

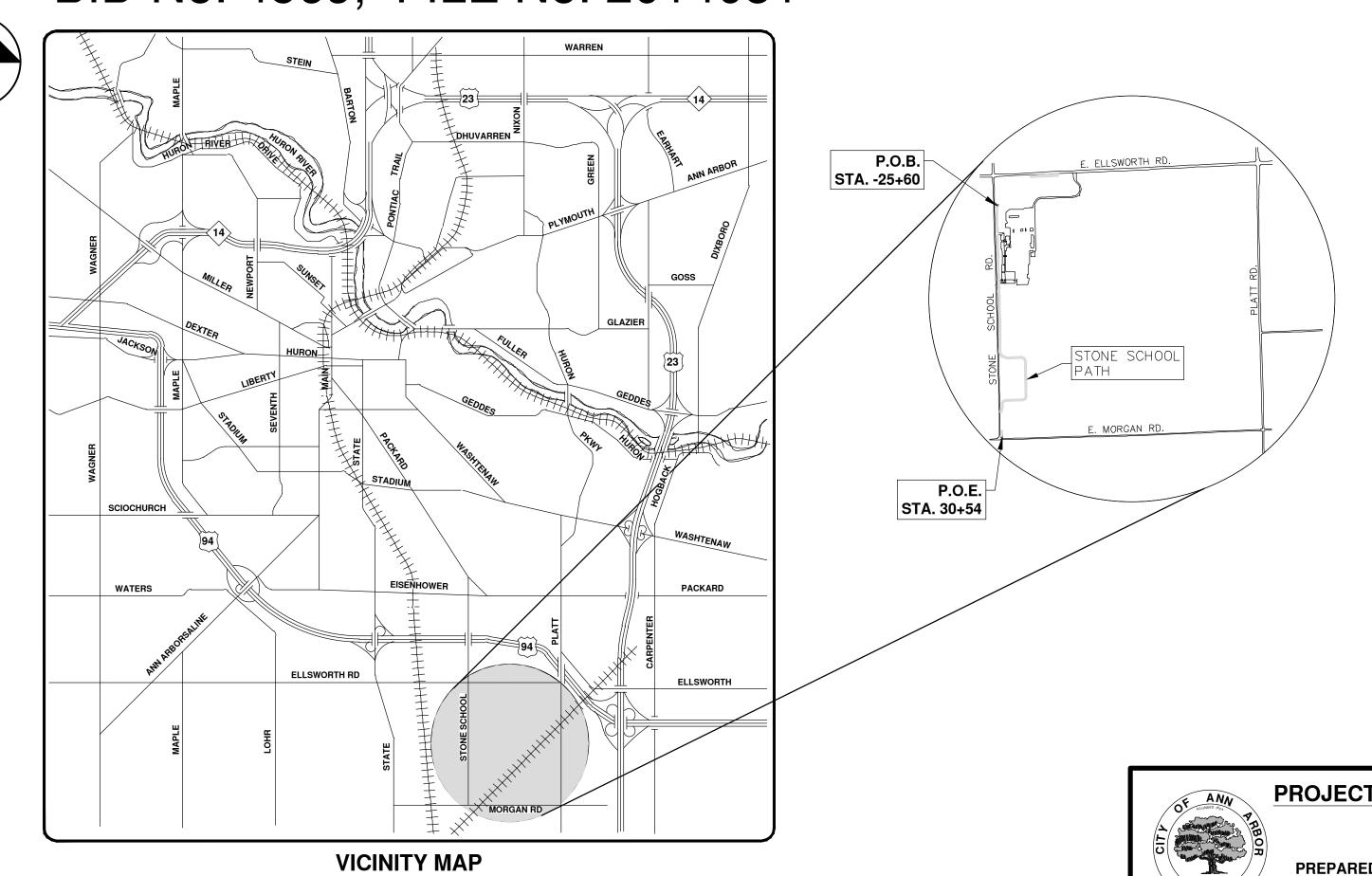
CITY OF ANN ARBOR PROJECT MANAGEMENT

PHASE 2 - HMA SHARED USE PATH

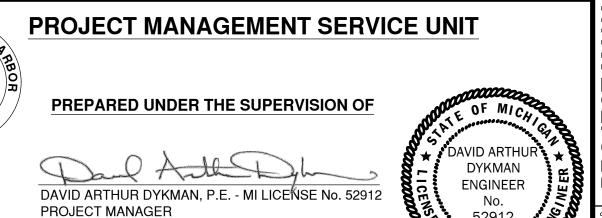
W.R. WHEELER (SWIFT RUN) SERVICE CENTER PUD NON-MOTORIZED IMPROVEMENTS

| | SHEET LIST TABLE |
|-----------------|-----------------------------------|
| SHEET NUMBER | SHEET TITLE |
| 1 | COVER SHEET |
| 2 | NOTES AND LEGEND |
| 3 - 4 | DETAILS |
| 5 | SOIL EROSION NOTES AND DETAILS |
| 6 - 13 | STONE SCHOOL ROAD SHARED USE PATH |
| 14 | PATH DRAINAGE AREA MAP |

BID No. 4569, FILE No. 2014031



SITE PLAN FILE NO.: CSPA 15-09



03 / 05 / 2019

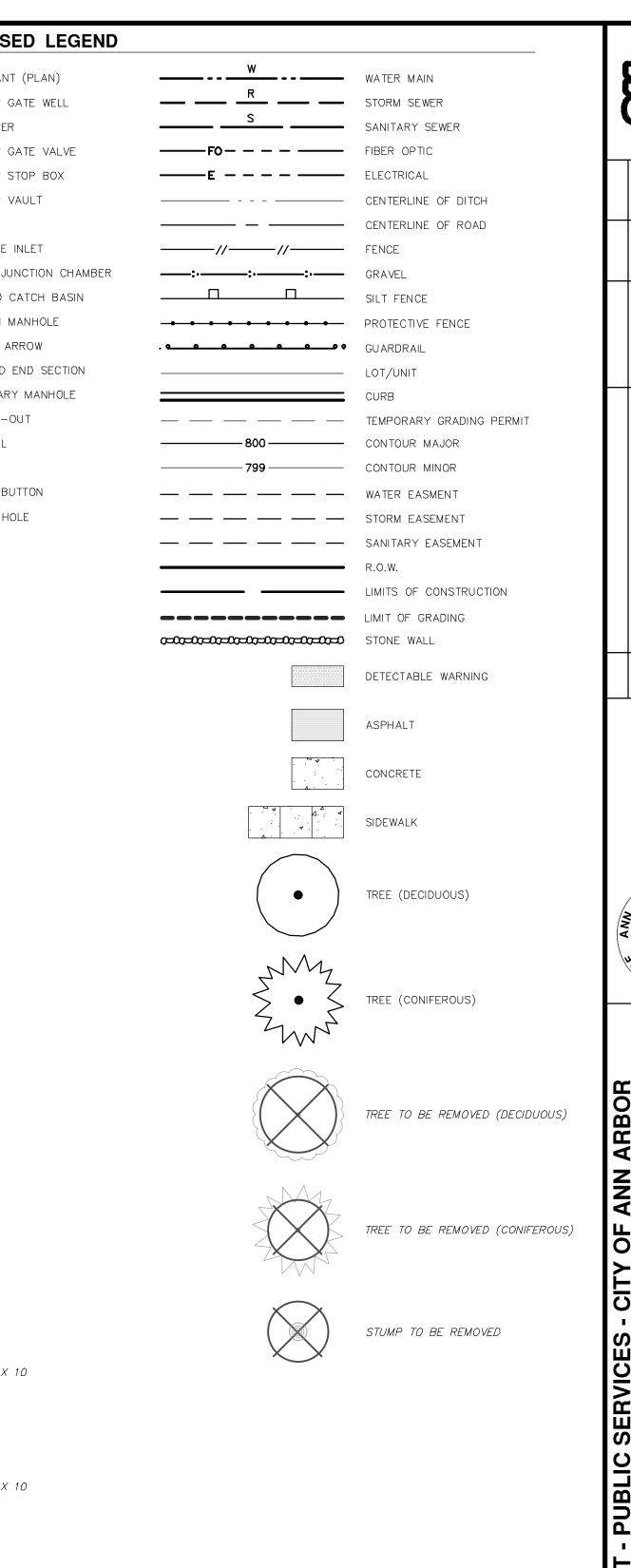
CONSTRUCTION NOTES:

- 1. 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.
- 2. The location and depth of all existing utilities and service leads are to be field verified by the Contractor prior to construction.
- 3. Location and depth of utilities as depicted on the plans is approximate and shown according to the best information available. It is the Contractor's responsibility to excavate ahead and adjust depth of conflict utilities accordingly. Any damage to utilities is the Contractor's responsibility to avoid and/or repair as necessary.
- 4. During non-working hours no trench shall remain open; any open trench shall be properly secured with protective fencing. This work shall be included in the item of work "General Conditions".
- 5. Postal delivery and refuse pickup service shall be maintained at all times by the Contractor.
- 6. Where street curbs are undermined due to construction activities, they shall be removed and replaced as directed by the Engineer.
- 7. The Contractor shall be responsible for the continuous maintenance of the soil erosion control measures within the construction area until the full completion of the project. This work shall be included in the item of work "General Conditions".
- 8. All curb, sidewalk, driveway approach removals shall be approved by Engineer before the work is done.
- 9. Sawed sewer pipe connections shall be coupled with a Fernco flexible coupling and a stainless steel shear ring.
- 10. The location of material stock piles and on—site staging areas to be approved by the Engineer.
- 11. All City of Ann Arbor structures shall receive new castings as directed by the Engineer, as specified on the standard casting schedule. The existing castings are the property of the City of Ann Arbor. The Contractor shall deliver to City of Ann Arbor Field Operations and Maintenance Facility at the W.R. Wheeler Service Center located at 4251 Stone School Road.
- 12. Drainage structure sumps, where specified, shall be included in the payment for the various drainage structure sizes and or
- 13. Where sewer pipes of different sizes or materials are joined, Fernco flexible couplings with stainless steel shear rings shall be used. The Contractor's purchase price for these devices, including shipping, shall be paid as an extra. Prior to payment for this item, the Contractor shall submit receipts for the Engineer's review and approval. All other costs associated with the installation of these devices shall be included in the payment for the sewer.
- 14. Where sewer and water main are to be removed & replaced or added, all pipe shall be installed using Trench Detail detailed in the specifications or shown on Plans. Backfill for sewer and water construction shall be MDOT Granular Material, Class II, Modified.
- 15. Existing street name, guide, and regulatory signs, and mailboxes 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 "Machine Grading, Modified"
- 16. In areas where edge drain cannot be installed in accordance with City of Ann Arbor Detail SD—TD—11, the edge drain shall be installed at the depth as indicated on the plans, or as directed by Engineer. In no case shall the edge drain be installed at a grade less than 0.50% or at a depth of less than 2' below top

