

PAJTSHENG & NTXHI ESTATES

TITLE SHEET, LEGEND, EXISTING CONDITIONS & REMOVAL PLAN

LINWOOD TOWNSHIP, MINNESOTA

LEGEND *

— OHW —	EXISTING OVERHEAD ELECTRIC	— — — — —	PROPOSED WATER PIPE
— TEL —	EXISTING UNDERGROUND TELEPHONE	— — — — —	PROPOSED SANITARY SEWER PIPE
— CBL —	EXISTING UNDERGROUND CABLE	— — — — —	PROPOSED STORM SEWER PIPE
□	EXISTING TELEPHONE PEDESTAL	— — — — —	PROPOSED DRAINTILE AND CLEAN-OUT
□	EXISTING ELECTRICAL PEDESTAL	— ELEC —	PROPOSED ELECTRIC SERVICE *
□	EXISTING CABLE PEDESTAL	— GAS —	PROPOSED GAS SERVICE *
□	EXISTING UTILITY POLE	— TEL —	PROPOSED TELEPHONE SERVICE *
☆	EXISTING LIGHT POLE	⊙	PROPOSED STORM MANHOLE
— — — — —	EXISTING STORM SEWER	□	PROPOSED CATCH BASIN
— — — — —	EXISTING WATER MAIN	— — — — —	PROPOSED FLARED-END SECTION
— — — — —	EXISTING SANITARY SEWER	⊗	PROPOSED GATE VALVE
— FM —	EXISTING FORCEMAIN	⊗	PROPOSED HYDRANT
⊙	EXISTING STORM MANHOLE	⊙	PROPOSED SANITARY SEWER MANHOLE
□	EXISTING CATCH BASIN	— — — — —	PROPOSED CONTOUR
◀	EXISTING FLARED-END SECTION	⊗	PROPOSED SPOT ELEVATION (GUTTERLINE, BITUMINOUS SURFACE, OR GROUND SURFACE UNLESS OTHERWISE INDICATED)
⊗	EXISTING GATE VALVE	— S —	PROPOSED SILT FENCE
⊗	EXISTING HYDRANT	4.0%	PROPOSED DIRECTION OF DRAINAGE
⊗	EXISTING WELL	■	PROPOSED BITUMINOUS
⊙	EXISTING SANITARY SEWER MANHOLE	■	PROPOSED FILTRATION MEDIA
928	EXISTING CONTOUR	○	PROPOSED INLET PROTECTION
930	EXISTING CONTOUR	■	PROPOSED HEAVY-DUTY PAVEMENT
× 920.99	EXISTING SPOT ELEVATION	■	PROPOSED ENKAMAT
○ 907.42	EXISTING SPOT ELEVATION (MATCH INTO ELEVATION)	■	PROPOSED RETAINING WALL
■	EXISTING BITUMINOUS	■	BITUMINOUS PAVEMENT REMOVAL
⊗	EXISTING TREES	■	CONCRETE SIDEWALK REMOVAL
⊗	EXISTING TREE TO BE REMOVED	■	PROPOSED CONCRETE SIDEWALK
→	SURFACE DRAINAGE DIRECTION	■	VEHICLE MAINTENANCE ACCESS (VMA) ROUTE
— X —	EXISTING FENCE	⊗	TEST PIT (BY TRADEWELL SOIL TESTING)
— — — — —	EXISTING RETAINING WALL		
— WET —	EXISTING WETLAND		

GENERAL NOTES

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF EXISTING UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UTILITIES AS NECESSARY TO AVOID DAMAGE TO THESE UTILITIES.

CALL "811" FOR EXISTING UTILITIES LOCATIONS PRIOR TO ANY EXCAVATIONS.

THE CONTRACTOR SHALL FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING SANITARY SEWER, STORM SEWER, AND WATER MAIN AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO THE START OF INSTALLATIONS.

INSTALLATIONS SHALL CONFORM TO THE CITY STANDARD SPECIFICATIONS AND DETAIL PLATES.

ALL UTILITIES THAT WILL BE OWNED AND MAINTAINED BY THE CITY AFTER CONSTRUCTION SHALL BE BUILT TO CITY STANDARDS.

THE CONTRACTOR SHALL NOTIFY CITY PUBLIC WORKS DEPARTMENT A MINIMUM OF 24 HOURS PRIOR TO THE INTERRUPTION OF ANY SEWER OR WATER SERVICES TO EXISTING HOMES OR BUSINESSES.

THE CONTRACTOR SHALL OBTAIN A RIGHT-OF-WAY PERMIT FROM THE CITY PRIOR TO ANY WORK.

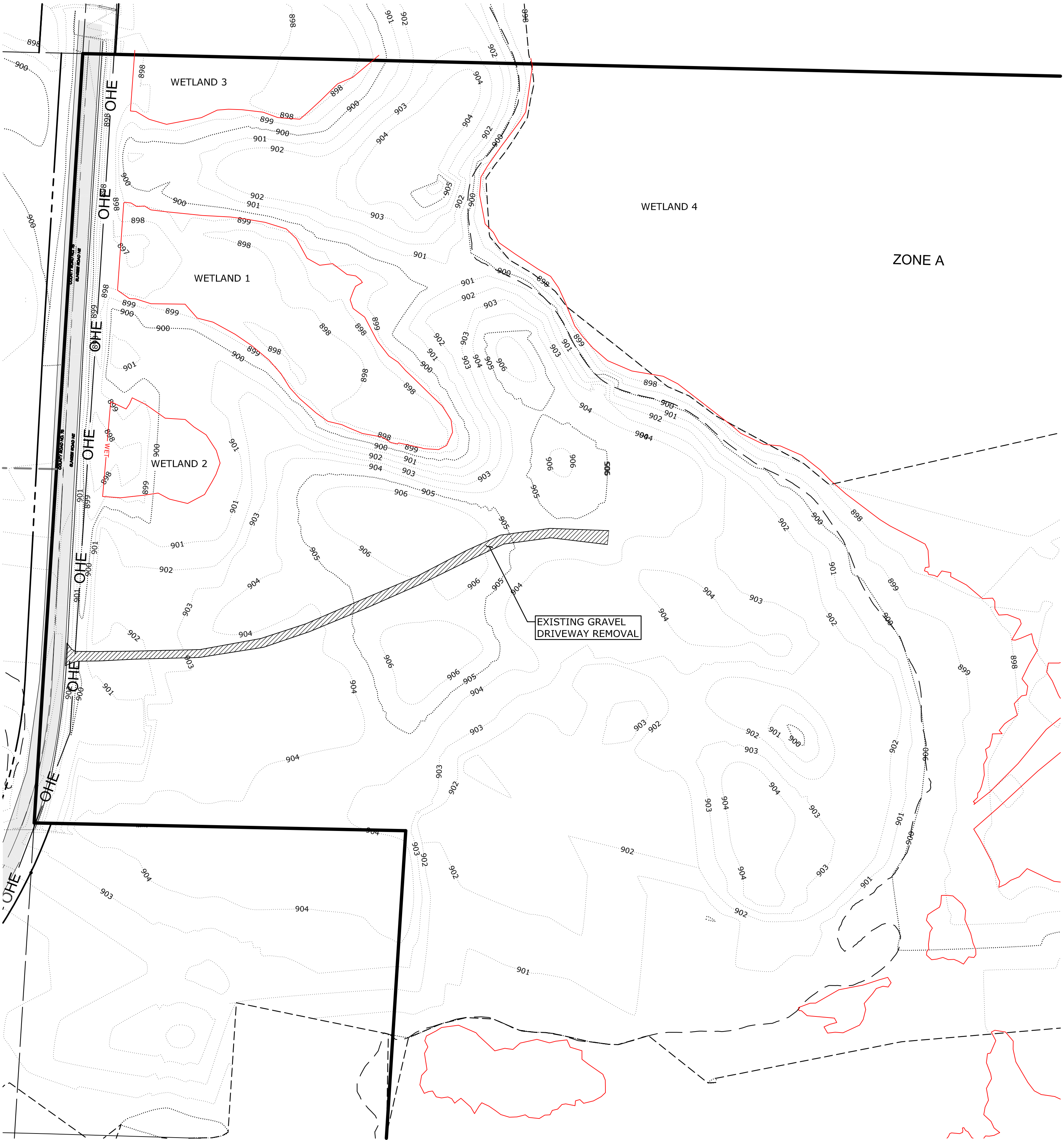
STORAGE OF MATERIALS OR EQUIPMENT SHALL NOT BE ALLOWED ON PUBLIC STREETS OR WITHIN PUBLIC RIGHT-OF-WAY.

NOTIFY CITY A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

ALL ELECTRIC, TELEPHONE, AND GAS EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY.



below.
Call before you dig.



VICINITY MAP



NOT TO SCALE

SHEET INDEX

- C0 TITLE SHEET, LEGEND, EXISTING CONDITIONS, & REMOVAL PLAN
- C1.1 GRADING, DRAINAGE & EROSION CONTROL PLAN
- C1.2 GRADING, DRAINAGE & EROSION CONTROL PLAN
- C2 DETAILS & NOTES
- C3.1 STORM WATER POLLUTION PREVENTION PLAN
- C3.2 STORM WATER POLLUTION PREVENTION PLAN

NOTE: THIS PLAN SET IS INTENDED TO ACCOMPANY THE PRELIMINARY PLAT SHEET(S), PROVIDED BY OTHERS.

DRAWN BY:	DESIGN BY:
M.Q.A.	Q.M.A.
CHKD BY:	PROJ. NO.
M.Q.A.	25-2215
ORIGINAL DATE:	
AUGUST 25, 2025	

DATE	REVISION DESCRIPTION

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

QASEM M. ABUGHAZLEH
DATE: 11.11.2025 LIC. NO. 56289

PAJTSHENG & NTXHI ESTATES
LINWOOD TOWNSHIP, MINNESOTA

TITLE SHEET, LEGEND, EXISTING CONDITIONS, AND REMOVAL PLAN

PREPARED FOR:
MUAJTSIM VANG

SITE PLANNING & ENGINEERING

PLOWE ENGINEERING, INC.

