ROSE ARBOR NO. 3 DRAIN RETENTION BASIN MAINTENANCE

KALAMAZOO COUNTY, SW 1/4 OF THE SE 1/4 OF SECTION 36 OF OSHTEMO TWP (T2S, R12W)



CLIENT:

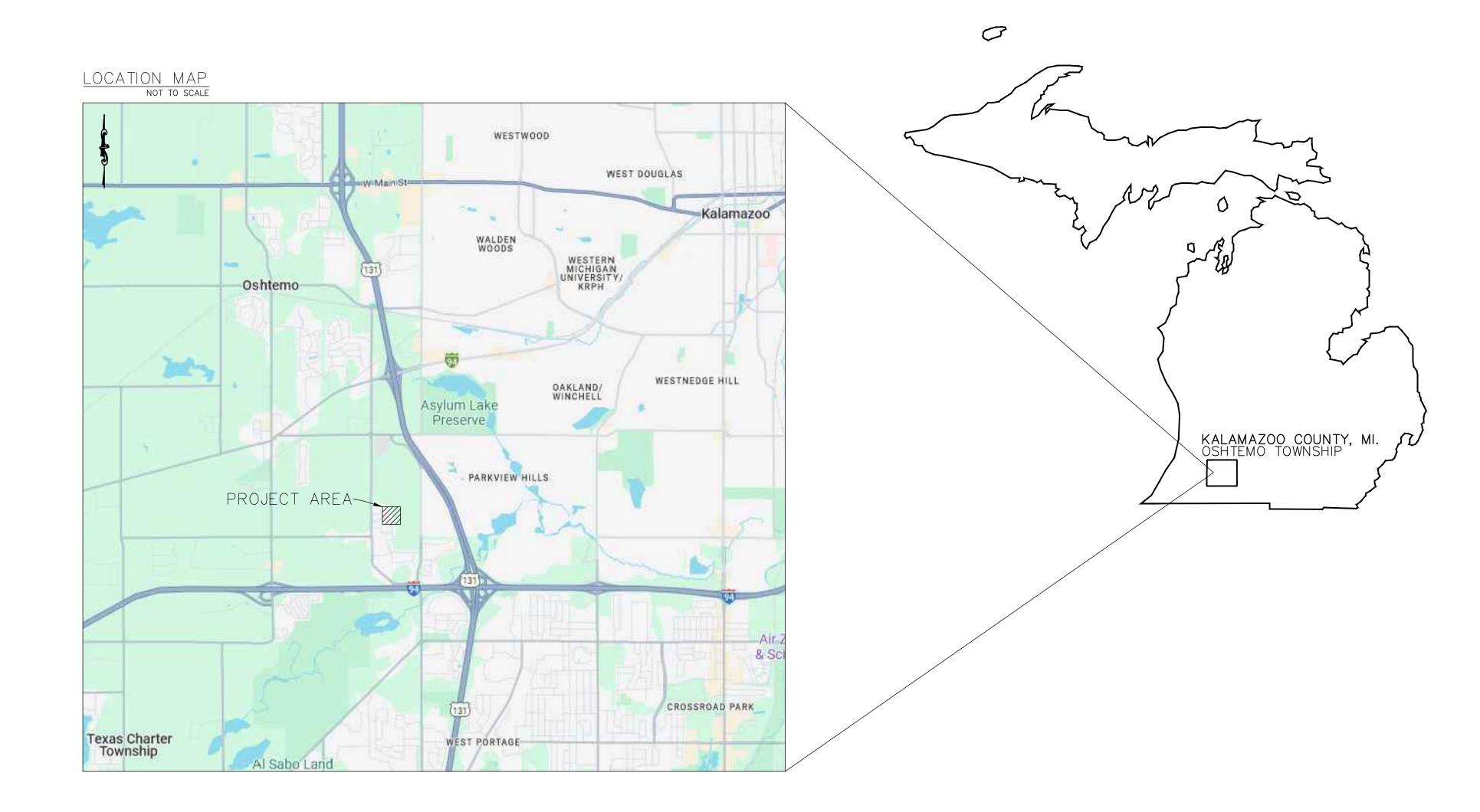
ROSE ARBOR NO. 3 DRAIN DRAINAGE DISTRICT C/O JASON WIERSMA KALAMAZOO COUNTY DRAIN COMMISSIONER 201 W KALAMAZOO AVE. KALAMAZOO, MI 49007



