8 R	R
	Y	φ 8 Y	
	G	φ 8 G	
N (NORTH)	WALK	G (φ 2)-W	OFF
	DON'T WALK	R (φ 2)-DW	
E (EAST)	WALK	G (φ 8)-W	OFF
	DON'T WALK	R (φ 8)-DW	
S (SOUTH)	WALK	G (φ 6)-W	OFF
	DON'T WALK	R (φ 6)-DW	
W (WEST)	WALK	G (φ 4)-W	OFF
	DON'T WALK	R (φ 4)-DW	

TIMING CHART

PHASE	1	2	3	4	5	6	7	8
MOVEMENT		WB		SB		EB		NB
MIN INITIAL		23		10		29		10
WALK		7		7		7		7
PED CHG		11		14		16		18
PASS/ EXT		1.0		3.7		1.0		3.7
YELLOW		5.8		3.2		5.8		3.2
RED CLR		1.0		1.2		1.0		1.2
MAX GRN 1		66		36		66		36
MAX GRN 2		72		42		72		42
PED RECALL		ON		OFF		ON		OFF
VEH RECALL		MIN		OFF		MIN		OFF
MEMORY		ON		OFF		ON		OFF

PHASING DIAGRAM

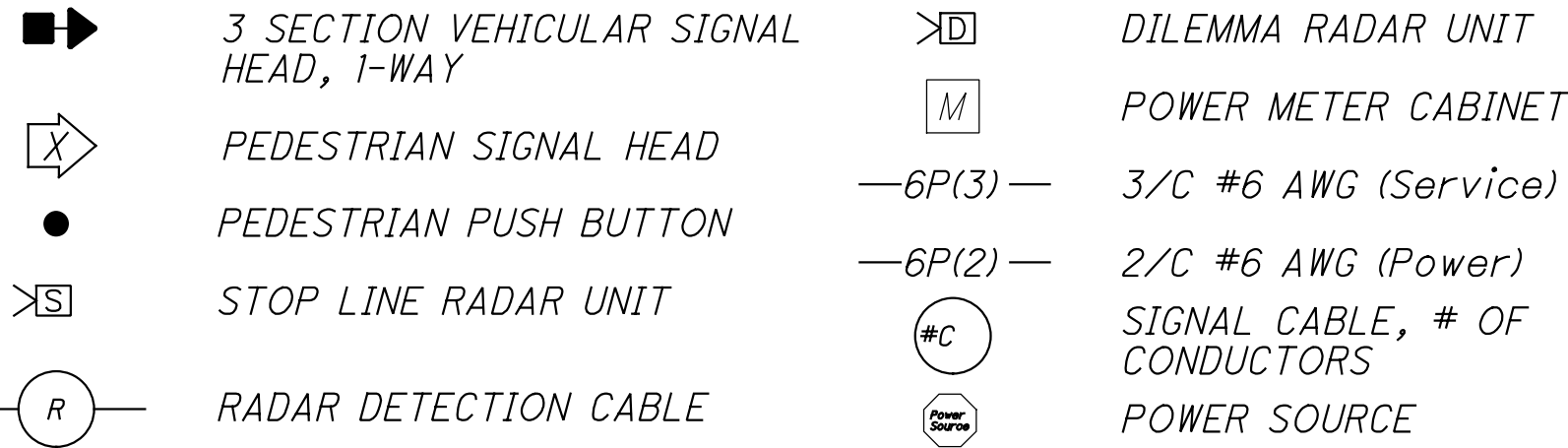


RADAR DETECTION CHART

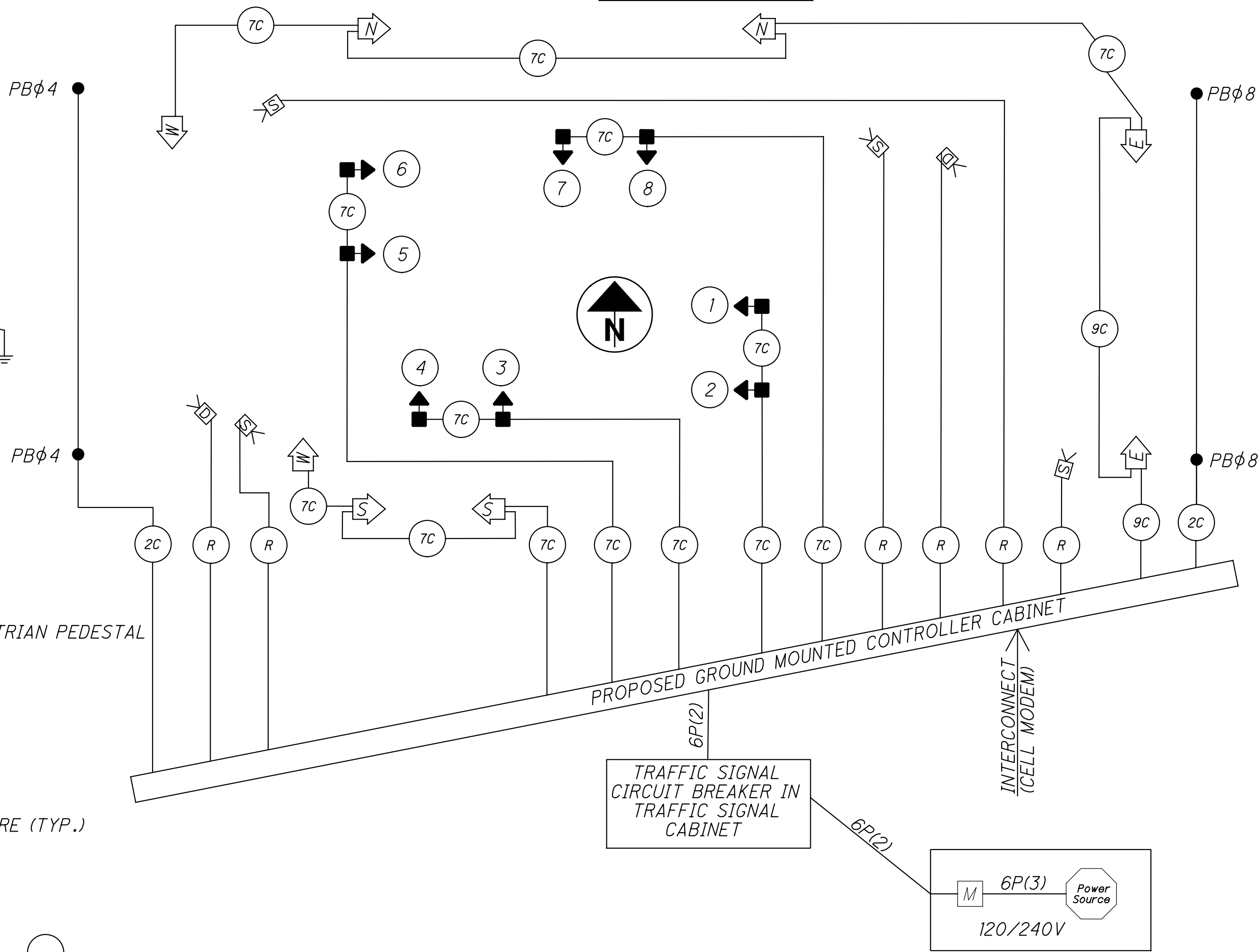
DETECTION ZONE (#)	RADAR DETECTOR (#)	PHASE	DETECTION ZONE SIZE (W' X L')	PRESENCE	PURPOSE	DELAY DATA	
						DELAY (SEC)	INHIBIT DELAY DURING GREEN (PHASE)
-	1	φ 2	1 LANE X 600'	X	DILEMMA ZONE	-	-
Z4A	2	φ 4	5.5' x 40'	X	CALL/EXTEND	3	φ 4
Z4B	2	φ 4	5.5' x 40'	X	CALL/EXTEND	5	φ 4
-	4	φ 6	1 LANE X 600'	X	DILEMMA ZONE	-	-
Z8A	3	φ 8	7' x 40'	X	CALL/EXTEND	3	φ 8
Z8B	3	φ 8	8' x 40'	X	CALL/EXTEND	5	φ 8
Z8C	3	φ 8	6' x 36'	X	CALL/EXTEND	12	φ 8
Z2A	5	φ 2	5' x 25'	X	FUTURE	-	φ 2
Z6A	6	φ 6	5' x 25'	X	FUTURE	-	φ 6

