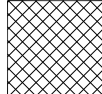


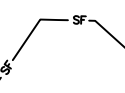
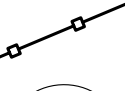
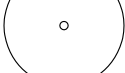


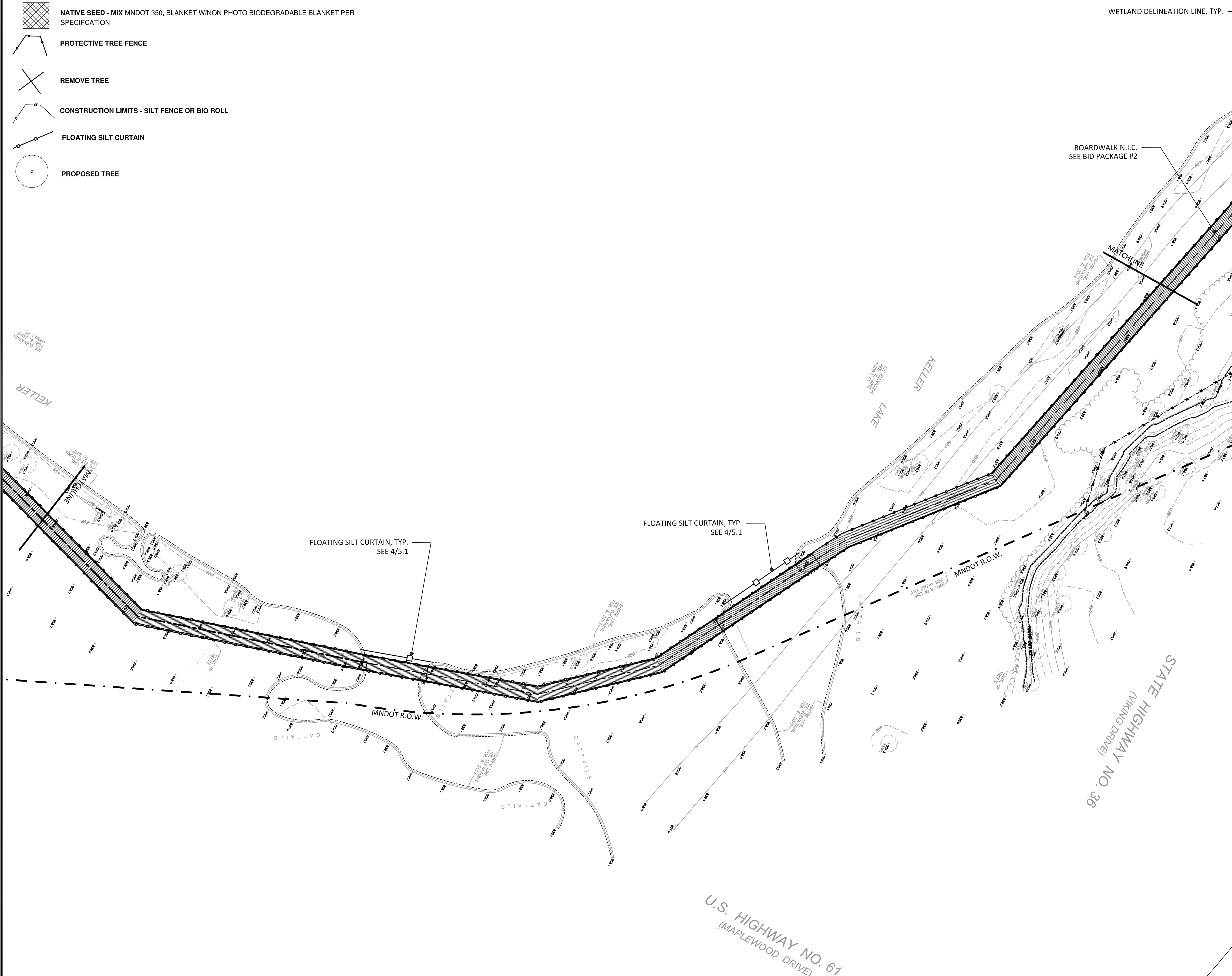
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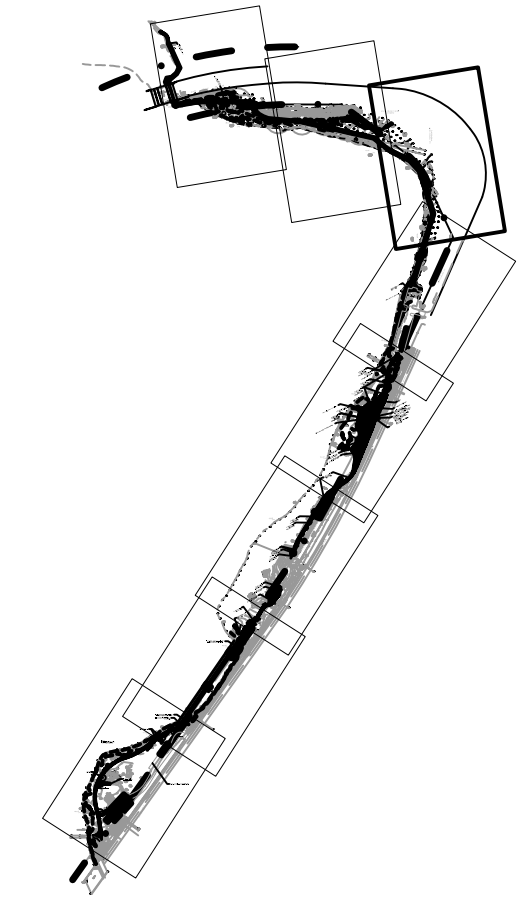
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TEL (651)748-2500  
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brett.blumer@co.ramsey.mn.us  
651.748.2500

