



# CITY OF ANN ARBOR ENGINEERING

IN COOPERATION WITH THE  
MICHIGAN DEPARTMENT OF TRANSPORTATION  
AND THE  
FEDERAL HIGHWAY ADMINISTRATION

## NORTHSIDE STEAM SAFE ROUTES TO SCHOOL

MDOT JOB NO. #####

MDOT CONTROL SECTION NO. ### #####

**NOTES:**

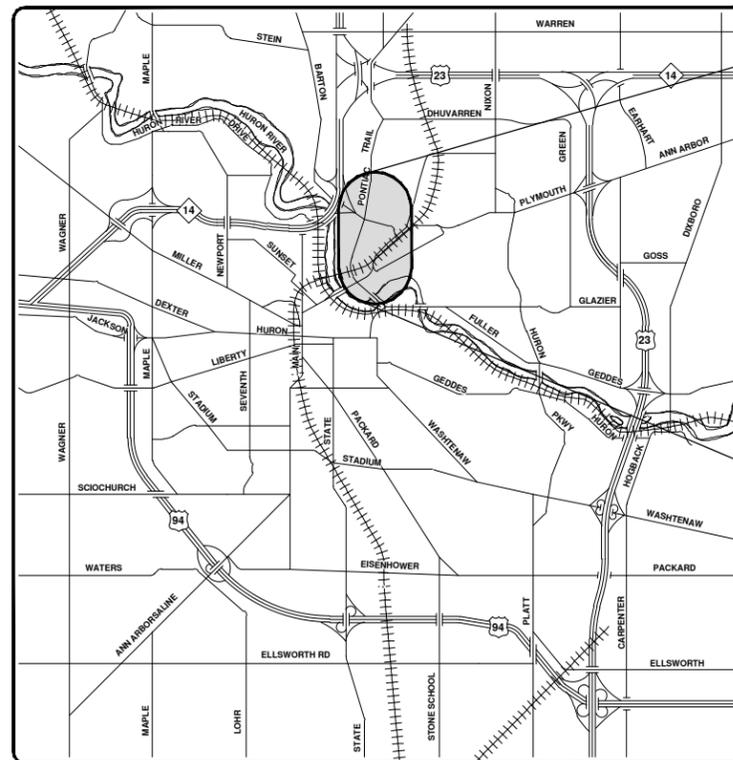
FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013, THE CONTRACTOR SHALL CALL 811 OR 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

THE UNDERGROUND LOCATIONS SHOWN FOR NATURAL GAS, TELEPHONE, ELECTRICAL POWER, CABLE TV AND FIBER OPTIC LINES ARE APPROXIMATE. THE CITY OF ANN ARBOR ASSUMES NO RESPONSIBILITY FOR THEIR ACCURATE REPRESENTATION IN THIS DRAWING. MISS DIG MUST BE CONTACTED PRIOR TO CONSTRUCTION TO LOCATE THESE UTILITIES.

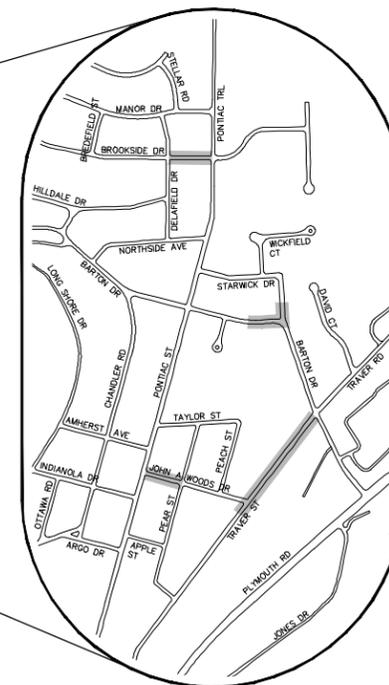
THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION (INCLUDING REFERENCED M.D.O.T. PUBLICATIONS) AND THIS PROJECT'S CONTRACT DOCUMENTS.

THE PROPOSED IMPROVEMENTS COVERED BY THESE PLANS ARE DESIGNED IN ACCORDANCE WITH THE LOCAL AGENCY PROGRAMS GUIDELINES FOR GEOMETRICS ON LOCAL AGENCY PROJECTS 2017 EDITION, 2012 A.A.S.H.T.O. "GUIDE FOR PLANNING, DESIGN, AND OPERATION OF BICYCLE FACILITIES", AND THE TRAFFIC CONTROL IN ACCORDANCE WITH THE 2011 "MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".

| SHEET LIST TABLE |                     |
|------------------|---------------------|
| SHEET NUMBER     | SHEET TITLE         |
| 1                | COVER SHEET         |
| 2                | NOTES               |
| 3                | LEGEND              |
| 4                | DETAILS             |
| 5 - 12           | TRAFFIC CONTROL     |
| 13 - 18          | REMOVALS            |
| 19 - 24          | PROPOSED SIDEWALK   |
| 25 - 29          | INTERSECTION GRADES |



VICINITY MAP



| STANDARD PLANS  |   |                       |
|---|---|-----------------------|
| CONSTRUCTION OF THE FOLLOWING ITEMS, WHERE CALLED FOR ON THE PLANS, WILL BE CONSTRUCTED ACCORDING TO MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD PLANS AS INDICATED. |   |                       |
| REQUIRED ON THIS PROJECT  | ITEM OF WORK                                  | STANDARD PLAN NUMBERS |
| X   | SIDEWALK RAMP AND DETECTABLE WARNING DETAILS  | R-28-J*               |
| X   | SOIL EROSION & SEDIMENTATION CONTROL MEASURES | R-96-E                |
| X   | SODDING, SEEDING AND TREE PLANTING            | R-100-H               |
| TRAFFIC AND SAFETY STANDARD PLANS   |   |                       |
| X   | TEMPORARY TRAFFIC CONTROL DEVICES             | WZD-125-D*            |
| X   | GROUND DRIVEN SIGN SUPPORTS                   | WZD-100-A*            |

\* SPECIAL DETAIL LOCATED IN PROPOSAL

PREPARED UNDER THE SUPERVISION OF

*Jane K. Allen*  
JANE KATHERINE ALLEN, P.E. - MI LICENSE No. 57254  
PROJECT MANAGER



/ / 2018  
DATE



| NO.       | DATE | DESCRIPTION       | BY  | CHECKED |
|-----------|------|-------------------|-----|---------|
| 10-8-2018 | DATE | MDOT CI SUBMITTAL | JKA | CHECKED |
|           | REV. |                   |     |         |

CITY OF ANN ARBOR  
PUBLIC SERVICES  
301 EAST HURON STREET  
ANN ARBOR, MI 48106-1007-8647  
734-794-4410  
www.a2gov.org



CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
PROJECT DESCRIPTION AND LIMITS  
SCALE  
DRAWING No. 2018024-1  
SHEET No. 1 OF 29

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**GENERAL NOTES:**

- Driveways and entrances to buildings, real property, and the like shall not be blocked except for short durations and only when approved by the Engineer. Vehicular and pedestrian access shall be maintained at all times. It shall be the Contractor's responsibility to coordinate all necessary driveway closures with the property owner(s) and resident(s) in the areas of construction.
- The location and depth of all existing utilities and service leads are to be field verified by the Contractor prior to construction.
- During non-working hours no more than ten (10) feet of trench shall remain open; any open trench shall be properly secured with protective fencing. This work shall be included in the items of work being undertaken and will not be paid for separately.
- The location of material stock piles and on-site staging areas shall be approved by the Engineer.
- All excavation required for project grading within the project limits, including proposed pavement, sidewalk, and sidewalk ramps shall be included in "Sidewalk Grading" or "Sidewalk Ramp Grading".
- Excavation and backfill behind curb and gutter shall be included in "Sidewalk Grading" or "Sidewalk Ramp Grading". All backfill under proposed concrete pavements such as drive approaches, ramps, sidewalk, etc., shall be MDOT Class II Granular Material, compacted to 95% of its max. dry density and will be paid for as "Subbase, CIP, Class II, Granular Material, Modified." Backfill for other areas must be approved by the Engineer and compacted to 95% of its max. dry density. No payment will be made for sub-base or aggregate base that extends beyond 12" behind the back of curb. Reference the Typical Cross Sections.
- Some storm sewer may unavoidably become damaged during construction, or it may be determined by the Engineer that existing storm sewer needs to be replaced. In either case the Engineer may direct the sewer to be removed and replaced. The removal of the existing sewer and/or drainage structures shall be included in the contract work items "Sewer, Rem, Less than 24 inch" or "Dr Structure, Rem", and the replacement sewer shall be installed and paid for at the corresponding contract unit price, if contained within the contract, for the various types and sizes of sewer to be replaced.
- Where existing sewer and/or drainage structures are to be removed, they shall be properly disposed of off-site and the excavation shall be backfilled with MDOT Class II Granular Material compacted to 95% of its max. dry density. This work shall be included in the contract items "Sewer, Rem, Less than 24 inch" and/or "Dr Structure, Rem."
- All fittings, hydrants, valves and castings removed during construction shall become the property of the City of Ann Arbor. The Contractor shall deliver material to Wheeler Service Center, 4251 Stone School Road.
- Payment for drainage structure sumps where specified shall be included in the payment for the various drainage structures sizes and/or types.
- Where pipes of different sizes or materials are joined, Fernco Flexible Couplings with stainless steel shear rings shall be used. All costs associated with the installation of these devices shall be included in the payment for the sewer.
- Where storm sewer is to be removed and replaced or added, all pipe shall be installed using the utility trench details shown elsewhere in the plan sheets and/or detailed in the specifications. Trench Details I and V require the use of MDOT Class II Granular Material.
- If the Contractor encounters existing edge drain(s) during construction of the proposed edge drains, inlet leads, or catch basins, it shall be capped at each end to prevent material from entering the pipe. The cost of this work will not be paid for separately, but shall be included in the particular item of work being performed when existing edge drain(s) are encountered.
- Existing street name signs, guide, bus stop, and regulatory signs which conflict with the proposed construction shall be removed prior to construction, stored in a manner which will prevent damage, and re-set in locations as directed by the Engineer. This work will not be paid for separately, but shall be included in Project Supervision.
- All curb, sidewalk, driveway approach removals shall be approved by the Engineer before the work is performed.
- Place 4" (minimum) thickness Class II Granular Material compacted to 95% of its max. dry density under concrete sidewalk as shown on the details. This work shall be included in the contract items "Subbase, CIP, Class II, Modified."
- Place 6" (minimum) Class II Granular Material compacted to 95% of its max. dry density under drive approaches. This work shall be included in the contract item "Subbase, CIP, Class II, Granular Material, Modified."
- Prior to placing the adjacent paving pass on the leveling and wearing courses of HMA, the Contractor shall cut and remove 6" to 8" of the previously placed pavement by means of a couler wheel. The Engineer reserves the right to reject any method(s) for cutting the pavement that does not provide a satisfactory edge as determined by the Engineer. Any method(s) employed by the Contractor shall be completely effective. The cut edge shall have a uniform bead of Craftco Joint Adhesive applied. The removal of this HMA material, cleaning the HMA surface and pavement edge, and condition of the resulting edge must be approved by the Engineer prior to proceeding with the placement of the succeeding pass of HMA. The base course of HMA will only have its edges tacked in accordance with standard paving practices. All costs associated with complying with these requirements will not be paid for separately, but shall be considered to be included in the items of work "HMA, Approach."
- A uniform coat(s) of curing compound shall be applied according to the Standard Specifications and Special Provisions regardless of the difficulty involved. The Contractor shall take care to prevent overspray when applying curing compound. Several different methods may need to be developed to protect various situations, but all methods used to prevent overspray of the curing compound shall be completely effective. Methods used shall be approved by the Engineer prior to use, however approval of a method does not guarantee success or acceptability. No additional compensation shall be made for complying with these requirements.

**CONTACT INFORMATION**

| PUBLIC UTILITIES  | OWNER  | CONTACT                             |
|-------------------|--|-------------------------------------|
| WATER             |  |                                     |
| SANITARY          |  |                                     |
| STORM             | CITY OF ANN ARBOR PUBLIC WORKS   | (734) 794-6350                      |
| FORESTRY          | W.R. WHEELER SERVICE CENTER<br>4251 STONE SCHOOL ROAD<br>ANN ARBOR, MI 48108             |                                     |
| SIGNS             |  |                                     |
| SIGNALS           |  |                                     |
| STREET LIGHTS     |  | (734) 794-6361                      |
| PRIVATE UTILITIES | OWNER  | CONTACT                             |
| GAS               | DTE ENERGY<br>3150 E. MICHIGAN AVE,<br>YPSILANTI TOWNSHIP, MI 48198                      | ROBERT CZAPIEWSKI<br>(734) 544-7818 |
| ELECTRIC          | DTE ENERGY<br>WESTERN WAYNE SERVICE CENTER<br>8001 HAGGERTY ROAD<br>BELLEVILLE, MI 48111 | CLAY COMBEE<br>(734) 397-4112       |
| CABLE             | COMCAST<br>27800 FRANKLIN ROAD<br>SOUTHFIELD, MI 48034                                   | RON SUTHERLAND<br>(313) 999-8300    |
| PHONE             | AT&T<br>550 S. MAPLE ROAD<br>ANN ARBOR, MI 48103   | (734) 996-2135                      |
| FIBER OPTIC       | MCI<br>2800 N. GLENFILLE ROAD<br>RICHARDSON, TX 75082                                    | DEAN BOYERS<br>(972) 729-6016       |

**PERMITS REQUIRED TO BE OBTAINED BY THE CONTRACTOR PRIOR TO THE BEGINNING OF CONSTRUCTION.**

| PERMIT  | ISSUING AUTHORITY                  |
|---|------------------------------------|
| LANE CLOSURE PERMIT                                 | CITY OF ANN ARBOR ENGINEERING      |
| "NO PARKING" SIGNS PERMIT                           | CITY OF ANN ARBOR ENGINEERING      |
| GRADING/SOIL EROSION & SEDIMENTATION CONTROL PERMIT | CITY OF ANN ARBOR CUSTOMER SERVICE |
| RIGHT-OF-WAY PERMIT                                 | CITY OF ANN ARBOR CUSTOMER SERVICE |
| * NO COST TO CONTRACTOR                             |                                    |

**JOHN A WOODS DRIVE BENCHMARKS**

| BM # | ELEV    | DESCRIPTION  |
|------|---------|--|
| 7    | 852.876 | FND RR SPIKE IN W. SIDE OF U.P. @ N.E. CORNER OF PEAR ST. AND JOHN A. WOODS (BK 1104 P 51) |
| 9    | 848.259 | SET RR SPIKE IN N.W. SIDE OF U.P. @ S.E. CORNER OF JOHN A. WOODS AND PONTIAC TRAIL.        |
| 10   | 850.560 | SET RR SPIKE IN W. SIDE OF L.P. ON E. SIDE OF PEAR ST. BETWEEN HSE NO.'S 1544 AND 1548.    |
| 11   | 848.235 | SET RR SPIKE IN S.E. SIDE OF L.P. @ N.W. CORNER OF PEAR ST. AND APPLE ST.                  |
| 12   | 843.200 | SET RR SPIKE IN S.W. SIDE OF U.P. @ N.E. CORNER OF APPLE ST. AND PONTIAC TRAIL.            |
| 13   | 840.418 | FND MAG NAIL IN S. SIDE OF U.P. ON W. SIDE OF PEAR ST. @ BEND IN ROAD                      |
| 14   | 834.919 | SET RR SPIKE IN W. SIDE OF U.P. ON E. SIDE OF TRAVER ST.                                   |

**TRAVER STREET BENCHMARKS**

| BM # | ELEV    | DESCRIPTION   |
|------|---------|---|
| 1    | 856.580 | FND RR SPIKE IN S. SIDE OF L.P. @ N.W. CORNER OF PEACH ST. AND JOHN A. WOODS (BK 1104 P 52)           |
| 2    | 853.630 | FND "BM SPIKE" IN N. SIDE OF U.P. @ S.E. CORNER OF JOHN A. WOODS AND TRAVER ST.                       |
| 3    | 855.883 | FND RR SPIKE IN S. SIDE OF U.P. @ N.W. CORNER OF JOHN A. WOODS AND TRAVER ST.                         |
| 4    | 833.074 | SET RR SPIKE IN W. SIDE OF L.P. ON E. SIDE OF TRAVER ST. POLE IS 40± S. OF CL DRIVE FOR HSE NO. 1616. |
| 5    | 821.794 | SET RR SPIKE IN U.P. ON W. SIDE OF TRAVER ST. POLE IS 75± N. OF CL DRIVE FOR HSE NO. 1643.            |
| 6    | 819.055 | SET RR SPIKE IN W. SIDE OF U.P. @ S.W. CORNER OF TRAVER ST. AND BARTON DR.                            |
| 7    | 852.876 | FND RR SPIKE IN W. SIDE OF U.P. @ N.E. CORNER OF PEAR ST. AND JOHN A. WOODS (BK 1104 P 51)            |
| 8    | 851.629 | FND RR SPIKE IN N. SIDE OF L.P. @ S.W. CORNER OF PEAR ST. AND JOHN A. WOODS (BK 1104 P 52)            |