14250 Beadle Lake Road **Suite 150** Battle Creek, MI 49014 269 • 962 • 5127 Fax: 962 •8310 www.cei-bc.com

"Professional Engineering Since 1993" JOB NO. 240701

3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG Blue WATER Green STORM DRAIN OIL & GAS PHONE & CATV Brown SEWER PROPOSED EXCAVATION Pink SURVEYING IF YOU ARE GOING TO WORK NEAR OVERHEAD WIRES ... CALL MISS DIG



The location of existing utilities, both underground and overhead are approximate only and have not independently been verified by the owner or its representative The contractor shall be responsible for determining the exact location of all existing utilities whether shown on these plans or not, before commencing work, and shall be fully responsible for any and all damages which might be caused by the contractor's failure to exactly locate and preserve any and all utilities.

Call Miss Dig

INDEX:

- **COVER**
- SITE PLAN
- SESC PLAN

SESC DETAIL

DATE: 8/7/2025 REV:

SHEET 1 OF 4



Civil Engineers Inc. 14250 Beadle Lk Rd Suite 150 Battle Creek, MI 49014-7202 www.cei-bc.com 269-962-5127

JOB NO: **240701** DATE: *8/07/2025*

drawn by: *AJS* REVIEWED BY: RAR

ROSE ARBOR NO. 3 DRAIN DRAIN DRAINAGE DSITRICT KALAMAZOO COUNTY DRAIN COMMISSIONER JASON WIERSMA



SITE

Know What's Below, Call

REVISIONS

SHEET

2/4



CONSTRUCTION TIMING AND SEQUENCE START DATE: 09/01/2025 END DATE: 10/03/2025 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC CONSTRUCTION ACTIVITIES STRIP & STOCKPILE ROUGH GRADING **BUILDING CONSTRUCTION** FINAL GRADE OTHER:___ OTHER:___ TEMPORARY SESC MEASURES SILT FENCE GRAVEL ACCESS ROAD **EROSION CONTROL BLANKETS INLET PROTECTION (STORM DRAIN)** SEDIMENT BASIN(S) **TEMPORARY SEEDING** BUFFER STRIP(S) OTHER: OTHER: OTHER:__ PERMANENT SESC MEASURES STORM WATER BASIN(S) SEEDING/MULCH/LANDSCAPING PAVEMENT/GRAVEL MATERIAL TYPE: RIP-RAP TYPE:___ OTHER: OTHER:_