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota.

Registration: Landscape Architect  
State: Minnesota  
Number: 42944  
Signature: B. Gus Blumer

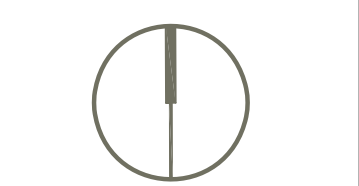
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DESIGN PHASE:

**BID DOCUMENTS**

**KELLER LAKE TRAIL PROJECT**  
**LOWER KELLER TO SPOON LAKE**  
**BID PACKAGE #1 - BITUMINOUS TRAIL PAVING**  
RAMSEY COUNTY PARKS AND RECREATION DEPARTMENT  
KELLER REGIONAL PARK

DATE: MAY 2013  
DESIGNED BY: BGB  
DRAWN BY: BGB  
CHECKED BY: SAY



TITLE

SITE PLAN

**BD 2.6**

SHEET 8 OF 30

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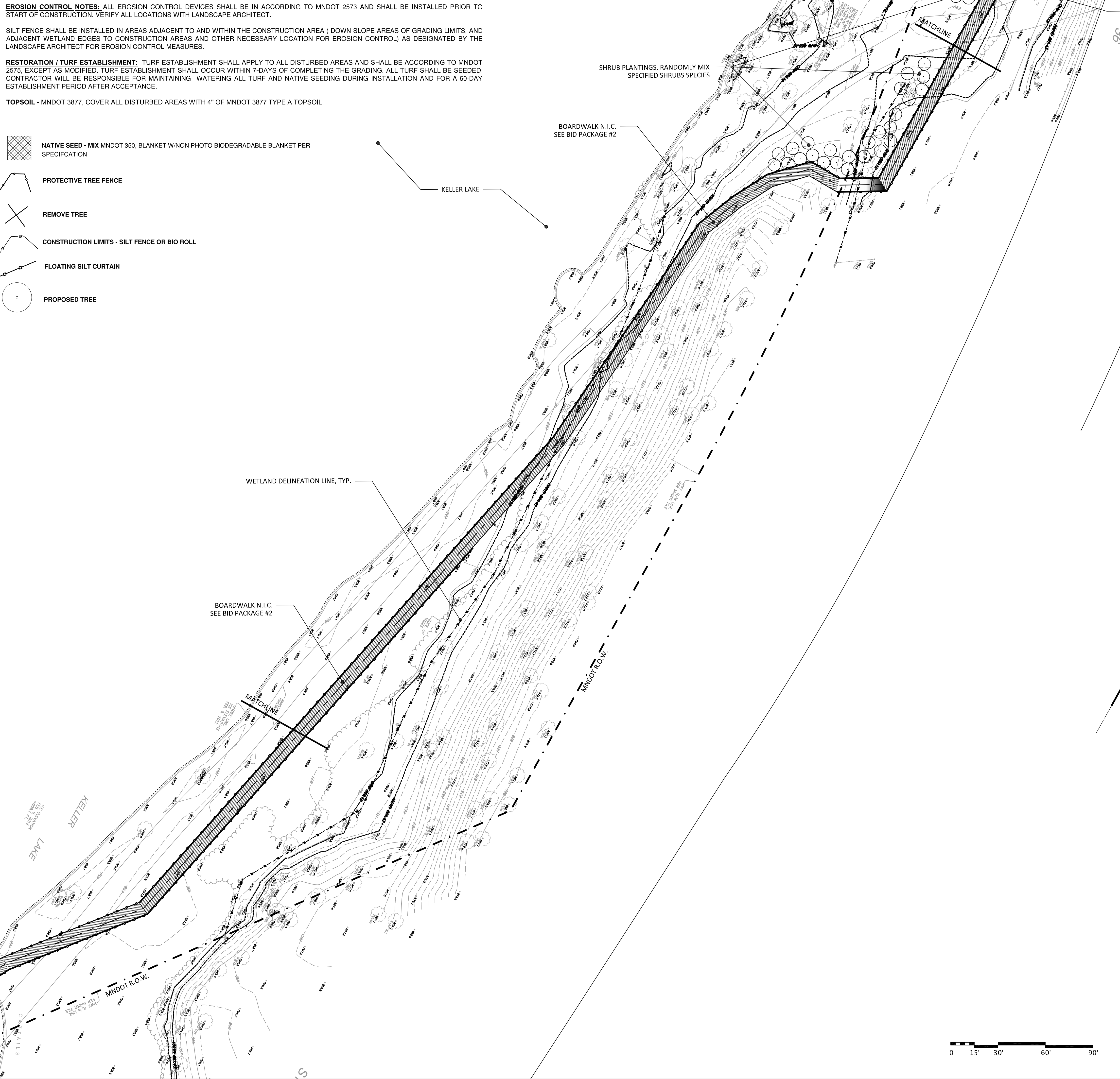
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SHRUB PLANTINGS, RANDOMLY MIX SPECIFIED SHRUBS SPECIES