6776 LAKE DRIVE
SUITE 110
LINO LAKES, MN 55014

PHONE: (651) 361-8210
FAX: (651) 361-8701

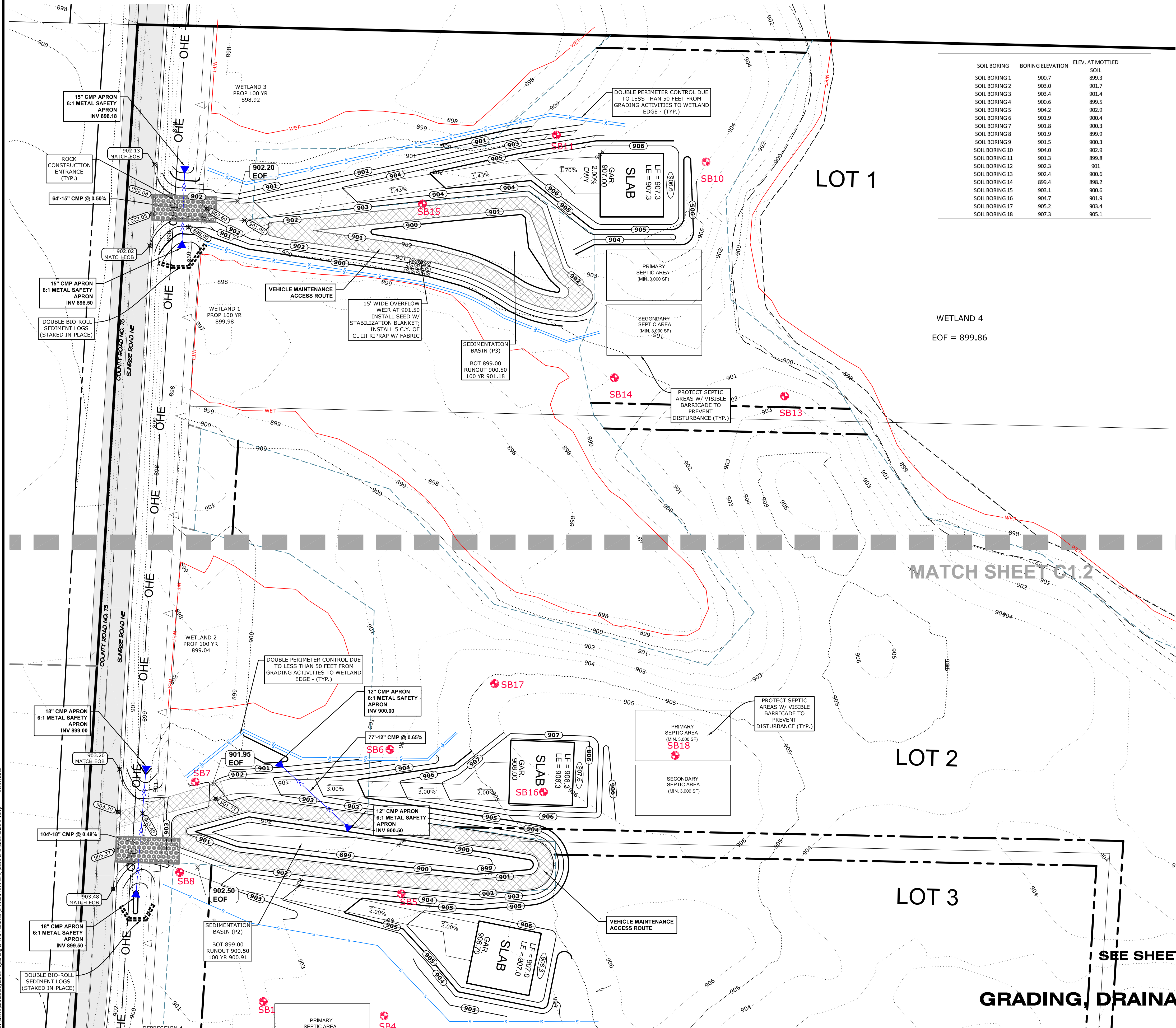
NORTH

0 40 80

1 INCH = 80 FEET

C0

S:\Drawings\2024\2215 Pajtsheng & Ntxhi Estates - Linwood Township\2215 CAD\2215 BASE.dwg 11/17/2025



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- NOTIFY CITY OF EAST BETHEL A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- ALL ELECTRIC, TELEPHONE, AND GAS EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY.

STORM SEWER NOTES

- PROPOSED STORM SEWER PIPE SHALL BE:
 - CORRUGATED METAL PIPE (DRIVEWAY CULVERTS)
- FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING STORM SEWER AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY INSTALLATIONS.
- STORM SEWER LENGTHS INCLUDE THE LAYING LENGTH OF THE FLARED-END SECTION. LAYING LENGTH OF APRON TO BE DEDUCTED FROM PAYMENT LENGTH OF PIPE.
- TRASH GUARDS ARE NOT REQUIRED FOR CULVERTS.

MISCELLANEOUS NOTES

- SEPTIC AND WELL DESIGN BY OTHERS.
- SITE TOPOGRAPHY PROVIDED BY OTHERS.

AN MPCA NPDES CONSTRUCTION PERMIT IS REQUIRED PRIOR TO THE START OF CONSTRUCTION

LOT TABLE

Lot	Block	Lowest Floor Elevation	Low Floor Determining Factor	Lowest Opening	Low Opening Determining Factor	HWL
1	1	907.30	Josh Putt Boring #10 Mottles found at approximately at 904.2	907.30	1-foot above EOF for Basin 3 902.20	Basin 2 901.18
2	1	908.30	Josh Putt Boring #18 Mottles found at approximately at 905.1	908.30	1-foot above EOF for Basin 2 901.95	Basin 3 900.91
3	1	907.00	Josh Putt Boring #5 Mottles found at approximately at 902.9	907.00	1-foot above EOF for Basin 2 901.95	Basin 3 900.91

- NOTES FOR WORK IN COUNTY R/W**
- ALL INSTALLATIONS SHALL BE IN ACCORDANCE WITH MNDOT SPECIFICATIONS (LATEST EDITION)
 - ALL DISTURBED SOIL WITHIN COUNTY RIGHT-OF-WAY MUST BE SEED (MNDOT 25-141) & MULCHED (TYPE 1, DISC ANCHORED)
 - USE ALL STRAW FIBER BLANKET FOR DITCH SLOPES OF 3:1 OR GREATER
 - CONTRACTOR TO CONTACT ANOKA COUNTY PERMITS SECTION AT (763) 324-3176 TO OBTAIN THE RIGHT-OF-WAY PERMIT.



Know what's below.
Call before you dig.

SEE SHEET C2 FOR GRADING & EROSION CONTROL NOTES.

GRADING, DRAINAGE, AND EROSION CONTROL PLAN
PAJTSHENG & NTXHI ESTATES

DRAWN BY: M.Q.A. DESIGN BY: Q.M.A.
CHKD BY: M.Q.A. PROJ. NO. 25-2215

ORIGINAL DATE: AUGUST 25, 2025

DATE	REVISION DESCRIPTION
11/11/25	UPDATED EASEMENTS BY WIDSETH

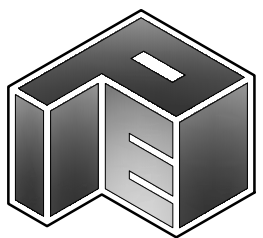
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

QASEM M. ABUGHAZLEH
DATE: 11.11.2025 LIC. NO. 56289

PAJTSHENG & NTXHI ESTATES

LINWOOD TOWNSHIP, MINNESOTA
GRADING, DRAINAGE, AND EROSION CONTROL PLAN

PREPARED FOR:
MUAJT SIM VANG

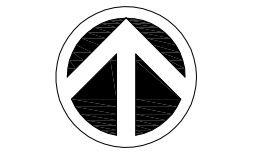


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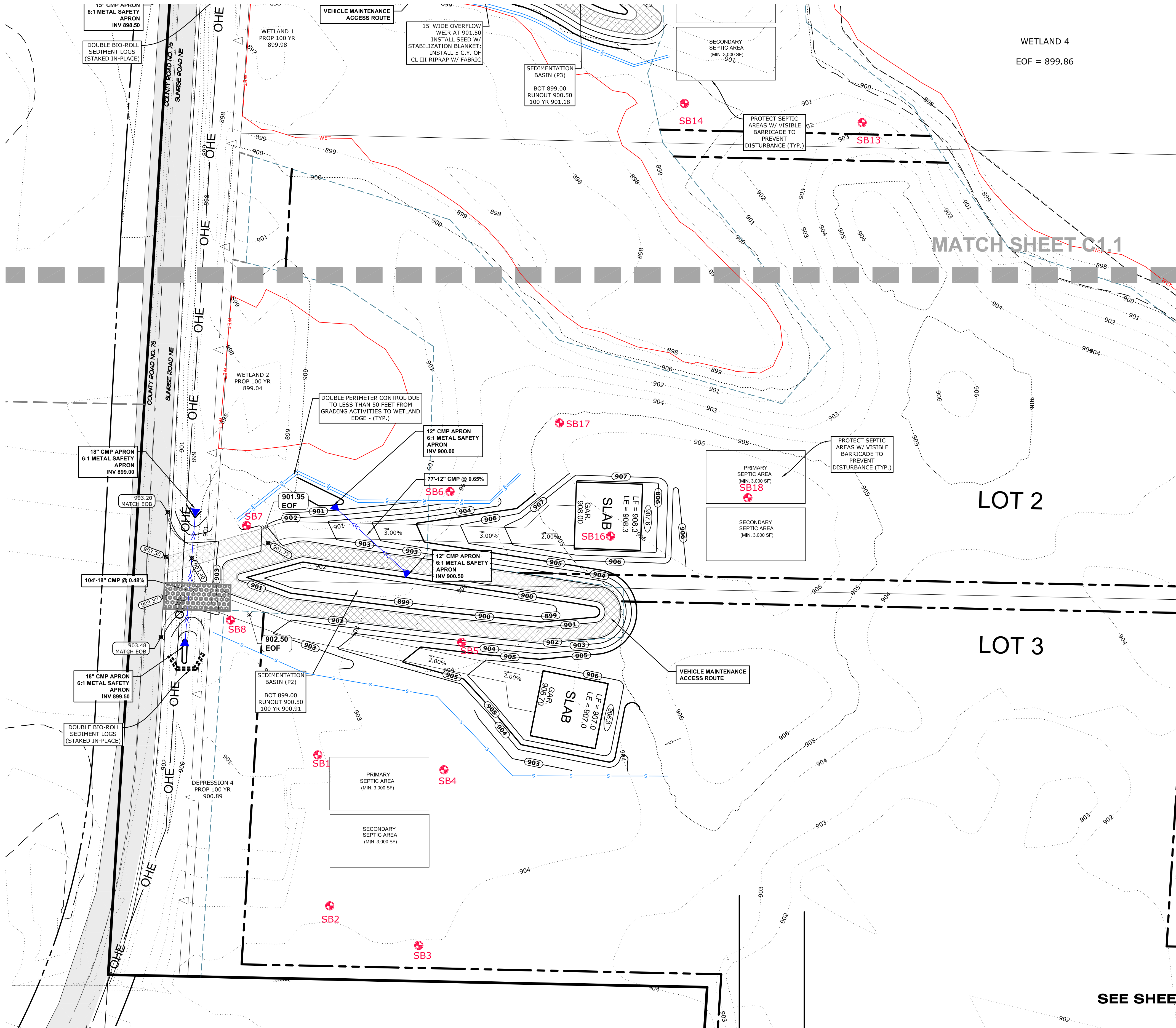
NORTH