DILEMMA ZONE SPEED THRESHOLD: >35 MPH

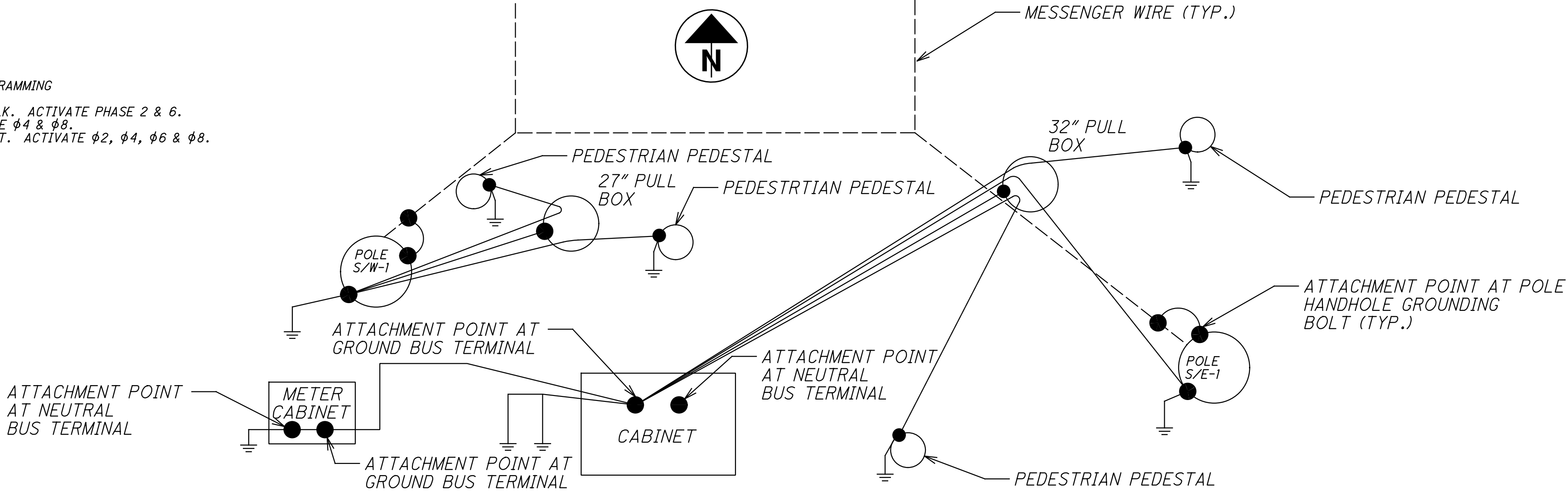
WIRING DIAGRAM LEGEND



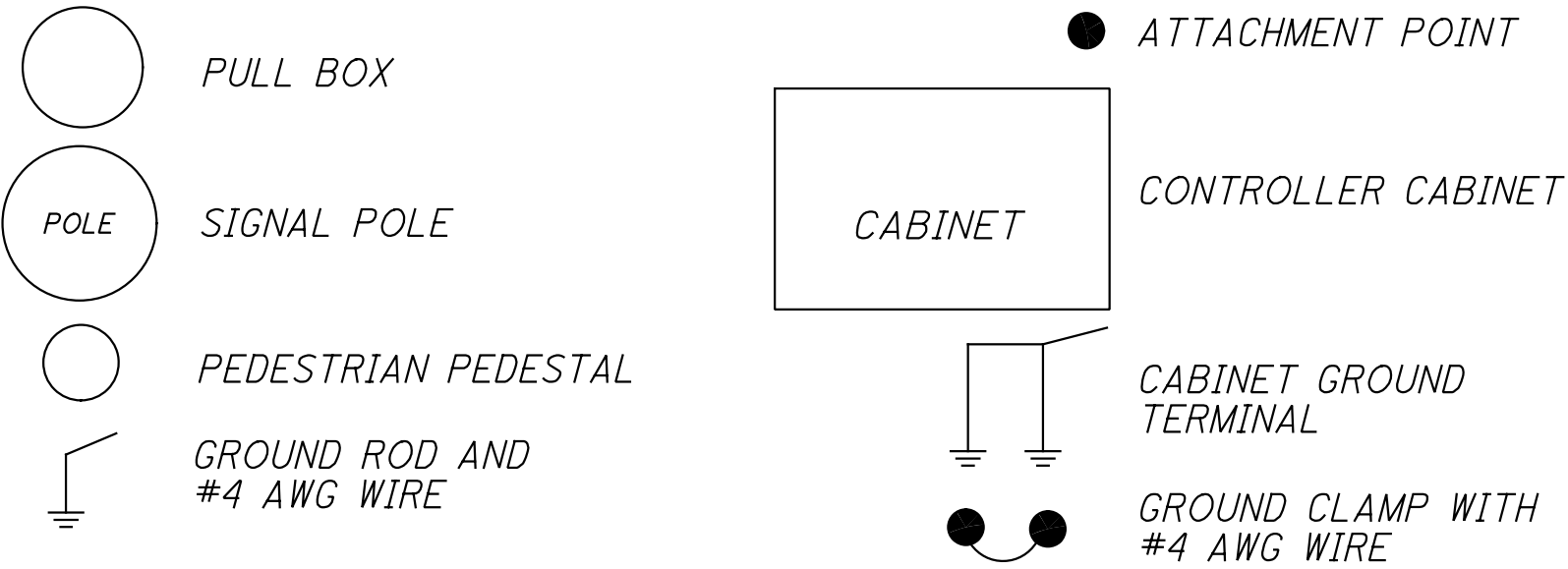
WIRING DIAGRAM



GROUNDING DIAGRAM



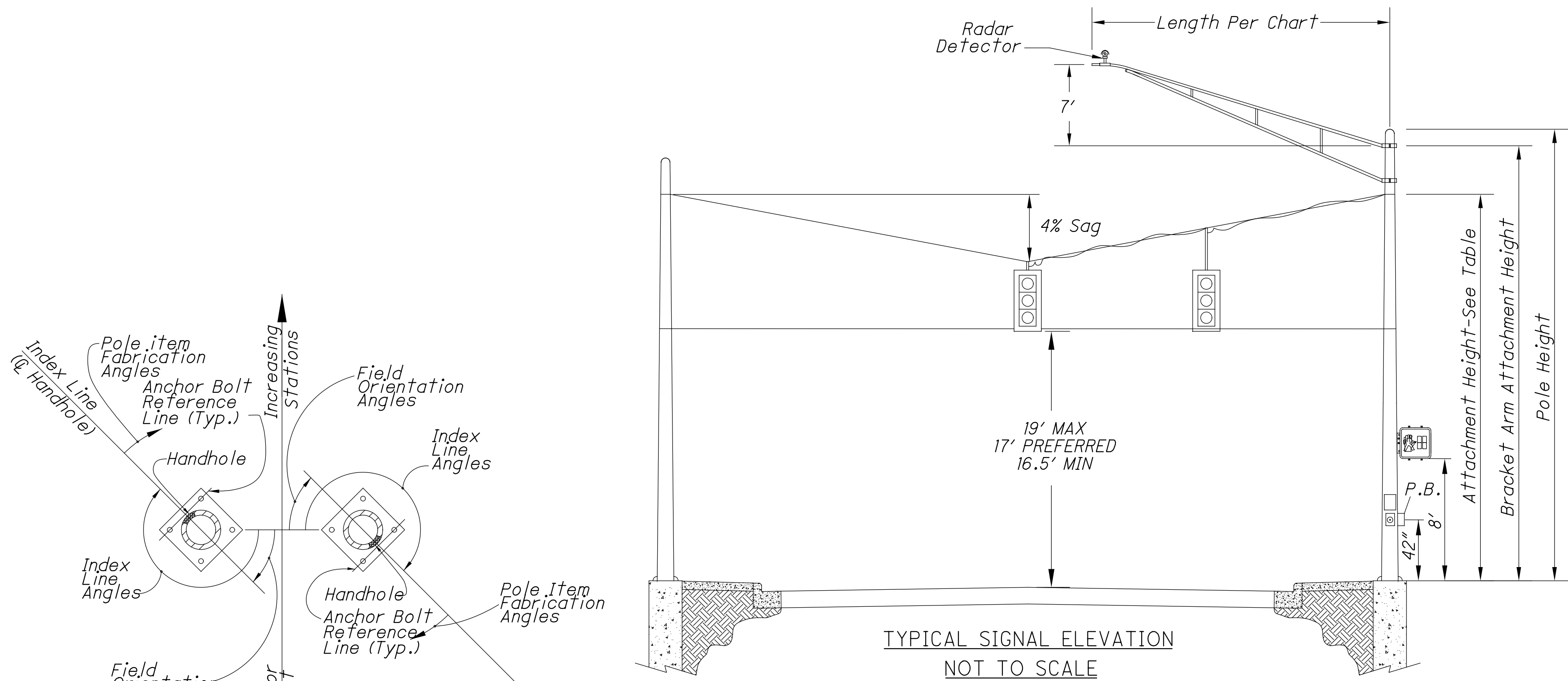
GROUNDING DIAGRAM LEGEND



- NOTES:
- SET CONFLICT MONITOR FOR 10 SEC FLASH.
 - LOOP DETECTOR LEAD-IN CABLE SHALL BE USED FOR THE PEDESTRIAN PUSHBUTTONS. GROUND THE SHIELD ONLY AT THE CABINET.
 - SET ALL PRESENCE ZONE CHANNELS TO COUNT MODE.
 - N/A
 - BACK PANEL WIRING (FRONT SIDE JUMPERS ONLY)
A1) HARD WIRE 'PED RECYCLE' TO GROUND.
A2) N/A
 - INSTALL A DIODE BETWEEN TERMINALS, φ 2 'PHASE ON' OUTPUT AND φ 1 'OMIT' INPUT, SO THE LEFT TURN PHASE (φ 1) IS OMITTED DURING THE THROUGH PHASE (φ 2).
 - N/A
 - USE DIODES TO PREVENT FEEDBACK ON MULTI-USE TERMINALS.
 - N/A
 - N/A
 - N/A
 - N/A
 - CONTROLLER SOFTWARE PROGRAMMING
A) INITIALIZE IN φ 2 & φ 6 GREEN
B) ENABLE ACTUATED REST-IN-WALK. ACTIVATE PHASE 2 & 6.
C) ENABLE DUAL ENTRY. ACTIVATE φ 4 & φ 8.
D) ENABLE SIMULTANEOUS GAP OUT. ACTIVATE φ 2, φ 4, φ 6 & φ 8.
E) N/A
 - N/A
 - N/A
 - N/A