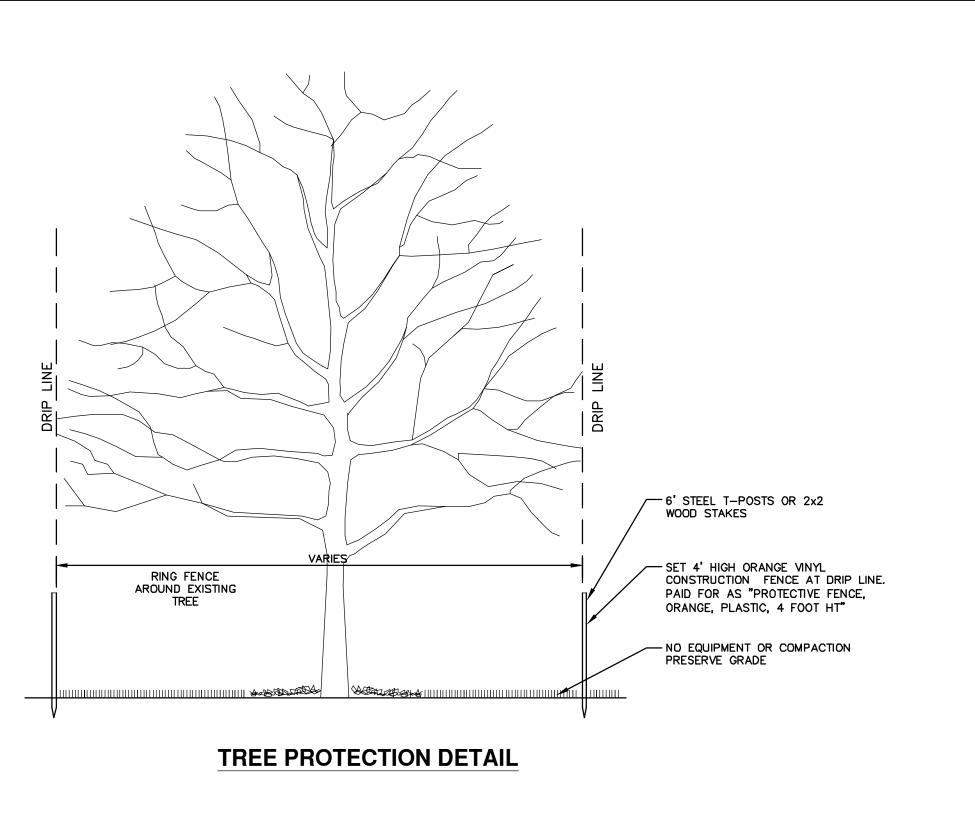
PERMITS REQUIRED TO BE OBTAINED PRIOR TO THE BEGINNING OF CONSTRUCTION. PERMIT **ISSUING AUTHORITY** RIGHT-OF-WAY PERMIT* **WASHTENAW COUNTY ROAD COMMISSION** SOIL EROSION AND SEDIMENTATION PITTSFIELD CHARTER TOWNSHIP CONTROL* * OBTAINED BY CITY OF ANN ARBOR AT NO COST TO CONTRACTOR

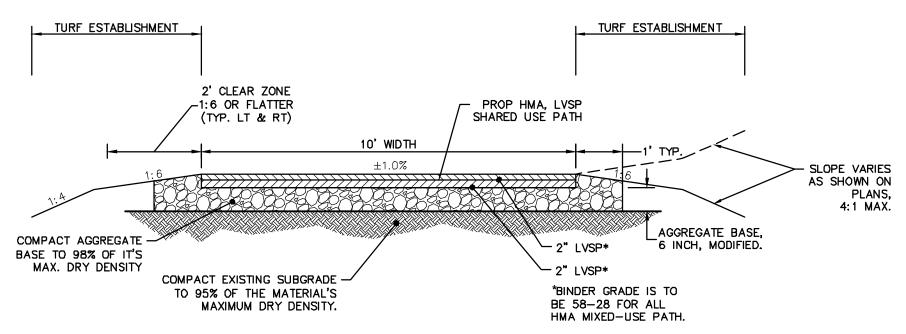
| PUBLIC UTILITIES | OWNER | CONTACT |
|-----------------------------------|--|-------------------------------------|
| WATER | | |
| SANITARY | | |
| STORM | CITY OF ANN ARBOR PUBLIC WORKS W.R. WHEELER SERVICE CENTER 4251 STONE SCHOOL ROAD | (734) 794–6350 |
| FORESTRY | ANN ARBOR, MI 48108 | |
| SIGNS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

| EX | ISTING LEGEND | | | PF | ROPOSED LEGEND | |
|------------------------|-----------------------------------|---|---|-----------------|-----------------------------------|---|
| ‡ + I | FIRE HYDRANT GATE VALVE IN BOX | | WATER MAIN WATER MAIN ABANDONED | ∳ + ⊗ | HYDRANT (PLAN) WATER GATE WELL | • |
| \otimes | GATE VALVE IN WELL | | STORM SEWER | • | REDUCER | • |
| ₩ | STOP BOX | | STORM SEWER ABANDONED | I | WATER GATE VALVE | • |
| W | WATER VAULT | <u>S</u> | SANITARY SEWER | 00 | WATER STOP BOX | • |
| @ | WELL | ———/——/——— | SANITARY SEWER ABANDONED | W | WATER VAULT | - |
| □ | CATCH BASIN (SQ) | g | GAS MAIN (DEAR) | 0 | INLET | |
| • | CATCH BASIN (RD) STORM MANHOLE | — g (DEAD)— — — — — | GAS MAIN (DEAD) ELECTRICAL OVER HEAD | | DOUBLE INLET | • |
| 0 | NON-CURB CATCH BASIN (SQ) | | ELECTRICAL OVER HEAD ELECTRICAL UNDER GROUND | 0 | INLET JUNCTION CHAMBER | • |
|) | END SECTION | e duct bank | | | ROUND CATCH BASIN | • |
| 0 | SANITARY MANHOLE | | ELECTRICAL DUCT BANK | - O | STORM MANHOLE DRAIN ARROW | • |
| 0 | CLEAN-OUT | oht · | TELEPHONE OVER HEAD | | • | • |
| • | POST | | TELEPHONE UNDER GROUND | 7 | SANITARY MANHOLE | |
| ₽ P | PEDESTRIAN SIGNAL | t duct bank | TELEPHONE DUCT BANK | O | CLEAN-OUT | • |
| þ | SIGN | ohtv | CABLE TV OVER HEAD | • | BARREL | |
| | HAND HOLE | | CABLE TV UNDER GROUND | - | SIGN | |
| ٥ | ORNAMENTAL LIGHT | | FIBER OPTIC | | PUSH BUTTON | |
| 잒 | FLOOD LIGHT | fo duct bank | FIBER OPTIC DUCT BANK | | HAND HOLE | |
| ? | UNKNOWN MANHOLE | | BOUNDARY | | | - |
| @ | TELEPHONE MANHOLE | | BUILDING | | | • |
| \boxtimes | TELEPHONE RISER | | CENTERLINE OF DITCH | | | • |
| 9 | GAS VALVE | | CENTERLINE/CROWN OF ROAD | | | • |
| 0 | GAS VENT | — — — — <i>800</i> – — — — | CONTOUR MAJOR | | | (|
| <u> </u> | GAS BOX | — — — — 799 — — — — — | CONTOUR MINOR | | | |
| Ž | ELECTRICAL RISER | | EDGE OF WATER | | | |
| \boxtimes | TRANSFORMER | | FLOODPLAIN | | | |
| Ø O | UTILITY POLE LAMP POLE | ——//———//———//— | FENCE | | | |
|) | GUY ANCHOR | ;;; | GRAVEL | | | |
| ρ | GUY POLE | | GUARDRAIL | | | |
| (III) | MONITORING WELL | 000000000000000000000000000000000000000 | STONE WALL | | | |
| TWK. | MAILBOX | | R.O.W. TREELINE | | | |
| • | SOIL BORING | | WETLAND | | | |
| \triangle | TRAVERSE POINT | | EDGE OF BRUSH | | | |
| + | BENCH MARK | | EDGE OF BROOK | | | |
| 0 | IRON PIPE | | HEDGE | | | |
| • | MON BOX | | TREE (DECIDUOUS) | | | |
| | | | TREE (CONIFEROUS) | | | |
| | | | SHRUB (DECIDUOUS) | | | |
| | | | STUMP | | | |
| | | | TREE TO REMAIN & PROTECT (DECIDUOUS) CRITICAL ROOT ZONE (C.R.Z.) = DIAMETER BREAST H | 'EIGHT (I. | NCHES) X 10 | |
| | | S. C.S. | TREE TO REMAIN & PROTECT (CONIFEROUS) CRITICAL ROOT ZONE (C.R.Z.) = DIAMETER BREAST H | EIGHT (1. | NCHES) X 10 | |



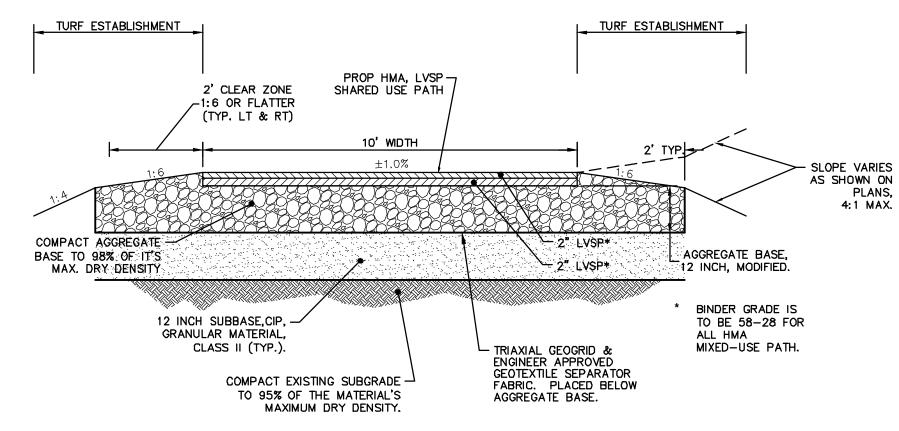
USE SHARED HMA 2 PROJECT MANAGEMENT



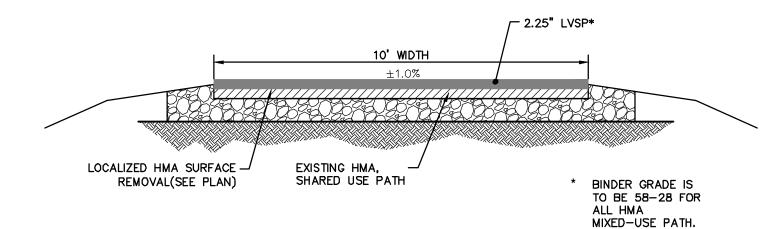


HMA SHARED USE PATH TYPICAL SECTION

| | SHARED | USE PATH - HN | MA APPI ICAT | ION ESTIMATE | |
|-----------------|------------------------|-----------------------|--------------|--------------|-----------------------------------|
| HMA MIX | RATE OF APPLICATION | THICKNESS (INCHES) | AWI (MIN.) | BINDER | LOCATION/NOTES |
| LVSP | 220 - 250 LB/SYD | 2.0 - 2.25 | 220 | PG 58-28 | TOP COURSE |
| LVSP | 220 LB/SYD | 2.0 | 220 | PG 58-28 | LEVELING COURSE |
| Bond Coat SS-1h | 0.05 - 0.10 GAL/SYD | - | - | - | INCLUDE IN COST OF HMA ITEM(S) |



HMA SHARED USE PATH SECTION, STA. 6+25 TO 7+25



EXISTING HMA SHARED USE PATH TYPICAL SECTION NTS

- DO NOT PRUNE TERMINAL LEADER OR BRANCH TIPS. - PRUNE AWAY DEAD OR BROKEN BRANCHES ONLY.