BOARDWALK N.I.C. SEE BID PACKAGE #2

KELLER LAKE

WETLAND DELINEATION LINE, TYP.

BOARDWALK N.I.C. SEE BID PACKAGE #2

MATCHLINE

MNDOT R.O.W.



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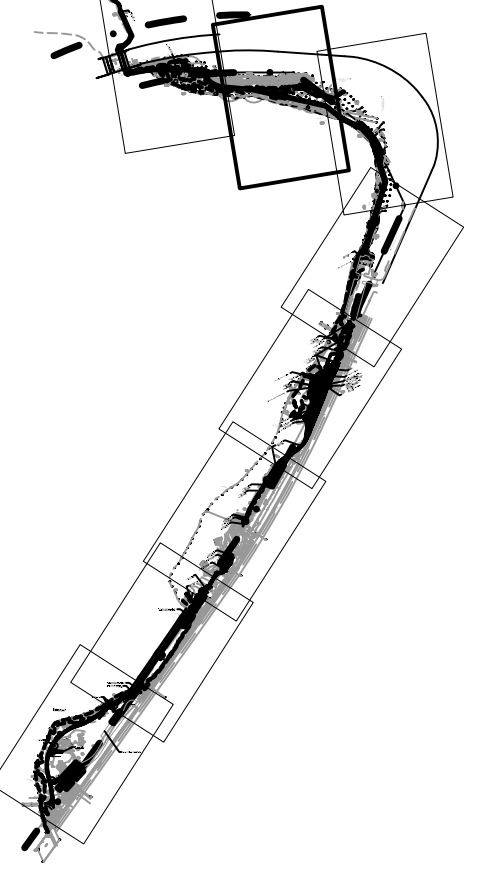
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Green Spaces • Fun Places • Active Lives

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brett.blumer@co.ramsey.mn.us  
651.748.2500

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota.

Registration: Landscape Architect  
State: Minnesota  
Number: 42944  
Signature: B. Gus Blumer