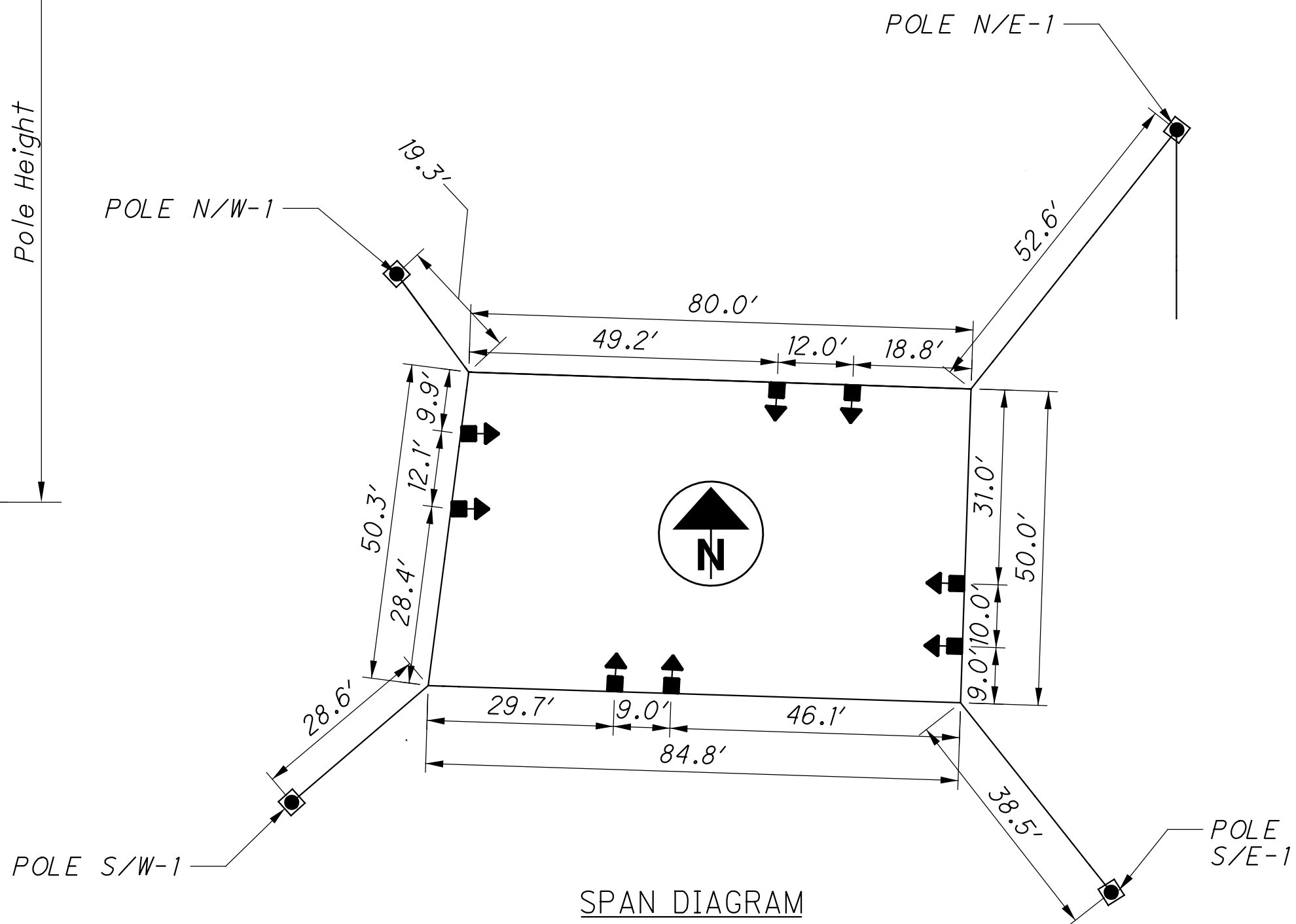
adoss
7/29/2021 12:19:03 PM
O:\2020\03242.D Drawings\Design\Traffic\Sheets\03242_CD002.dgn

INTERSECTION	SHEET NO.	POLE DESIGNATION	POLE COLOR FEDERAL STANDARD §95B	POLE SIZES & SPAN ATTACHMENT HEIGHT				DETECTION BRACKET ARM		POLE FABRICATION DATA CLOCKWISE FROM HANDHOLE AT 0 DEGREES						FIELD ORIENTATION		
				POLE DESIGN NO.	POLE HT. (FT.)	SPAN ATTACHMENT HT. (FT.)	RADAR ATTACHMENT HT. (FT.)	ATTACHMENT HT. (FT.)	BRACKET ARM LENGTH (FT.)	ANCHOR BOLT REF. LINE	2" BHC ANGLE-HT. DEG.-FT.	3" BHC ANGLE-HT. DEG.-FT.	PED. SIGNALS	PED. PUSH BUTTONS	STREET NAME SIGN	INDEX LINE ANGLE (HANDHOLE)	ANCHOR BOLT REF. LINE	FOUNDATION ELEVATION
	50	N/W-1		13	35	31.5	23.5	-	-	90	180 / 32.5	-	-	-	225	142	225	728.5
	50	N/W-2		PEDESTAL	10.7	-	-	-	-	90	-	-	161	-	-	200	290	SEE SHEET 42
	50	N/W-3		PEDESTAL	10.7	-	-	-	-	90	-	-	209	203	-	65	155	SEE SHEET 42
	50	S/W-1		13	34	30.5	22.50	-	-	90	180 / 31.5	-	-	-	227	228	316	729.5
LASALLE DRIVE	50	S/W-2	SEMI-GLOSS	PEDESTAL	10.7	-	-	-	-	90	-	-	158	143	-	304	34	SEE SHEET 42
AT	50	S/W-3	BLACK	PEDESTAL	10.7	-	-	-	-	90	-	-	216	-	-	146	236	SEE SHEET 42
LONDON GROVEPORT ROAD	50	S/E-1	#27038	13	35	34.0	26.0	-	-	90	-	180 / 35.0	-	-	213	141	231	730.5
	50	S/E-2		PEDESTAL	10.7	-	-	-	-	90	-	-	196	198	-	70	160	SEE SHEET 42
	50	S/E-3		PEDESTAL	10.7	-	-	-	-	90	-	-	235	-	-	133	223	SEE SHEET 42
	50	N/E-1		13	42	31.0	23	41	30	90	180 / 32.0	-	-	-	236	217	306	729
	50	N/E-2		PEDESTAL	10.7	-	-	-	-	90	-	-	192	-	-	153	243	SEE SHEET 42
	50	N/E-3		PEDESTAL	10.7	-	-	-	-	90	-	-	155	147	-	302	32	SEE SHEET 42



NOTES:
All angles measured clockwise.
Index line goes through the center of the handhole.

TYPICAL STRAIN POLE & PEDESTAL ORIENTATION DETAIL
NOT TO SCALE



NOTES:
1. THE LOWEST SIGNAL HEAD IN EACH DIRECTION SHALL BE SET AT 16.5'. ADJUST THE SPAN ACCORDINGLY.
2. THE DIMENSIONS SHOWN ON THE SPAN DIAGRAM ARE ESTIMATES. FINAL HEAD POSITIONS SHALL BE ON THE LANE LINE, CHANNEL LINE, OR ON THE LANE CENTERLINE. THE DISTANCE BETWEEN THE HEADS SHALL BE AS INDICATED.

adoss
7/29/2021 12:19:04 PM
\\01\2020\03242.D Drawings\Design\Traffic\Sheets\03242_LN001.dgn

INPECTION/ACCEPTANCE BY THE DIVISION OF POWER
UPON COMPLETION OF CONSTRUCTION OF THE PROJECT, THE CONTRACTOR WILL BE REQUIRED TO FOLLOW THE PROCEDURES FOR INSPECTION AND ACCEPTANCE OF A STREET LIGHTING PROJECT BY THE DIVISION OF POWER. FOR THIS PROJECT, THE CONTRACTOR WILL BE REQUIRED TO SHOW THE DIVISION OF POWER THAT ALL LUMINAIRES ARE FUNCTIONING PROPERLY. DURING THE FINAL INSPECTION/ACCEPTANCE PROCESS, THE CONTRACTOR WILL BE REQUIRED TO COVER THE PHOTOCCELL OF EACH LUMINAIRE, IN ORDER TO VERIFY OPERATION OF THE LUMINAIRE TO THE DIVISION OF POWER

STREET LIGHTING NOTES

THE STREET LIGHTING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT CITY OF COLUMBUS, OHIO "CONSTRUCTION AND MATERIAL SPECIFICATIONS" (2018 EDITION, SECTION 1001, TITLED "STREET LIGHTING"), INCLUDING ALL SUPPLEMENTS THERETO, IN FORCE ON THE DATE OF THE CONTRACT, SHALL GOVERN ALL MATERIALS AND WORKMANSHIP INVOLVED IN THE IMPROVEMENTS SHOWN ON THESE PLANS, EXCEPT AS SUCH SPECIFICATIONS ARE MODIFIED BY THE FOLLOWING SPECIFICATIONS OR BY THE CONSTRUCTION DETAILS SET FORTH HEREIN.