**EXISTING LEGEND**

|                             |     |                          |
|-----------------------------|-----|--------------------------|
| ☐ FIRE HYDRANT              | --- | WATER MAIN               |
| ⊕ GATE VALVE IN BOX         | --- | WATER MAIN ABANDONED     |
| ⊕ GATE VALVE IN WELL        | --- | STORM SEWER              |
| ⊕ STOP BOX                  | --- | STORM SEWER ABANDONED    |
| ⊕ WATER VAULT               | --- | SANITARY SEWER           |
| ⊕ WELL                      | --- | SANITARY SEWER ABANDONED |
| ⊕ CATCH BASIN (SQ)          | --- | GAS MAIN                 |
| ⊕ CATCH BASIN (RD)          | --- | GAS MAIN (DEAD)          |
| ⊕ STORM MANHOLE             | --- | ELECTRICAL OVER HEAD     |
| ⊕ NON-CURB CATCH BASIN (SQ) | --- | ELECTRICAL UNDER GROUND  |
| ⊕ END SECTION               | --- | ELECTRICAL DUCT BANK     |
| ⊕ SANITARY MANHOLE          | --- | TELEPHONE OVER HEAD      |
| ⊕ CLEAN-OUT                 | --- | TELEPHONE UNDER GROUND   |
| ⊕ POST                      | --- | TELEPHONE DUCT BANK      |
| ⊕ PEDESTRIAN SIGNAL         | --- | CABLE TV OVER HEAD       |
| ⊕ SIGN                      | --- | CABLE TV UNDER GROUND    |
| ⊕ HAND HOLE                 | --- | FIBER OPTIC              |
| ⊕ ORNAMENTAL LIGHT          | --- | FIBER OPTIC DUCT BANK    |
| ⊕ FLOOD LIGHT               | --- | BOUNDARY                 |
| ⊕ UNKNOWN MANHOLE           | --- | BUILDING                 |
| ⊕ TELEPHONE MANHOLE         | --- | CENTERLINE OF DITCH      |
| ⊕ TELEPHONE RISER           | --- | CENTERLINE/CROWN OF ROAD |
| ⊕ GAS VALVE                 | --- | CONTOUR MAJOR            |
| ⊕ GAS VENT                  | --- | CONTOUR MINOR            |
| ⊕ GAS BOX                   | --- | EDGE OF WATER            |
| ⊕ ELECTRICAL RISER          | --- | FLOODPLAIN               |
| ⊕ TRANSFORMER               | --- | FENCE                    |
| ⊕ UTILITY POLE              | --- | GRAVEL                   |
| ⊕ LAMP POLE                 | --- | GUARDRAIL                |
| ⊕ GUY ANCHOR                | --- | STONE WALL               |
| ⊕ GUY POLE                  | --- | R.O.W.                   |
| ⊕ MONITORING WELL           | --- | TREELINE                 |
| ⊕ MAILBOX                   | --- | WETLAND                  |
| ⊕ SOIL BORING               | --- | EDGE OF BRUSH            |
| ⊕ TRAVERSE POINT            | --- | HEDGE                    |
| ⊕ BENCH MARK                | --- |                          |
| ⊕ IRON PIPE                 | --- |                          |
| ⊕ MON BOX                   | --- |                          |

**PROPOSED LEGEND**

|                          |     |                                 |
|--------------------------|-----|---------------------------------|
| ☐ HYDRANT (PLAN)         | --- | WATER MAIN                      |
| ⊕ WATER GATE WELL        | --- | STORM SEWER                     |
| ⊕ REDUCER                | --- | SANITARY SEWER                  |
| ⊕ WATER GATE VALVE       | --- | FIBER OPTIC                     |
| ⊕ WATER STOP BOX         | --- | ELECTRICAL                      |
| ⊕ WATER VAULT            | --- | CENTERLINE OF DITCH             |
| ⊕ INLET                  | --- | CENTERLINE OF ROAD              |
| ⊕ DOUBLE INLET           | --- | FENCE                           |
| ⊕ INLET JUNCTION CHAMBER | --- | GRAVEL                          |
| ⊕ ROUND CATCH BASIN      | --- | SILT FENCE                      |
| ⊕ STORM MANHOLE          | --- | PROTECTIVE FENCE                |
| ⊕ DRAIN ARROW            | --- | GUARDRAIL                       |
| ⊕ FLARED END SECTION     | --- | LOT/UNIT                        |
| ⊕ SANITARY MANHOLE       | --- | CURB                            |
| ⊕ CLEAN-OUT              | --- | TEMPORARY GRADING PERMIT        |
| ⊕ BARREL                 | --- | CONTOUR MAJOR                   |
| ⊕ SIGN                   | --- | CONTOUR MINOR                   |
| ⊕ PUSH BUTTON            | --- | WATER EASMENT                   |
| ⊕ HAND HOLE              | --- | STORM EASEMENT                  |
|                          | --- | SANITARY EASEMENT               |
|                          | --- | R.O.W.                          |
|                          | --- | LIMITS OF CONSTRUCTION          |
|                          | --- | LIMIT OF GRADING                |
|                          | --- | STONE WALL                      |
|                          | --- | DETECTABLE WARNING              |
|                          | --- | ASPHALT                         |
|                          | --- | CONCRETE                        |
|                          | --- | SIDEWALK                        |
|                          | --- | TREE (DECIDUOUS)                |
|                          | --- | TREE (CONIFEROUS)               |
|                          | --- | TREE TO BE REMOVED (DECIDUOUS)  |
|                          | --- | TREE TO BE REMOVED (CONIFEROUS) |
|                          | --- | STUMP TO BE REMOVED             |

**BROOKSIDE DRIVE BENCHMARKS**

| BM # | ELEV    | DESCRIPTION   |
|------|---------|---|
| 1015 | 854.720 | CITY OF ANN ARBOR BENCHMARK @ INTERSECTION OF DELAFIELD DR. AND BROOKSIDE DR.             |
| 1    | 856.128 | SET RR SPIKE IN S. SIDE OF L.P. @ N.E. CORNER OF BROOKSIDE DR. AND DELAFIELD DR.          |
| 2    | 859.819 | SET RR SPIKE IN S. SIDE OF U.P. ON N. SIDE OF BROOKSIDE DR. BETWEEN HSE NO.'S 701 AND 719 |
| 3    | 871.119 | TOP OF SW ANCHOR BOLT FOR L.P. @ SE CORNER OF BROOKSIDE DR. AND PONTIAC TRAIL             |

**BARTON DRIVE BENCHMARKS**

| BM # | ELEV    | DESCRIPTION  |
|------|---------|--|
| 1017 | 856.440 | CITY OF ANN ARBOR BENCHMARK @ NORTHSIDE SCHOOL.  |
| 1    | 854.398 | SET RR SPIKE IN L.P. ON W. SIDE OF STARWICK DR. BETWEEN HSE NO.'S 823 AND 880            |
| 2    | 851.209 | SET RR SPIKE IN W. SIDE OF L.P. ON ELY SIDE OF BARTON DR. BETWEEN HSE NO.'S 901 AND 899. |
| 3    | 857.853 | STEAMER VALVE ON FIRE HYDRANT ON S. SIDE OF BARTON DR. BETWEEN HSE NO.'S 820 AND 900.    |



**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**NORTHSIDE STEAM SAFE ROUTES TO SCHOOL**

SCALE: NTS  
DRAWING No. 2018024-2  
SHEET No. 2 OF 29

| NO. | DATE      | DESCRIPTION |
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**GENERAL**  
NOTIFY THE CITY OF ANN ARBOR SOIL EROSION CONTROL OFFICE 48 HOURS PRIOR TO BEGINNING WORK ON THE PROJECT. PHONE: 734-794-6265.

- THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN THE SOIL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER AT ALL TIMES DURING CONSTRUCTION. ANY MODIFICATIONS OR ADDITIONS TO THE SOIL EROSION CONTROL MEASURES DUE TO CONSTRUCTION OR CHANGED CONDITIONS SHALL BE AS DIRECTED AND APPROVED BY THE ENGINEER.
- ALL SOIL EROSION AND SEDIMENTATION CONTROL WORK SHALL CONFORM TO THE PERMIT REQUIREMENTS OF THE CITY OF ANN ARBOR, CITY ORDINANCE CHAPTER 63, CITY OF ANN ARBOR STANDARDS DIVISION VII, THE LAWS OF THE STATE OF MICHIGAN, AND THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- DAILY, OR AFTER ANY STORM EVENT, INSPECTIONS OF EROSION CONTROL MEASURES SHALL BE MADE BY THE CONTRACTOR. PERIODIC INSPECTIONS MAY BE MADE BY THE ENGINEER TO DETERMINE THE EFFECTIVENESS OF EROSION AND SEDIMENTATION CONTROL MEASURES. ANY NECESSARY CORRECTIONS SHALL BE MADE WITHOUT DELAY, AND WITHOUT ADDITIONAL COST TO THE CITY OF ANN ARBOR.
- EROSION AND SEDIMENTATION FROM WORK ON THE SITE SHALL BE CONTAINED ON THE SITE AND NOT BE ALLOWED TO COLLECT ON ANY OFF-SITE AREAS, ROADWAYS OR WATERWAYS.
- ALL MUD/SOIL TRACKED ONTO ROADWAYS FROM THE SITE DUE TO CONSTRUCTION, SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR. IF SO ORDERED, THE CONTRACTOR SHALL PROVIDE AND OPERATE A VACUUM-TYPE STREET SWEEPER, AT NO ADDITIONAL COST TO THE CITY OF ANN ARBOR, WITHIN FOUR (4) HOURS OF BEING SO ORDERED.
- RESTORATION OF ALL DISTURBED AREAS, INCLUDING PLACEMENT OF TOPSOIL, SEED, FERTILIZER AND MULCH AND/OR SOD SHALL BE PERFORMED WITHIN FIVE (5) DAYS OF THE COMPLETION OF FINAL GRADE.
- CONSTRUCTION OPERATIONS SHALL BE SCHEDULED AND PERFORMED SO THAT PREVENTATIVE SOIL EROSION CONTROL MEASURES ARE IN PLACE PRIOR TO EXCAVATION IN CRITICAL AREAS AND TEMPORARY STABILIZATION MEASURES ARE IN PLACE IMMEDIATELY FOLLOWING BACKFILLING OPERATIONS.

- SPECIAL PRECAUTIONS WILL BE TAKEN IN THE USE OF CONSTRUCTION EQUIPMENT TO PREVENT SITUATIONS THAT PROMOTE EROSION.
- PROPER DUST CONTROL SHALL BE MAINTAINED DURING CONSTRUCTION BY USE OF WATER TRUCKS AND/OR DUST PALLIATIVE AS REQUIRED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND REMOVAL OF SOME MEASURES UPON AUTHORIZED COMPLETION OF THE PROJECT. FINAL COMPLETION OF PROJECT WILL NOT BE AUTHORIZED UNTIL ALL SITE WORK AND UTILITY CONSTRUCTION IS COMPLETE AND ALL SOILS ARE STABILIZED.
- THE CONTRACTOR SHALL NOT GRADE INTO ADJACENT PROPERTIES. SILT AND PROTECTIVE FENCE SHALL BE INSTALLED AND MAINTAINED TO PREVENT GRADING, EROSION AND SEDIMENTATION INTO THE ADJACENT PROPERTIES.
- TREE PROTECTION FENCING MUST REMAIN INTACT UNTIL RESTORATION OF THE SITE IS COMPLETE.

**SEQUENCE OF EROSION CONTROL MEASURES:**

- THE CONTRACTOR IS TO SUBMIT TO THE ENGINEER, A SEQUENCE OF CONSTRUCTION WITH RESPECT TO THE SOIL EROSION CONTROL MEASURES FOR REVIEW, COMMENT AND APPROVAL. THIS SCHEDULE IS TO INCLUDE INSPECTION AND REPAIR OF ALL TEMPORARY EROSION CONTROL MEASURES DAILY AND WITHIN 24 HOURS OF A STORM EVENT.

**SAMPLE SOIL EROSION AND SEDIMENTATION CONTROL INSTALLATION MINIMUM REQUIREMENTS:**

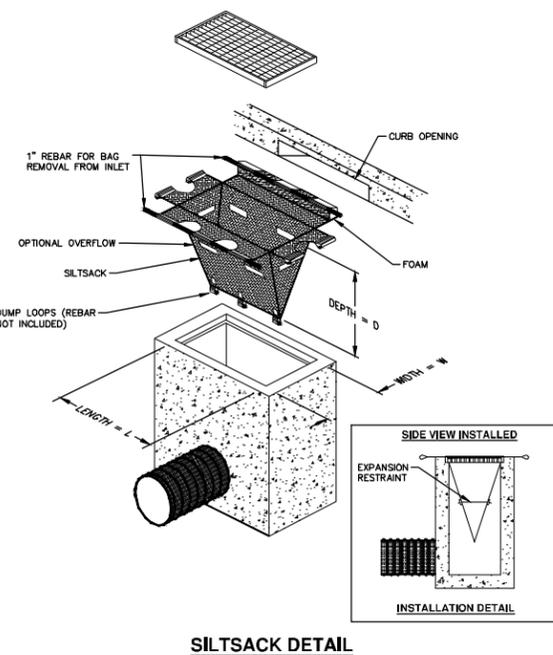
- INSTALL SILT FENCE, TREE PROTECTION FENCING, MUD MATS, INLET FILTERS ON EXISTING DRAINAGE FEATURES, AND ALL OTHER TEMPORARY SOIL EROSION CONTROLS, PRIOR TO ANY CLEARING OR EARTH MOVING OPERATION.
- STRIP AND STOCKPILE TOPSOIL. STABILIZE STOCKPILE AS REQUIRED.
- INSTALL WATER MAINS, STORM AND SANITARY SEWERS, AND OTHER ENCLOSED DRAINAGE FEATURES. NEW INLET FILTERS SHALL BE INSTALLED IMMEDIATELY FOLLOWING INSTALLATION OF NEW DRAINAGE INLETS.

- PERFORM MACHINE GRADING OPERATIONS AND CONSTRUCT PAVEMENTS (MAINLINE, SIDEWALKS, DRIVES, ETC.).
- CONTINUALLY MAINTAIN EROSION AND SEDIMENTATION CONTROL MEASURES, AS REQUIRED TO ALLOW DRAINAGE AND SEDIMENT REMOVAL. REMOVE ANY ACCUMULATED SEDIMENT IMMEDIATELY.
- COMPLETE ALL FINE GRADING.
- TEMPORARY SEED AND INSTALL EROSION CONTROL BLANKET IN ALL DISTURBED AREAS.
- REFER TO LANDSCAPE PLANTING PLANS FOR PERMANENT SITE STABILIZATION.
- CLEAN OUT STORM SEWER SYSTEMS.
- REMEDY ANY NOTED DEFECTS TO THE SATISFACTION OF THE CITY OF ANN ARBOR'S SOIL EROSION AND SEDIMENTATION CONTROL OFFICIAL.
- ALL TEMP. SOIL EROSION CONTROL MEASURES MUST BE REMOVED, WITH ENGINEERS APPROVAL, PRIOR TO FINAL INSPECTION

NOTE: THIS SEQUENCE IS FOR INFORMATION ONLY. IT IS INTENDED TO SHOW THE SEQUENCE OF CONSTRUCTION WITH RESPECT TO THE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING THEIR OWN DETAILED CONSTRUCTION SEQUENCE AND SCHEDULE TO THE ENGINEER FOR REVIEW, COMMENT, AND APPROVAL.

**TEMPORARY SEEDING:**

- SEED IN ACCORDANCE WITH PROJECT DRAWINGS AND SPECIFICATIONS.
- ANY DISTURBED AREA NOT PAVED, SEEDED, MULCHED, SODDED OR BUILT UPON BY NOVEMBER 15TH OR JUNE 30TH IS TO BE TEMPORARILY STABILIZED PER SPECIFICATIONS.



NOTE: THE SILTSACK WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS.