MACDC SESC MANUAL KEYING SYSTEM

| KEY | SESC MEASURE | SYMBOL | WHERE USED |
|-----|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | SEEDING | Market | WHEN BARE SOIL IS EXPOSED, TEMPORARILY OR PERMANENTLY, TO EROSIVE FORCES FROM WIND AND OR WATER ON FLAT AREAS, MILD SLOPES, GRASSED WATERWAYS AND SPILLWAYS, DIVERSION DITCHES AND DIKES, BORROW AND STOCKPILE AREAS, AND SPOIL PILES. |
| 2 | MULCH | | ON FLAT AREAS, SLOPES, GRASSED WATERWAYS AND SPILLWAYS, DIVERSION DITCHES AND DIKES, BORROW AND STOCKPILE AREAS, AND SPOIL PILES WHEN AREAS ARE SUBJECT TO RAINDROP IMPACT, AND EROSIVE FORCES FROM WIND OR WATER. |
| 5 | PERIMETER SEDIMENT CONTROL MEASURES (SILT FENCE, STRAW WATTLES, ETC.) | | AS A TEMPORARY MEASURE USED TO CAPTURE SEDIMENT FROM SHEET FLOW. MAY ALSO DIVERT SMALL VOLUMES OF SHEET FLOW TO PROTECTED OUTLETS. |
| 7 | STORM DRAIN INLET PROTECTION | | AROUND THE ENTRANCE TO A CATCH BASIN OR AN INLET THAT WILL CAPTURE RUNOFF FROM AN EARTH CHANGE ACTIVITY. |
| 15 | RIPRAP | | ALONG THE DRAIN BANKS, SHORELINES, OR WHERE CONCENTRATED FLOWS OCCUR. SLOWS VELOCITY, REDUCES EROSION AND SEDIMENT LOAD. |
| 28 | STONE CONSTRUCTION ACCESS | | ALONG THE DRAIN BANKS, SHORELINES, OR WHERE CONCENTRATED FLOWS OCCUR. SLOWS VELOCITY, REDUCES EROSION AND SEDIMENT LOAD. |
| 39 | DEWATERING/BYPASS PUMPING | | WHEN CONSTRUCTION OR MAINTENANCE ACTIVITIES ARE LIMITED BY THE PRESENCE OF WATER AND A DRY WORK AREA IS REQUIRED. |

NOTE: ALL SESC MEASURES NEED TO BE INSTALLED IN ACCORDANCE WITH THE MICHIGAN

ASSOCIATION OF COUNTY DRAIN COMMISSIONERS (MACDC) SESC MANUAL

SOIL TYPE:

THE ENTIRE SITE IS KaB (Kalamazoo Loam) **SOIL PROFILE:**

0 - 10" - LOAM

10 - 27" - SANDY CLAY LOAM 27 - 35" - SANDY LOAM

35 - 52" - LOAMY SAND

52 - 80" - GRAVELLY SAND AREA 1.09 AC. DISTURBED THE NEAREST LAKE OR STREAM IS PORTAGE CREEK LOCATED 0.76 MILES TO THE SOUTHEAST OF PROJECT SITE.

THERE ARE WETLANDS LOCATED SOUTH EAST (0.76 MILES) OF THE SITE.

ONSITE DRAINAGE FACILITIES: ROSE ARBOR NO. 3 STORM SEWER AND RETENTION BASIN DRAINAGE FACILITIES

DESCRIPTION OF EARTH CHANGE ACTIVITY

1. CLEAR AND GRUB EXCAVATION AREA. 2. CLEAN OUT SEDIMENT AT BOTTOM OF THE BASIN

3. PLACE TOPSOIL, SEED AND MULCH BLANKET DURING FINAL GRADING.

Seed mixtures shall be in conformance with the requirements of The MDOT 2020 Standard Specifications for Construction Section 816, turf seed mixture TUF. The seed shall be mixed thoroughly and sown evenly at a rate of 220 lbs/acre. At this rate, 239 pounds of seed will be needed.

- ALL WORK SHALL COMPLY WITH THE PROVISIONS OF PART 91 OF THE EROSION AND SEDIMENTATION CONTROL ACT OF THE NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION PA 451 OF 1994, AS AMENDED, AND AS ADMINISTERED BY THE KCDC, OR LOCAL JURISDICTION.
- TEMPORARY SESC MEASURES MUST BE MAINTAINED BY THE CONTRACTOR. PERMANENT SESC MEASURES MUST BE MAINTAINED BY THE KALAMAZOO COUNTY DRAIN COMMISSIONERS OFFICE.

MINIMUM REQUIREMENTS OF RULE 1703, PART 91

- 1. A MAP OR MAPS AT A SCALE OF NOT MORE THAN 200 FEET TO THE INCH.
- 2. LEGAL DESCRIPTION OF THE PROPERTY.

ROSE ARBOR STORMWATER DETENTION AREA, AS RECORDED IN THE ROSE ARBOR NO. 3 PLAT, LIBER 40, PG. 49

SITE LOCATION SKETCH.