REMOVE ALL LABELS, TAGS, TREE WRAP, TAPE OR STRING FROM TREE

- PRUNE OFF SUCKERS.

- FOLD DOWN OR PULL BACK STRING, BURLAP, PLASTIC OR SOIL TO EXPOSE THE TRUNK FLARE. SET ROOTBALL SO THAT TRUNK FLARE IS LEVEL TO GRADE, OR VERY SLIGHTLY HIGHER IN CLAY SOIL. - MULCH 2"-3.5" DEEP LEAVING 3" CIRCLE OF BARE SOIL AROUND TRUNK OF TREE.

- IF POSSIBLE, WITHOUT DISTURBING DEVELOPED ROOTS, FOLD DOWN OR CUT AWAY BURLAP TO EXPOSE ROOTBALL. REMOVE ALL NON-DEGRADABLE MATERIALS, CUTTING AWAY WIRE BASKET TO 10"

BREAK UP (SCRIFY) SIDES OF PLANTING HOLE.

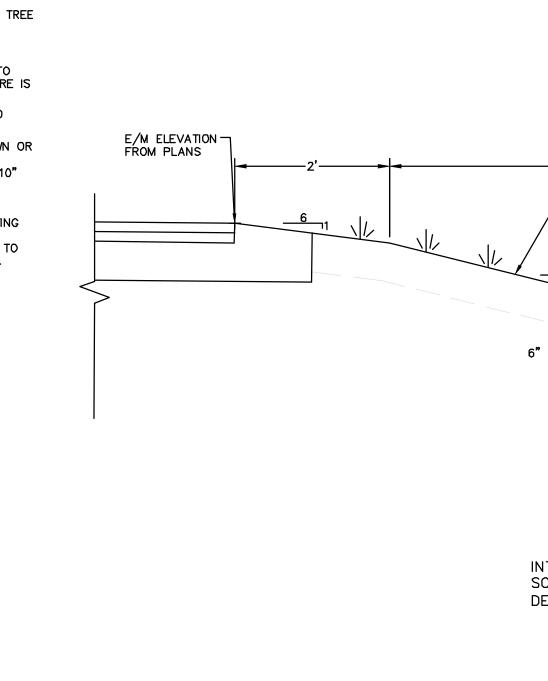
- CENTER ROOTBALL IN PLANTING HOLE. LEAVE BOTTOM OF PLANTING HOLE FIRM. DO NOT AMEND SOILUNLESS PLANTING IN SEVERLY DISTURBED SOILOR BUILDING RUBBLE. USE SHOVELS AND WATER TO SETTLE SOILD AND REMOVE AIR POCKETS AND FIRMLY SET TREE.

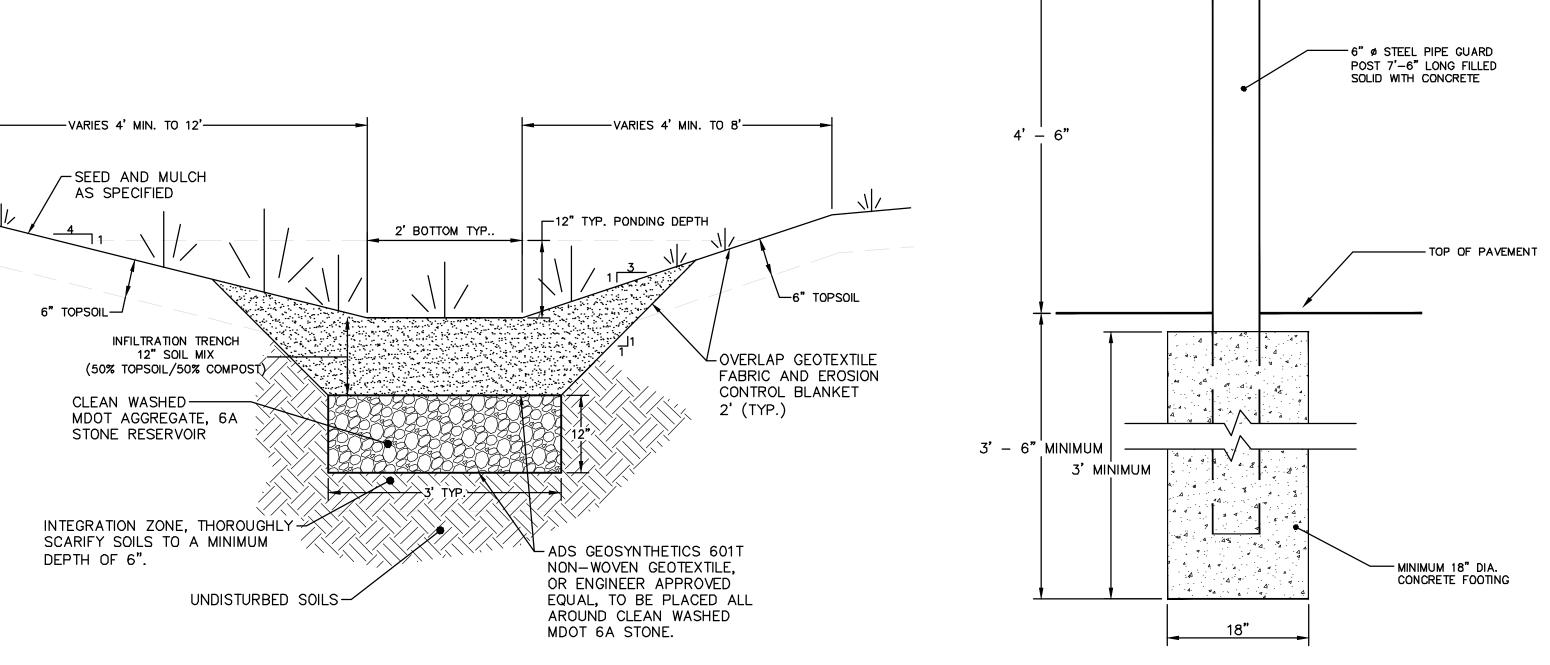
DO NOT STAKE UNLESS IN HEAVY CLAY SOIL, WINDY CONDITIONS, 3" OR GREATER DIAMETER TREE TRUNK OR LARGE CROWN. IF STAKING IS NEEDED DUE TO THESE CONDITIONS:

- STAKE WITH 2 x 2 HARDWOOD STAKES, OR APPROVED EQUAL, DRIVEN 6"-8" OUTSIDE OF ROOTBALL.
- LOOSELY STAKE TREE TRUNK TO ALLOW FOR TRUNK FLEXING.

HOUE WIDTH = 2-3x WIDTH OF ROOTBALL

- STAKE TREES JUST BELOW FIRST BRANCH WITH 2"-3" WIDE BELT-LIKE, NYLON OR PLASTIC STRAPS (2 PER TREE ON OPPOSITE SIDES OF TREE, CONNECT FROM TREE TO STAKE HORIZONTALLY. DO NOT USE ROPE OR WIRE THROUGH A HOSE.)
- REMOVE ALL STAKING MATERIALS AFTER 1 YEAR.