**REGULAR FLOW SILTSACK**

(FOR AREAS OF LOW TO MODERATE PRECIPITATION AND RUN-OFF)

| PROPERTIES              | REQUIRED VALUE | TEST METHOD      |
|-------------------------|----------------|------------------|
| GRAB TENSILE STRENGTH   | ASTM D-4632    | 300 LBS          |
| GRAB TENSILE ELONGATION | ASTM D-4632    | 20%              |
| PUNCTURE                | ASTM D-4833    | 120 LBS          |
| MILLEN BURST            | ASTM D-3786    | 800 PSI          |
| TRAPEZOID TEAR          | ASTM D-4533    | 120 LBS          |
| UV RESISTANCE           | ASTM D-4355    | 80%              |
| APPARENT OPENING SIZE   | ASTM D-4751    | 40 US SIEVE      |
| FLOW RATE               | ASTM D-4491    | 40 GAL/MIN/SQ FT |
| PERMITTIVITY            | ASTM D-4491    | 0.55 SEC -1      |

**HI-FLOW SILTSACK**

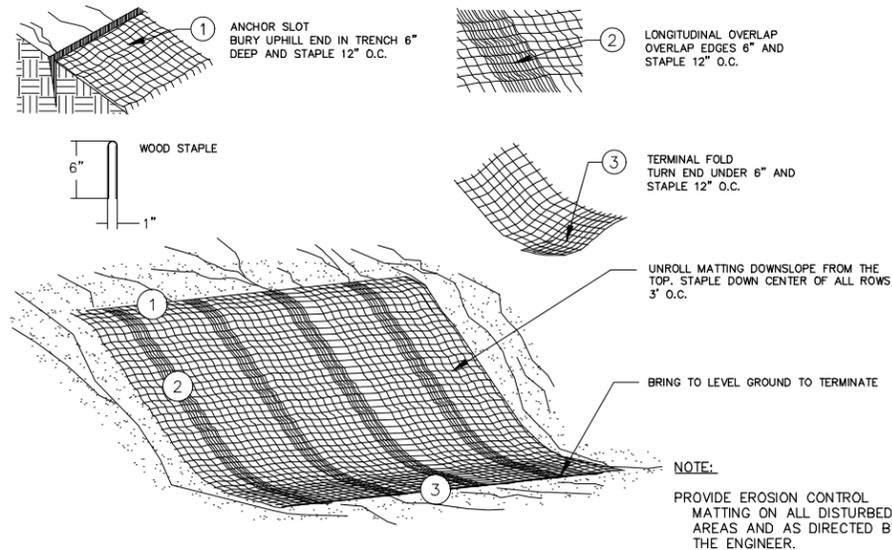
(FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN-OFF)

| PROPERTIES              | REQUIRED VALUE | TEST METHOD       |
|-------------------------|----------------|-------------------|
| GRAB TENSILE STRENGTH   | ASTM D-4632    | 285 LBS           |
| GRAB TENSILE ELONGATION | ASTM D-4632    | 20%               |
| PUNCTURE                | ASTM D-4833    | 135 LBS           |
| MILLEN BURST            | ASTM D-3786    | 420 PS            |
| TRAPEZOID TEAR          | ASTM D-4533    | 45 LBS            |
| UV RESISTANCE           | ASTM D-4355    | 90%               |
| APPARENT OPENING SIZE   | ASTM D-4751    | 20 US SIEVE       |
| FLOW RATE               | ASTM D-4491    | 200 GAL/MIN/SQ FT |
| PERMITTIVITY            | ASTM D-4491    | 1.5 SEC -1        |

**OIL-ABSORBANT SILTSACK**

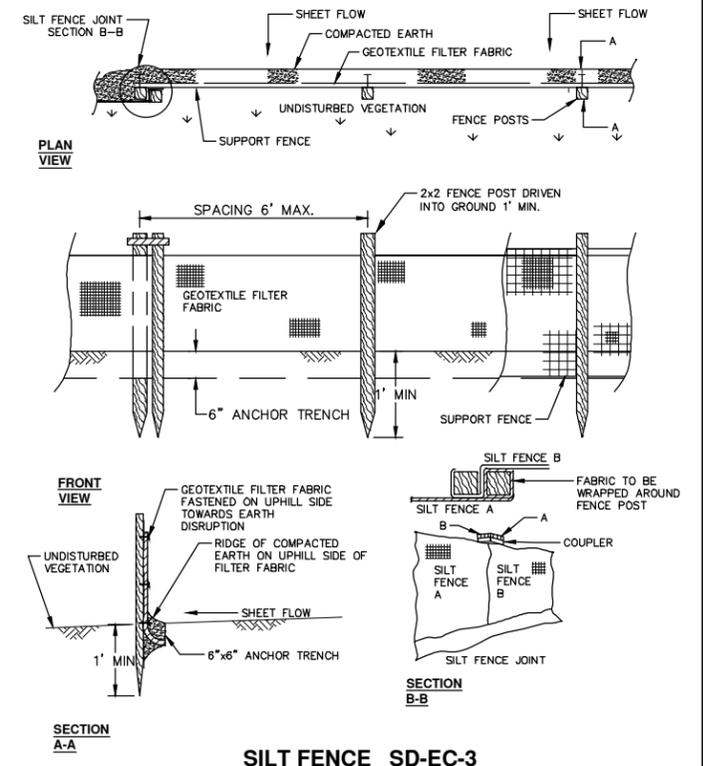
(FOR AREAS WHERE THERE IS A CONCERN FOR OIL RUN-OFF OR SPILLS)

IT IS THE INTENT OF THE PLANS AND SPECIFICATIONS THAT THE CONTRACTOR INSTALL THE REBAR AS SHOWN IN THIS DETAIL TO PROVIDE A FULLY FUNCTIONING UNIT. ALL COSTS ASSOCIATED WITH FURNISHING, CLEANING AS MANY TIMES AS REQUIRED, DISPOSAL OF SEDIMENT, AND REMOVING THE INLET FILTER WHEN NO LONGER NEEDED IS INCLUDED IN THE ITEM OF WORK AND WILL NOT BE PAID FOR SEPARATELY.



**MULCH BLANKET DETAIL**

APPLIES TO ALL AREAS TO BE PERMANENTLY RESTORED WITH GRASS. SEE LANDSCAPE PLANS FOR MORE DETAILS.



**SILT FENCE SD-EC-3**



| NO.       | DATE    | DESCRIPTION | BY        | CHECKED |
|-----------|---------|-------------|-----------|---------|
| 10-B-2018 | DATE    |             | KGD/DF/CC | DRAWN   |
| 00        | NOOT GI | SUBMITTAL   |           | REV.    |

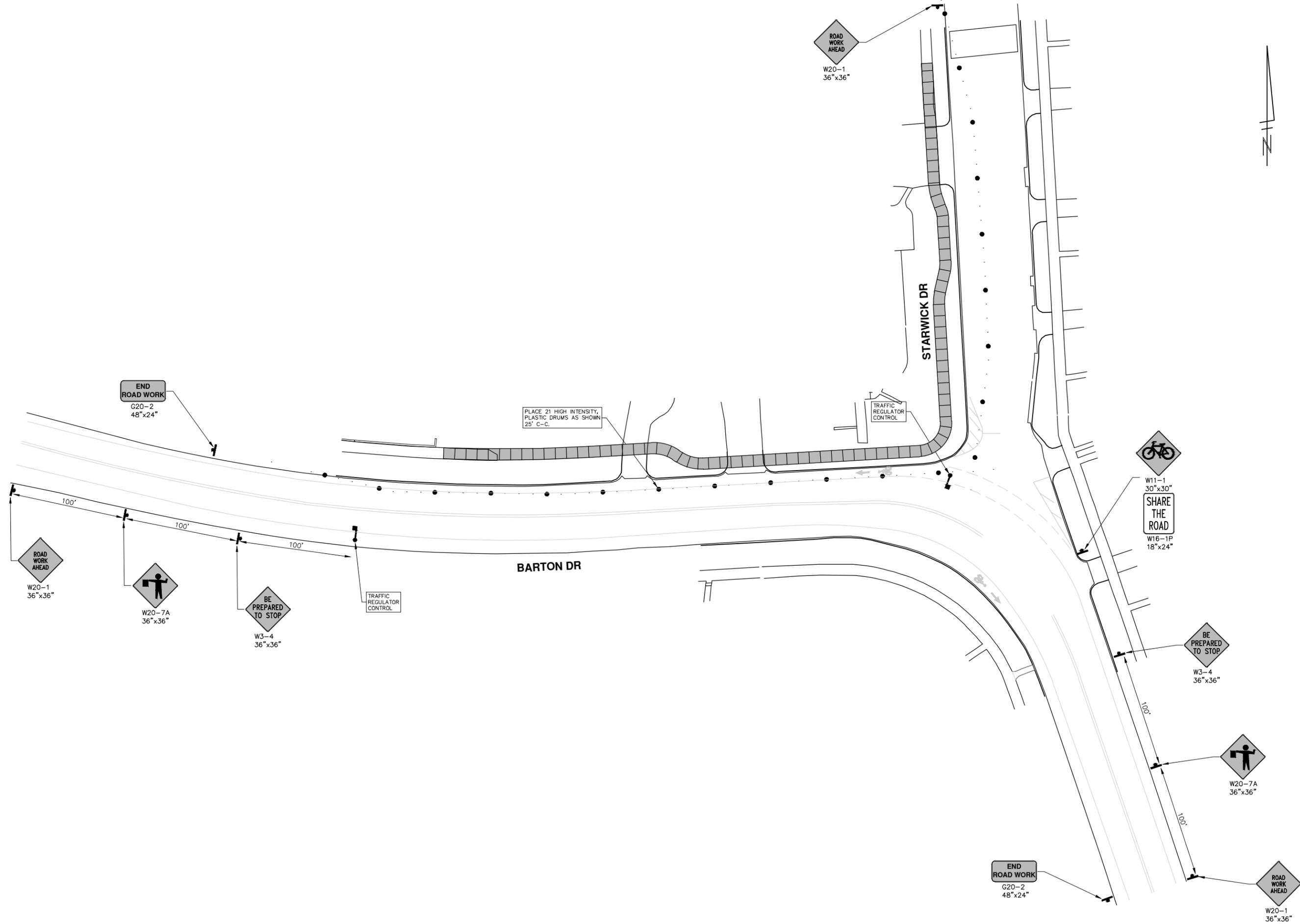
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NORTHSIDE STEAM SAFE ROUTES TO SCHOOL  
SESC NOTES AND DETAILS  
DRAWING No. 2018024-3  
SHEET No.



R:\2018024\_Northside STEAM SRTS\Plan Production\2018024Mtrf.dwg Dwg Created: 8-Oct-18 - \_a2\_standard bw.stb - Plot Date: 8-Oct-18



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 NORTHSIDE STEAM SAFE ROUTES TO SCHOOL  
 TRAFFIC CONTROL  
 BARTON DRIVE

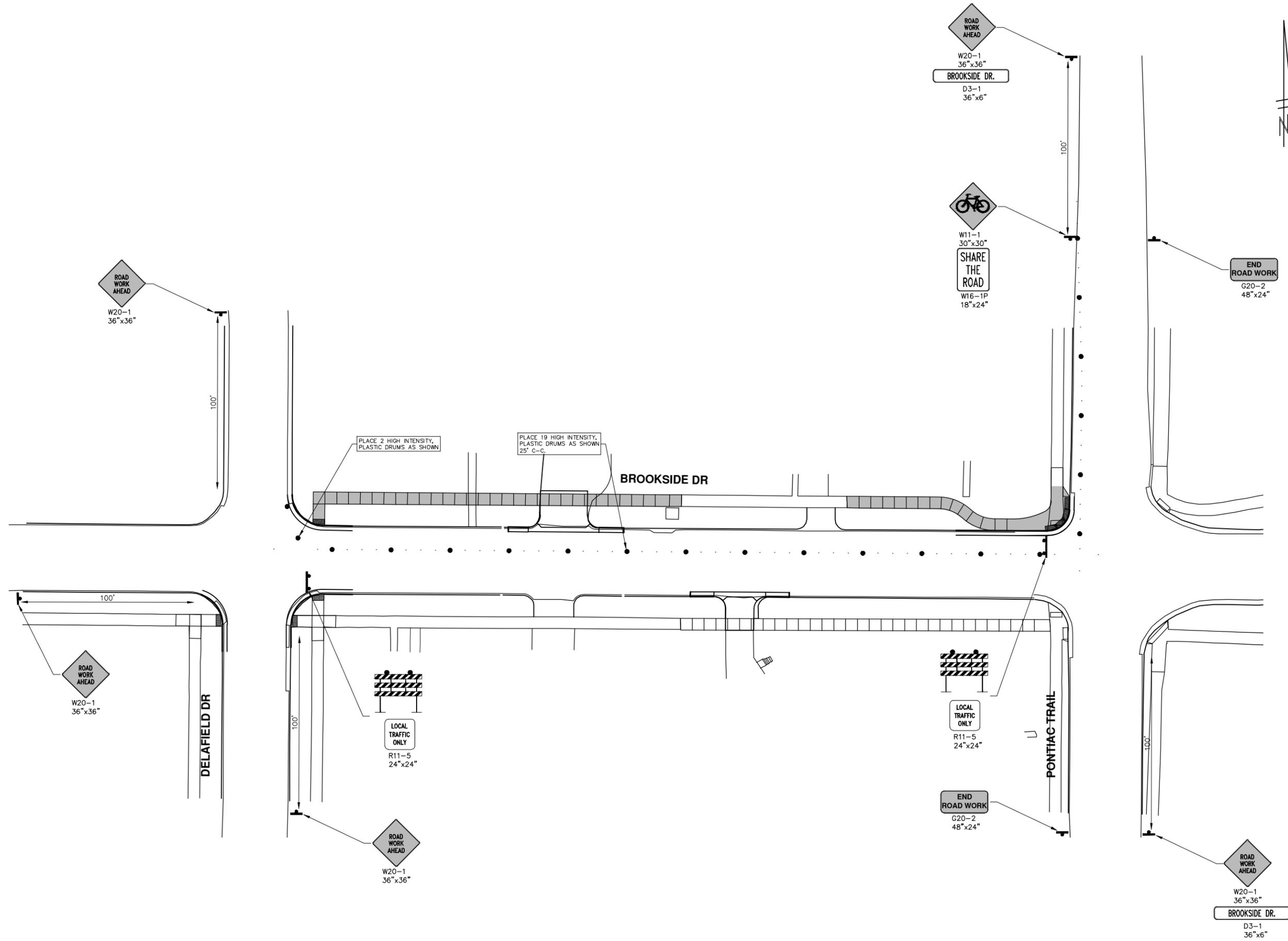
SCALE PLAN: 1" = 20'  
 DRAWING No. 2018024-5

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| REV. | DESCRIPTION       | DATE      | DRAWN     | CHECKED |
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| 00   | MOOT CI SUBMITTAL | 10-8-2018 | KGJ/DF/CC | JKA     |

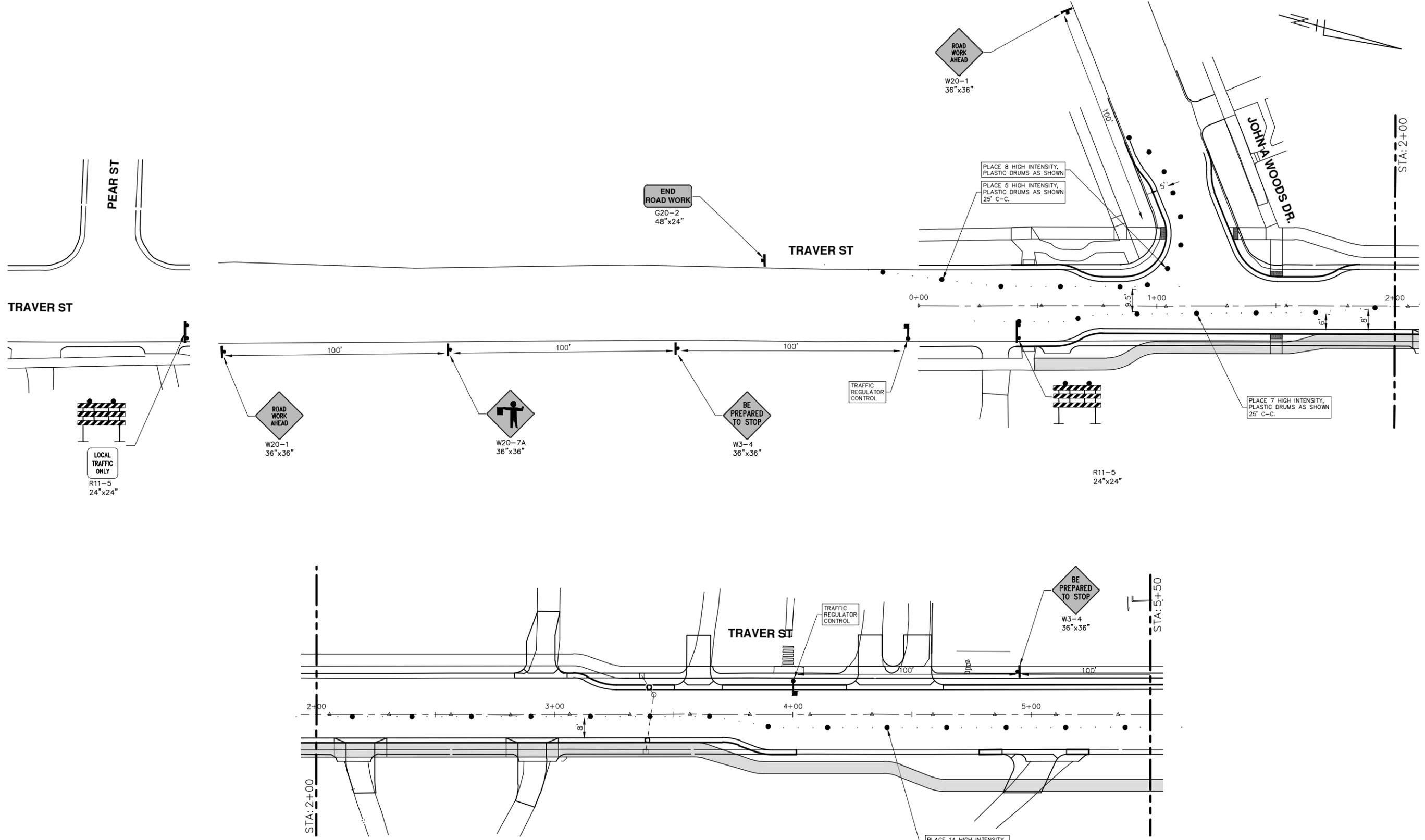
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|                                        |                                  | <b>CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING</b><br>NORTHSIDE STEAM SAFE ROUTES TO SCHOOL<br>TRAFFIC CONTROL<br>BROOKSIDE DRIVE - PHASE II |         |
| SCALE PLAN: 1" = 20'<br>DRAWING No. 2018024-7  |                                  | SHEET No. 7 OF 29  |         |
| CITY OF ANN ARBOR<br>PUBLIC SERVICES<br>301 EAST HURON STREET<br>ANN ARBOR, MI 48106-8647<br>734-794-4410<br>www.a2gov.org |                                  | DD<br>REV.   |         |
| ID<br>10-8-2018<br>DATE  | NDOT CI SUBMITTAL<br>DESCRIPTION | JKA<br>DRAWN   | CHECKED |