0 20 40
1 INCH = 40 FEET

C1.1

S:\Drawings\2025\0215\0215_Pajtscheng & Ntxhi Estates - Linwood Township\0215 CAD\2025 BASE.dwg 11/17/2025



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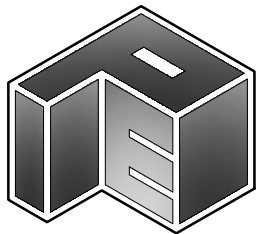
QASEM M. ABUGHAZLEH
DATE: 11.11.2025 LIC. NO. 56299

PAJTSHENG & NTXHI ESTATES

LINWOOD TOWNSHIP, MINNESOTA

GRADING, DRAINAGE, AND EROSION CONTROL PLAN

PREPARED FOR:
MUAJTSM VANG

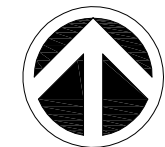


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NORTH



0 20 40
1 INCH = 40 FEET

C1.2

SITE SEQUENCING

- PRIOR TO ANY GRADING OPERATIONS, THE CONTRACTOR SHALL INSTALL ROCK CONSTRUCTION ENTRANCE (LOCATIONS TO BE DETERMINED - COORDINATE WITH OWNER) AND PERIMETER SILT FENCE AS SHOWN ON PLAN. (CONTACT CITY TO INSPECT EROSION CONTROL MEASURES PRIOR TO GRADING OPERATIONS; IF NECESSARY.) ADDITIONAL SILT FENCE MAY BE NECESSARY IF LOCAL CONDITIONS REQUIRE.
- THE CONTRACTOR SHALL PROVIDE ALL SOD, SEED, MULCH AND FERTILIZER WHICH SHALL CONFORM WITH THE FOLLOWING MNDOT SPECIFICATIONS AS MODIFIED BELOW.

ITEM	MNDOT SPECIFICATION/NOTES
SOD	3878
SEED **	3876
* FOR TURF ESTABLISHMENT	
COMMERCIAL TURF	MNDOT MIX 25-131 (220 LBS/ACRE)
RESIDENTIAL TURF	MNDOT MIX 25-131 (120 LBS/ACRE)
TEMPORARY	
FALL COVER	MNDOT MIX 21-112 (100 LBS/ACRE)
SPRING/SUMMER	MNDOT MIX 21-111 (100 LBS/ACRE)
SOIL-BUILDING COVER	MNDOT MIX 21-113 (110 LBS/ACRE)
1-2 YEARS COVER	MNDOT MIX 22-111 (30.5 LBS/ACRE)
2-5 YEARS COVER	MNDOT MIX 22-112 (40 LBS/ACRE)
MULCH	3882 (TYPE 1 - DISC ANCHORED)
FERTILIZER	3881
WOOD FIBER BLANKET	3885 (CATEGORY 2)

* MOW A MINIMUM OF ONCE PER 2 WEEKS
** SEEDED AREAS SHALL BE EITHER MULCHED OR COVERED BY FIBROUS BLANKETS TO PROTECT SEEDS AND LIMIT EROSION.

- ALL EXPOSED SOILS MUST HAVE TEMPORARY EROSION CONTROL PROTECTION OR PERMANENT COVER WITHIN FOURTEEN (14) DAYS.
- THE CONTRACTOR SHALL PAY SPECIAL ATTENTION TO ALL ADJACENT PROPERTY LINES AND MAKE SURE THE EROSION CONTROL PRACTICES INPLACE IN THOSE AREAS PREVENT MIGRATION OF SEDIMENT ONTO ADJACENT PROPERTIES.
- THE CONTRACTOR SHALL MAINTAIN SILT FENCE, INCLUDING THE REMOVAL OF ACCUMULATED SEDIMENT, THROUGH COMPLETION OF BUILDING CONSTRUCTION. SILT FENCE TO BE REMOVED ONLY AFTER COMPLETION OF BUILDING CONSTRUCTION AND UPON ESTABLISHMENT OF VEGETATION.
- THE CONTRACTOR SHALL PROVIDE WOOD FIBER BLANKET FOR ALL AREAS OF CONCENTRATED FLOW AND FOR ALL SLOPES 3:1 OR GREATER.

- PROTECT ALL STORM WATER MANAGEMENT FACILITIES FROM CONSTRUCTION RUN-OFF. CONTRACTOR TO INSTALL AND CONSTRUCT SAID FACILITIES ONCE SITE HAS BEEN STABILIZED.
- IF ANY SLOPES APPEAR TO BE FAILING, THE CONTRACTOR SHALL PROVIDE ADDITIONAL SILT FENCE, BIOROLLS AND EROSION CONTROL BLANKET AS NEEDED.
- THE CONTRACTOR SHALL FINAL GRADE SWALE AREAS UPON STABILIZATION OF UPSTREAM AREAS.
- THE CONTRACTOR SHALL SOD ALL DISTURBED DRAINAGE AREAS, INCLUDING SWALES & OVERFLOWS.
- UPON GRADING COMPLETION THE CONTRACTOR SHALL PROVIDE NATIVE TOPSOIL WITH SOD OR SEED, AND MULCH ANCHORED WITH A STRAIGHT SET DISC WITHIN 48 HOURS OF FINAL GRADING.
- EXCESS SOIL SHOULD BE TREATED LIKE OTHER EXPOSED SOIL AND STABILIZED WITHIN 72 HOURS. ANY SOIL STOCKPILES ARE TO HAVE SILT FENCE PLACED ON DOWNSTREAM SIDES.
- IF A STREET, ALLEY, SIDEWALK OR OTHER PUBLIC PLACE SHOULD BECOME SOILED OR LITTERED, THE CONTRACTOR SHALL CAUSE SUCH SOILING OR LITTERING TO BE CLEANED UP BY SWEEPING NOT LATER THAN THE END OF THE WORKING DAY IN WHICH SUCH SOILING OR LITTERING SHALL HAVE OCCURRED OR BEEN OBSERVED.

OTHER POLLUTION CONTROL MEASURES

CONSTRUCTION WASTE MATERIALS - ALL WASTE MATERIALS GENERATED AS A RESULT OF SITE CONSTRUCTION SHALL BE COLLECTED AND REMOVED ACCORDING TO ALL LOCAL AND/OR STATE WASTE MANAGEMENT REGULATIONS BY A LICENSED SOLID WASTE MANAGEMENT COMPANY. THE CONTRACTOR WILL ENSURE THAT ALL SITE PERSONNEL ARE INSTRUCTED IN THESE PRACTICES.

HAZARDOUS WASTES - ALL HAZARDOUS WASTE MATERIALS SHALL BE STORED PROPERLY TO PREVENT SPILLS AND VANDALISM. WHEN NECESSARY, HAZARDOUS WASTES WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL AND/OR STATE REGULATION OR BY THE MANUFACTURER.

SANITARY WASTE - ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS BY A LOCAL, LICENSED WATER MANAGEMENT COMPANY, AS REQUIRED BY LOCAL REGULATION.

OFFSITE VEHICLE TRACKING - A ROCK CONSTRUCTION ENTRANCE HAS BEEN PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. IF A STREET, ALLEY, SIDEWALK OR OTHER PUBLIC PLACE SHOULD BECOME SOILED OR LITTERED, THE CONTRACTOR SHALL CAUSE SUCH SOILING TO BE CLEANED UP BY SWEEPING NOT LATER THAN THE END OF THE WORKING DAY IN WHICH SUCH SOILING OR LITTERING SHALL HAVE OCCURRED OR BEEN OBSERVED. DUMP TRUCKS HAULING LOOSE MATERIALS (SAND, TOPSOIL, ETC.) TO AND/OR FROM THE SITE SHALL BE COVERED WITH A TARPULIN.

VEHICLE CLEANING - NO ENGINE DEGREASING IS ALLOWED ON-SITE. EXTERNAL WASHING OF VEHICLES TO BE CONFINED TO A DEFINED AREA ("BONE YARD") ON-SITE. CONTRACTOR TO PROVIDE DESIGNATED TRUCK WASHOUT AREA WITH APPROPRIATE SIGNAGE. WASHOUT AREA IS TO BE A MINIMUM OF 50' FROM DITCHES, PONDS, OR OTHER STORMWATER FEATURES. ALL LIQUID AND SOLID WASTE GENERATED BY WASHOUT OPERATIONS MUST BE CONTAINED IN A LEAK-PROOF CONTAINMENT FACILITY OR IMPERMEABLE LINER (E.G. COMPACTED CLAY LINER, IMPERMEABLE GEO-MEMBRANE) AND DISPOSED OF PROPERLY.