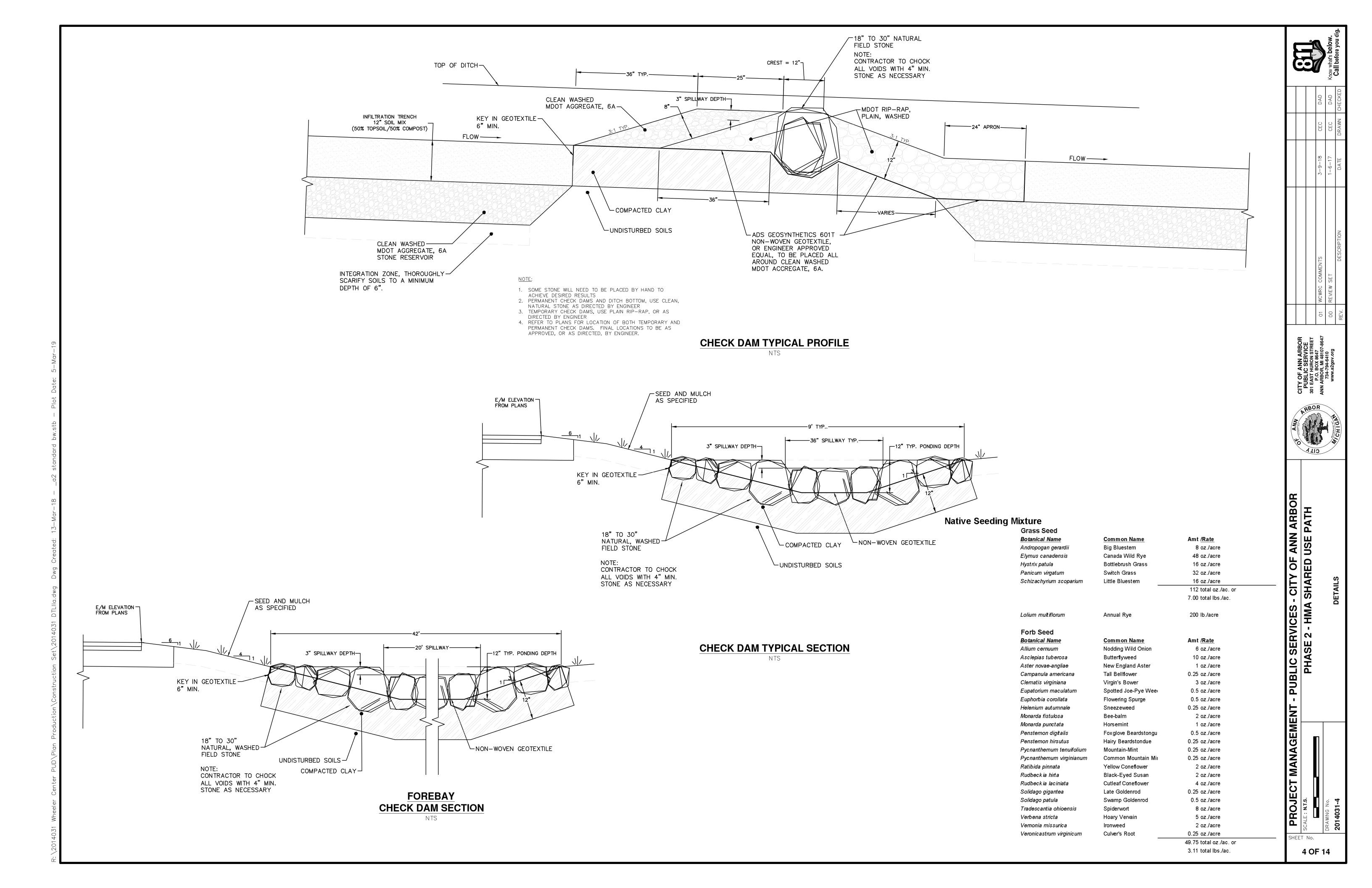
TREE PLANTING SD-L-3

INFILTRATION TRENCH TYPICAL SECTION

STEEL PIPE BOLLARD SD-M-4

MANAGEMENT

SERVICES -



NOTIFY THE CITY OF ANN ARBOR SOIL EROSION CONTROL OFFICE 48 HOURS PRIOR TO BEGINNING WORK ON THE PROJECT. PHONE: 734-794-6265.

- 1. 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.
- 2. 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.
- 3. 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.
- 4. 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.
- 5. 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.
- 6. 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.
- 7. 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.
- 9. PROPER DUST CONTROL SHALL BE MAINTAINED DURING CONSTRUCTION BY USE OF WATER TRUCKS AND/OR DUST PALLATIVE AS REQUIRED.
- 10. 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.
- 11. 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.
- 12. TREE PROTECTION FENCING MUST REMAIN INTACT UNTIL RESTORATION OF THE SITE IS COMPLETE.

SEQUENCE OF EROSION CONTROL MEASURES:

1. 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: 1.1. 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.
- 1.2. STRIP AND STOCKPILE TOPSOIL. STABILIZE STOCKPILE AS REQUIRED.
- 1.3. 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.
- 1.6. COMPLETE ALL FINE GRADING.
- TEMPORARY SEED AND INSTALL EROSION CONTROL BLANKET IN ALL DISTURBED
- 1.8. REFER TO LANDSCAPE PLANTING PLANS FOR PERMANENT SITE STABILIZATION.
- 1.9. CLEAN OUT STORM SEWER SYSTEMS.
- 1.10. REMEDY ANY NOTED DEFECTS TO THE SATISFACTION OF THE CITY OF ANN ARBOR'S SOIL EROSION AND SEDIMENTATION CONTROL OFFICIAL.
- 1.11. 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.
- 2. ANY DISTURBED AREA NOT PAVED, SEEDED, MULCHED, SODDED OR BUILT UPON BY NOVEMBER 15TH OR JUNE 30TH IS TO BE TEMPORARILY STABILIZED PER SPECIFICATIONS.

THE ESTIMATED COST OF SOIL EROSION AND SEDIMENTATION CONTROL MEASURES, TOPSOIL, SEEDING, AND MULCH = \$xxx,xxx

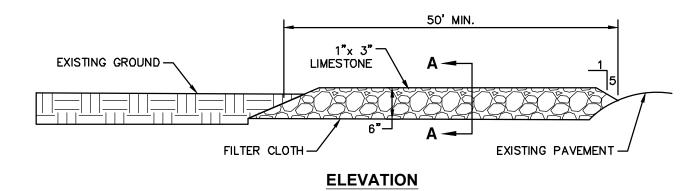
ESTIMATE OF EXCAVATION AND FILL FROM EXISTING TO FINAL GRADE: • EXCAVATION = 1252 CY, FILL = 3161 CY

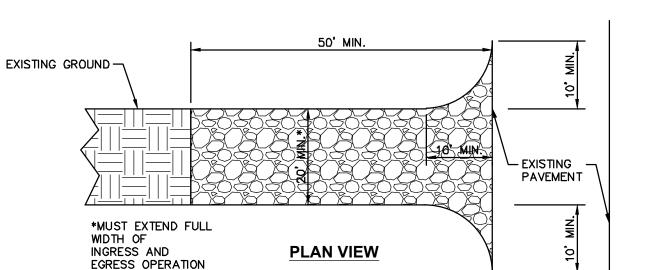
ON SITE SOILS PER THE USDA SOIL SURVEY OF WASHTENAW COUNTY, MICHIGAN: StB — SEBEWA LOAM — IN DEPRESSION AREAS, BROAD LOW-LYING AREA, AND DRAINAGEWAYS OF OUTWASH PLAINS, VALLEY TRAINS, AND TERRACES.

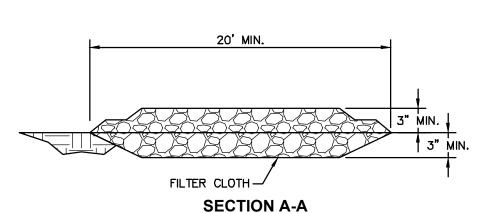
SLOPE IS 0% TO 2%. • Nab - Nappanee Silty Clay Loam - on Foot Slopes and Along DRAINAGEWAYS OF TILL PLAINS, MORAINES, AND LAKE PLAINS. NEARLY LEVEL TO GENTLY SLOPING.

IMPERVIOUS PROJECT AREA $21,320 \text{ ft}^2 - \text{PATH} = 0.5 \text{ AC}$

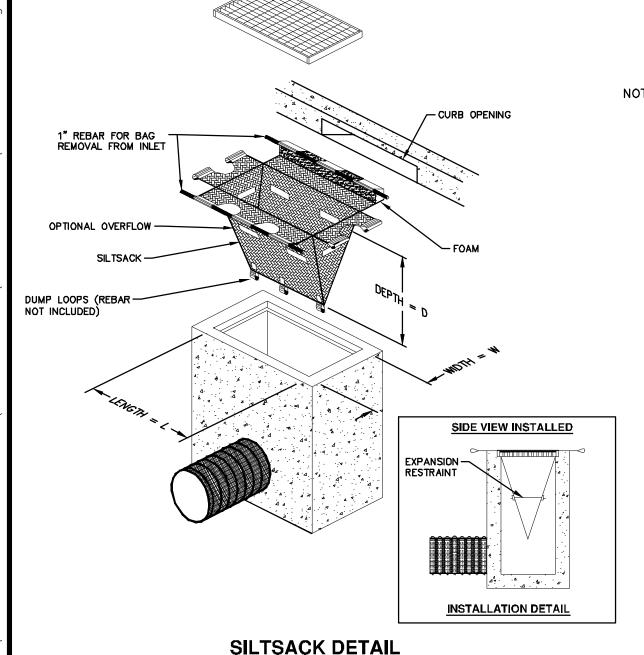
TOTAL AREA OF PROPOSED DISTURBANCE = 2.6 AC - STONE SCHOOL ROAD PATH







MUD TRACKING ROAD (MUD MAT) DETAIL



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

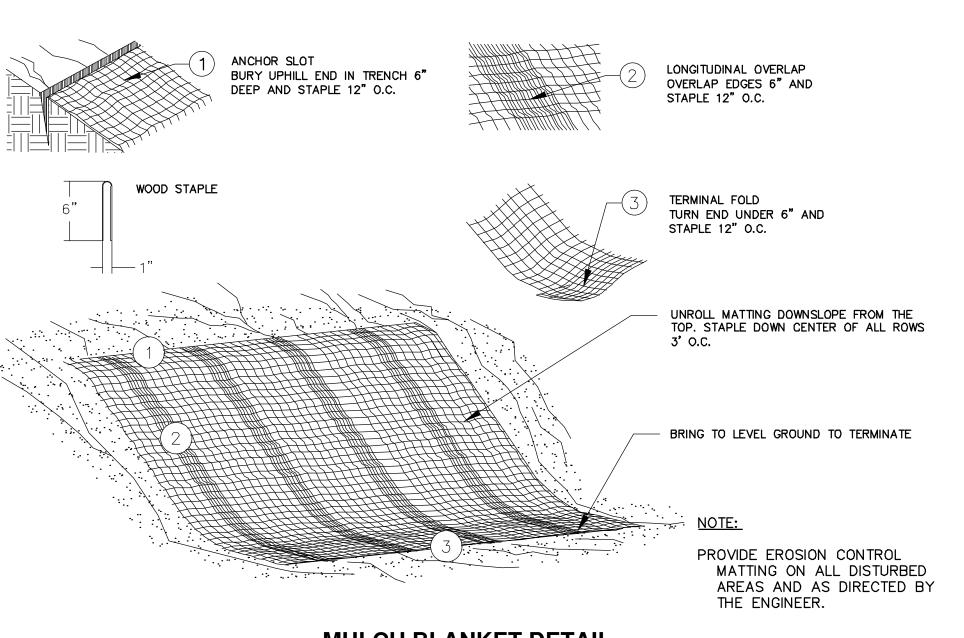
HI-FLOW SILTSACK

| FOR AREAS OF MODERATE TO | O HEAVY PRECIPITATION | AND RUN-OFF) |
|--------------------------|-----------------------|-------------------|
| <u>PROPERTIES</u> | REQUIRED VALUE | TEST METHOD |
| GRAB TENSILE STRENGTH | ASTM D-4632 | 265 LBS |
| GRAB TENSILE ELONGATION | ASTM D-4632 | 20% |
| PUNCTURE | ASTM D-4833 | 135 LBS |
| MULLEN BURST | ASTM D-3786 | 420 PSI |
| 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