CIRCUIT VOLTAGE FOR ALL LUMINAIRS SHALL BE 480 VOLT, UNLESS OTHERWISE NOTED.

CENTERLINE OF CONDUIT TRENCH TO BE PLACED IN ACCORDANCE WITH THE PLAN DETAILS.

NO SPLICES SHALL BE MADE TO CIRCUIT CABLES EXCEPT AT NOTED LOCATIONS WHEN PERMITTED.

TRENCH LOCATION SHALL BE DEFLECTED AROUND OBSTACLES AS NOTED IN THIS PLAN.

WHERE THE TRENCH IS OFFSET FROM THE CENTERLINE OF THE FOUNDATIONS, THE CONDUIT SHALL BE DIRECTED TOWARD THE ELL OF THE FOUNDATION AT APPROXIMATELY 45 DEGREE ANGLE. THE FOUNDATION ELLS MAY BE AIMED OUT OF FOUNDATION AT APPROXIMATELY 45 DEGREE ANGLES TO FACILITATE CONNECTION TO CONDUIT WITH THE LEAST AMOUNT OF BENDS.

THE PLAN DETAILS SHALL BE CONSIDERED SUPPLEMENTAL TO MIS SPECIFICATIONS.

AS BUILD RECORD - THE CONTRACTOR SHALL MAINTAIN A SET OF PROJECT RECORD DOCUMENTS. THESE DOCUMENTS SHALL INCLUDE REVIEWED SHOP DRAWINGS, CHANGE ORDERS, EQUIPMENT OPERATING INSTRUCTIONS, FIELD TEST RECORDS, AND AS BUILT DRAWINGS. THE AS BUILT DRAWING SHALL BE MARKED LEGIBLY IN RED, THE ACTUAL LOCATION OF EQUIPMENT AND CONDUITS AS CONSTRUCTED. ALL EQUIPMENT AND UNDERGROUND CONDUITS INSTALLED SHALL HAVE LOCATIONS MARKED IN DISTANCES OFF A LANDMARK AT LEAST EVERY 25 FEET AND AS NECESSARY AT BENDS FOR LOCATION AT A LATER DATE.

ALL ITEMS OF WORK CALLED FOR ON THE PLANS, FOR WHICH NO SPECIFIC METHOD OF PAYMENT IS PROVIDED, SHALL BE PREFORMED BY THE CONTRACTOR AND THE COST OF THESE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS RELATED ITEMS. THIS INCLUDES, BUT IS NOT LIMITED TO, SUCH INCIDENTAL ITEMS AS RELOCATION OF MAIL BOXES, SAW CUTTING AND REMOVAL AND/OR RELOCATION OF SIGNS, RAILROAD TIES, SPRINKLERS, RELOCATING ROOF OR SUMP DRAINS AROUND LIGHT POLE FOUNDATIONS, HAND DIGGING AROUND UNDERGROUND UTILITIES OR OTHER MISCELLANEOUS ITEMS.

PRIOR TO ANY PAINTING, THE CONTRACTOR SHALL SUBMIT POINT SAMPLES AND SHOP DRAWINGS TO THE CITY OF COLUMBUS. PAINT SAMPLES SHALL BE REPRESENTATIVE OF THE COLOR, TYPE AND MANUFACTURE THAT WILL BE USED FOR LIGHT POLE.

CT METER CABINET (MIS-59), AS PER PLAN

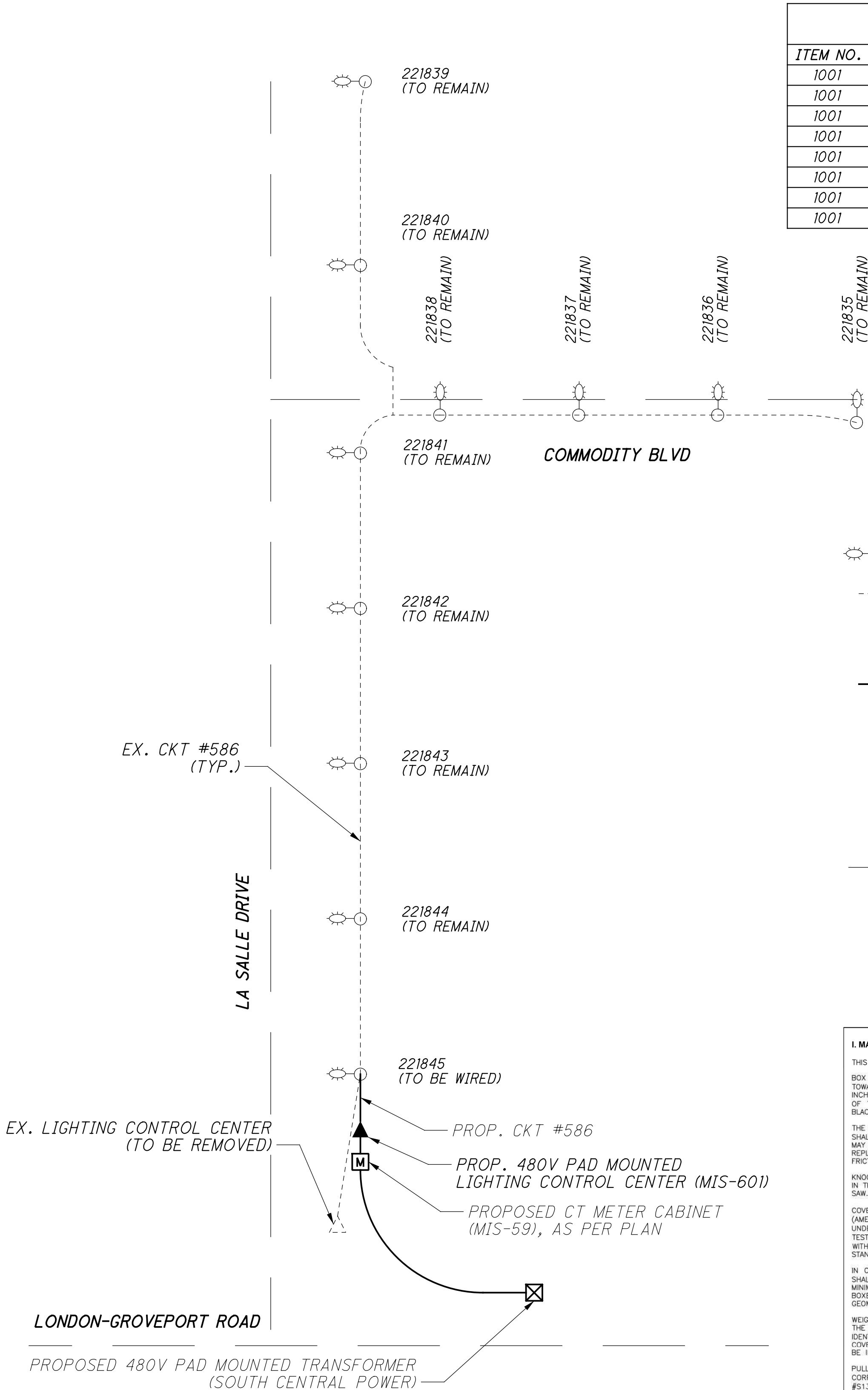
IN ADDITION TO THE REQUIREMENTS OF MIS-59, SOUTH CENTRAL POWER SHALL BE RESPONSIBLE FOR PROVIDING THE METER SOCKET, INSTALLING THE SECONDARY WIRING BETWEEN THE CT AND THE METER SOCKET, AND FOR DESIGNATING THE LOCATION FOR THE TRENCH BETWEEN THE CT CABINET AND THE METER.