SEE SITE LOCATION MAP ON THIS SHEET

SEE PLAN VIEW ABOVE, SCALE: 1" = 40'

4. PROXIMITY TO LAKES AND STREAMS.

SEE THIS SHEET & SITE LOCATION MAP FOR PROXIMITY TO LAKES AND STREAMS

5. PREDOMINANT LAND FEATURES.

SEE PLAN VIEW ON THIS SHEET W/ CONTOURS FOR PREDOMINANT LAND FEATURES

- CONTOUR INTERVALS OR SLOPE DESCRIPTION.
 - 2 FT CONTOUR INTERVALS, SEE PLAN VIEW ABOVE
- 7. SOILS SURVEY OR WRITTEN DESCRIPTION OF SOILS TYPES. SEE THIS SHEET FOR WRITTEN DESCRIPTION OF SOILS TYPES
- 8. PHYSICAL LIMITS OF EARTH CHANGE.
- SEE PLAN VIEW ABOVE FOR PHYSICAL LIMITS OF EARTH CHANGE
- 9. LOCATION OF EXISTING AND PROPOSED EARTH CHANGE.

SEE PLAN VIEW ABOVE FOR LOCATION OF EXISTING AND PROPOSED EARTH CHANGE

- 10. TIMING AND SEQUENCE OF EACH PROPOSED EARTH CHANGE. SEE "CONSTRUCTION TIMING AND SEQUENCE" TABLE ON THIS SHEET
- 11. LOCATION AND DESCRIPTION FOR INSTALLING AND REMOVING PROPOSED TEMPORARY SESC MEASURES. SEE PLAN VIEW ABOVE, ALONG WITH "MACDC SESC MANUAL KEYING SYSTEM" TABLE FOR LOCATION AND DESCRIPTION OF ALL TEMPORARY SESC MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR
- 12. A DESCRIPTION AND LOCATION OF ALL PROPOSED PERMANENT SESC MEASURES.

REMOVING TEMPORARY SESC MEASURES ONCE THE SITE IS STABILIZED

SEE PLAN VIEW ABOVE, ALONG WITH "MACDC SESC MANUAL KEYING SYSTEM" TABLE FOR LOCATION AND DESCRIPTION FOR ALL PERMANENT SESC MEASURES

13. A PROGRAM FOR THE MAINTENANCE OF ALL PERMANENT SESC MEASURES.

THE KALAMAZOO COUNTY DRAIN COMMISSIONER WILL MAINTAIN PERMANENT SESC MEASURES

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OWNER

ROSE ARBOR NO. 3 DRAIN DRAIN DRAINAGE DSITRICT KALAMAZOO COUNTY DRAIN COMMISSIONER JASON WIERSMA



TENTION BASIN MAINTENANCE NTATION CONTROL 3 DRAIN RET SEDIME EROSION ROSE ARBOR NO.

PARKVIEW HILL

University

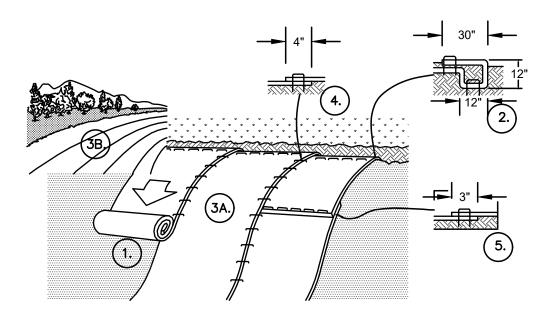
W Milham Ave

PROJECT LOCATION

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REVISIONS

NO SCALE



THE INFORMATION PRESENTED HEREIN IS GENERAL INFORMATION ONLY. INSTALL ACCORDING TO MANUFACTURERS SPECIFIC INSTRUCTIONS.

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.

2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 12" DEEP X 12" WIDE TRENCH WITH APPROXIMATELY 30" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF WOODEN (ONLY) STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH, BACKFILL AND COMPACT THE TRENCH AFTER STAKING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 30" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF WOODEN STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.