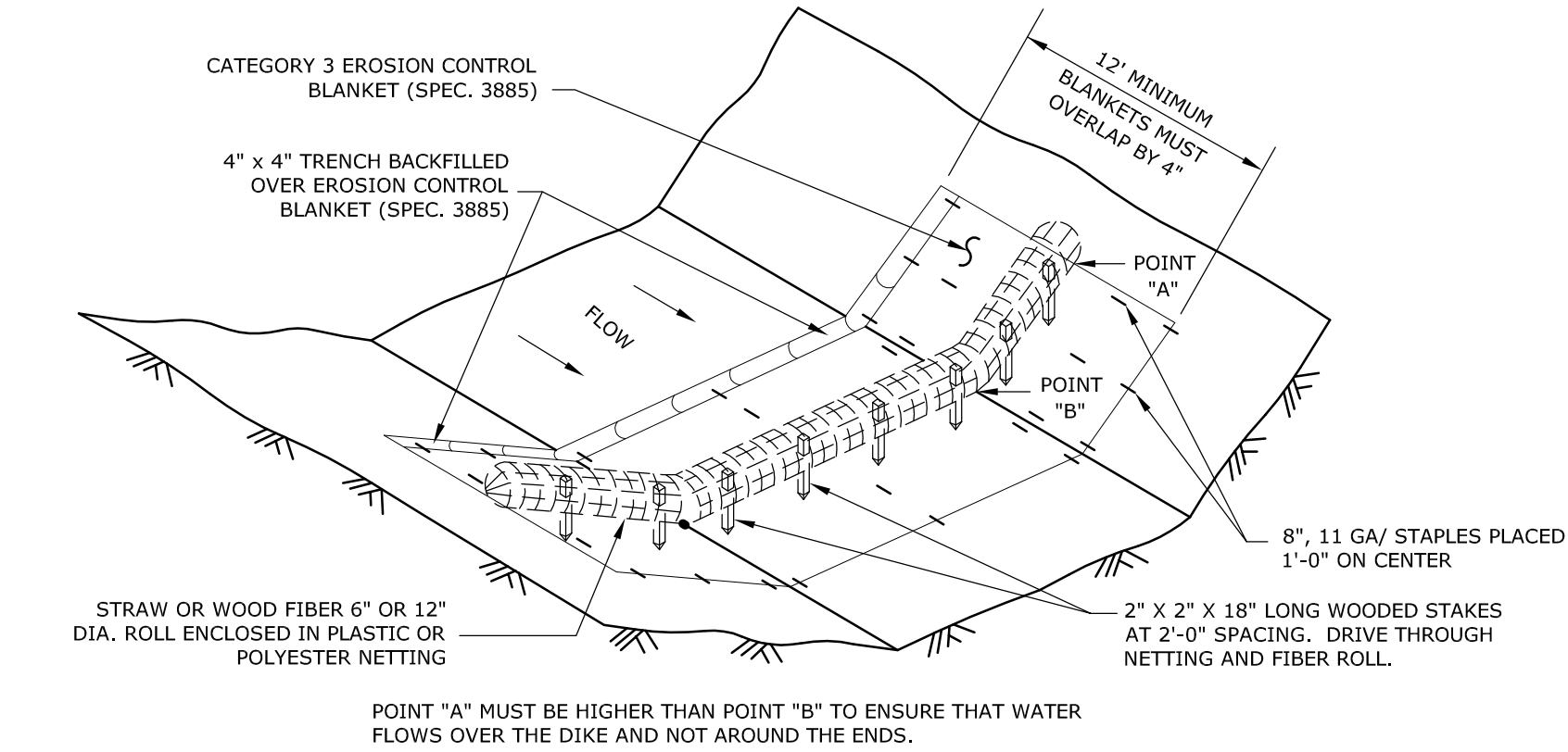
SPILL PREVENTION AND CONTROL - ALL VEHICLES WILL BE CHECKED FOR LEAKING OIL AND FLUIDS. VEHICLES LEAKING FLUIDS WILL NOT BE ALLOWED ON-SITE. SPILL KITS WILL BE STORED ON-SITE AND ALL SPILLS WILL BE CLEANED UP IMMEDIATELY. SPENT ABSORBENT MATERIALS AND RAGS WILL BE HAULED OFF-SITE IMMEDIATELY AFTER THE SPILL IS CLEANED UP AND PROPERTY DISPOSED OF. SPILL PREVENTION AND CONTROL MEASURES SHALL BE IMPLEMENTED ONCE CONSTRUCTION BEGINS.

SOIL STOCKPILES - INSTALL SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS AROUND ALL TEMPORARY SOIL STOCKPILES. LOCATE SOIL OR DIRT STOCKPILES SUCH THAT DOWNSLOPE DRAINAGE LENGTH IS NO LESS THAN 8 M (25 FEET) FROM THE TOE OF THE PILE TO A SURFACE WATER, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS, OR CONDUITS AND DITCHES UNLESS THERE IS A BYPASS IN PLACE FOR THE STORMWATER. IF REMAINING FOR MORE THAN 7 DAYS, STABILIZE THE STOCKPILES BY MULCHING, VEGETATIVE COVER, TARPS, OR OTHER MEANS. DURING STREET REPAIR, COVER CONSTRUCTION SOIL OR DIRT STOCKPILES LOCATED CLOSER THAN 8 M (25 FEET) TO A ROADWAY OR DRAINAGE CHANNEL WITH TARPS, AND PROTECT STORM SEWER INLETS WITH SILT SOCKS OR STAKED SILT FENCE.

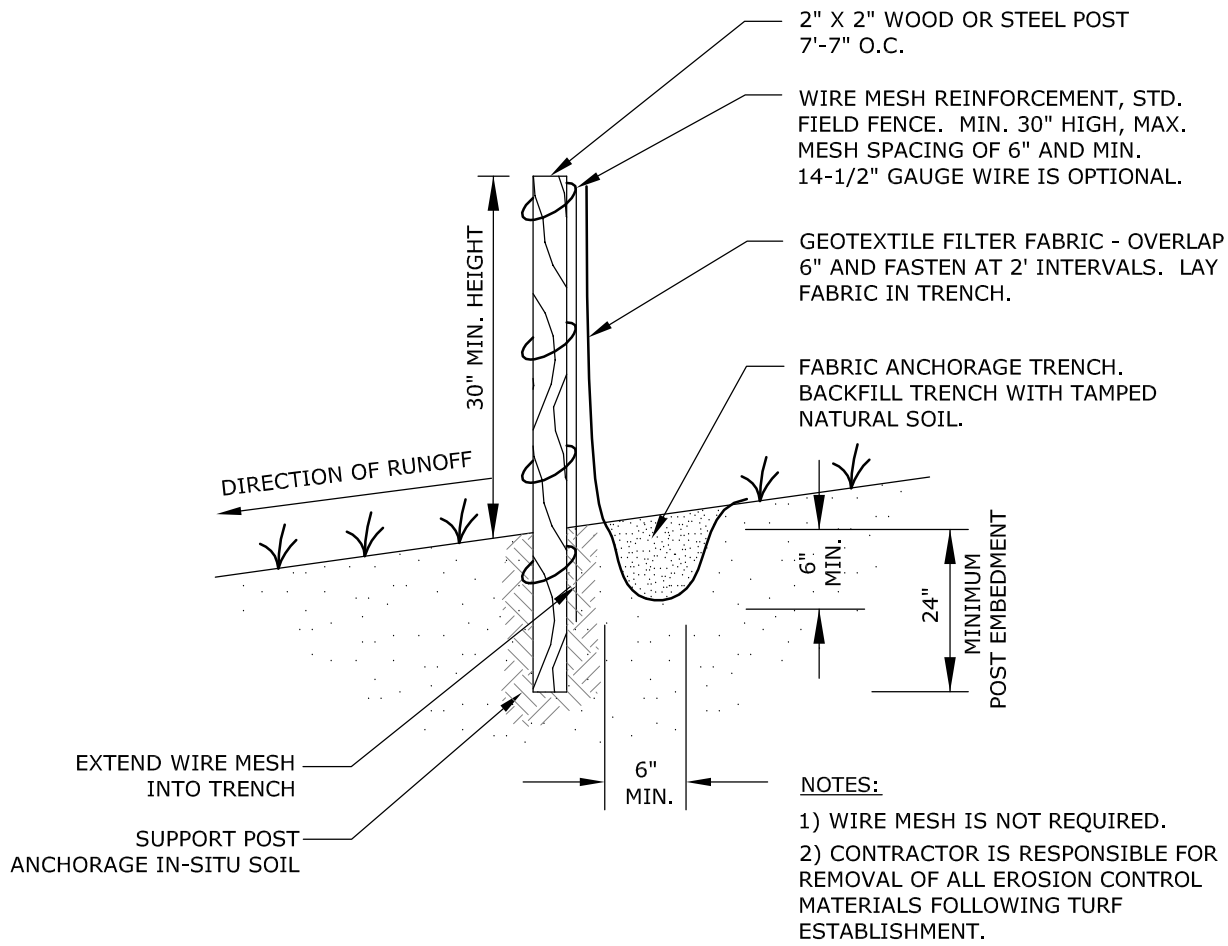
PROVIDE WIMCO (OR APPROVED EQUAL) FOR INLET PROTECTION AT ALL EXISTING STORM SEWER INLETS THAT WILL RECEIVE RUN-OFF DURING CONSTRUCTION. INLET PROTECTION TO REMAIN IN-PLACE UNTIL AT LEAST 70% OF SITE VEGETATION HAS BEEN ESTABLISHED.

CONTRACTOR TO PROVIDE DESIGNATED CONCRETE TRUCK WASHOUT AREA WITH APPROPRIATE SIGNAGE. KEEP WASHOUT AREAS AS FAR AS PRACTICAL FROM STORM DRAINS, DITCHES AND PONDS. DO NOT ALLOW RUN-OFF FROM THIS AREA BY CONSTRUCTING A TEMPORARY PIT OR BERMED AREA LARGE ENOUGH FOR LIQUID AND SOLID WASTE. AFTER WASTE CONCRETE IS SET, BREAK-UP AND DISPOSE OF PROPERLY.