PAYMENT FOR THIS ITEM SHALL BE AT THE UNIT BID PRICE PER EACH AND SHALL INCLUDE LABOR, EQUIPMENT AND MATERIAL INCLUDING HARDWARE, INSTALLED COMPLETE.

PULL BOX (MIS-54), AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF MIS-54, THE PULL BOX SHALL BE SIZED 17" X 30" X 18".

PAYMENT FOR THIS ITEM SHALL BE AT THE UNIT BID PRICE PER EACH AND SHALL INCLUDE LABOR, EQUIPMENT AND MATERIAL INCLUDING HARDWARE, INSTALLED COMPLETE.



CONTROL CENTER	CIRCUIT	LUMINAIRE QTY.	APPROX. LOAD		CIRCUIT FUSE	CIRCUIT FUSE SIZE (AWG)	MAINTAINING AGENCY
			APPROX. WATTS	APPROX. AMPS			
480V PAD MOUNTED LIGHTING CONTROL CENTER (MIS-602)	586	11	100	4	15 A	4	CITY OF COLUMBUS
TOTAL		11	100	4			

SUB-SUMMARY OF LIGHTING ITEMS			
ITEM NO.	QTY	UNIT	ITEM DESCRIPTION
1001	1	EA	PULL BOX (MIS-54), AS PER PLAN
1001	1	EA	CT METER CABINET, 480 VOLT SCP FED LIGHTING CIRCUITS (MIS-59), AS PER PLAN
1001	184	CKT-FT	UNDERGROUND CIRCUIT, 2 WIRE (MIS-403)
1001	1	EA	POLE TO BE WIRED, 2 WIRE (MIS-500)
1001	1	EA	CONTROLLER, 2 WIRE, 480V, PAD MOUNT (MIS-601)
1001	103	FT	2" CONDUIT, CONCRETE ENCASED (MIS-700)
1001	1	EA	FOUNDATION REMOVAL (MIS-900)
1001	-	LUMP	EXISTING UNDERGROUND SYSTEM REMOVAL (MIS-902)

NON-PAYMENT MIS SPECIFICATIONS	
MIS	ITEM DESCRIPTION
1	STREET LIGHT LOCKOUT/TAGOUT (LOTO)
2	GUIDELINES FOR INSPECTION & ACCEPTANCE OF STREET LIGHTING SYSTEMS
3	GUIDELINES FOR STREET LIGHTING "MATERIALS FOR APPROVAL" SUBMITTAL PACKAGES
4	INSPECTION CHECKLIST

CIRCUIT SCHEMATIC LEGEND

- EXSTING LIGHT POLE & LUMINAIRE
- - - - - EXISTING 2-WIRE CIRCUIT (TO REMAIN), CKT# 586
- EXISTING LIGHTING CONTROL CENTER, CKT #586 (TO BE REMOVED)
- - - - - PROPOSED 2-WIRE CIRCUIT
- PROPOSED 480V PAD MOUNTED TRANSFORMER (SOUTH CENTRAL POWER)
- PROPOSED LIGHTING CONTROL CENTER, CIRCUIT #586, 2-WIRE (MIS-601)
- PROPOSED CT METER CABINET (MIS-59), AS PER PLAN
- - - - - EXISTING ROADWAY CENTERLINE

CITY OF COLUMBUS MIS
MIS-1
MIS-2
MIS-3
MIS-4
MIS-54 (AS PER PLAN)
MIS-59 (AS PER PLAN)
MIS-403
MIS-500
MIS-601
MIS-700
MIS-900
MIS-902

NOTE:
CONTACT PROPERTY MAINTENANCE AND SOUTH CENTRAL POWER PRIOR TO CONSTRUCTION ACTIVITIES:
FED ONE DUBLIN
ATTN: GORDY MEYERS
PHONE: (614) 578-7583

SOUTH CENTRAL POWER
ATTN: MIKE CHALFAN
PHONE: (740) 689-6168

I. MATERIALS

THIS SPECIFICATION DEFINES THE 17" x 30" x 18" PULL BOX WITH COVER.
BOX DEPTH SHALL BE 18 INCHES. THE SIDES SHALL BE STRAIGHT WALLED OR TAPERED INWARDS TOWARDS THE TOP FOR STABILITY. BOX SHALL BE PROVIDED WITH A BOTTOM FLANGE AT LEAST 1-1/4 INCHES WIDE TO PREVENT SETTLING IN FIRM SOIL WHEN SUBJECTED TO SPECIFIED LOADS. TOP REGION OF THE BOX SHALL BE CONFIGURED TO PROVIDE "KEYING IN" TO LOCK THE BOX IN CONCRETE OR BLACKTOP WHEN INSTALLED IN DRIVEWAYS, SIDEWALKS, ETC.

THE LID SHALL BE INTERCHANGEABLE AND SHALL FIT IN ANY BOX BUILT TO THIS SPECIFICATION. LID SHALL BE FASTENED TO THE BOX WITH TWO 1/2"-13 NC STAINLESS STEEL PENTHEAD BOLTS. THE BOX MAY HAVE A "SELF-LOCATING" OR "FLOATING" NUT MADE OF STAINLESS STEEL AND SHALL BE REPLACEABLE. COVER SURFACE SHALL BE SKID RESISTANT AND SHALL HAVE A MINIMUM COEFFICIENT OF FRICTION OF 0.50.

KNOCKOUTS SHALL BE EASILY REMOVABLE AND LEAVE A SMOOTH EDGE. IF KNOCK-OUTS MUST BE MADE IN THE FIELD, IT SHOULD BE POSSIBLE TO DO SO WITH A SIMPLE TOOL SUCH AS A WOOD HOLE CUTTING SAW.