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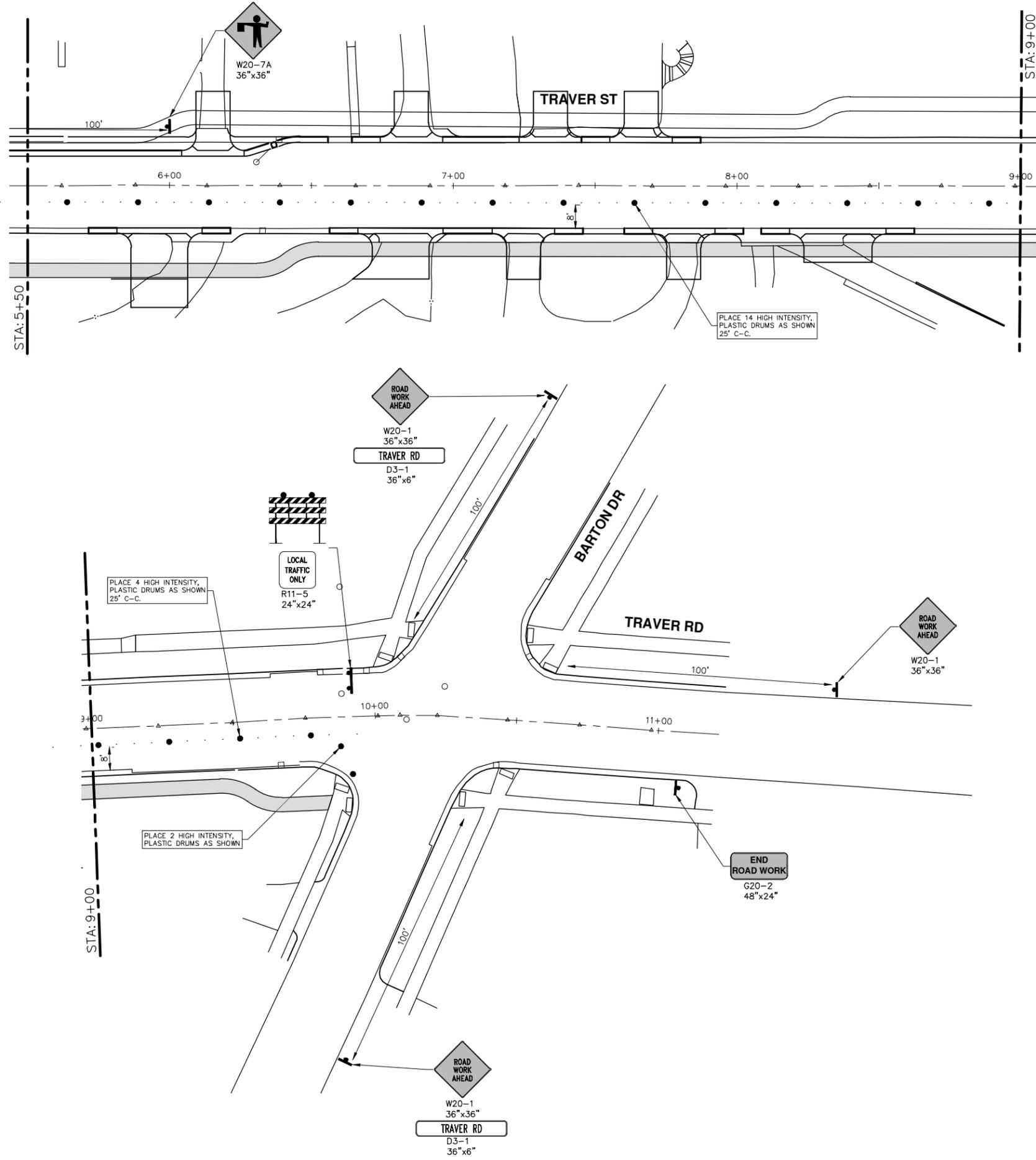
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| 00   | MDOT CI SUBMITTAL | 10-8-2018 | KB/DF/CC | JKA     |

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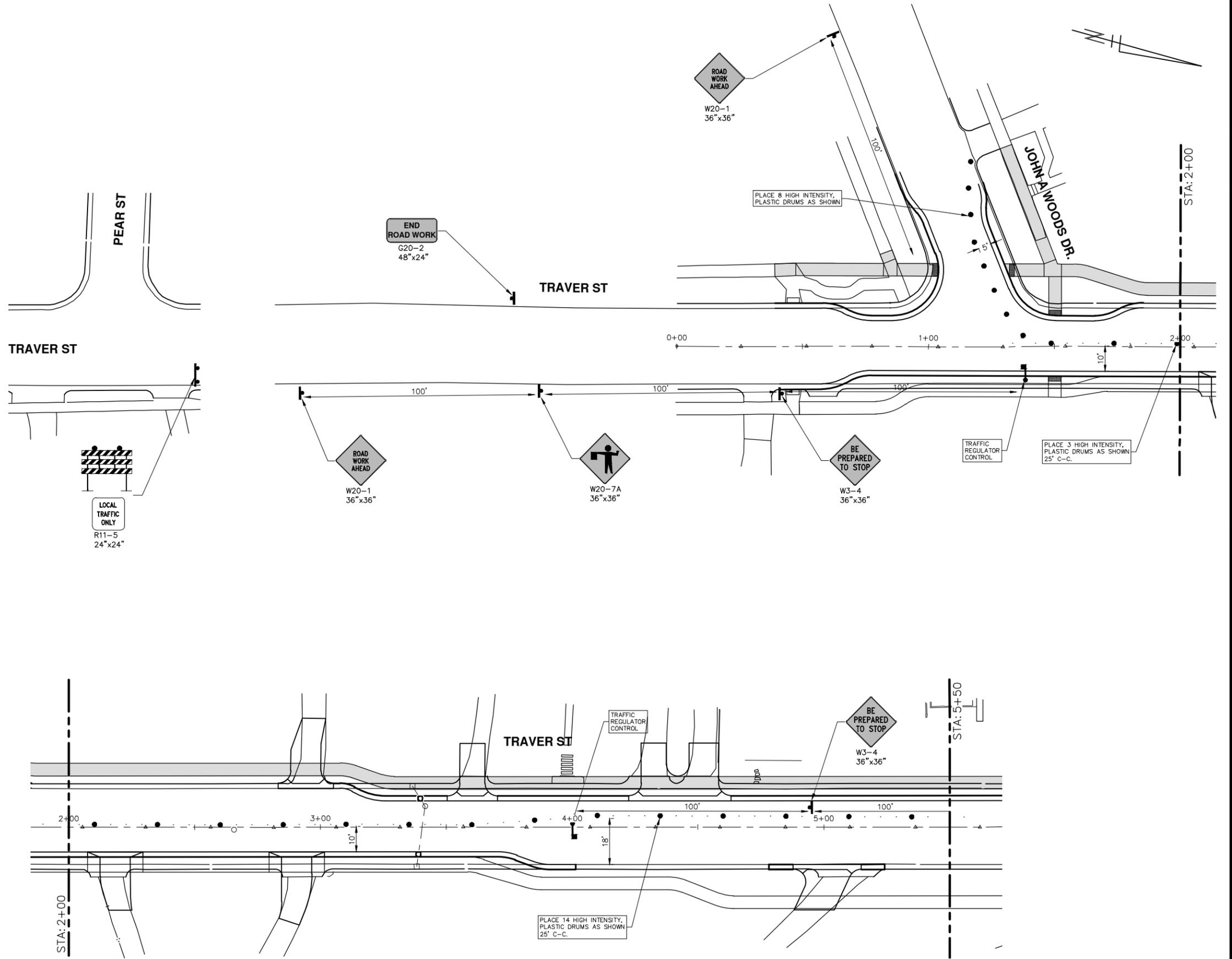
**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**NORTHSIDE STEAM SAFE ROUTES TO SCHOOL**  
 TRAFFIC CONTROL  
 TRAVER STREET - PHASE I

SCALE: 1" = 20'  
 DRAWING No. 2018024-8  
 SHEET No. 8 OF 29

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|                      |                                 | <b>CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING</b><br><b>NORTHSIDE STEAM SAFE ROUTES TO SCHOOL</b><br>TRAFFIC CONTROL<br>TRAVER STREET - PHASE I |  |
| SCALE: 1" = 20'<br> | DRAWING No.<br><b>2018024-9</b> | SHEET No.<br><b>9 OF 29</b>  | CITY OF ANN ARBOR<br>PUBLIC SERVICES<br>301 EAST HURON STREET<br>ANN ARBOR, MI 48106-8647<br>734-794-4410<br>www.a2gov.org |
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| 10-8-2018  | 10-8-2018                       | 10-8-2018  | 10-8-2018  |



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|-----------|------|-------------|-----------|---------|
| 10-8-2018 | DATE |             | KGJ/DF/CC | DRAWN   |
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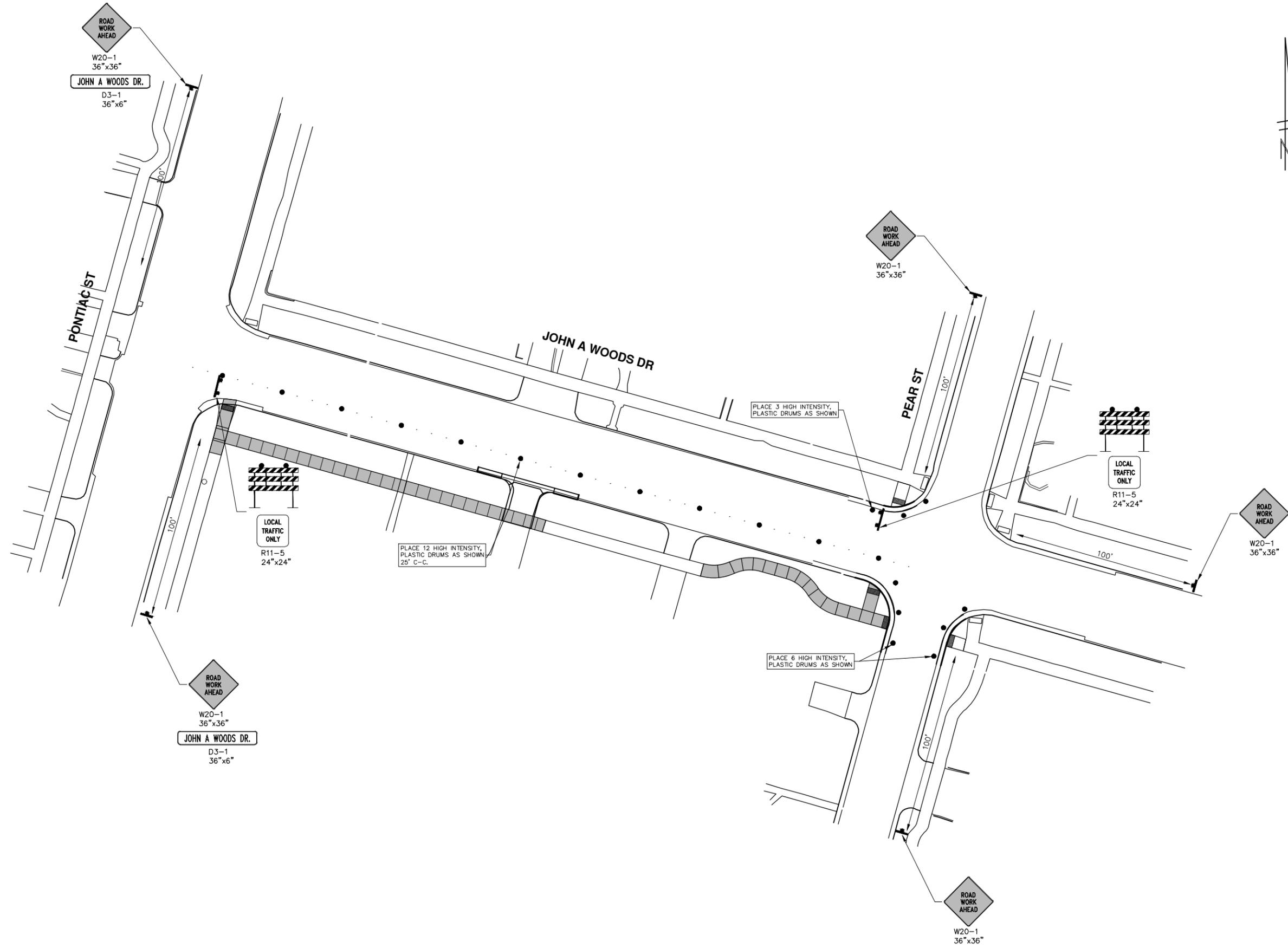
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**NORTHSIDE STEAM SAFE ROUTES TO SCHOOL**  
 TRAFFIC CONTROL  
 TRAVER STREET - PHASE II

SCALE: 1" = 20'  
 DRAWING No. 2018024-10



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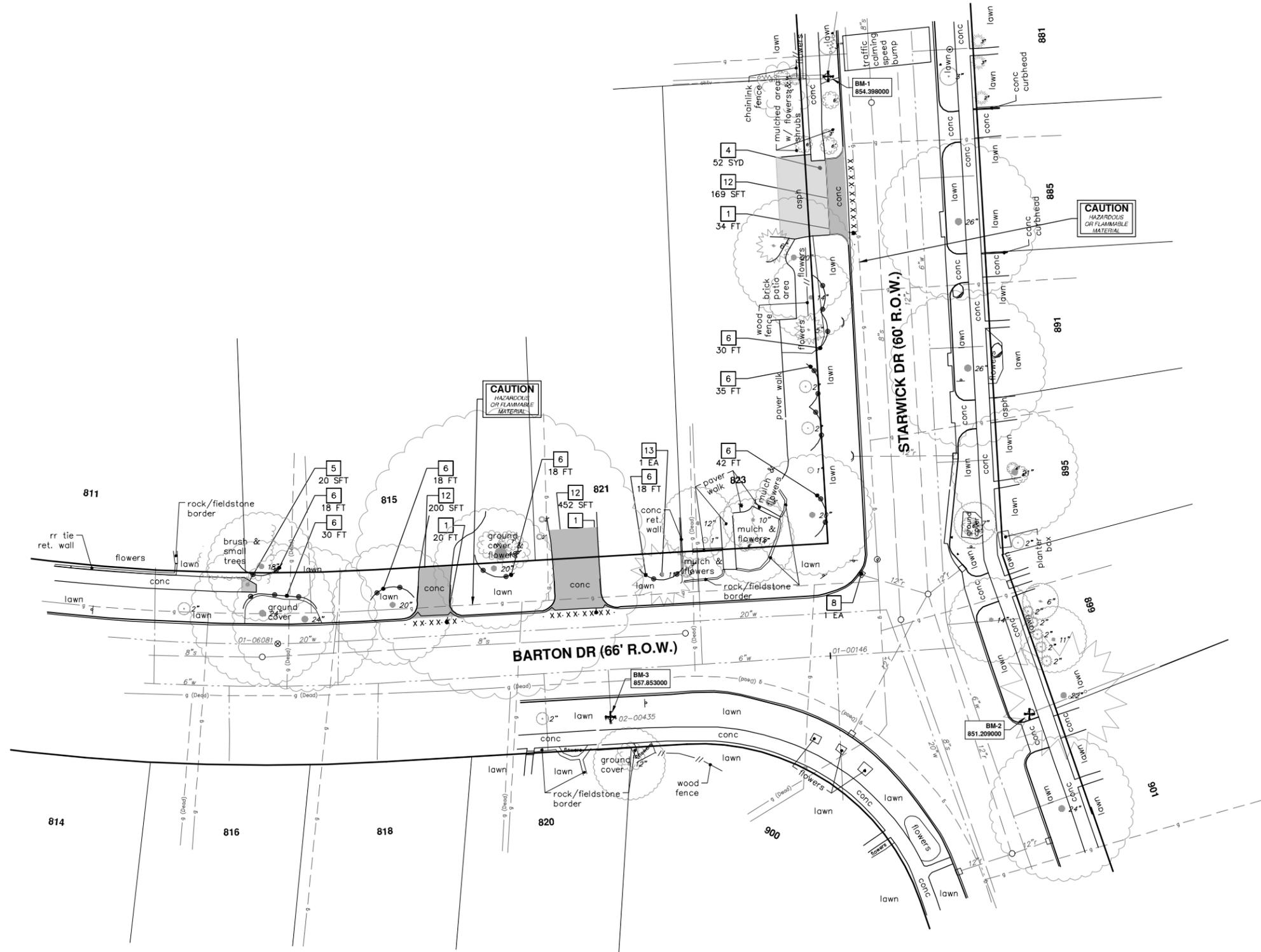
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 SCALE PLAN: 1" = 20'  
 DRAWING No. 2018024-12