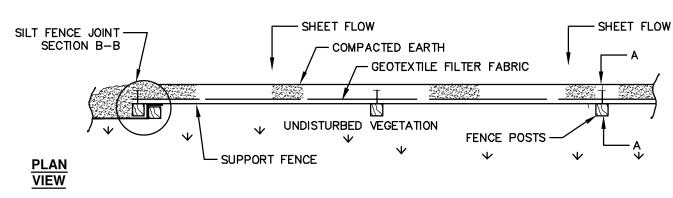
(FOR AREAS WHERE THERE IS A CONCERN FOR OIL RUN-OFF OR SPILLS)

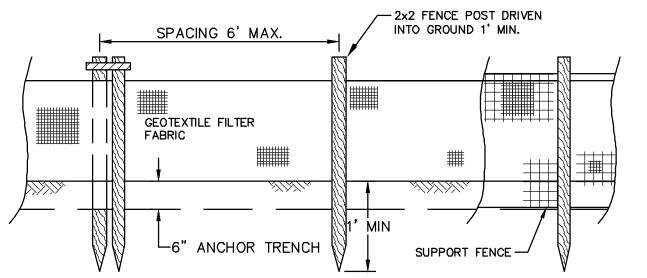
IT IS THE INTENT OF THE PLANS AND SPECIFICATIONS THAT THE CONTRACTOR INSTALL THE REBAR AS SHOWN IN THIS DETAIL TO PROVIDE A FULLY FUNCTIONING UNIT. ALL COSTS ASSOCIATED WITH FURNISHING, CLEANING AS MANY TIMES AS REQUIRED, DISPOSAL OF SEDIMENT, AND REMOVING THE INLET FILTER WHEN NO LONGER NEEDED IS INCLUDED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

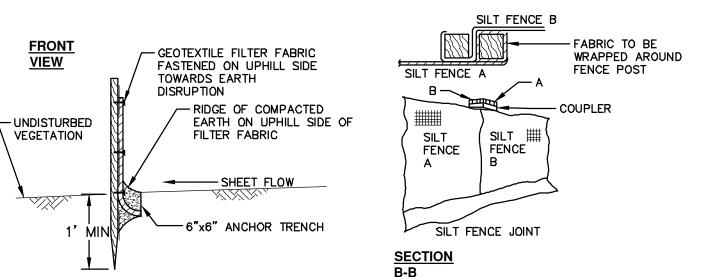


MULCH BLANKET DETAIL

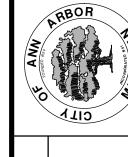
APPLIES TO ALL AREAS TO BE PERMANENTLY RESTORED WITH GRASS. SEE LANDSCAPE PLANS FOR MORE DETAILS.