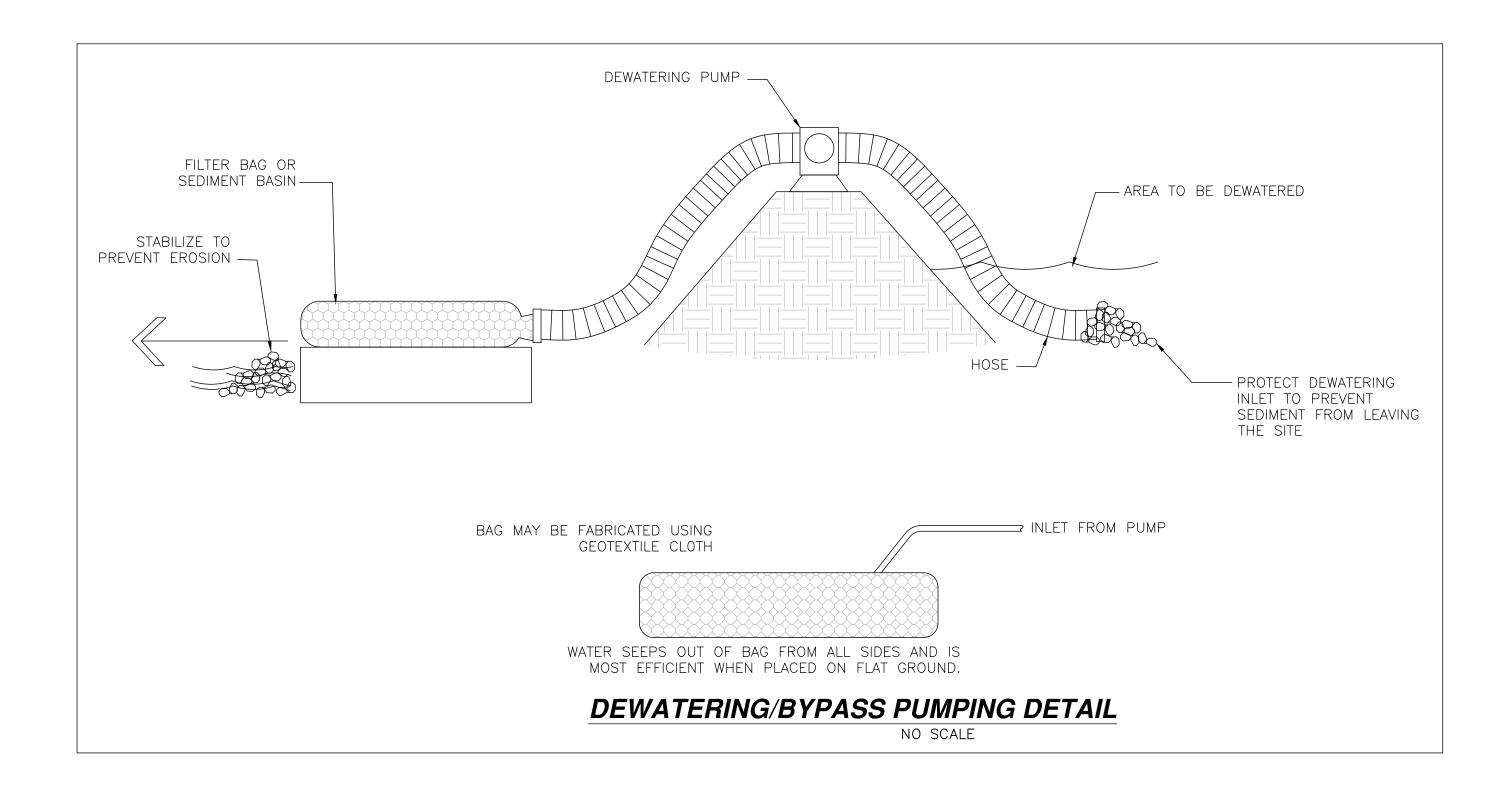
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING WOODEN STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE MANUFACTURERS ANCHORING DETAIL.