**NORTHSIDE STEAM SAFE ROUTES TO SCHOOL**  
 TRAFFIC CONTROL  
 JOHN A WOODS DRIVE



| REV. | DESCRIPTION       | DATE      | DRAWN     | CHECKED |
|------|-------------------|-----------|-----------|---------|
| 00   | MDOT CI SUBMITTAL | 10-8-2018 | KGJ/DF/CC | JKA     |

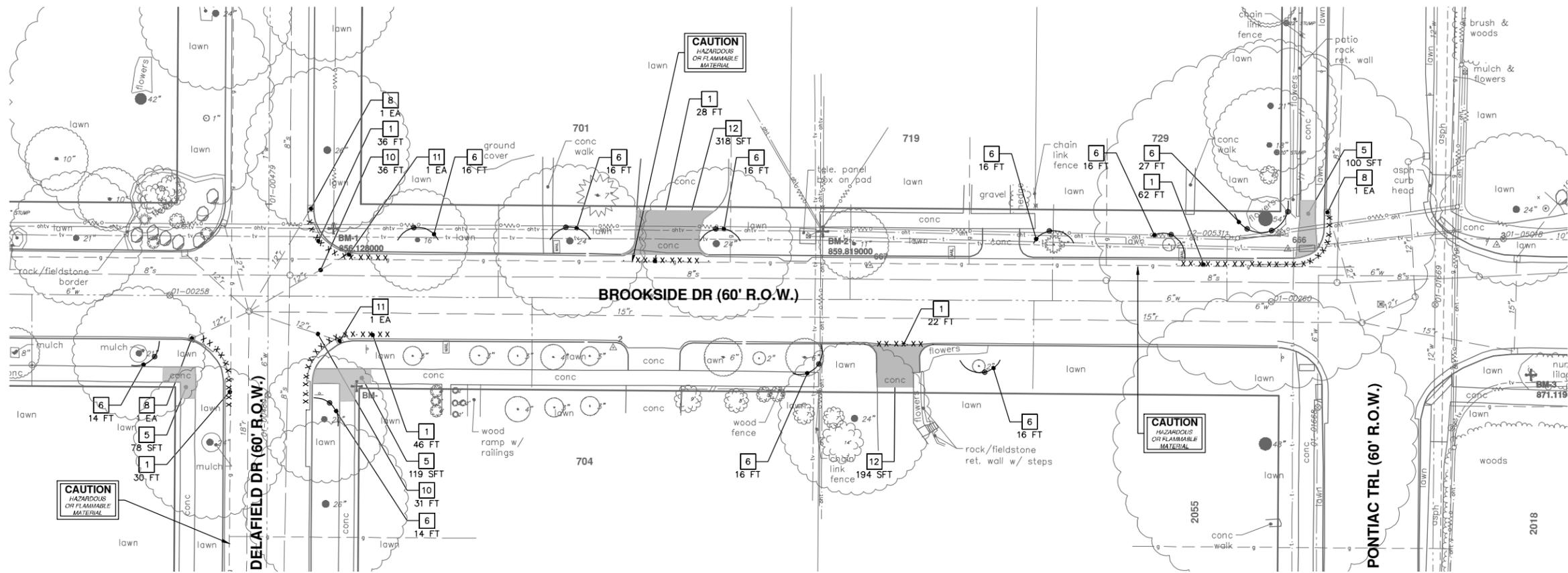




| REMOVAL KEY |  |
|-------------|--|
| KEY         | DESCRIPTION                              |
| 1           | _CURB AND GUTTER, REM, MODIFIED* (FT)    |
| 2           | STUMP, REM, 6 INCH TO 18 INCH (EA)       |
| 3           | STUMP, REM, 19 INCH TO 36 INCH (EA)      |
| 4           | HMA SURFACE, REM* (SYD)                  |
| 5           | _SIDEWALK, REM, MODIFIED* (SFT)          |
| 6           | FENCE, PROTECTIVE (FT)                   |
| 7           | _CURB, REM, MODIFIED (FT)                |
| 8           | _EROSION CONTROL, INLET FILTER           |
| 9           | EROSION CONTROL, SILT FENCE              |
| 10          | SEWER, REM, LESS THAN 24 INCH (FT)       |
| 11          | DR STRUCTURE, REM (EA)                   |
| 12          | _DRIVEWAY APPROACH, REM, MODIFIED* (SFT) |
| 13          | TRIMMING TREE (EA)                       |
| RBO         | REMOVE BY OTHERS                         |

\*SAWCUT FULL DEPTH AT REMOVAL LIMITS





| REMOVAL KEY |  |
|-------------|--|
| KEY         | DESCRIPTION                              |
| 1           | _CURB AND GUTTER, REM, MODIFIED* (FT)    |
| 2           | STUMP, REM, 6 INCH TO 18 INCH (EA)       |
| 3           | STUMP, REM, 19 INCH TO 36 INCH (EA)      |
| 4           | HMA SURFACE, REM* (SYD)                  |
| 5           | _SIDEWALK, REM, MODIFIED* (SFT)          |
| 6           | FENCE, PROTECTIVE (FT)                   |
| 7           | _CURB, REM, MODIFIED (FT)                |
| 8           | _EROSION CONTROL, INLET FILTER           |
| 9           | EROSION CONTROL, SILT FENCE              |
| 10          | SEWER, REM, LESS THAN 24 INCH (FT)       |
| 11          | DR STRUCTURE, REM (EA)                   |
| 12          | _DRIVEWAY APPROACH, REM, MODIFIED* (SFT) |
| 13          | TRIMMING TREE (EA)                       |
| RBO         | REMOVE BY OTHERS                         |

\*SAWCUT FULL DEPTH AT REMOVAL LIMITS

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

**NORTHSIDE STEAM SAFE ROUTES TO SCHOOL**

REMOVALS

BROOKSIDE DRIVE

DRAWING No. 2018024-14

SHEET No. 14 OF 29

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DATE: 10-8-2018  
DRAWN: JKA  
CHECKED: KGD/DF/CC

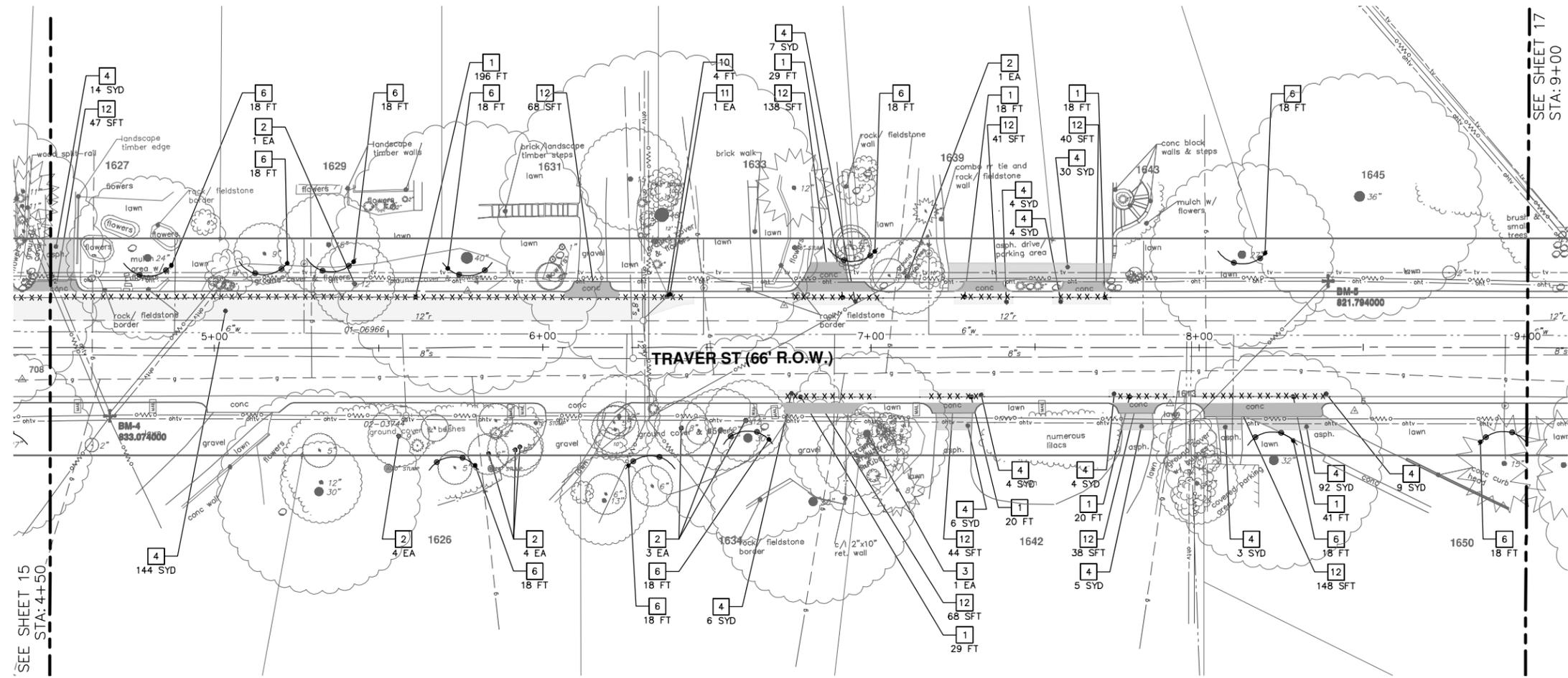
DD: MDOT CI SUBMITTAL  
DESCRIPTION: REMOVALS

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SEE SHEET 17  
STA: 9+00

SEE SHEET 15  
STA: 4+50

| REMOVAL KEY |  |
|-------------|--|
| KEY         | DESCRIPTION                              |
| 1           | _CURB AND GUTTER, REM, MODIFIED* (FT)    |
| 2           | STUMP, REM, 6 INCH TO 18 INCH (EA)       |
| 3           | STUMP, REM, 19 INCH TO 36 INCH (EA)      |
| 4           | HMA SURFACE, REM* (SYD)                  |
| 5           | _SIDEWALK, REM, MODIFIED* (SFT)          |
| 6           | FENCE, PROTECTIVE (FT)                   |
| 7           | _CURB, REM, MODIFIED (FT)                |
| 8           | _EROSION CONTROL, INLET FILTER           |
| 9           | EROSION CONTROL, SILT FENCE              |
| 10          | SEWER, REM, LESS THAN 24 INCH (FT)       |
| 11          | DR STRUCTURE, REM (EA)                   |
| 12          | _DRIVEWAY APPROACH, REM, MODIFIED* (SFT) |
| 13          | TRIMMING TREE (EA)                       |
| RBO         | REMOVE BY OTHERS                         |

\*SAWCUT FULL DEPTH AT REMOVAL LIMITS

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

**NORTHSIDE STEAM SAFE ROUTES TO SCHOOL REMOVALS**

TRAVER STREET

SCALE PLAN: 1" = 20'

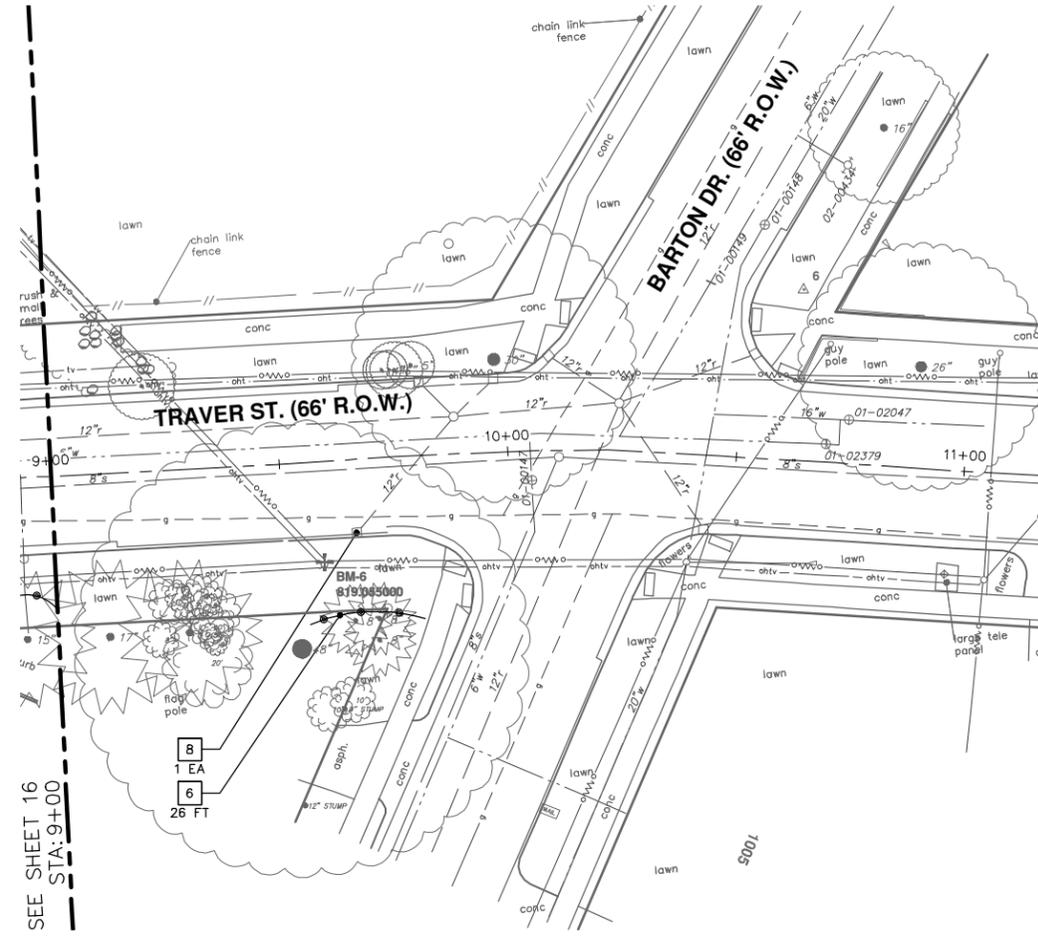
DRAWING No. **2018024-16**

SHEET No. **16 OF 29**

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|-----------|-------------------|-------------|
| DD        | MDOT CI SUBMITTAL | DESCRIPTION |
| REV.      | DATE              | DRAWN       |
| 10-8-2018 | KGD,DF,CC         | JKA         |
| CHECKED   |                   |             |

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SEE SHEET 16  
STA: 9+00

| REMOVAL KEY |  |
|-------------|--|
| KEY         | DESCRIPTION                              |
| 1           | _CURB AND GUTTER, REM, MODIFIED* (FT)    |
| 2           | STUMP, REM, 6 INCH TO 18 INCH (EA)       |
| 3           | STUMP, REM, 19 INCH TO 36 INCH (EA)      |
| 4           | HMA SURFACE, REM* (SYD)                  |
| 5           | _SIDEWALK, REM, MODIFIED* (SFT)          |
| 6           | FENCE, PROTECTIVE (FT)                   |
| 7           | _CURB, REM, MODIFIED (FT)                |
| 8           | _EROSION CONTROL, INLET FILTER           |
| 9           | EROSION CONTROL, SILT FENCE              |
| 10          | SEWER, REM, LESS THAN 24 INCH (FT)       |
| 11          | DR STRUCTURE, REM (EA)                   |
| 12          | _DRIVEWAY APPROACH, REM, MODIFIED* (SFT) |
| 13          | TRIMMING TREE (EA)                       |
| RBO         | REMOVE BY OTHERS                         |