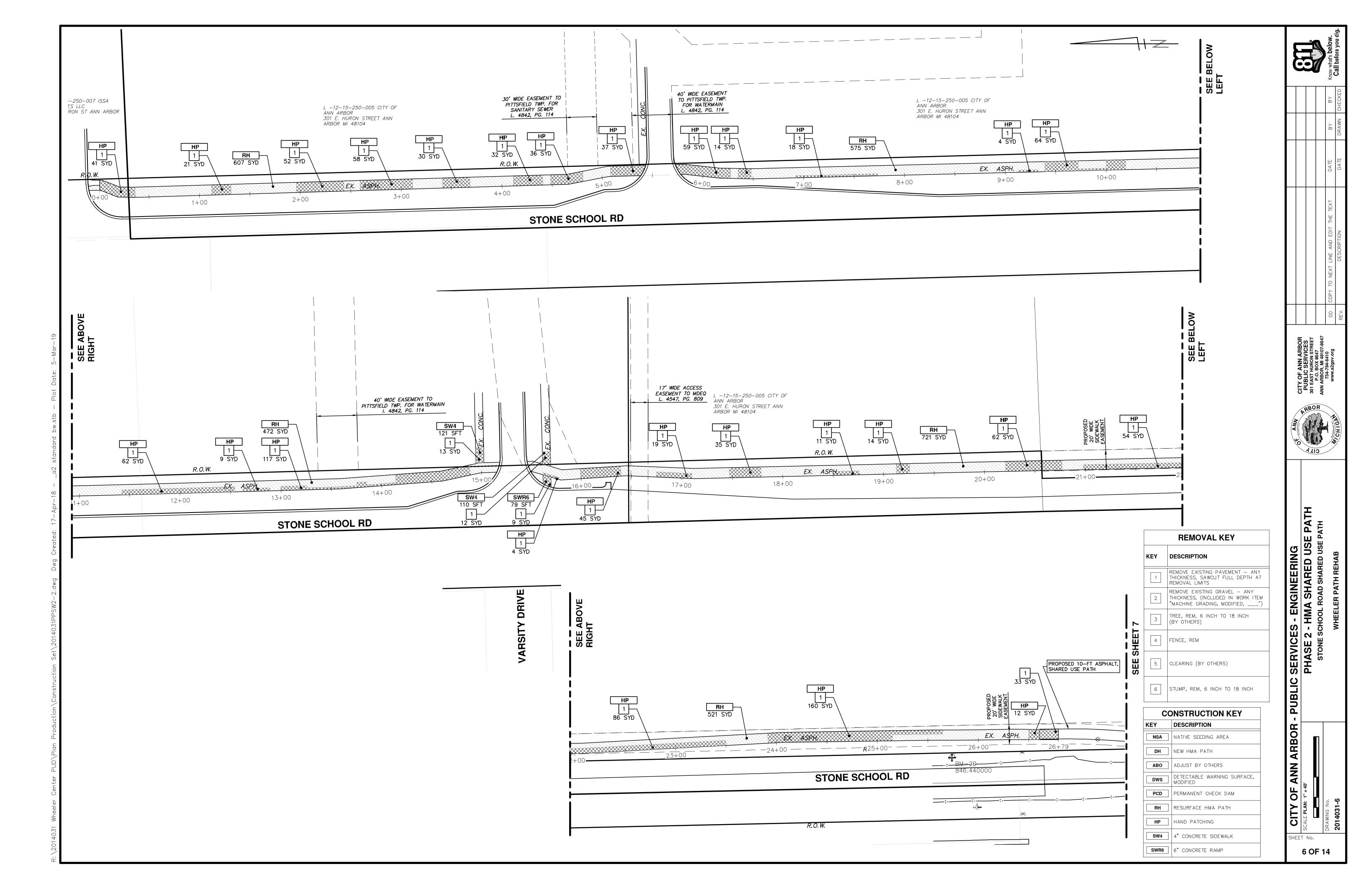


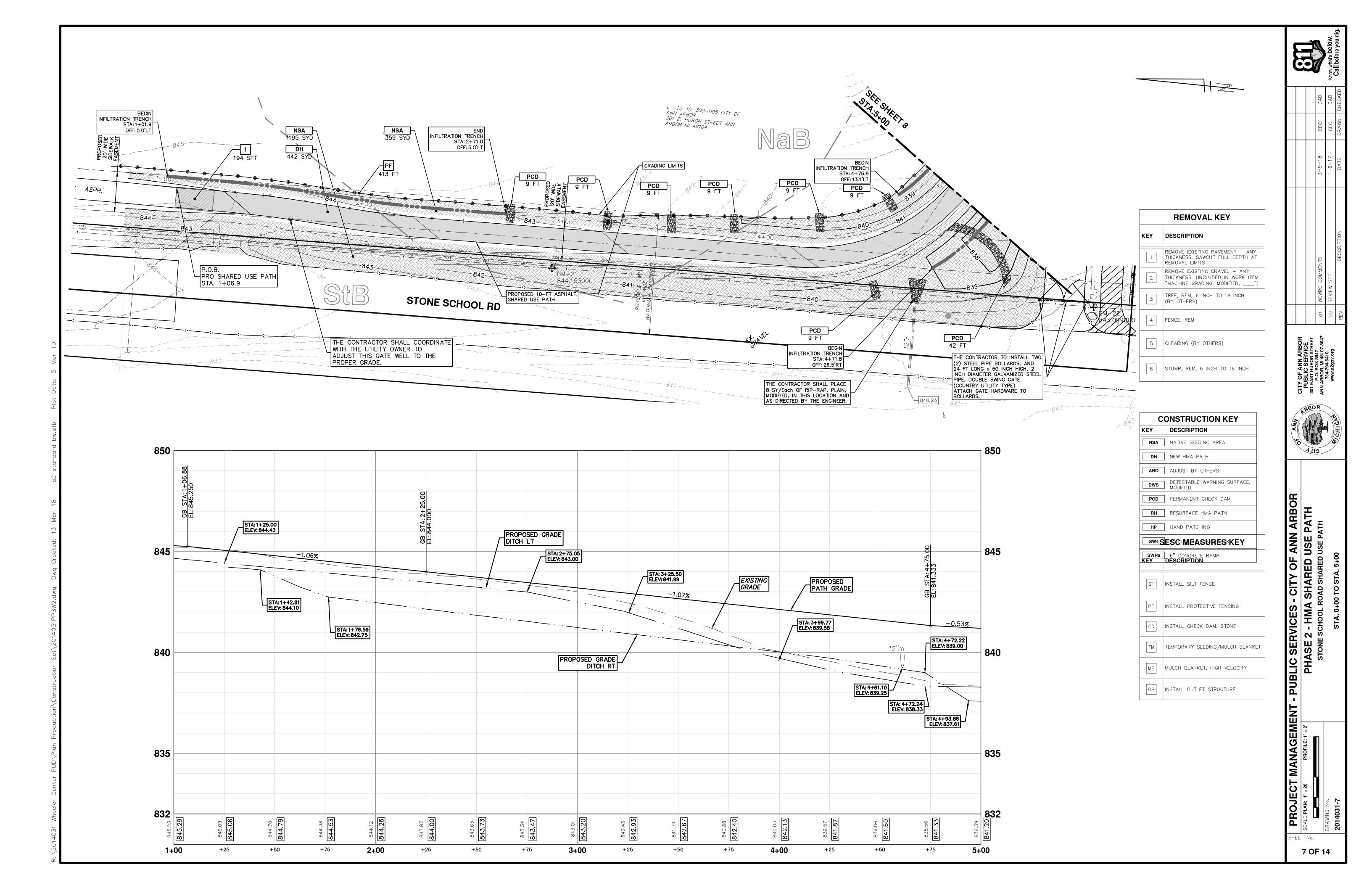


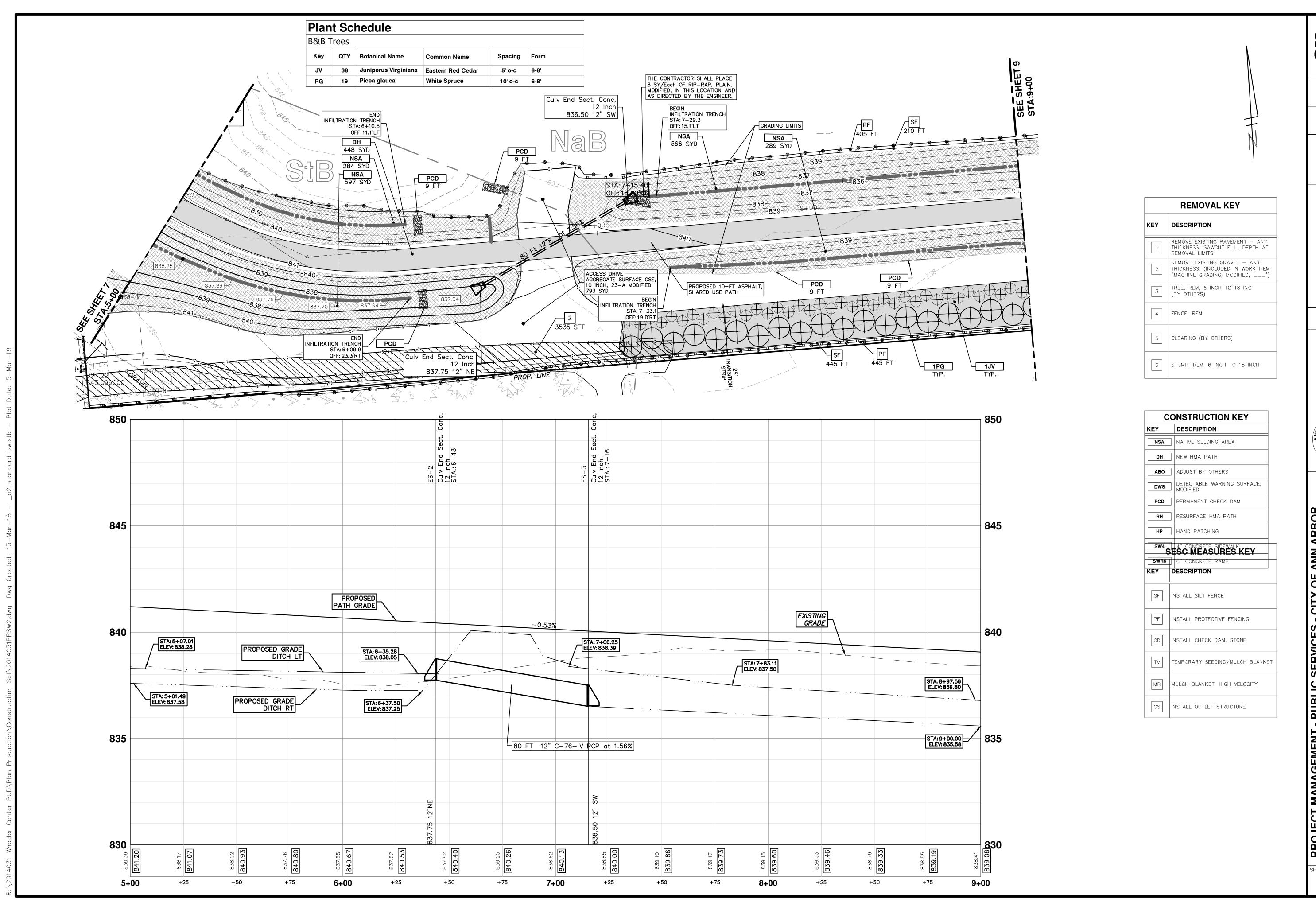
SILT FENCE SD-EC-3

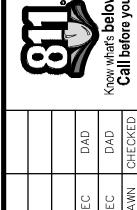


SERVICE 2









| WCWRC COMMENTS | 3-9-18 | OEC | DAD |
|----------------|--------|-------|---------------|
| REVIEW SET | 1-6-17 | CEC | DAD |
| DESCRIPTION | DATE | DRAWN | DRAWN CHECKED |

PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBC

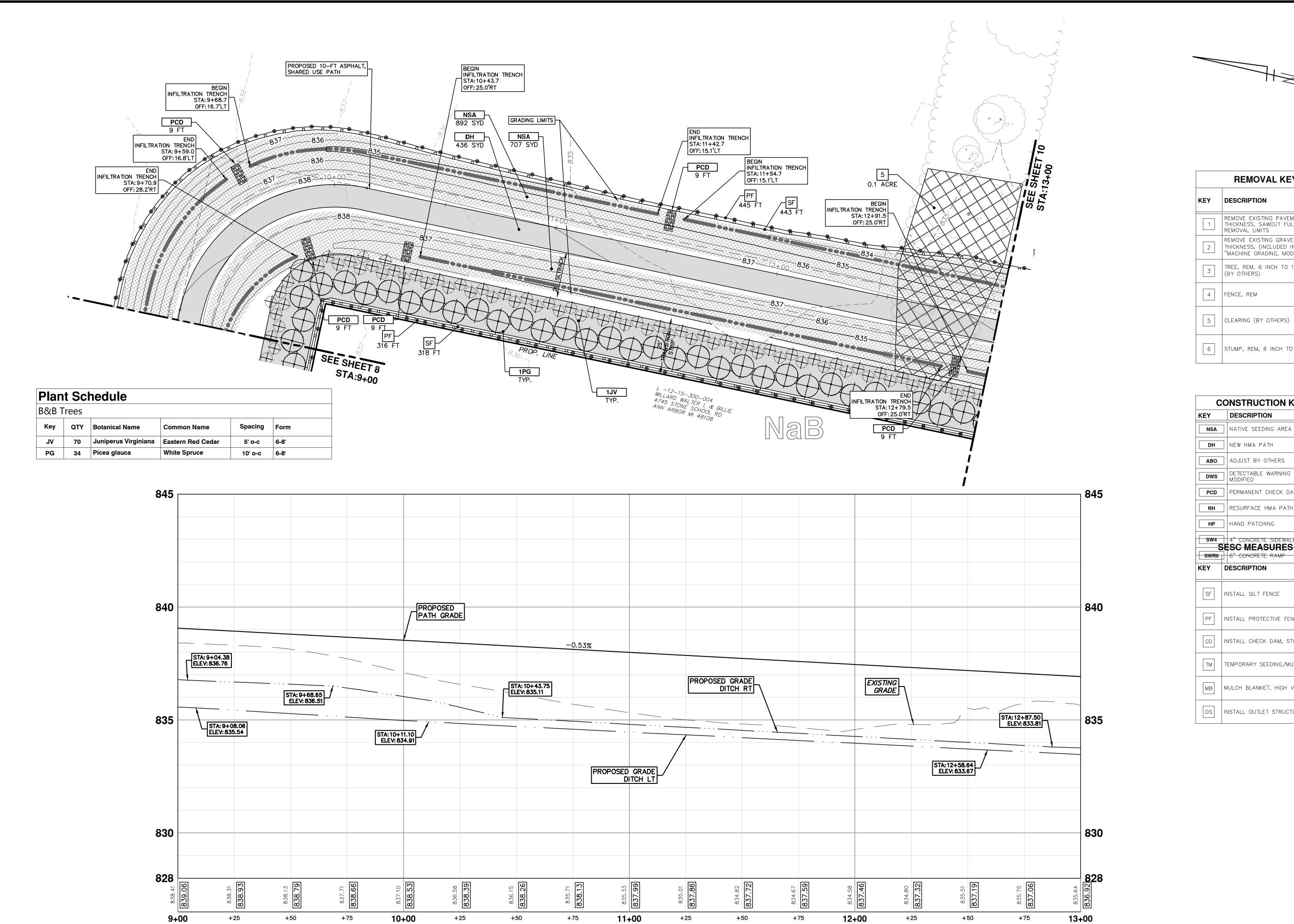
CALE PLAN: 1" = 20' PROFILE: 1" = 2'