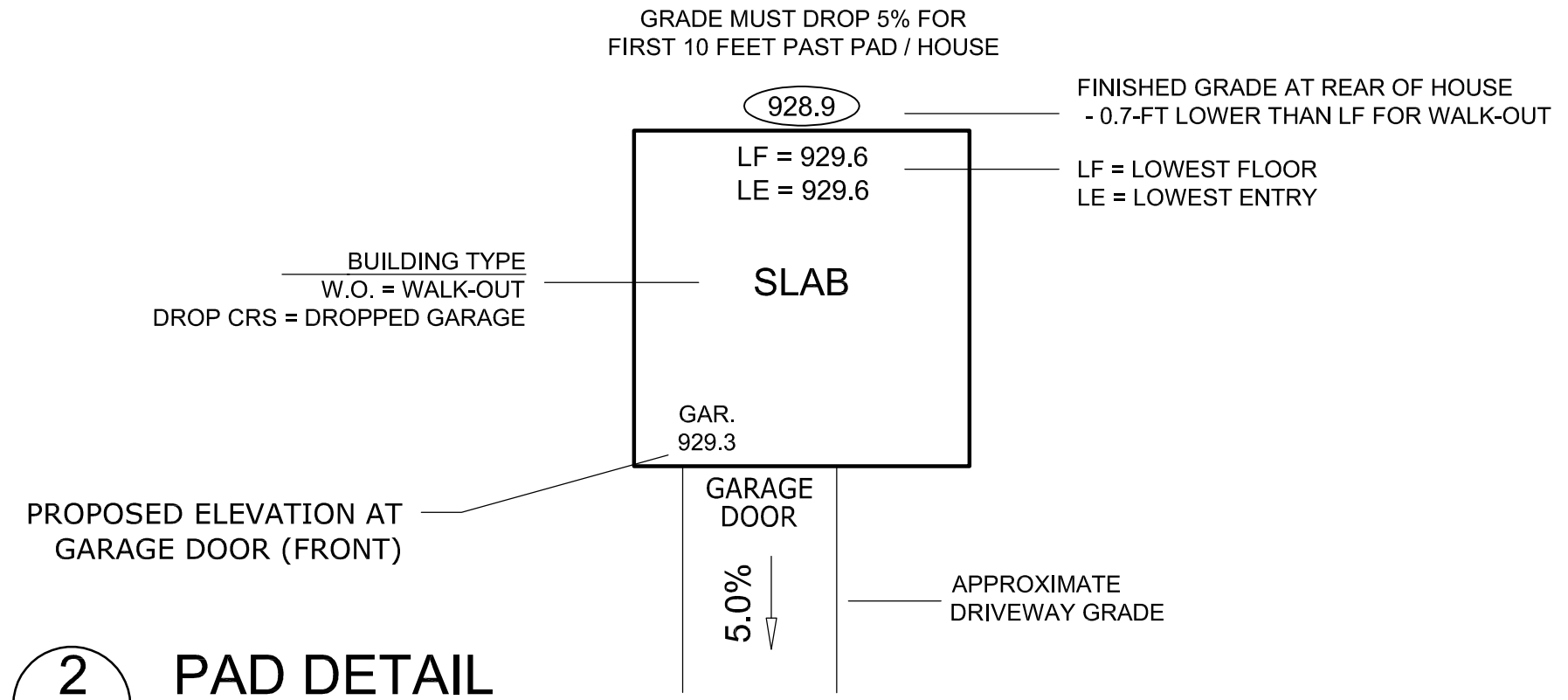
THE CONTRACTOR MUST DISCHARGE TURBID OR SEDIMENT-LADEN WATERS RELATED TO DEWATERING (E.G., PUMPED DISCHARGES, TRENCH/DITCH CUTS FOR DRAINAGE) TO A TEMPORARY OR PERMANENT SEDIMENTATION BASIN ON THE PROJECT SITE UNLESS INFEASIBLE. THE CONTRACTOR MAY DISCHARGE FROM THE TEMPORARY OR PERMANENT SEDIMENTATION BASINS TO SURFACE WATERS IF THE BASIN WATER HAS BEEN VISUALLY CHECKED TO ENSURE ADEQUATE TREATMENT HAS BEEN OBTAINED IN THE BASIN AND THAT NUISANCE CONDITIONS (SEE MINN. R. 7050.0210, SUBP. 2) WILL NOT RESULT FROM THE DISCHARGE. IF THE WATER CANNOT BE DISCHARGED TO A SEDIMENTATION BASIN PRIOR TO ENTERING THE SURFACE WATER, IT MUST BE TREATED WITH THE APPROPRIATE BMPs, SUCH THAT THE DISCHARGE DOES NOT ADVERSELY AFFECT THE RECEIVING WATER OR DOWNSTREAM PROPERTIES.



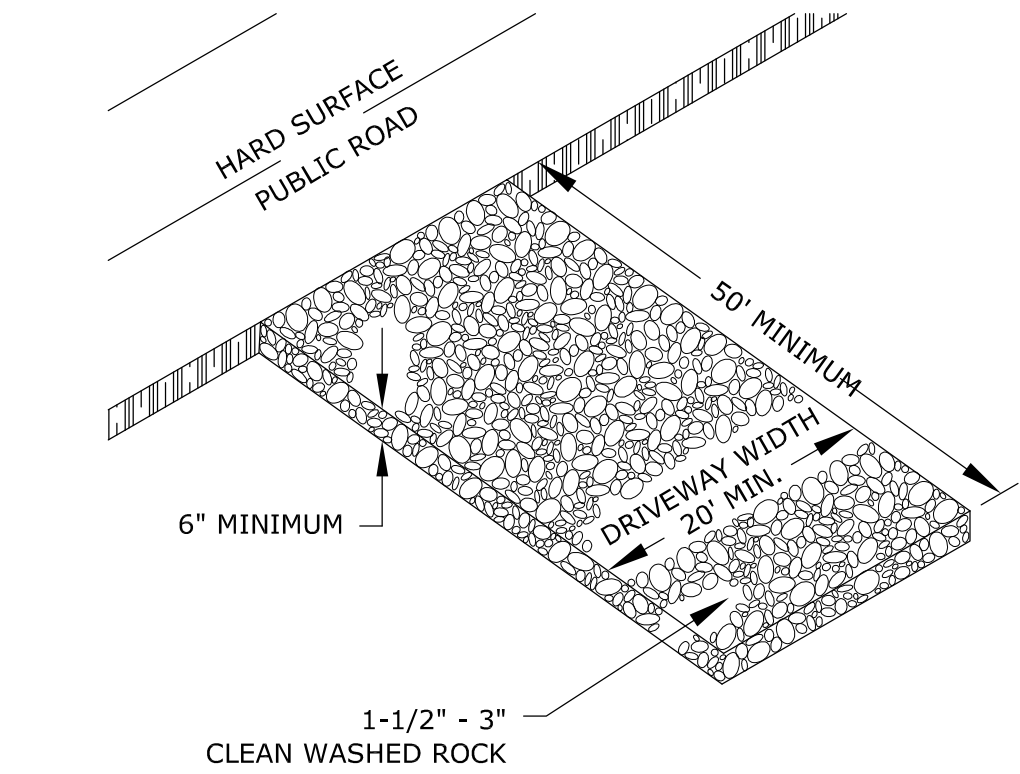
1 BIO-ROLL BLANKET
C2 N.T.S.



3 SILT FENCE
C2 N.T.S.



2 PAD DETAIL
C2 N.T.S.



4 ROCK CONSTRUCTION ENTRANCE
C2 N.T.S.

DETAILS & NOTES
PAJTSHENG & NTXHI ESTATES

DRAWN BY:	DESIGN BY:
M.Q.A.	Q.M.A.
CHKD BY:	PROJ. NO.
M.Q.A.	25-2215
ORIGINAL DATE:	
AUGUST 25, 2025	

DATE	REVISION DESCRIPTION

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

QASEM M. ABUGHAZLEH
LIC. NO. 56299
DATE: 11.11.2025

PAJTSHENG & NTXHI ESTATES
LUNWOOD TOWNSHIP, MINNESOTA
DETAILS & NOTES

PREPARED FOR:
MUAJTSIM VANG

SITE PLANNING & ENGINEERING
PLOWE
ENGINEERING, INC.
6776 LAKE DRIVE
SUITE 110
LINO LAKES, MN 55014
PHONE: (651) 361-8210
FAX: (651) 361-8701

C2

PROJECT TITLE

PAJTSHENG & NTXHI ESTATES

PROJECT LOCATION

ADDRESS: NORTH OF 21725 SUNRISE RD NE
PID: 11-33-22-24-0001

LATITUDE: 45.365
LONGITUDE: -93.054

DEVELOPER

MUAJTSM VANG
2088 WEST CEDAR ST
LINO LAKES, MN 55038

CONTACT NAME: MUAJTSM VANG
CONTACT PHONE: 651-785-3847
CONTACT E-MAIL: MUAJTSM.VANG90@GMAIL.COM

GENERAL CONTRACTOR

TBD

DOCUMENTATION OF TRAINED INDIVIDUALS

A. INDIVIDUAL WHO PREPARED THE SWPPP:

QASEM ABUGHAZLEH
PLOWE ENGINEERING, INC.
6776 LAKE DRIVE
LINO LAKES MN 55014
(651) 361-8233
qasem@plowe.com

B. INDIVIDUAL(S) OVERSEEING IMPLEMENTATION OF, REVISING AND/OR AMENDING THE SWPPP AND INDIVIDUALS PERFORMING INSPECTIONS FOR THE PROJECT, ONE OF THESE INDIVIDUALS MUST BE AVAILABLE FOR AN ONSITE INSPECTION WITHIN 72 HOURS UPON REQUEST BY THE MPCA. [MINN. R. 7090]

CONTACT NAME

CONTACT PHONE

CONTACT E-MAIL:

TBD - WHEN INFORMATION BECOMES AVAILABLE, CONTRACTOR TO PROVIDE INFORMATION TO CITY AND WATERSHED

C. INDIVIDUAL(S) PERFORMING OR SUPERVISING THE INSTALLATION, MAINTENANCE AND REPAIR OF BMPS. [MINN. R. 7090]

CONTACT NAME

CONTACT PHONE

CONTACT E-MAIL:

TBD - WHEN INFORMATION BECOMES AVAILABLE, CONTRACTOR TO PROVIDE INFORMATION TO CITY AND WATERSHED

LONG TERM OPERATION AND MAINTENANCE OF PERMANENT STORMWATER FACILITIES

THE PROPOSED STORMWATER MANAGEMENT FEATURE FOR THIS SITE IS AN EXISTING ON-SITE LANDLOCKED BASIN . THIS WILL BE OPERATED AND MAINTAINED BY THE LANDOWNER.