\*SAWCUT FULL DEPTH AT  
REMOVAL LIMITS



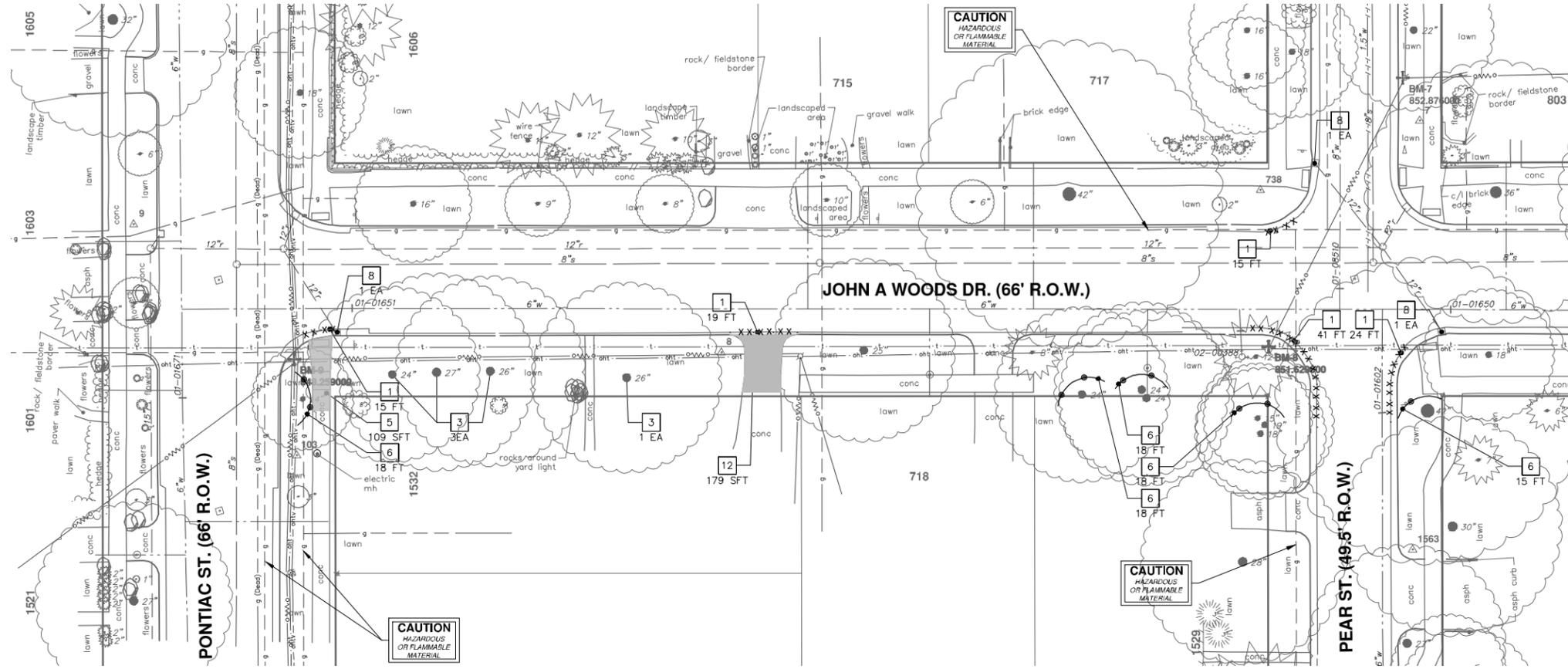
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**NORTHSIDE STEAM SAFE ROUTES TO SCHOOL**  
REMOVALS  
TRAVER STREET

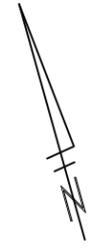
SCALE PLAN: 1" = 20'  
DRAWING No.  
**2018024-17**

| REV. | DATE      | DESCRIPTION       |
|------|-----------|-------------------|
| 00   | 10-8-2018 | MDOT CI SUBMITTAL |
|      |           | KGJ/DF/CC         |
|      |           | JKA               |
|      |           | CHECKED           |
|      |           | DRAWN             |



| REMOVAL KEY |  |
|-------------|--|
| KEY         | DESCRIPTION                              |
| 1           | _CURB AND GUTTER, REM, MODIFIED* (FT)    |
| 2           | STUMP, REM, 6 INCH TO 18 INCH (EA)       |
| 3           | STUMP, REM, 19 INCH TO 36 INCH (EA)      |
| 4           | HMA SURFACE, REM* (SYD)                  |
| 5           | _SIDEWALK, REM, MODIFIED* (SFT)          |
| 6           | FENCE, PROTECTIVE (FT)                   |
| 7           | _CURB, REM, MODIFIED (FT)                |
| 8           | _EROSION CONTROL, INLET FILTER           |
| 9           | EROSION CONTROL, SILT FENCE              |
| 10          | SEWER, REM, LESS THAN 24 INCH (FT)       |
| 11          | DR STRUCTURE, REM (EA)                   |
| 12          | _DRIVEWAY APPROACH, REM, MODIFIED* (SFT) |
| 13          | TRIMMING TREE (EA)                       |
| RBQ         | REMOVE BY OTHERS                         |

\*SAWCUT FULL DEPTH AT REMOVAL LIMITS



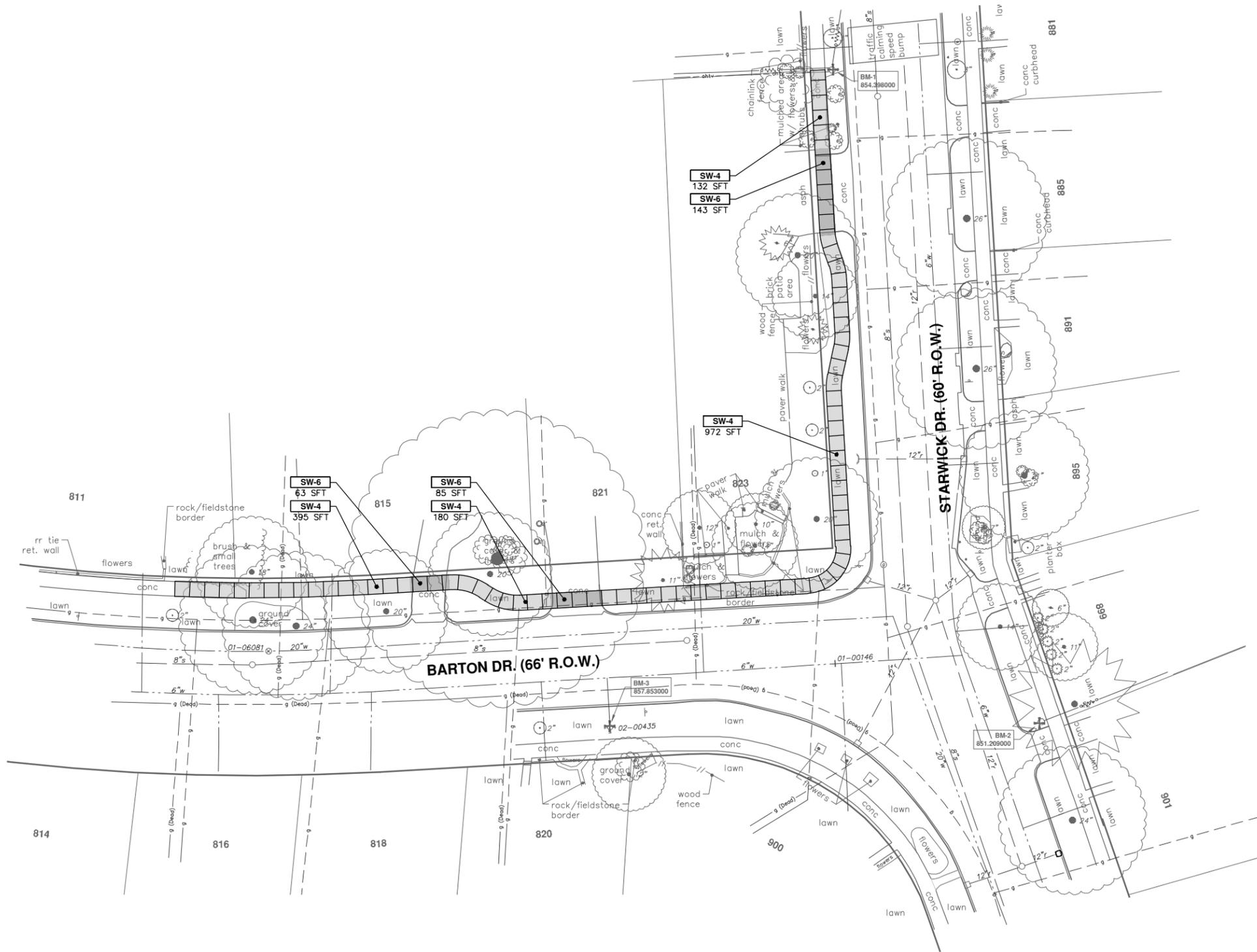
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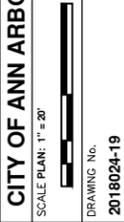
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**NORTHSIDE STEAM SAFE ROUTES TO SCHOOL**  
REMOVALS  
JOHN A. WOODS DRIVE

SCALE PLAN: 1" = 20'  
DRAWING No. 2018024-18

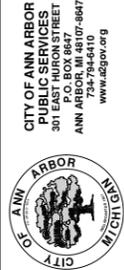
| REV. | DESCRIPTION       | DATE      | DRAWN     | CHECKED |
|------|-------------------|-----------|-----------|---------|
| 00   | MDOT GI SUBMITTAL | 10-8-2018 | KGJ/DF/CC | JKA     |



| CONSTRUCTION KEY |  |
|------------------|--|
| KEY              | DESCRIPTION  |
| HMA              | HAND PATCHING  |
| DRV-6            | CONCRETE DRIVE APPROACH, NONREINFORCED, P-NC, 6 INCH (SFT) |
| DOM              | DRIVEWAY OPENING, CONC, DETAIL M, P-NC (FT)                |
| CG               | CURB AND GUTTER, CONC, DET F4, SPECIAL (FT)                |
| CRO              | CURB RAMP OPENING, CONC. (FT)                              |
| SW-RWS           | INTEGRAL SIDEWALK RETAINING WALL, 6" TO 18" (SFT)          |
| SW-RWT           | INTEGRAL SIDEWALK RETAINING WALL, 19" TO 36" (SFT)         |
| DWS              | DETECTABLE WARNING TILES (SFT)                             |
| SWR-6            | SIDEWALK RAMP, CONC, 6 INCH, P-NC, ADA, MODIFIED (SFT)     |
| SW-4             | SIDEWALK, CONCRETE, 4 INCH, SPECIAL (SFT)                  |
| SW-6             | SIDEWALK, CONCRETE, 6 INCH, SPECIAL (SFT)                  |



CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
 NORTHSIDE STEAM SAFE ROUTES TO SCHOOL  
 PROPOSED SIDEWALK  
 BARTON DRIVE

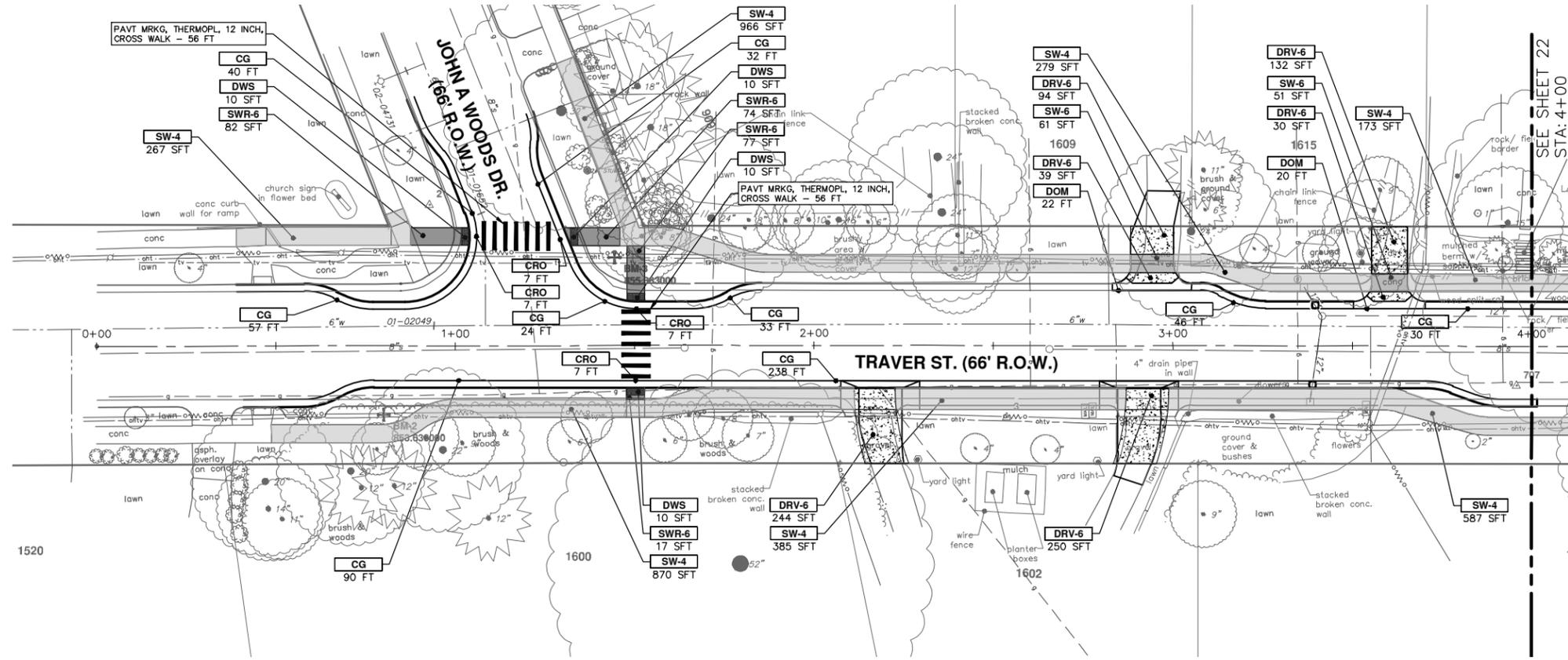


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| DD        | MDOT GI SUBMITTAL | DESCRIPTION | REV.    |
|-----------|-------------------|-------------|---------|
| 10-8-2018 | JKA               | DRAWN       | CHECKED |







| CONSTRUCTION KEY |  |
|------------------|--|
| KEY              | DESCRIPTION  |
| HMA              | HAND PATCHING  |
| DRV-6            | CONCRETE DRIVE APPROACH, NONREINFORCED, P-NC, 6 INCH (SFT) |
| DOM              | DRIVEWAY OPENING, CONC, DETAIL M, P-NC (FT)                |
| CG               | CURB AND GUTTER, CONC, DET F4, SPECIAL (FT)                |
| CRO              | CURB RAMP OPENING, CONC. (FT)                              |
| SW-RWS           | INTEGRAL SIDEWALK RETAINING WALL, 6" TO 18" (SFT)          |
| SW-RWT           | INTEGRAL SIDEWALK RETAINING WALL, 19" TO 36" (SFT)         |
| DWS              | DETECTABLE WARNING TILES (SFT)                             |
| SWR-6            | SIDEWALK RAMP, CONC, 6 INCH, P-NC, ADA, MODIFIED (SFT)     |
| SW-4             | SIDEWALK, CONCRETE, 4 INCH, SPECIAL (SFT)                  |
| SW-6             | SIDEWALK, CONCRETE, 6 INCH, SPECIAL (SFT)                  |

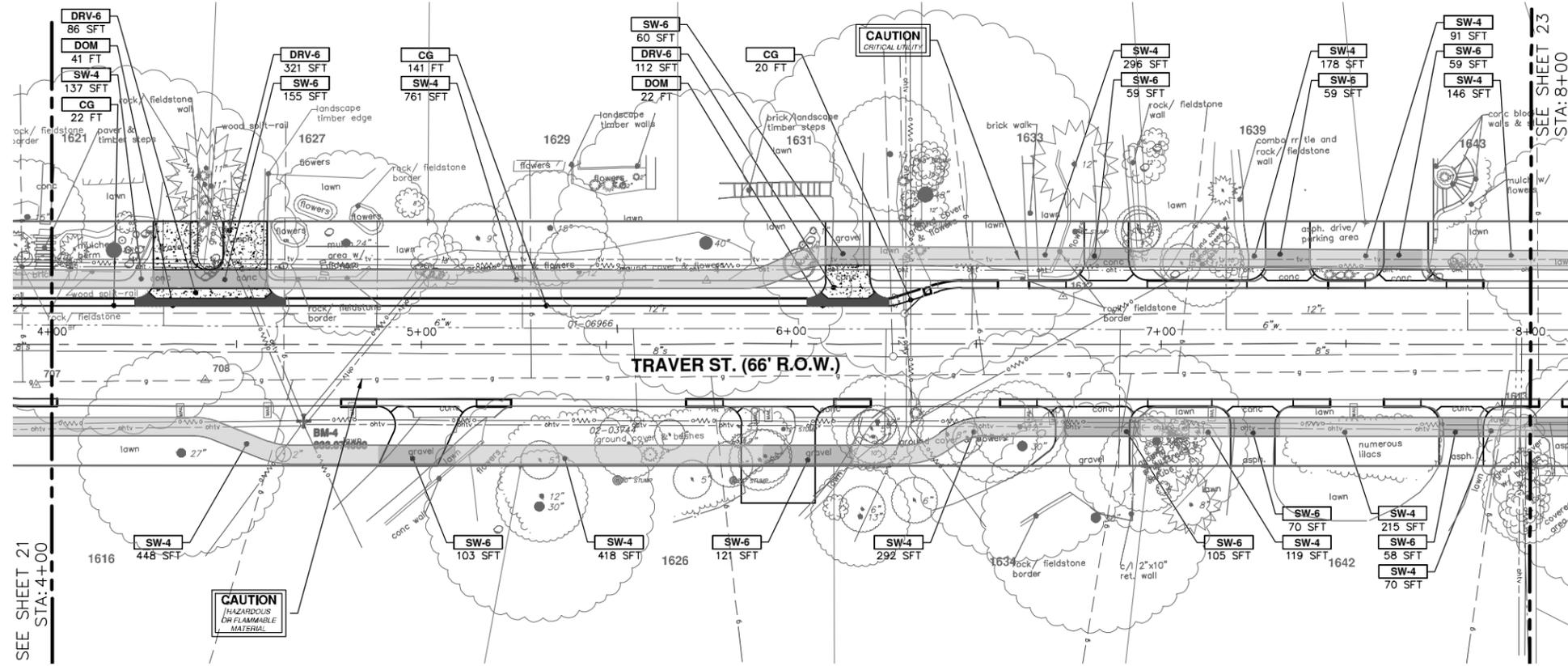


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**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**NORTHSIDE STEAM SAFE ROUTES TO SCHOOL**  
PROPOSED SIDEWALK  
TRAVER STREET