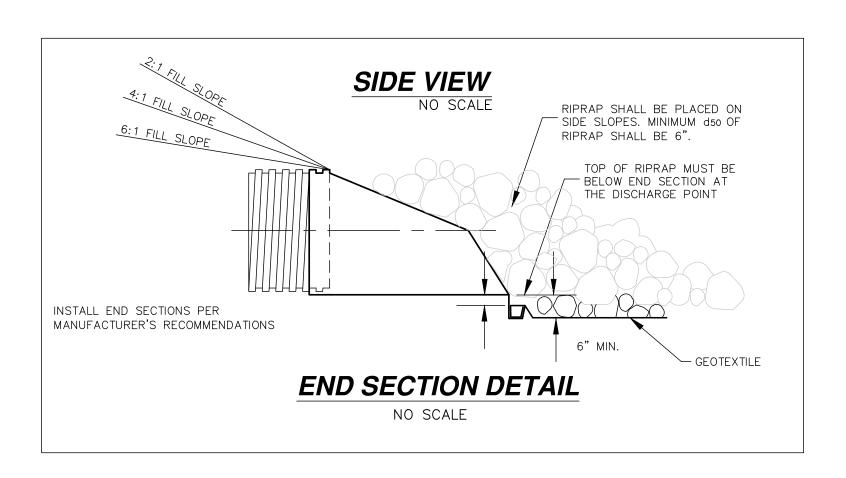
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAKED WITH APPROXIMATELY 4" OVERLAP. STAKE THROUGH OVERLAPPED AREA APPROXIMATELY 12 IN APART ACROSS ENTIRE BLANKET WIDTH. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.

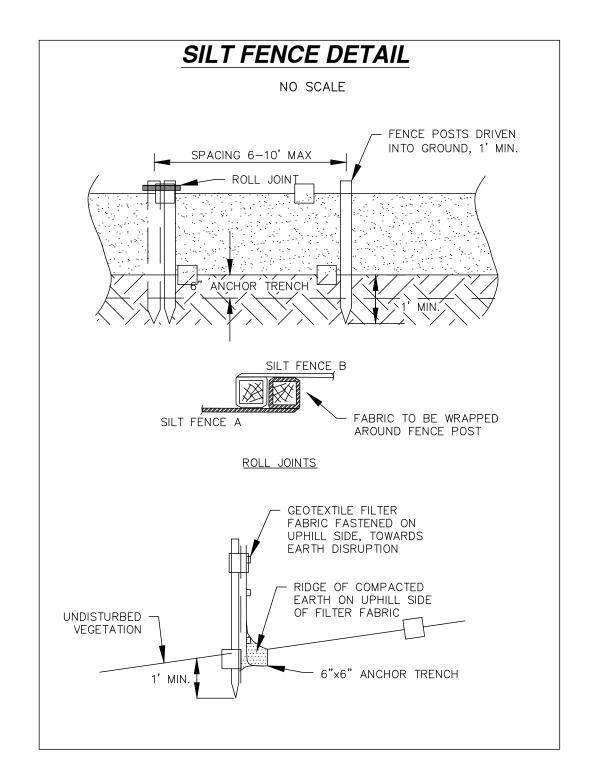
5. THE TERMINAL END OF THE BLANKET MUST BE ANCHORED WITH A ROW OF WOODEN STAKES APPROXIMATELY 12" APART IN A 6" DEEP BY 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