REVEGETATION SPECIFICATIONS

ITEM	MNDOT SPECIFICATION/NOTES
SOD	3878
SEED **	3876
* FOR TURF ESTABLISHMENT	
COMMERCIAL TURF	MNDOT MIX 25-131 (220 LBS/ACRE)
RESIDENTIAL TURF	MNDOT MIX 25-131 (120 LBS/ACRE)
TEMPORARY FALL COVER	MNDOT MIX 21-112 (100 LBS/ACRE)
TEMPORARY SPRING/SUMMER COVER	MNDOT MIX 21-111 (100 LBS/ACRE)
TEMPORARY SOIL-BUILDING COVER	MNDOT MIX 21-113 (110 LBS/ACRE)
TEMPORARY 1-2 YEARS COVER	MNDOT MIX 22-111 (30.5 LBS/ACRE)
TEMPORARY 2-5 YEARS COVER	MNDOT MIX 22-112 (40 LBS/ACRE)
MULCH	3882 (TYPE 1 - DISC ANCHORED)
HYDROMULCH	3884
FERTILIZER	3881
WOOD FIBER BLANKET	3885 (CATEGORY 2)

* MOW A MINIMUM OF:
RESIDENTIAL TURF - ONCE PER 2 WEEKS
COMMERCIAL TURF - ONCE PER 4 WEEKS

** SEEDED AREAS SHALL BE EITHER MULCHED OR COVERED BY FIBROUS BLANKETS TO PROTECT SEEDS AND LIMIT EROSION.

QUANTITIES - ESTIMATED QUANTITIES FOR EROSION AND SEDIMENT CONTROL MEASURES

TYPE	UNIT
SILT FENCE	2,175 LINEAR FEET
REDUND. SED. CONTROL (EG. BIO-ROLLS, SILT FENCE)	EACH
RIP-RAP W. GEO-FABRIC	5 CUBIC YARDS
CATCH BASIN INLET PROTECTION	N/A EACH
POND RIPRAP OVERFLOW	1 EACH
EROSION CONTROL BLANKET	SQUARE YARDS
SEED & MULCH (GENERAL)	ACRE
ROCK CONSTRUCTION ENTRANCE	2 EACH

NARRATIVE - TIMING FOR INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES

ALL EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS OR IMPLEMENTED IN THE FIELD SHALL BE IN ACCORDANCE WITH THE CITY AND NPDES PHASE II PERMIT REQUIREMENTS.

PHASE I:

- A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND SWPPP MUST BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES.
- INSTALL STABILIZED CONSTRUCTION ENTRANCE.
- PROVIDE TEMPORARY PARKING AND STORAGE AREA.
- INSTALL SILT FENCE AS SHOWN ON PLAN.
- ADDITIONAL SILT FENCE MAY BE NECESSARY IF LOCAL CONDITIONS REQUIRE.
- THE CONTRACTOR SHALL MAINTAIN SILT FENCE, INCLUDING THE REMOVAL OF ACCUMULATED SEDIMENT, THROUGH COMPLETION OF BUILDING CONSTRUCTION.
- SILT FENCE SHALL REMAIN IN-PLACE UNTIL SITE HAS BEEN STABILIZED.
- CONTRACTOR TO PROVIDE ADDITIONAL SILT FENCE, BIOROLLS, EROSION CONTROL BLANKET, OR OTHER APPROVED EQUAL FOR ANY SLOPES THAT APPEAR TO BE FAILING.
- INSTALL INLET PROTECTION FOR ALL EXISTING STORM SEWER STRUCTURES.
- INSTALL TREE PROTECTION FENCING AS APPLICABLE.
- PERFORM SITE GRADING ON AN AREA-BY-AREA BASIS TO MINIMIZE UNSTABILIZED AREAS.
- CONTRACTOR MUST IMMEDIATELY INITIATE STABILIZATION OF EXPOSED SOIL AREAS, AS DESCRIBED IN ITEM 8.4 OF THE PERMIT, AND COMPLETE THE STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE TEMPORARILY OR PERMANENTLY CEASES.
- CONTRACTOR TO PROVIDE TEMPORARY SEDIMENTATION BASINS AS REQUIRED IN SECTION 14.1 THROUGH 14.10.
- PAY SPECIAL ATTENTION TO ADJACENT PROPERTY LINES TO ENSURE THE EROSION CONTROL PRACTICES INPLACE IN THOSE AREAS PREVENT MIGRATION OF SEDIMENT ONTO ADJACENT PROPERTIES.
- STABILIZE SOIL STOCKPILES: STABILIZATION SHALL BE INITIATED IMMEDIATELY.
- FINAL GRADE SWALE AREAS UPON STABILIZATION OF UPSTREAM AREAS.
- CONTRACTOR SHALL BE RESPONSIBLE TO SWEEP/SCRAPE ADJACENT STREETS WHEN MATERIALS OR DEBRIS HAVE BEEN WASHED/FLOWED ONTO ADJACENT STREETS OR AS DIRECTED BY CITY.

PHASE II:

- PROVIDE TEMPORARY SEED FOR DISTURBED AREAS.
- INSTALL RIP-RAP AT FLARED-END SECTIONS.
- INSTALL TEMPORARY INLET PROTECTION FOR ALL STORM SEWER INLET STRUCTURES IN PAVING AREAS.INSTALL UTILITIES INCLUDING SANITARY SEWER, WATER MAIN, STORM SEWER.
- INSTALL CURB AND GUTTER.
- PREPARE SITE FOR PAVING.
- PAVE SITE.
- COORDINATE SMALL UTILITIES INSTALLATIONS (GAS, PHONE, ELECTRIC, CABLE, FIBEROPTIC, ETC.) AFTER PAVEMENT INSTALLATION.
- INSTALL INLET PROTECTION DEVICES.
- COMPLETE GRADING AND INSTALL PERMANENT SEEDING AND/OR SOD.
- REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES ONLY AFTER SITE HAS BEEN STABILIZED.

NPDES DEFINITIONS

"BEST MANAGEMENT PRACTICES (BMPS)" MEANS THE MOST EFFECTIVE AND PRACTICABLE MEANS OF EROSION PREVENTION AND SEDIMENT CONTROL, AND WATER QUALITY MANAGEMENT PRACTICES THAT ARE THE MOST EFFECTIVE AND PRACTICABLE MEANS OF TO CONTROL, PREVENT, AND MINIMIZE DEGRADATION OF SURFACE WATER, INCLUDING AVOIDANCE OF IMPACTS, CONSTRUCTION-PHASING, MINIMIZING THE LENGTH OF TIME SOIL AREAS ARE EXPOSED, PROHIBITIONS, POLLUTION PREVENTION THROUGH GOOD HOUSEKEEPING, AND OTHER MANAGEMENT PRACTICES PUBLISHED BY STATE OR DESIGNATED AREA-WIDE PLANNING AGENCIES. [MINN. R. 7090]

"CONSTRUCTION ACTIVITY" MEANS ACTIVITIES INCLUDING CLEARING, GRADING, AND EXCAVATING, THAT RESULT IN LAND DISTURBANCE OF EQUAL TO OR GREATER THAN ONE ACRE, INCLUDING THE DISTURBANCE OF LESS THAN ONE ACRE OF TOTAL LAND AREA THAT IS PART OF A LARGER COMMON PLAN OF DEVELOPMENT OR SALE IF THE LARGER COMMON PLAN WILL ULTIMATELY DISTURB EQUAL TO OR GREATER THAN ONE ACRE. THIS INCLUDES A DISTURBANCE TO THE LAND THAT RESULTS IN A CHANGE IN THE TOPOGRAPHY, EXISTING SOIL COVER, BOTH VEGETATIVE AND NONVEGETATIVE, OR THE EXISTING SOIL TOPOGRAPHY THAT MAY RESULT IN ACCELERATED STORMWATER RUNOFF THAT MAY LEAD TO SOIL EROSION AND MOVEMENT OF SEDIMENT. CONSTRUCTION ACTIVITY DOES NOT INCLUDE A DISTURBANCE TO THE LAND OF LESS THAN FIVE ACRES FOR THE PURPOSE OF ROUTINE MAINTENANCE PERFORMED TO MAINTAIN THE ORIGINAL LINE AND GRADE, HYDRAULIC CAPACITY, AND ORIGINAL PURPOSE OF THE FACILITY. ROUTINE MAINTENANCE DOES NOT INCLUDE ACTIVITIES SUCH AS REPAIRS, REPLACEMENT AND OTHER TYPES OF NON-ROUTINE MAINTENANCE. PAVEMENT REHABILITATION THAT DOES NOT DISTURB THE UNDERLYING SOILS (E.G., MILL AND OVERLAY PROJECTS) IS NOT CONSTRUCTION ACTIVITY. [MINN. R. 7090]

"DEWATERING" MEANS THE REMOVAL OF SURFACE OR GROUND WATER TO DRY AND/OR SOLIDIFY A CONSTRUCTION SITE TO ENABLE CONSTRUCTION ACTIVITY. DEWATERING MAY REQUIRE A MINNESOTA DEPARTMENT OF NATURAL RESOURCES WATER APPROPRIATION PERMIT AND, IF DEWATERING WATER IS CONTAMINATED, DISCHARGE OF SUCH WATER MAY REQUIRE AN INDIVIDUAL MPCA NPDES/SDS PERMIT. [MINN. R. 7090]