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 2'  
DRAWING No. 2018024-21



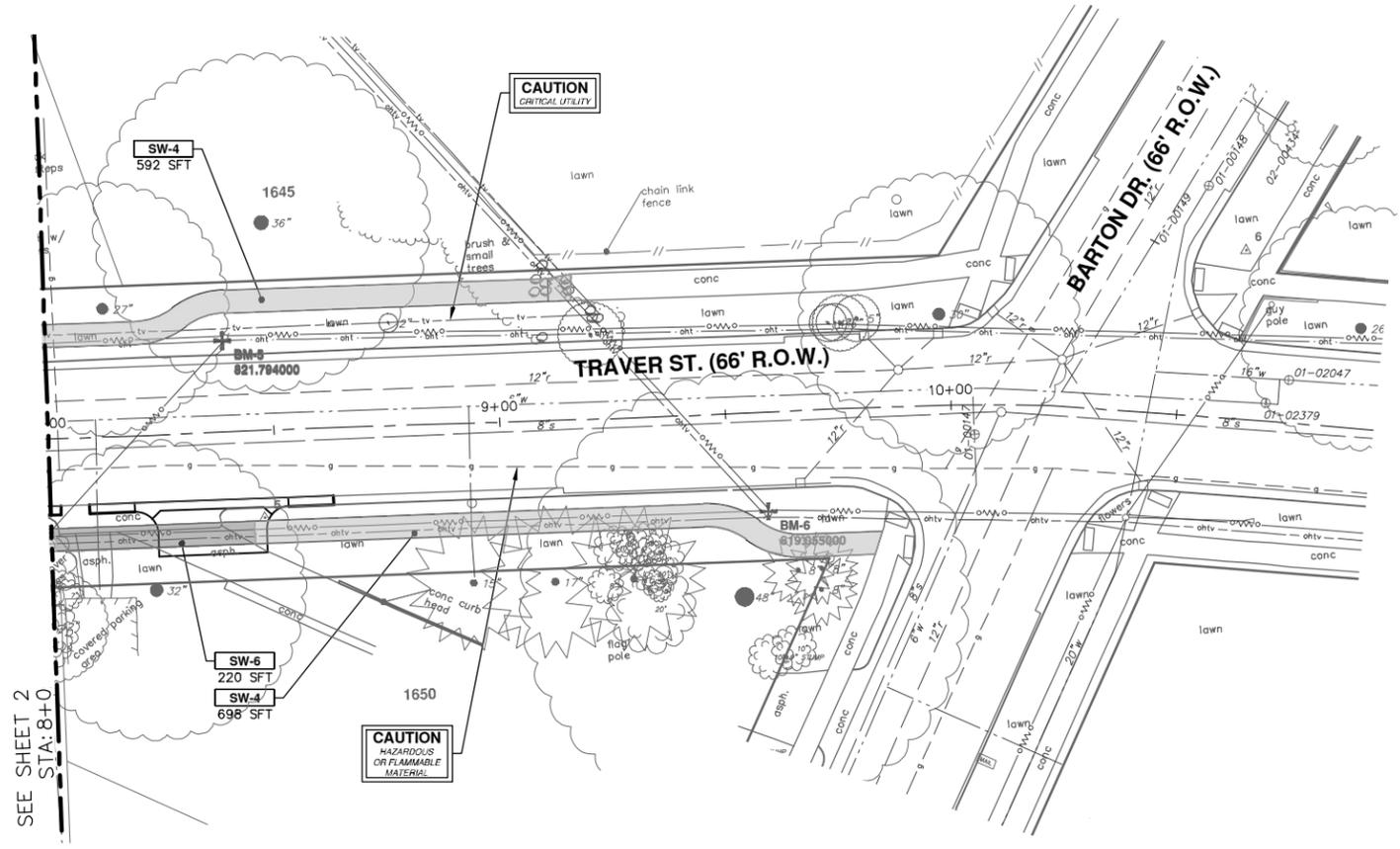
| CONSTRUCTION KEY |  |
|------------------|--|
| KEY              | DESCRIPTION  |
| HMA              | HAND PATCHING  |
| DRV-6            | CONCRETE DRIVE APPROACH, NONREINFORCED, P-NC, 6 INCH (SFT) |
| DOM              | DRIVEWAY OPENING, CONC. DETAIL M, P-NC (FT)                |
| CG               | CURB AND GUTTER, CONC. DET F4, SPECIAL (FT)                |
| CRO              | CURB RAMP OPENING, CONC. (FT)                              |
| SW-RWS           | INTEGRAL SIDEWALK RETAINING WALL, 6" TO 18" (SFT)          |
| SW-RWT           | INTEGRAL SIDEWALK RETAINING WALL, 19" TO 36" (SFT)         |
| DWS              | DETECTABLE WARNING TILES (SFT)                             |
| SWR-6            | SIDEWALK RAMP, CONC, 6 INCH, P-NC, ADA, MODIFIED (SFT)     |
| SW-4             | SIDEWALK, CONCRETE, 4 INCH, SPECIAL (SFT)                  |
| SW-6             | SIDEWALK, CONCRETE, 6 INCH, SPECIAL (SFT)                  |



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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
NORTHSIDE STEAM SAFE ROUTES TO SCHOOL  
PROPOSED SIDEWALK  
TRAVER STREET



| CONSTRUCTION KEY |  |
|------------------|--|
| KEY              | DESCRIPTION  |
| HMA              | HAND PATCHING  |
| DRV-6            | CONCRETE DRIVE APPROACH, NONREINFORCED, P-NC, 6 INCH (SFT) |
| DOM              | DRIVEWAY OPENING, CONC, DETAIL M, P-NC (FT)                |
| CG               | CURB AND GUTTER, CONC, DET F4, SPECIAL (FT)                |
| CRO              | CURB RAMP OPENING, CONC. (FT)                              |
| SW-RWS           | INTEGRAL SIDEWALK RETAINING WALL, 6" TO 18" (SFT)          |
| SW-RWT           | INTEGRAL SIDEWALK RETAINING WALL, 19" TO 36" (SFT)         |
| DWS              | DETECTABLE WARNING TILES (SFT)                             |
| SWR-6            | SIDEWALK RAMP, CONC, 6 INCH, P-NC, ADA, MODIFIED (SFT)     |
| SW-4             | SIDEWALK, CONCRETE, 4 INCH, SPECIAL (SFT)                  |
| SW-6             | SIDEWALK, CONCRETE, 6 INCH, SPECIAL (SFT)                  |

SEE SHEET 2  
STA: 8+0



**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
NORTHSIDE STEAM SAFE ROUTES TO SCHOOL  
PROPOSED SIDEWALK  
TRAVER STREET

SCALE PLAN: 1" = 20'  
PROFILE: 1" = 2'

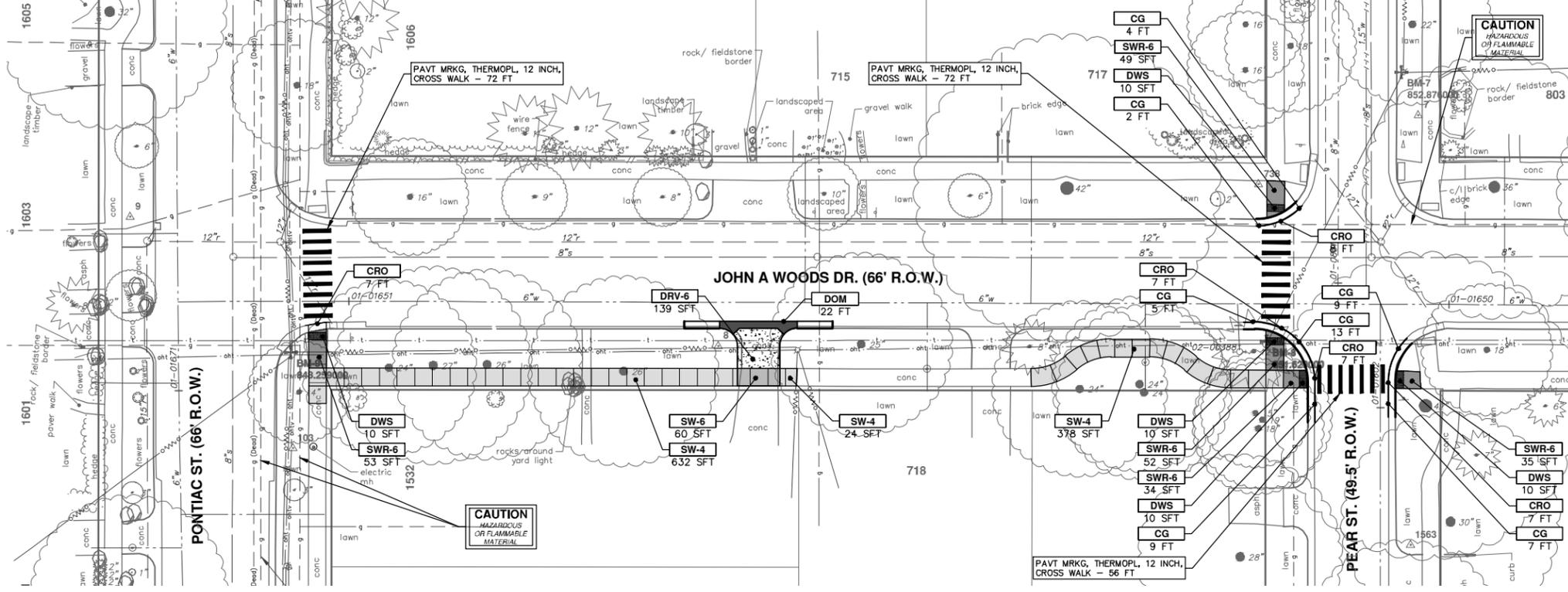
DRAWING No.  
**2018024-23**

| NO. | DATE | DESCRIPTION | BY | CHECKED |
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REV.      DATE      DRAWN      CHECKED

10-8-2018      KBJ/DF/CC      JKA

**811**  
Know what's below.  
Call Before you dig.



| CONSTRUCTION KEY |  |
|------------------|--|
| KEY              | DESCRIPTION  |
| HMA              | HAND PATCHING  |
| DRV-6            | CONCRETE DRIVE APPROACH, NONREINFORCED, P-NC, 6 INCH (SFT) |
| DOM              | DRIVEWAY OPENING, CONC. DETAIL M, P-NC (FT)                |
| CG               | CURB AND GUTTER, CONC. DET F4, SPECIAL (FT)                |
| CRO              | CURB RAMP OPENING, CONC. (FT)                              |
| SW-RWS           | INTEGRAL SIDEWALK RETAINING WALL, 6" TO 18" (SFT)          |
| SW-RWT           | INTEGRAL SIDEWALK RETAINING WALL, 19" TO 36" (SFT)         |
| DWS              | DETECTABLE WARNING TILES (SFT)                             |
| SWR-6            | SIDEWALK RAMP, CONC. 6 INCH, P-NC, ADA, MODIFIED (SFT)     |
| SW-4             | SIDEWALK, CONCRETE, 4 INCH, SPECIAL (SFT)                  |
| SW-6             | SIDEWALK, CONCRETE, 6 INCH, SPECIAL (SFT)                  |



**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

**NORTHSIDE STEAM SAFE ROUTES TO SCHOOL**

PROPOSED SIDEWALK

JOHN A WOODS DRIVE

SCALE PLAN: 1" = 20'

DRAWING No. **2018024-24**

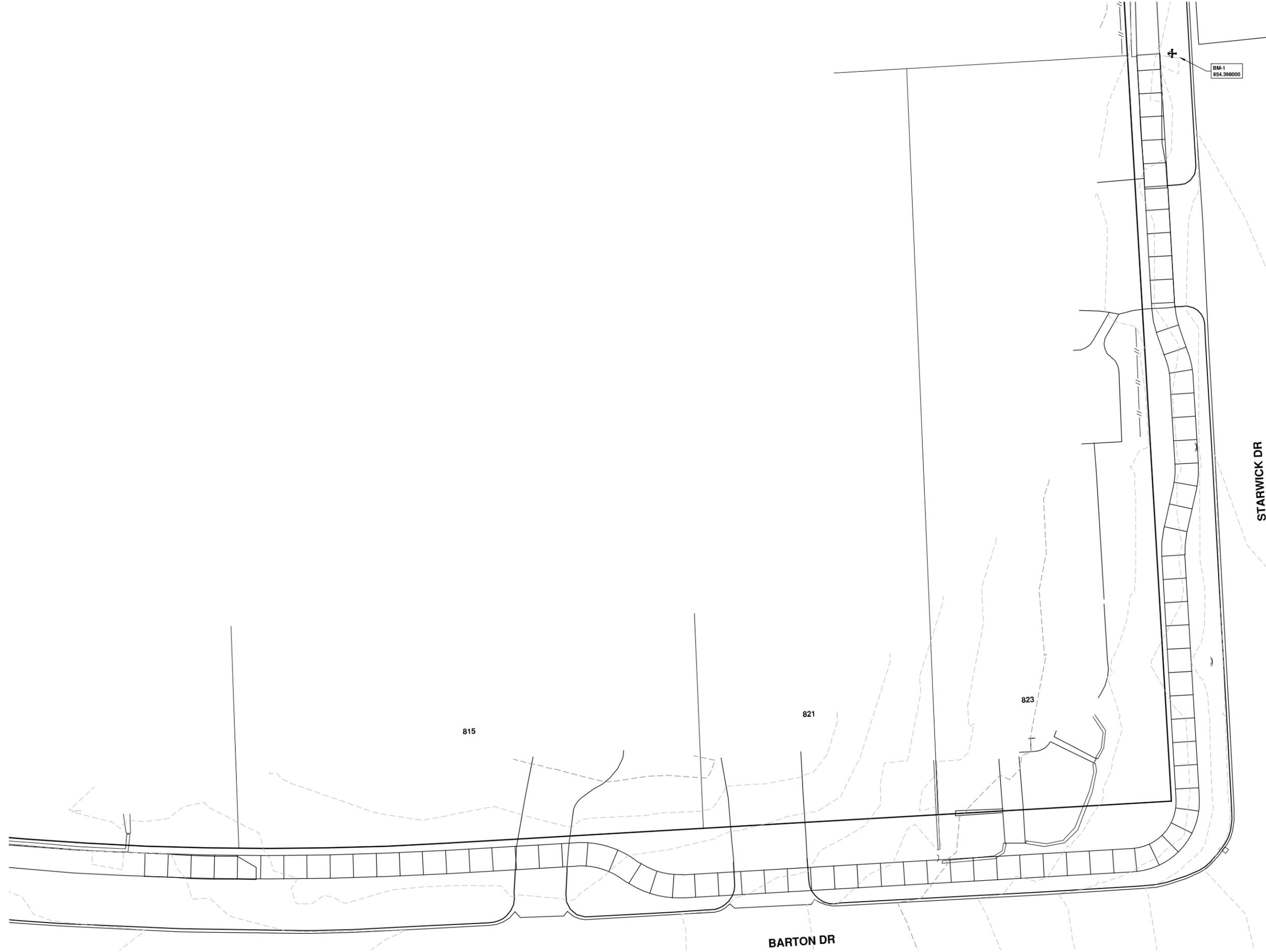
SHEET No. **24 OF 29**



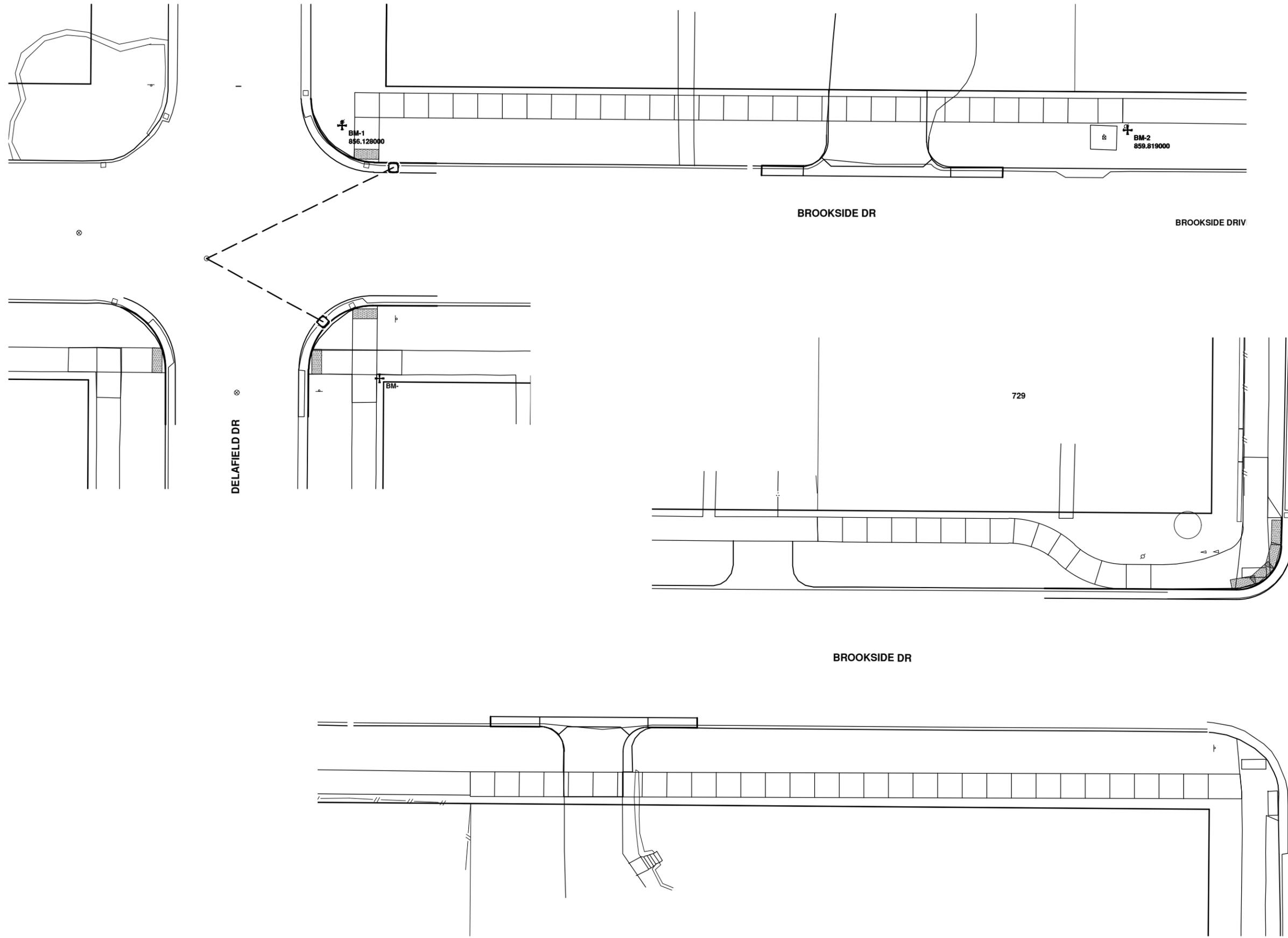
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|------|-------------------|-----------|-------|---------|
| 00   | MDOT CI SUBMITTAL | 10-8-2018 | JKA   |         |