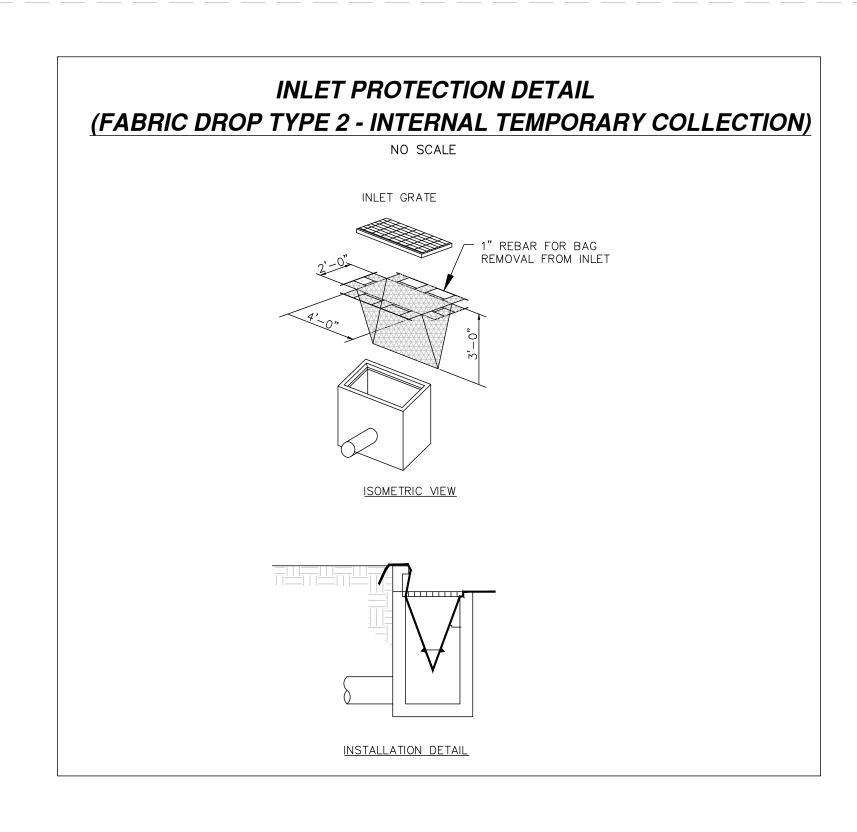
*IN LOOSE SOIL CONDITIONS, THE USE OF WOODEN STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

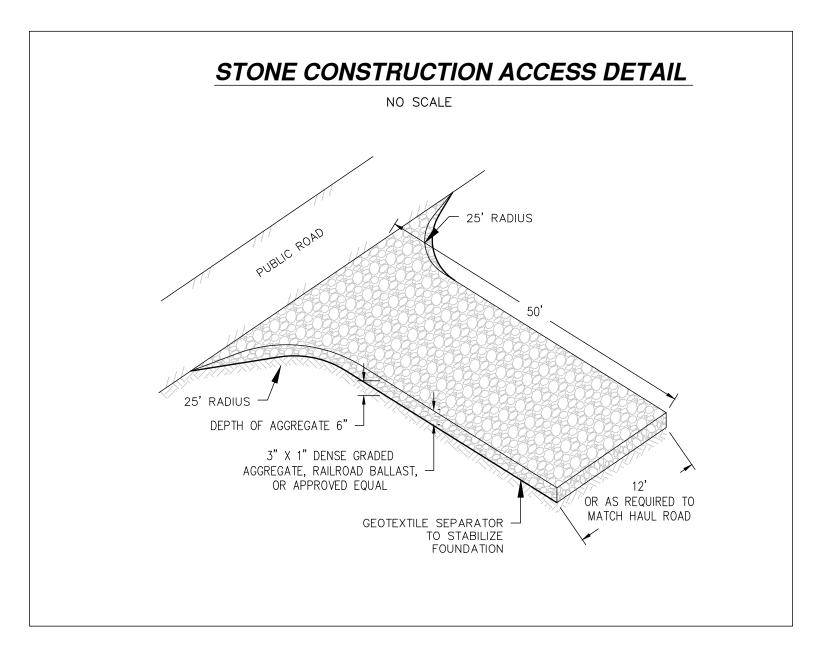
WOODEN STAKES ONLY, NO STAPLES











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