"EROSION PREVENTION" MEANS MEASURES EMPLOYED TO PREVENT EROSION SUCH AS SOIL STABILIZATION PRACTICES, PERMANENT COVER OR CONSTRUCTION PHASING. [MINN. R. 7090]

"GENERAL CONTRACTOR" MEANS THE PARTY WHO SIGNS THE CONSTRUCTION CONTRACT WITH THE OWNER TO CONSTRUCT THE ENTIRE PROJECT DESCRIBED IN THE FINAL PLANS AND SPECIFICATIONS, WHERE THE CONSTRUCTION PROJECT INVOLVES MORE THAN ONE CONTRACTOR, THE GENERAL CONTRACTOR IS THE PARTY RESPONSIBLE FOR MANAGING THE ENTIRE PROJECT ON BEHALF OF THE OWNER. IN SOME CASES, THE OWNER IS THE GENERAL CONTRACTOR. IN THESE CASES, THE OWNER SIGNS THE PERMIT APPLICATION AS THE OPERATOR AND BECOMES THE SOLE PERMITTEE. [MINN. R. 7090]

"GROUNDWATER" MEANS THE WATER CONTAINED BELOW THE SURFACE OF THE EARTH IN THE SATURATED ZONE INCLUDING, WITHOUT LIMITATION, ALL WATERS WHETHER UNDER CONFINED, UNCONFINED, OR PERCHED CONDITIONS, IN NEAR SURFACE UNCONSOLIDATED SEDIMENT OR REGOLITH, OR IN ROCK FORMATIONS DEEPER UNDERGROUND. [MINN. R. 7090]

"HOMEOOWNER FACT SHEET" MEANS AN MPCA FACT SHEET AVAILABLE ON THE MPCA CONSTRUCTION STORMWATER WEBSITE FOR PERMITTEES TO GIVE TO HOMEOWNERS AT THE TIME OF SALE. [MINN. R. 7090]

"INFEASIBLE" MEANS NOT TECHNOLOGICALLY POSSIBLE OR NOT ECONOMICALLY PRACTICABLE AND ACHIEVABLE IN LIGHT OF THE BEST INDUSTRY PRACTICES. [MINN. R. 7090]

"INITIATED IMMEDIATELY" MEANS TAKING AN ACTION TO COMMENCE SOIL STABILIZATION AS SOON AS PRACTICABLE, BUT NO LATER THAN THE END OF THE WORK DAY, FOLLOWING THE DAY WHEN THE LAND-DISTURBING ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE, IF THE PERMITTEES KNOW THAT CONSTRUCTION WORK ON THAT PORTION OF THE SITE WILL BE TEMPORARILY CEASED FOR 14 OR MORE ADDITIONAL CALENDAR DAYS OR 7 CALENDAR DAYS WHERE ITEM 23.9 APPLIES. PERMITTEES CAN INITIATE STABILIZATION BY:

A. PREPPING THE SOIL FOR VEGETATIVE OR NON-VEGETATIVE STABILIZATION; OR

B. APPLYING MULCH OR OTHER NON-VEGETATIVE PRODUCT TO THE EXPOSED SOIL AREA; OR

C. SEEDING OR PLANTING THE EXPOSED AREA; OR

D. STARTING ANY OF THE ACTIVITIES IN A - C ON A PORTION OF THE AREA TO BE STABILIZED, BUT NOT ON THE ENTIRE AREA; OR

E. FINALIZING ARRANGEMENTS TO HAVE STABILIZATION PRODUCT FULLY INSTALLED IN COMPLIANCE WITH THE APPLICABLE

DEADLINE FOR COMPLETING STABILIZATION. [MINN. R. 7090]

"IMPERVIOUS SURFACE" MEANS A CONSTRUCTED HARD SURFACE THAT EITHER PREVENTS OR RETARDS THE ENTRY OF WATER INTO THE SOIL AND CAUSES WATER TO RUN OFF THE SURFACE IN GREATER QUANTITIES AND AT AN INCREASED RATE OF FLOW THAN PRIOR TO DEVELOPMENT. EXAMPLES INCLUDE ROOFTOPS, SIDEWALKS, DRIVEWAYS, PARKING LOTS, AND CONCRETE, ASPHALT, OR GRAVEL ROADS, BRIDGES OVER SURFACE WATERS ARE CONSIDERED IMPERVIOUS SURFACES. [MINN. R. 7090]

"NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)" MEANS THE PROGRAM FOR ISSUING, MODIFYING, REVOKING, REISSUING, TERMINATING, MONITORING, AND ENFORCING PERMITS UNDER THE CLEAN WATER ACT, AS AMENDED (33 U.S.C. 1251 ET SEQ. SECTION 1342 AND 40 CFR PARTS 122, 123, 124 AND 450). [MINN. R. 7090]

"NATURAL BUFFER" MEANS AN AREA OF UNDISTURBED COVER SURROUNDING SURFACE WATERS WITHIN WHICH CONSTRUCTION ACTIVITIES ARE RESTRICTED. NATURAL BUFFER INCLUDES THE VEGETATION, EXPOSED ROCK, OR BARREN GROUND THAT EXISTS PRIOR TO COMMENCEMENT OF EARTH-DISTURBING ACTIVITIES. [MINN. R. 7090]

"NOTICE OF TERMINATION (NOT)" MEANS THE FORM (ELECTRONIC OR PAPER) REQUIRED FOR TERMINATING COVERAGE UNDER THE CONSTRUCTION GENERAL PERMIT. [MINN. R. 7090]

"OPERATOR" MEANS THE PERSON (USUALLY THE GENERAL CONTRACTOR), FIRM, MEANS OF EROSION PREVENTION AND SEDIMENT CONTROL, AND WATER QUALITY MANAGEMENT PRACTICES THAT ARE THE MOST EFFECTIVE AND PRACTICABLE MEANS OF TO DAY OPERATIONAL CONTROL AND/OR THE ABILITY TO MODIFY PROJECT PLANS AND SPECIFICATIONS RELATED TO THE SWPPP. THE PERMIT APPLICATION MUST LIST THE OPERATOR AS A PERMITTEE, SUBCONTRACTORS HIRED BY AND UNDER SUPERVISION OF THE GENERAL CONTRACTOR ARE NOT OPERATORS. [MINN. R. 7090]

"OWNER" MEANS THE PERSON, FIRM, GOVERNMENTAL AGENCY, OR OTHER ENTITY POSSESSING THE LAND ON WHICH THE CONSTRUCTION ACTIVITIES WILL OCCUR OR, IF THE CONSTRUCTION ACTIVITY IS FOR A LEASE, EASEMENT, OR MINERAL RIGHTS LICENSE HOLDER, THE PARTY OR INDIVIDUAL IDENTIFIED AS THE LEASE, EASEMENT OR MINERAL RIGHTS LICENSE HOLDER; OR THE CONTRACTING GOVERNMENT AGENCY RESPONSIBLE FOR THE CONSTRUCTION ACTIVITY. [MINN. R. 7090]

"PERMANENT COVER" MEANS SURFACE TYPES THAT WILL PREVENT SOIL FAILURE UNDER EROSION CONDITIONS. EXAMPLES INCLUDE: GRAVEL, CONCRETE, PERENNIAL COVER, OR OTHER LANDSCAPED MATERIAL THAT WILL PERMANENTLY ARREST SOIL EROSION. PERMITTEES MUST ESTABLISH A UNIFORM PERENNIAL VEGETATIVE COVER (I.E., EVENLY DISTRIBUTED, WITHOUT LARGE BARE AREAS) WITH A DENSITY OF 70 PERCENT OF THE NATIVE BACKGROUND VEGETATIVE COVER ON ALL AREAS NOT COVERED BY PERMANENT STRUCTURES, OR EQUIVALENT PERMANENT STABILIZATION MEASURES. PERMANENT COVER DOES NOT INCLUDE TEMPORARY BMPS SUCH AS WOOD FIBER BLANKET, MULCH, AND ROLLED EROSION CONTROL PRODUCTS. [MINN. R. 7090]

"PERMITTEES" MEANS THE PERSONS, FIRM, GOVERNMENTAL AGENCY, OR OTHER ENTITY IDENTIFIED AS THE OWNER AND OPERATOR ON THE APPLICATION SUBMITTED TO THE MPCA AND ARE RESPONSIBLE FOR COMPLIANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT. [MINN. R. 7090]

"PROJECT(S)" MEANS ALL CONSTRUCTION ACTIVITY PLANNED AND/OR CONDUCTED UNDER A PARTICULAR PERMIT, THE PROJECT OCCURS ON THE SITE OR SITES DESCRIBED IN THE PERMIT APPLICATION, THE SWPPP AND IN THE ASSOCIATED PLANS, SPECIFICATIONS AND CONTRACT DOCUMENTS. [MINN. R. 7090]

"PUBLIC WATERS" MEANS ALL WATER BASINS AND WATERCOURSES DESCRIBED IN MINN. STAT. SECT. 103G.005 SUBP. 15. [MINN. R. 7090]

"SEDIMENT CONTROL" MEANS METHODS EMPLOYED TO PREVENT SUSPENDED SEDIMENT IN STORMWATER FROM LEAVING THE SITE (E.G. SILT FENCES, COMPOST LOGS AND STORM DRAIN INLET PROTECTION). [MINN. R. 7090]

"STABILIZE", "STABILIZED", "STABILIZATION" MEANS THE EXPOSED GROUND SURFACE HAS BEEN COVERED BY APPROPRIATE MATERIALS SUCH AS MULCH, STAKED SOD, RIPRAP, EROSION CONTROL BLANKET, MATS OR OTHER MATERIAL THAT PREVENTS EROSION FROM OCCURRING. GRASS SEEDING, AGRICULTURAL CROP SEEDING OR OTHER SEEDING ALONE IS NOT STABILIZATION. MULCH MATERIALS MUST ACHIEVE APPROXIMATELY 90 PERCENT GROUND COVERAGE (TYPICALLY 2 TON/ACRE). [MINN. R. 7090]