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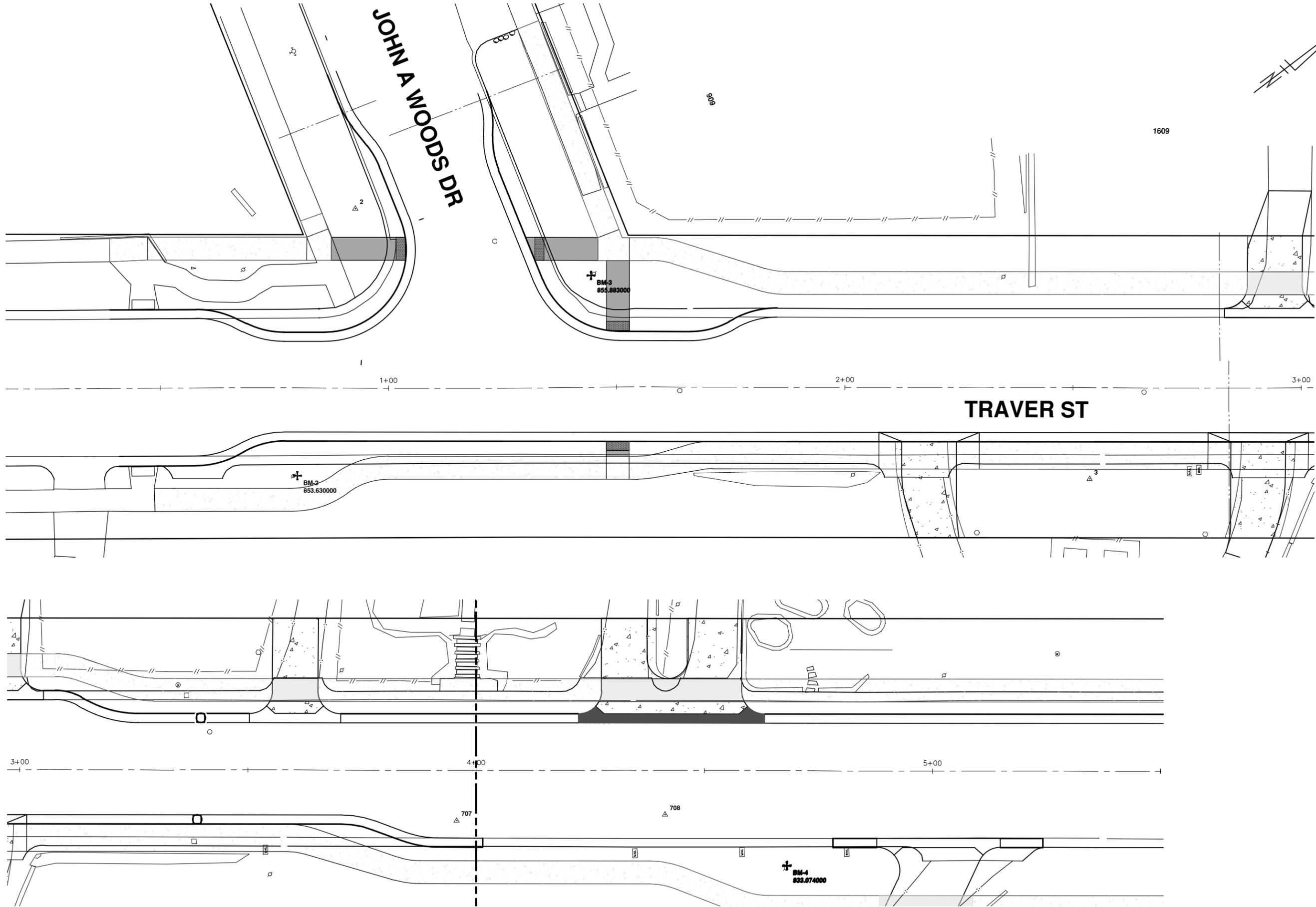


| REV. | DESCRIPTION       | DATE      | DRAWN     | CHECKED |
|------|-------------------|-----------|-----------|---------|
| 00   | MDOT CI SUBMITTAL | 10-8-2018 | KGJ/DF/CC | JKA     |



|   |                        |  |      |  |           |             |      |           |           |     |         |  |
|---|------------------------|--|------|--|-----------|-------------|------|-----------|-----------|-----|---------|--|
| <b>CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING</b><br>NORTHSIDE STEAM SAFE ROUTES TO SCHOOL<br>INTERSECTION GRADES<br>BROOKSIDE DRIVE |                        | <br>CITY OF ANN ARBOR<br>PUBLIC SERVICES<br>301 EAST HURON STREET<br>ANN ARBOR, MI 48106-8647<br>734-794-4410<br>www.a2gov.org |      | <br>Know what's below.<br>Call Before you dig. |           |             |      |           |           |     |         |  |
| SCALE PLAN: 1" = 10'  | DRAWING No. 2018024-26 | DD   | NOOT | GI   | SUBMITTAL | DESCRIPTION | DATE | 10-8-2018 | KGJ,DF,CC | JKA | CHECKED |  |
| SHEET No. 26 OF 29  |                        |  |      |  |           |             |      |           |           |     |         |  |

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| NO. | DATE      | DESCRIPTION       | BY        | CHECKED |
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| 01  | 10-8-2018 | MDOT CI SUBMITTAL | KBJ/DF/CC | JKA     |
|     |           | REV.              | DRAWN     | CHECKED |

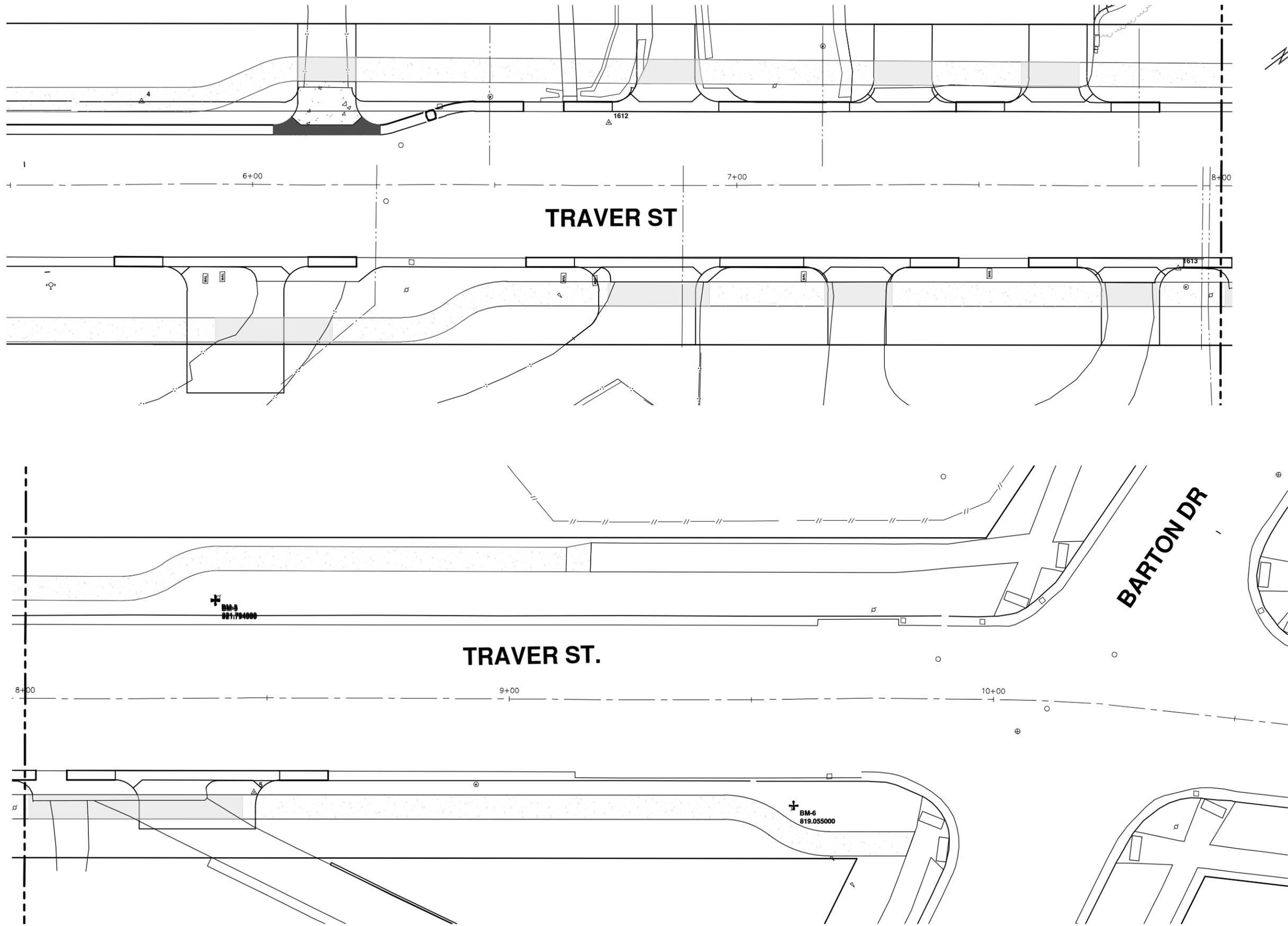
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**NORTHSIDE STEAM SAFE ROUTES TO SCHOOL**  
 INTERSECTION GRADES  
 TRAVER STREET

SCALE PLAN: 1" = 10'  
 DRAWING No. 2018024-27

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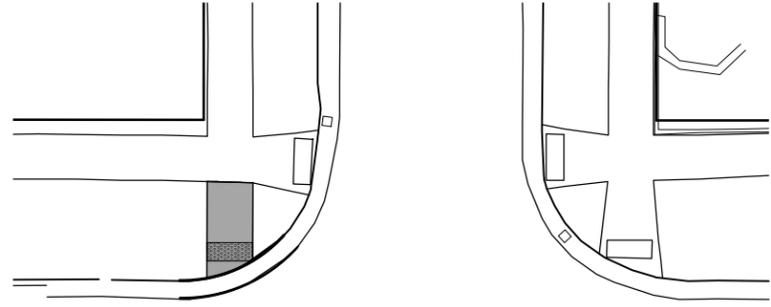
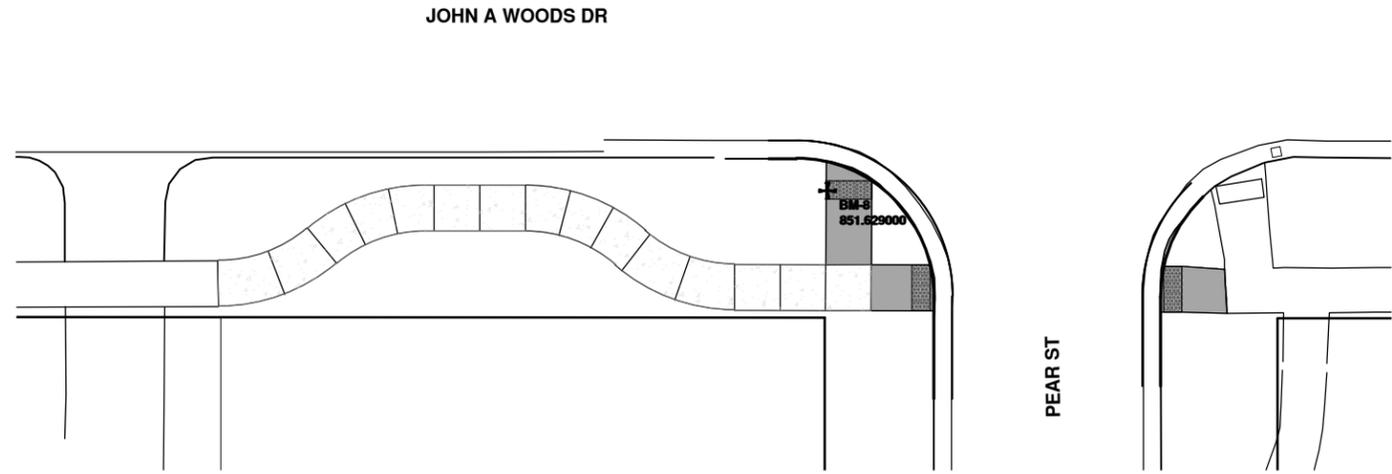
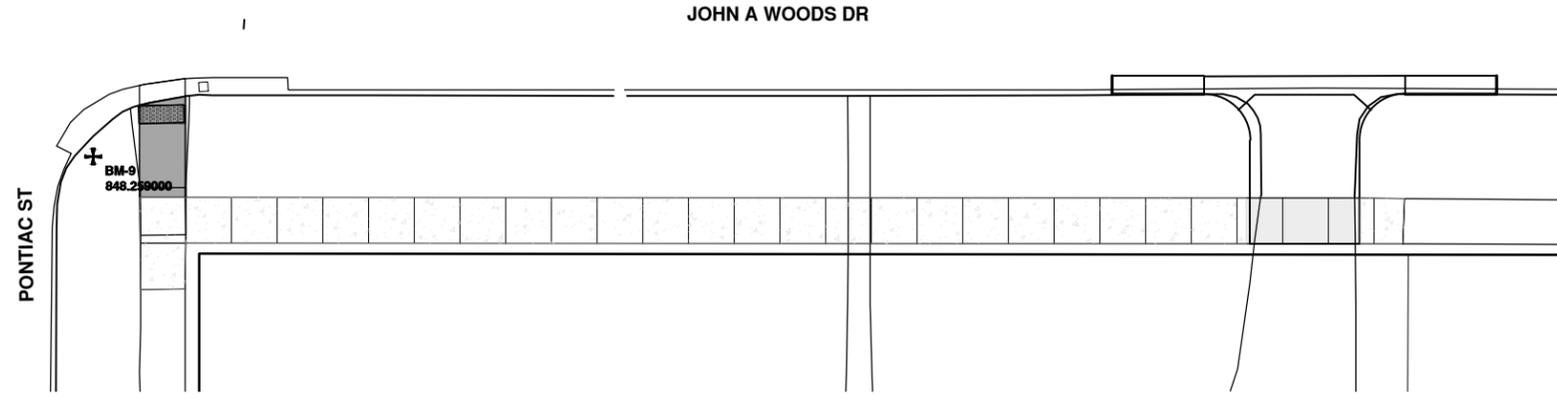
| REV. | DESCRIPTION       | DATE      | DRAWN     | CHECKED |
|------|-------------------|-----------|-----------|---------|
| 00   | MDOT GI SUBMITTAL | 10-8-2018 | KBJ/DF/CC | JKA     |

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NORTHSIDE STEAM SAFE ROUTES TO SCHOOL  
INTERSECTION GRADES  
TRAVER STREET

SCALE PLAN: 1" = 10'  
DRAWING No. 2018024-28



| REV. | DESCRIPTION       | DATE      | DRAWN     | CHECKED |
|------|-------------------|-----------|-----------|---------|
| 00   | MDOT CI SUBMITTAL | 10-8-2018 | KGJ/DF/CC | JKA     |