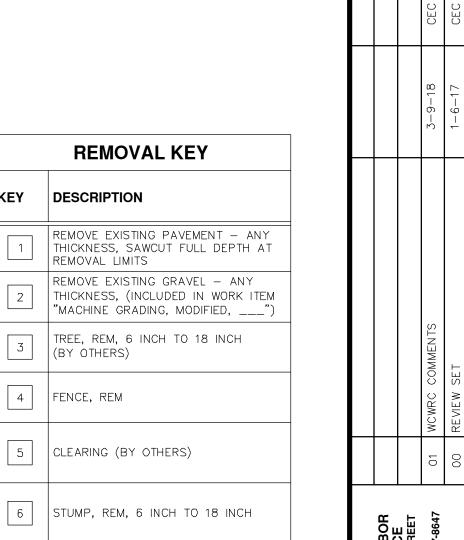
PHASE 2 - HMA SHARED USE PATH

STONE SCHOOL ROAD SHARED USE PATH

STONE SCHOOL ROAD SHARED USE PATH

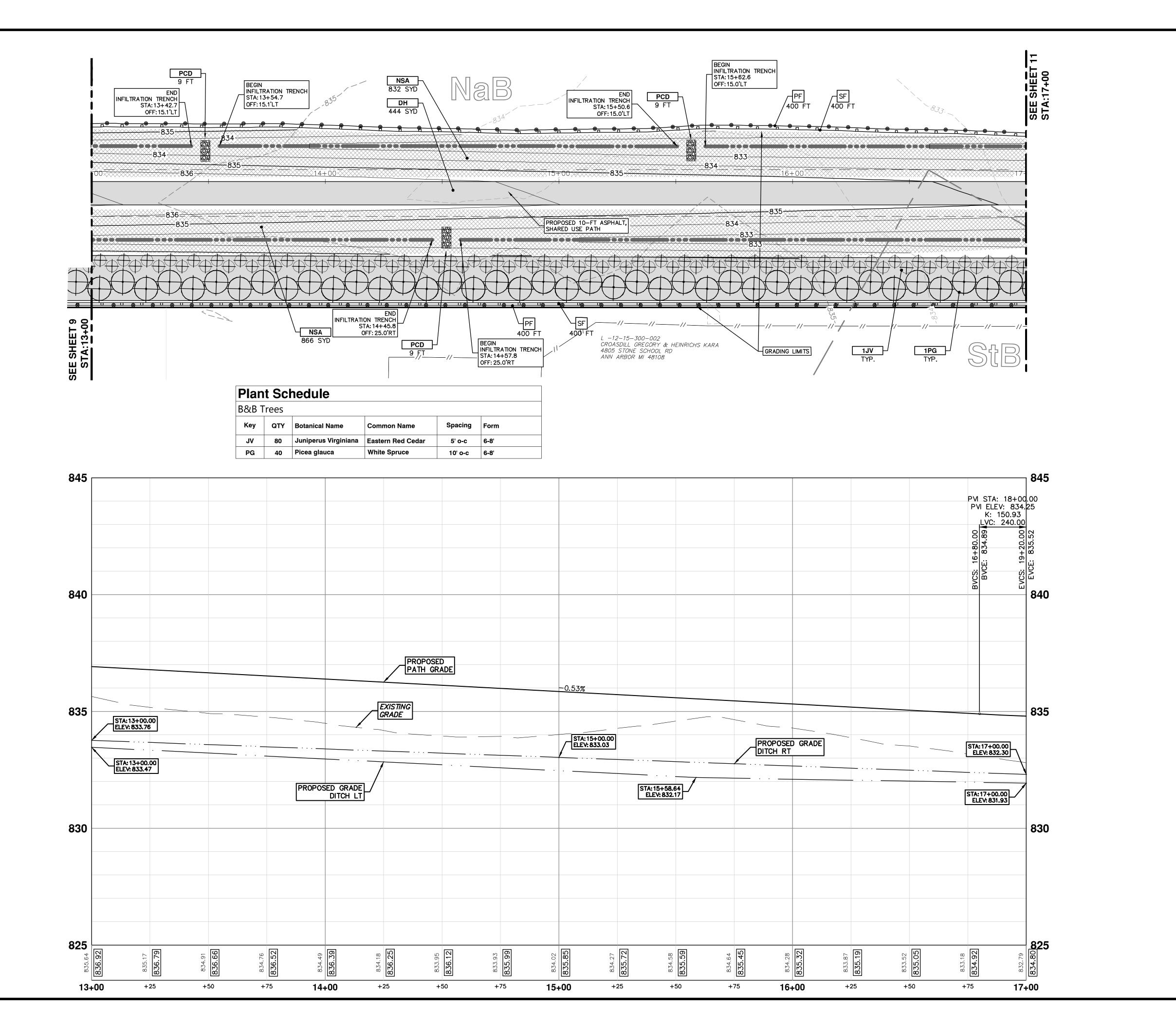
STONE SCHOOL ROAD SHARED USE PATH





| C | ONSTRUCTION KEY |
|-----|--------------------------------------|
| KEY | DESCRIPTION |
| NSA | NATIVE SEEDING AREA |
| DH | NEW HMA PATH |
| АВО | ADJUST BY OTHERS |
| DWS | DETECTABLE WARNING SURFACE, MODIFIED |
| PCD | PERMANENT CHECK DAM |
| RH | RESURFACE HMA PATH |
| НР | HAND PATCHING |
| SW4 | SESC MEASURES KEY 6" CONCRETE RAMP |
| KEY | DESCRIPTION |
| SF | INSTALL SILT FENCE |
| PF | INSTALL PROTECTIVE FENCING |
| CD | INSTALL CHECK DAM, STONE |
| ТМ | TEMPORARY SEEDING/MULCH BLANKET |
| МВ | MULCH BLANKET, HIGH VELOCITY |
| os | INSTALL OUTLET STRUCTURE |

| | | 3-9-18 | 1-6-17 | DATE |
|---------------------------------------|---------------------------------------|--|----------------------------|-------------------------|
| | | 01 WCWRC COMMENTS | 00 REVIEW SET | REV. DESCRIPTION |
| ANN ABBOB | PUBLIC SERVICE 301 EAST HURON STREET | P.O. BOX 8647 ANN ARBOR, MI 48107-8647 | 734-794-6410 Www.a2gov.org | (CHIGA |
| - PUBLIC SERVICES - CITY OF ANN ARBOR | PHASE 2 - HMA SHARED USE PATH | STONE SCHOOL ROAD SHARED USE PATH | | SIA: 9+00 IO SIA. 13+00 |
| PROJECT MANAGEMENT - PUBLIC S | SCALE PLAN: 1" = 20' PROFILE: 1" = 2' | | DRAMING No. | 2014031-9 |



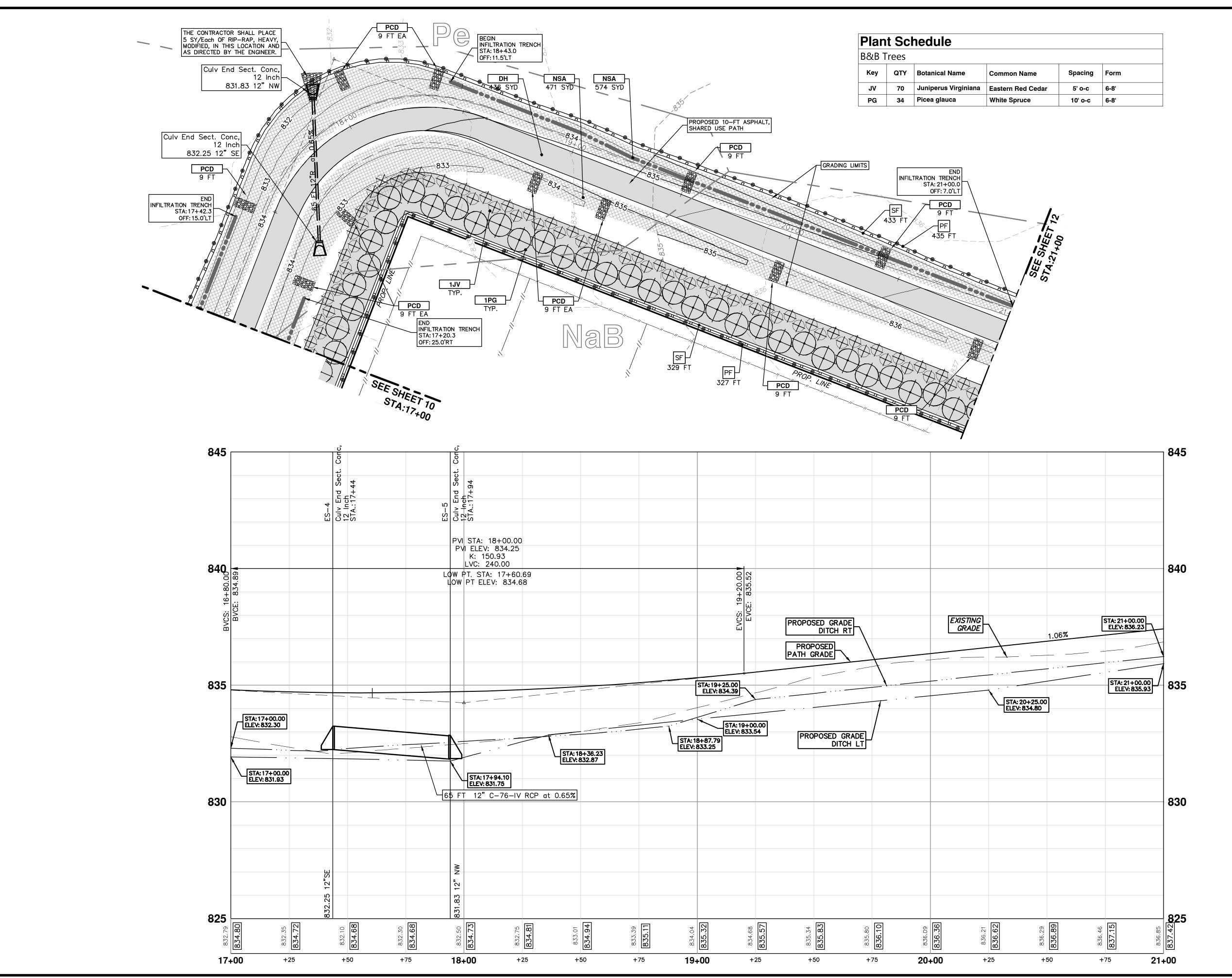


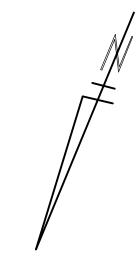
| | REMOVAL KEY |
|-----|--|
| KEY | DESCRIPTION |
| 1 | REMOVE EXISTING PAVEMENT — ANY THICKNESS, SAWCUT FULL DEPTH AT REMOVAL LIMITS |
| 2 | REMOVE EXISTING GRAVEL — ANY THICKNESS, (INCLUDED IN WORK ITEM "MACHINE GRADING, MODIFIED,") |
| 3 | TREE, REM, 6 INCH TO 18 INCH (BY OTHERS) |
| 4 | FENCE, REM |
| 5 | CLEARING (BY OTHERS) |
| 6 | STUMP, REM, 6 INCH TO 18 INCH |

| C | 0 | NSTRUCTION KEY |
|------|----|---|
| KEY | | DESCRIPTION |
| NSA | | NATIVE SEEDING AREA |
| DH | | NEW HMA PATH |
| АВО | | ADJUST BY OTHERS |
| DWS | | DETECTABLE WARNING SURFACE, MODIFIED |
| PCD | | PERMANENT CHECK DAM |
| RH | | RESURFACE HMA PATH |
| НР | | HAND PATCHING |
| SW4 | | 4" CONCRETE SIDEWALK |
| SWR6 | | SC MEASURES KEY 6" CONCRETE RAMP |
| KEY | D | ESCRIPTION |
| SF | IN | STALL SILT FENCE |
| PF | IN | STALL PROTECTIVE FENCING |
| | IN | STALL CHECK DAM, STONE |
| CD | 1 | |
| CD | TE | EMPORARY SEEDING/MULCH BLANK |
| | | EMPORARY SEEDING/MULCH BLANK ULCH BLANKET, HIGH VELOCITY |

| | AWA! | | | | | | |
|--------------------|--|------|-------------------|--------|-------|---------------|----|
| | OT CITY OF ANN ABBOR | | | | | | |
| | | | | | | | |
| HAKED USE PAIH | A 301 EAST HURON STREET | | | | | | |
| AD SHARED USE PATH | P.O. BOX 8647 ANN ARBOR, MI 48107-8647 | 01 | 01 WCWRC COMMENTS | 3-9-18 | CEC | DAD | |
| Ċ | 734-794-6410 | 00 | 00 REVIEW SET | 1-6-17 | CEC | DAD | χ. |
| U SIA. 1/+00 | VCHIGK | REV. | DESCRIPTION | DATE | DRAWN | DRAWN CHECKED | ر |
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| ENT - PUBLIC SERVICES - CITY OF ANN ARBOR | PHASE 2 - HMA SHARED USE PATH | STONE SCHOOL ROAD SHARED USE PATH | | STA. 13+00 TO STA. 17+00 |
| JUECT MANAGEMENT | PROFILE: 1" = 2' | | | |
| OJECT | PLAN: 1" = 20' | | G No. | 31-10 |





| REMOVAL KEY | | | |
|-------------|--|--|--|
| KEY | DESCRIPTION | | |
| 1 | REMOVE EXISTING PAVEMENT — ANY THICKNESS, SAWCUT FULL DEPTH AT REMOVAL LIMITS | | |
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| 4 | FENCE, REM | | |
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| АВО | ADJUST BY OTHERS | | |
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| PCD | PERMANENT CHECK DAM | | |
| RH | RESURFACE HMA PATH | | |
| НР | HAND PATCHING | | |
| | I I | | |
| SW4 S | 4" CONCRETE SIDEWALK SC MEASURES KEY | | |
| SW4 SI SWR6 | 4" CONCRETE SIDEWALK SC MEASURES KEY 6" CONCRETE RAMP | | |
| SWR6 | SC MEASURES KEY | | |
| SWR6 KEY | 6" CONCRETE RAMP | | |
| SWR6 KEY | 6" CONCRETE RAMP DESCRIPTION | | |
| SI SWR6 | 6" CONCRETE RAMP DESCRIPTION NSTALL SILT FENCE | | |
| SWR6 KEY SF PF CD II | 6" CONCRETE RAMP DESCRIPTION NSTALL SILT FENCE NSTALL PROTECTIVE FENCING | | |
| SI SWR6 KEY CD II | SC MEASURES KEY 6" CONCRETE RAMP DESCRIPTION NSTALL SILT FENCE NSTALL PROTECTIVE FENCING NSTALL CHECK DAM, STONE | | |



| WCWRC COMMENTS | 3-9-18 | OEC | DAD |
|----------------|--------|-------|---------------|
| REVIEW SET | 1-6-17 | CEC | DAD |
| DESCRIPTION | DATE | DRAWN | DRAWN CHECKED |
| | | | |



PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBC

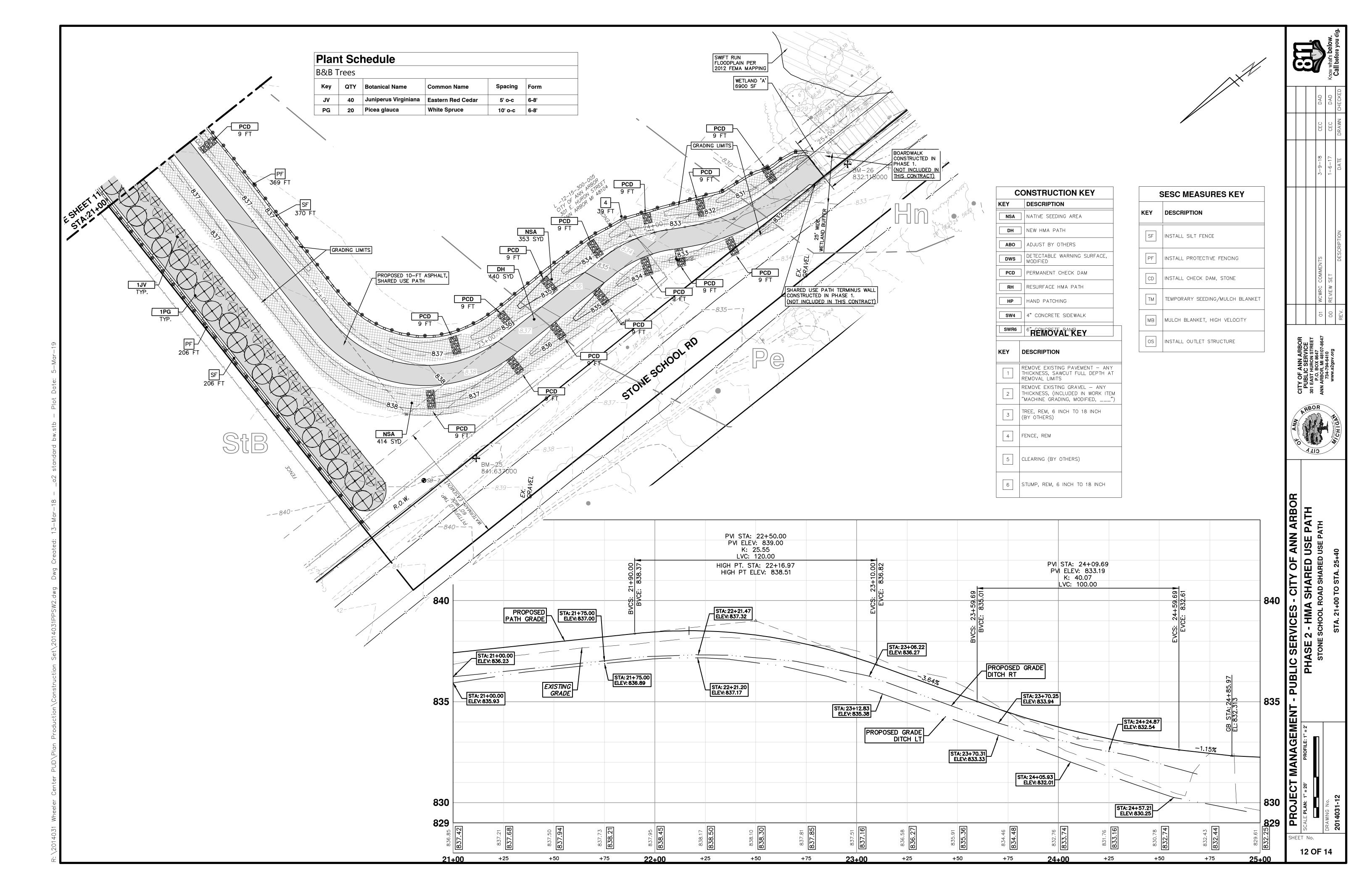
CALE PLAN: 1" = 20' PROFILE: 1" = 2'

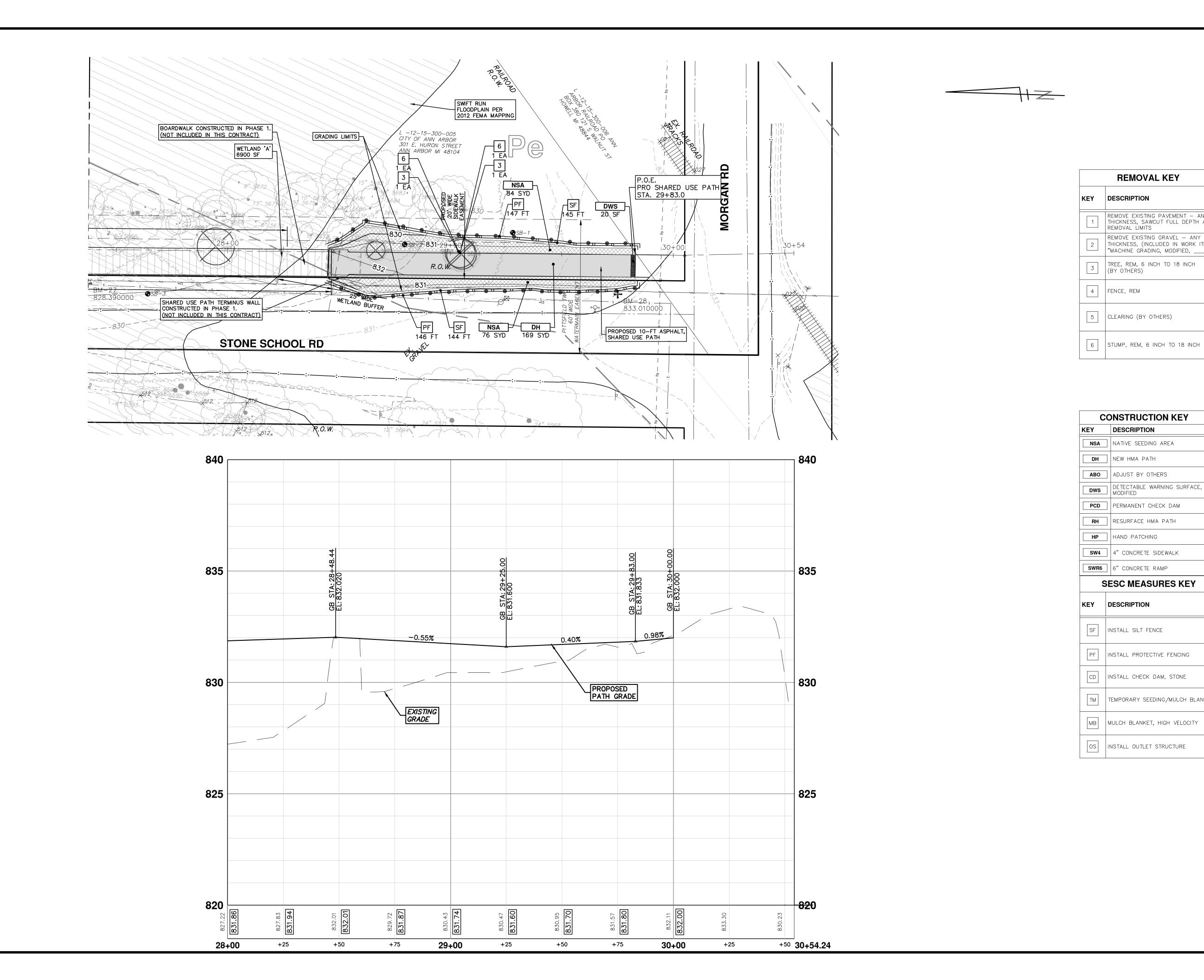
PHASE 2 - HMA SHARED USE PATH

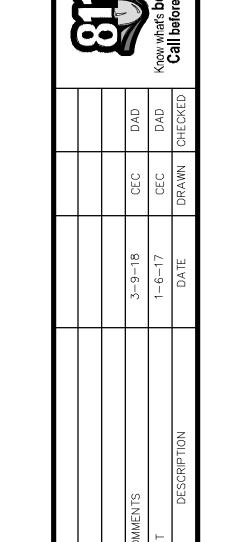
STONE SCHOOL ROAD SHARED USE PATH

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| SESC MEASURES KEY | | | |
|-------------------|---------------------------------|--|--|
| ŒY | DESCRIPTION | | |
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| OS | INSTALL OUTLET STRUCTURE | | |
| | | | |

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REMOVE EXISTING PAVEMENT — ANY THICKNESS, SAWCUT FULL DEPTH AT REMOVAL LIMITS

REMOVE EXISTING GRAVEL - ANY THICKNESS, (INCLUDED IN WORK ITEM

"MACHINE GRADING, MODIFIED, ___")

| RVICES - CITY OF ANN ARBOR | IARED USE PATH | SHARED USE PATH |
|----------------------------|-------------------------|-------------------------------|
| RVICES - CITY OF A | 2 - HMA SHARED USE PATH | E SCHOOL ROAD SHARED USE PATH |

PROJECT MANAGEMENT - PUBLIC SEF