"STORMWATER" MEANS PRECIPITATION RUNOFF, STORMWATER RUNOFF, SNOWMELT RUNOFF, AND ANY OTHER SURFACE RUNOFF AND DRAINAGE. [MINN. R. 7090]

"STEEP SLOPES" MEANS SLOPES THAT ARE 1:3 (V:H) (33.3 PERCENT) OR STEEPER IN GRADE. [MINN. R. 7090]

"STORM WATER POLLUTION PREVENTION PLAN (SWPPP)" MEANS A PLAN FOR STORMWATER DISCHARGE THAT INCLUDES ALL REQUIRED CONTENT UNDER IN SECTION 5 THAT DESCRIBES THE EROSION PREVENTION, SEDIMENT CONTROL AND WASTE CONTROL BMPS AND PERMANENT STORMWATER TREATMENT SYSTEMS. [MINN. R. 7090]

"SURFACE WATER OR WATERS" MEANS ALL STREAMS, LAKES, PONDS, MARSHES, WETLANDS, RESERVOIRS, SPRINGS, RIVERS, DRAINAGE SYSTEMS, WATERWAYS, WATERCOURSES, AND IRRIGATION SYSTEMS WHETHER NATURAL OR ARTIFICIAL, PUBLIC OR PRIVATE, EXCEPT THAT SURFACE WATERS DO NOT INCLUDE STORMWATER TREATMENT SYSTEMS CONSTRUCTED FROM UPLAND. THIS PERMIT DOES NOT CONSIDER STORMWATER TREATMENT SYSTEMS CONSTRUCTED IN WETLANDS AND MITIGATED IN ACCORDANCE WITH SECTION 22 AS SURFACE WATERS. [MINN. R. 7090]

"WATERS OF THE STATE" (AS DEFINED IN MINN. STAT. SECT. 115.01, SUBP. 22) MEANS ALL STREAMS, LAKES, PONDS, MARSHES, WATERCOURSES, WATERWAYS, WELLS, SPRINGS, RESERVOIRS, AQUIFERS, IRRIGATION SYSTEMS, DRAINAGE SYSTEMS AND ALL OTHER BODIES OR ACCUMULATIONS OF WATER, SURFACE OR UNDERGROUND, NATURAL OR ARTIFICIAL, PUBLIC OR PRIVATE, WHICH ARE CONTAINED WITHIN, FLOW THROUGH, OR BORDER UPON THE STATE OR ANY PORTION THEREOF. [MINN. STAT. 115.01, SUBP. 22]

"WATER QUALITY VOLUME" MEANS ONE (1) INCH OF RUNOFF FROM THE NET INCREASE IN IMPERVIOUS SURFACES CREATED BY THE PROJECT (CALCULATED AS AN INSTANTANEOUS VOLUME). [MINN. R. 7090]

"WETLANDS" (AS DEFINED IN MINN. R. 7050.0186, SUBP. 1A.B.) MEANS THOSE AREAS THAT ARE INUNDATED OR SATURATED BY SURFACE WATER OR GROUNDWATER AT A FREQUENCY AND DURATION SUFFICIENT TO SUPPORT, AND UNDER NORMAL CIRCUMSTANCES DO SUPPORT, A PREVALENCE OF VEGETATION TYPICALLY ADAPTED FOR LIFE IN SATURATED SOIL CONDITIONS. WETLANDS GENERALLY INCLUDE SWAMPS, MARSHES, BOGS, AND SIMILAR AREAS. CONSTRUCTED WETLANDS DESIGNED FOR WASTEWATER TREATMENT ARE NOT WATERS OF THE STATE. WETLANDS MUST HAVE THE FOLLOWING ATTRIBUTES:

- A PREDOMINANCE OF HYDRIC SOILS; AND
- INUNDATED OR SATURATED BY SURFACE WATER OR GROUNDWATER AT A FREQUENCY AND DURATION SUFFICIENT TO SUPPORT A PREVALENCE OF HYDROPHYTIC VEGETATION TYPICALLY ADAPTED FOR LIFE IN A SATURATED SOIL CONDITION; AND
- UNDER NORMAL CIRCUMSTANCES SUPPORT A PREVALENCE OF SUCH VEGETATION. [MINN. R. 7050.0186, SUBP. 1A.B]

NARRATIVE - PERMANENT STORMWATER TREATMENT SYSTEMS

PERMANENT STORMWATER MANAGEMENT FEATURES WILL INCLUDE RATE CONTROL BASINS.

SITE IMPERVIOUS AREAS	BEFORE CONSTRUCTION	AFTER CONSTRUCTION
TOTAL SITE AREA (ANALYSIS AREA)	26.28 ACRES	
TOTAL ESTIMATED IMPERVIOUS	0.67 ACRES	1.16 ACRES
TOTAL ESTIMATED PERVIOUS	25.61 ACRES	25.09 ACRES
APPROX. 0.49 ACRE INCREASE IN IMPERVIOUS		

TOTAL DISTURBED AREA

-2.81 ACRES

SITE MAP W/ EXISTING AND FINAL GRADES AND DESIGN CALCULATIONS

SEE "STORMWATER DRAINAGE REPORT" FOR EXISTING AND PROPOSED AREA MAPS, DENOTING DRAINAGE AREA BOUNDARIES, DIRECTIONS OF FLOW, AND DISCHARGE POINTS WHERE STORMWATER LEAVES THE SITE.

RECEIVING WATERS WITHIN ONE MILE

NAME OF WATER BODY	TYPE OF WATER BODY	SPECIAL WATER	IMPAIRED WATER
LARGE WETLAND (WETLAND 4)	WETLAND	NO	NO
ON-SITE SEDIMENTATION BASINS	BASIN	NO	NO

BUFFER TO SURFACE WATER

☐ YES ☐ NO ☐ N/A IF THE SITE DRAINS TO A SURFACE WATER, IS A 50-FT NATURAL BUFFER ADJACENT TO THE SURFACE WATER PRESERVED?

NOTE: NATURAL BUFFERS ARE NOT REQUIRED ADJACENT TO ROAD DITCHES, JUDICIAL DITCHES, COUNTY DITCHES, STORMWATER CONVEYANCE CHANNELS, STORM DRAIN INLETS, AND SEDIMENT BASINS.

A) YES, REDUNDANT PERIMETER CONTROL (SILT FENCE, BIO-ROLL LOGS, ETC.) IS PLACED IN AREAS THAT HAVE LESS THAN 50 FEET OF DISTANCE TO WETLAND EDGES.

TEMPORARY SEDIMENTATION BASINS

☐ YES ☐ NO ☐ N/A IF TEN (10) OR MORE ACRES OF DISTURBED SOIL DRAIN TO A COMMON LOCATION, IS A TEMPORARY SEDIMENT BASIN PROVIDED FOR TREATMENT OF THE RUNOFF BEFORE IT LEAVES THE CONSTRUCTION SITE OR ENTERS SURFACE WATERS?

A) BECAUSE THIS SITE IS WITHIN ONE MILE OF AN IMPAIRED WATER, THIS REQUIREMENT BECOMES FIVE (5) MILES. HOWEVER, IT IS NOT ANTICIPATED THAT, WITH ONLY 2.61 ACRES OF DISTURBED AREA, THAT OVER 5 ACRES WILL BE DISTURBED.

INFILTRATION FEASIBILITY

☒ YES ☐ NO ☐ N/A ARE THERE ANY INFILTRATION RESTRICTIONS FOR THE SITE (SEE 16.14 THROUGH 16.21)?

A) SEPTIC SOIL BORINGS WERE COLLECTED BY JOSH PUTT ON MARCH 20, 2024. THE 4 BORINGS SHOWED LINO LOAMY FINE SANDS (LH) AND SARTTELL FINE SANDS (SB). HOWEVER, THE MOTTLED SANDS HAVE VARIED FROM 898.1 TO 905.1 AS SUCH, INFILTRATION IS DEEMED INFEASIBLE DUE TO SITE GRADING AND THE FACT THAT THE BOTTOM OF INFILTRATION BASINS MUST BE 3 FEET ABOVE OF THE HIGHEST ANTICIPATED GROUNDWATER LEVEL (HAGWL).

ADDITIONAL STORMWATER MITIGATION MEASURES

☐ YES ☐ NO ARE THERE ANY STORMWATER MITIGATION MEASURES PER:

- ENVIRONMENTAL REVIEW DOCUMENT?
- ENDANGERED SPECIES REVIEW?
- ARCHAEOLOGICAL REVIEW?
- OTHER LOCAL, STATE OR FEDERAL REVIEW?

IF YES TO ANY OF THE ABOVE, DESCRIBE THE MITIGATION MEASURES. FOR PURPOSES OF THIS PERMIT, MITIGATION MEASURES MEANS ACTIONS NECESSARY TO AVOID, MINIMIZE, OR MITIGATE FOR IMPACTS RELATED TO EROSION PREVENTION, SEDIMENT CONTROL, THE PERMANENT STORMWATER TREATMENT SYSTEM, POLLUTION PREVENTION MANAGEMENT MEASURES AND DISCHARGES ASSOCIATED WITH THE PROJECT'S CONSTRUCTION ACTIVITY. [MINN. R. 7090]

LARGE WETLAND (WETLAND 4)

APPROVED TMDL PLAN FOR: NONE
ADDITIONAL IMPAIRMENTS: NONE
NEW IMPAIRMENTS: NONE

DRAWN BY:	DESIGN BY:
M.Q.A.	Q.M.A.
CHKCD BY:	PROJ. NO.
M.Q.A.	25-2215

ORIGINAL DATE: AUGUST 25, 2025

DATE	REVISION DESCRIPTION

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

QASEM M. ABUGHAZLEH
LIC. NO. 56299
DATE: 11.11.2025

PAJTSHENG & NTXHI ESTATES

LINWOOD TOWNSHIP, MINNESOTA

STORM WATER POLLUTION PREVENTION PLAN

PREPARED FOR:
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