COVER AND BOX SHALL HAVE A RATING OF H-10 (INCIDENTAL TRAFFIC) AS DETERMINED BY AASHTO (AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS) AND MEET WESTERN UNDERGROUND COMMITTEE STANDARDS, GUIDE 3.5 (W.U.C. 3.5). SHOULD HAVE A MINIMUM VERTICAL TEST LOAD OF 22,500# OVER A 10'X10' AREA, AND BE SO IDENTIFIED ON THE SURFACE ACCORDANCE WITH TIER 15 OF THE ANSI/SC1E 77 2002 SPECIFICATION FOR UNDERGROUND ENCLOSURE INTEGRITY STANDARD

IN ORDER TO MEET THE ABOVE REQUIREMENTS FOR HIGH STRENGTH AND LOW WEIGHT, THE PULL BOX SHALL BE MADE OF HDPE (HIGH DENSITY POLYMER) AND FRP (FIBERGLASS REINFORCED POLYESTER). MINIMUM COMPRESSIVE STRENGTH STRENGTH OF 20,000 P.S.I. AND SHEET MOLDING SMC FIBERGLASS. BOXES SHALL BE MADE WITH A CLOSED STEEL COMPRESSION MOLDING PROCESS FOR GUARANTEED GEOMETRIES AND DIMENSIONS.

WEIGHT SHALL BE LIMITED TO NOT MORE THAN 50 LBS. FOR THE BOX, AND 35 LBS. FOR THE COVER. THE COVER SHALL BE MADE OF HDPE AND A COMBINATION OF FRP WITH A THICKNESS OF 2 INCHES. IDENTIFICATION "ELECTRIC" SHALL BE PERMANENTLY MOLDED ON THE TOP SURFACE OF THE PULL BOX COVER. IDENTIFICATION OF THE MANUFACTURER, THE PART NUMBER AND YEAR OF MANUFACTURE SHALL BE INCLUDED.

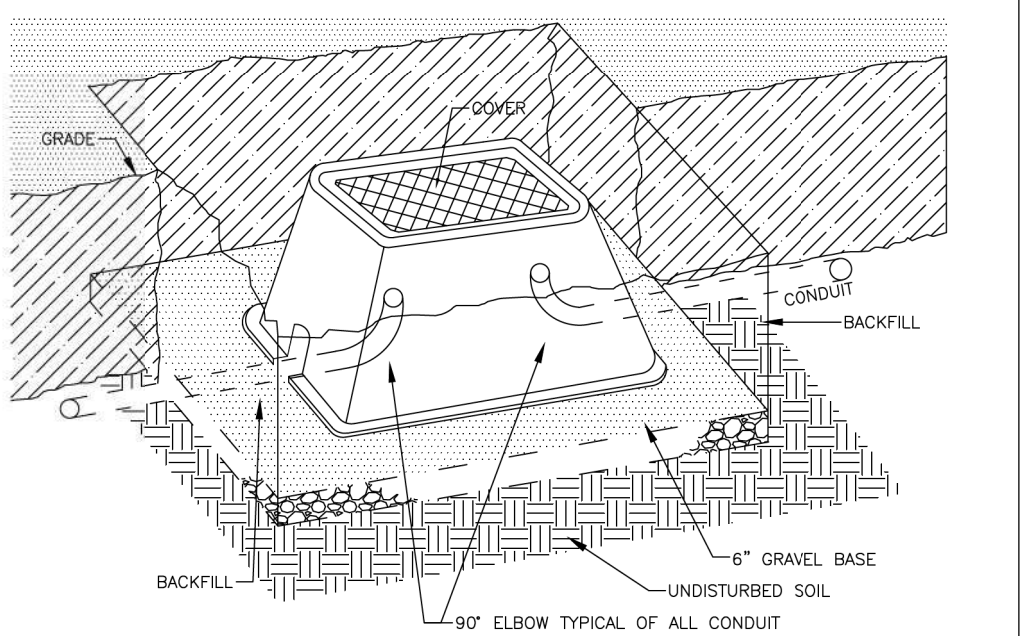
PULL BOX TO BE APPROVED EQUAL IN QUALITY, DESIGN AND PERFORMANCE TO CDR SYSTEM CORPORATION PA10-1324-18 AND SYNVERTECH MOLDED PRODUCTS INC. PART # S1324B18A (COVER #S1324HBB0A02, PENTHEAD BOLTS #1005), QUAZITE 430-X-040-PS STYLE (COVER #PG1324H400, BOX #PG1324B418), CARSON H SERIES 1324 (COVER #H1324-P1, BOX #H1324-18), HIGHLINE-(BOX# PHB132413, COVER# PHC1324HE1) 17" x 30" x 18"

II. INSTALLATION

PULL BOXES SHALL BE INSTALLED AS SHOWN ON THE CONTRACT DRAWINGS MIS-4 AND INDICATED IN THE FIELD BY THE ENGINEER. THE PULL BOX SHALL BE SUPPORTED BY A MINIMUM OF 6" DEEP GRAVEL BASE. THE GRAVEL BASE SHALL BE WIDER THAN THE SIDEWALLS OF THE ENCLOSURE. COMPACT BACKFILLS IN LAYERS NOT EXCEEDING 4" USING A MECHANICAL TAMPING DEVICE. THE CONTRACTOR SHALL ENSURE THAT THE PAVEMENT AND SIDEWALKS ARE TO GRADE LEVEL AND IN GRASS/LAWN AREAS THE PULL BOX SHALL BE SET 1-1/2" ABOVE GRADE. THE EXCESS EARTH SHALL BE HAULED AWAY FROM THE SITE.

III. BASIS OF PAYMENT

ITEM UNIT DESCRIPTION
MIS-54 EACH PULL BOX, 17" x 30" x 18"



NOTES:

THE BACKFILL SHALL BE POWER TAMPED IN LAYERS NOT EXCEEDING 4 INCHES IN THICKNESS LOOSE MEASUREMENTS COMPLYING WITH SOIL DENSITY COMPACTION REQUIREMENTS UNDER SECTION 203.12 OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS.

A 6" GRAVEL BASE SHALL BE PROVIDED BELOW THE PULLBOX.

MIS-54	DEPARTMENT OF PUBLIC UTILITIES - DIVISION OF POWER CITY OF COLUMBUS, OHIO	
	PULL BOX, 17" x 30" x 18"	
	DRAWN BY: BEN	DATE: 1/7/2018
	APPROVED: [Signature]	SCALE: NONE SHEET 1 OF 1 54

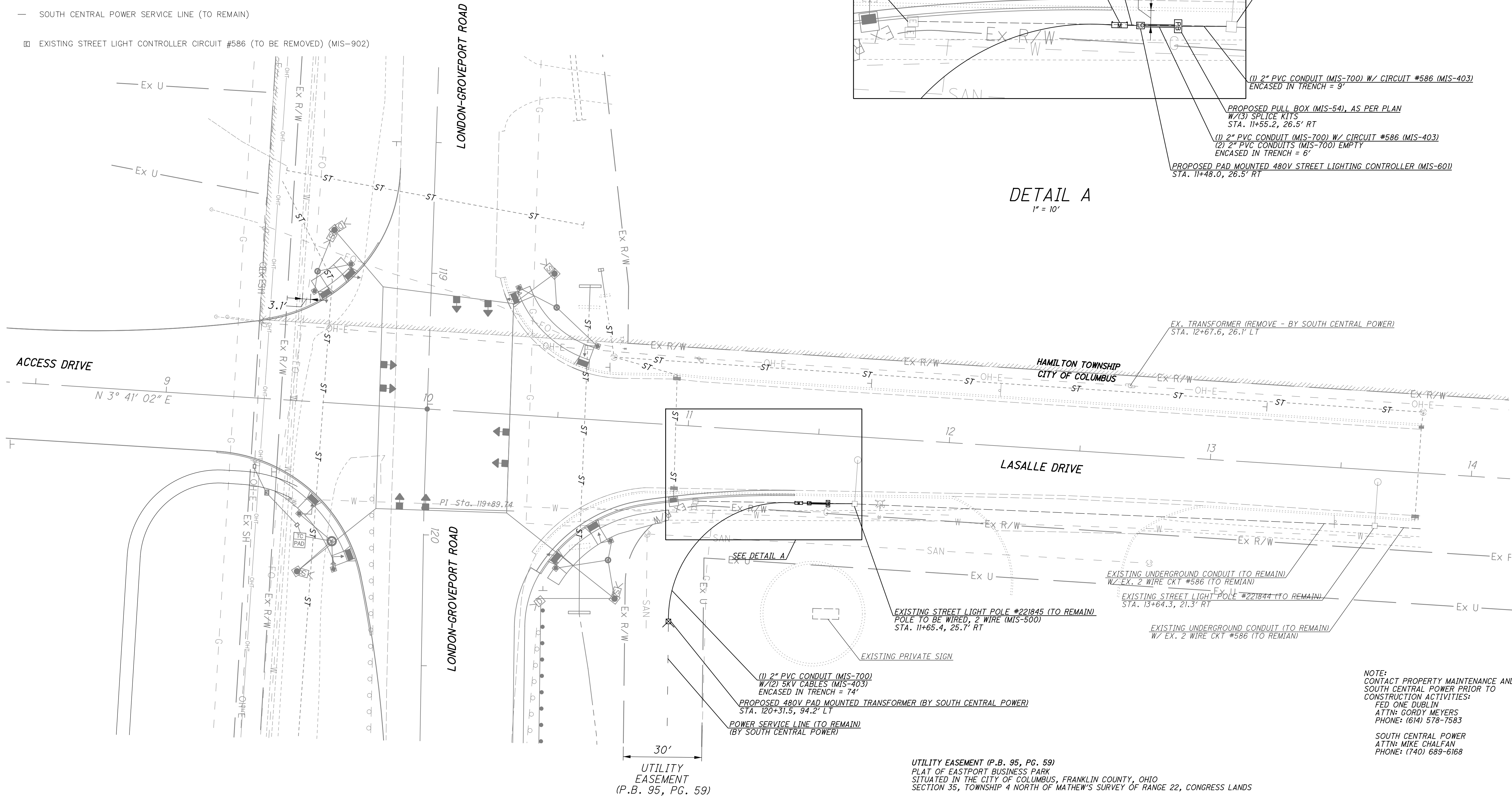
LIGHTING GENERAL NOTES

IMPROVEMENTS OF
LONDON-GROVEPORT ROAD
FROM 100' WEST OF LASALLE DR
TO 1000' EAST OF LASALLE DR

adoss
7/29/2021 12:19:08 PM
O:\2020\03242.D Drawings\Design\Traffic\Sheets\03242_LP001.dgn

STREET LIGHTING LEGEND

- EXISTING STREET LIGHT POLE (TO REMAIN)
- Ⓜ PROPOSED PAD MOUNTED 480V STREET LIGHTING CONTROLLER (MIS-601)
- Ⓜ PROPOSED CT METER CABINET (MIS-59), AS PER PLAN
- Ⓜ PROPOSED 480V PAD MOUNTED TRANSFORMER (BY SOUTH CENTRAL POWER)
- Ⓜ PROPOSED PULL BOX (MIS-54), AS PER PLAN
- PROPOSED 2" PVC (MIS-700) W/CIRCUIT #586 (MIS-403)
- EXISTING UNDERGROUND CONDUIT (TO REMAIN)
- SOUTH CENTRAL POWER SERVICE LINE (TO REMAIN)
- Ⓜ EXISTING STREET LIGHT CONTROLLER CIRCUIT #586 (TO BE REMOVED) (MIS-902)



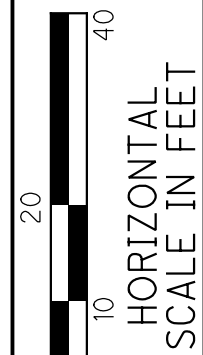
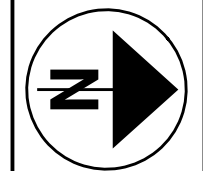
DETAIL A
1" = 10'

NOTE:
CONTACT PROPERTY MAINTENANCE AND
SOUTH CENTRAL POWER PRIOR TO
CONSTRUCTION ACTIVITIES:
FED ONE DUBLIN
ATTN: GORDY MEYERS
PHONE: (614) 578-7583

SOUTH CENTRAL POWER
ATTN: MIKE CHALFAN
PHONE: (740) 689-6168

UTILITY EASEMENT (P.B. 95, PG. 59)
PLAT OF EASTPORT BUSINESS PARK
SITUATED IN THE CITY OF COLUMBUS, FRANKLIN COUNTY, OHIO
SECTION 35, TOWNSHIP 4 NORTH OF MATHEW'S SURVEY OF RANGE 22, CONGRESS LANDS

EASEMENTS ARE HEREBY RESERVED IN, OVER, AND UNDER AREAS DESIGNATED ON THIS PLAT
AS "EASEMENT" FOR THE CONSTRUCTION, OPERATION, AND MAINTENANCE OF ALL PUBLIC AND
QUASI-PUBLIC UTILITIES ABOVE AND BENEATH THE SURFACE OF THE GROUND AND, WHERE,
NECESSARY, FOR THE CONSTRUCTION, OPERATION, AND MAINTENANCE OF SERVICE CONNECTIONS
TO ALL ADJACENT LOTS AND LANDS FOR STORM WATER DRAINAGE. FURTHERMORE, IN ACCORDANCE
WITH THE TERMS AND REGULATIONS OF SECTION 3123 08(C)(8) OF THE COLUMBUS CITY CODES, 1959,
THERE IS HEREBY OFFERED AN EASEMENT TO THE CABLE TV INDUSTRY FOR INSTALLATION, OPERATION
AND MAINTENANCE OF TV CABLE AND EQUIPMENT.



CALCULATED
JSM
CHECKED
SMM

LIGHTING INSTALLATION PLAN
LA SALLE DRIVE AT LONDON-GROVEPORT ROAD

IMPROVEMENTS OF
LONDON-GROVEPORT ROAD
FROM 100' WEST OF LASALLE DR
TO 1000' EAST OF LASALLE DR