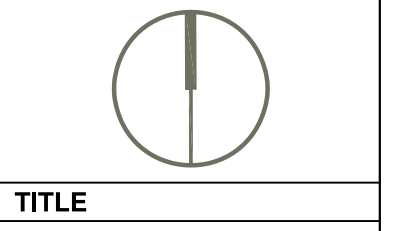
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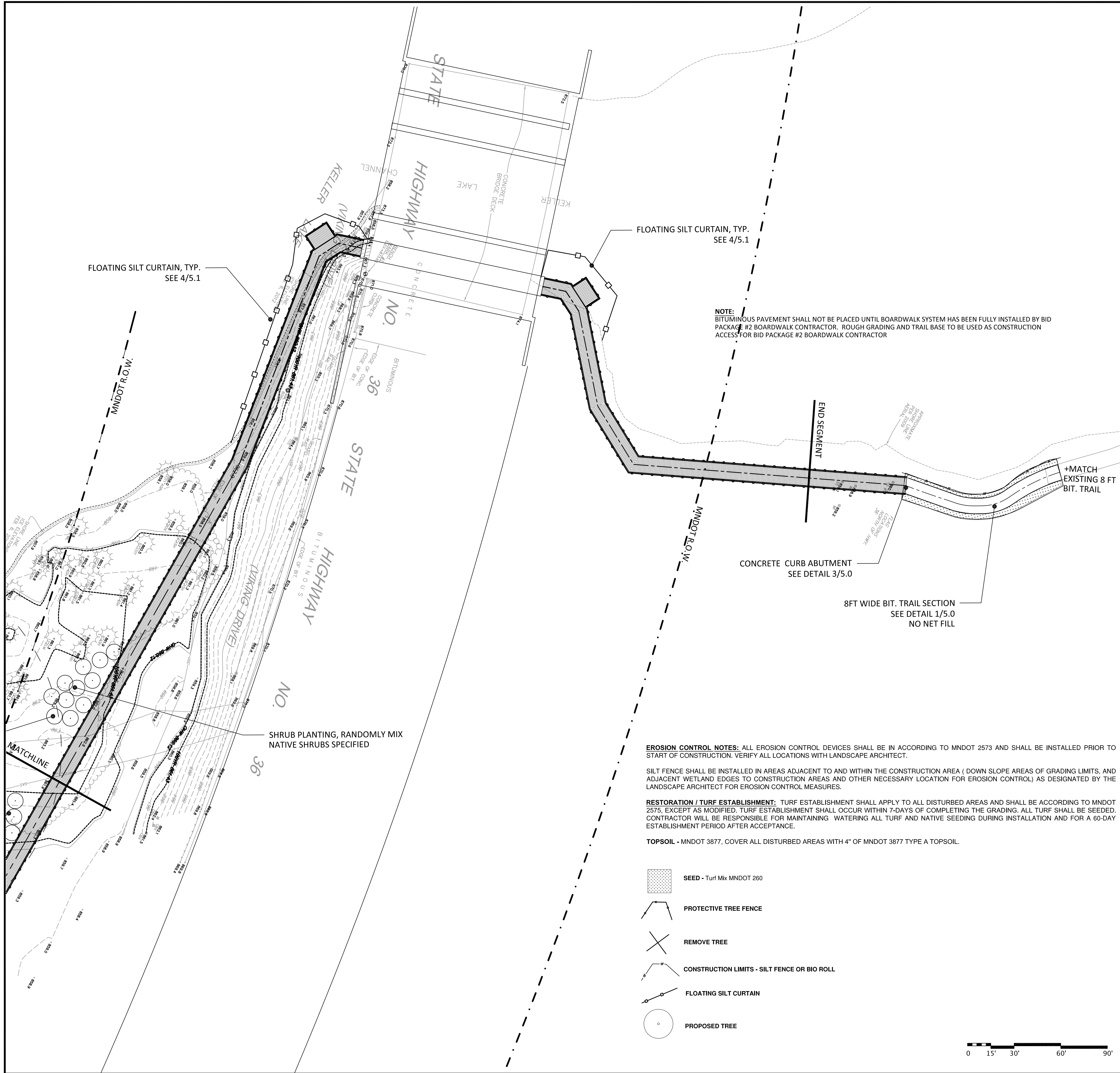
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KELLER REGIONAL PARK**

DATE: MAY 2013  
DESIGNED BY: BGB  
DRAWN BY: BGB  
CHECKED BY: SAY



TITLE  
SITE PLAN

**BD 2.7**



FLOATING SILT CURTAIN, TYP. SEE 4/5.1

NOTE: BITUMINOUS PAVEMENT SHALL NOT BE PLACED UNTIL BOARDWALK SYSTEM HAS BEEN FULLY INSTALLED BY BID PACKAGE #2 BOARDWALK CONTRACTOR. ROUGH GRADING AND TRAIL BASE TO BE USED AS CONSTRUCTION ACCESS FOR BID PACKAGE #2 BOARDWALK CONTRACTOR

CONCRETE CURB ABUTMENT SEE DETAIL 3/5.0

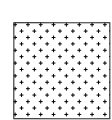
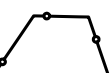
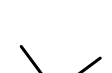

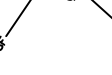

8FT WIDE BIT. TRAIL SECTION SEE DETAIL 1/5.0 NO NET FILL

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N.I.C.= NOT IN CONTRACT - REFER TO BID PACKAGE #2 FOR THE BOARDWALK AND BOARDWALK FOUNDATIONS

**ASPHALT ROADWAY, PARKING LOTS AND OTHER ITEMS - LAYOUT NOTES:** BITUMINOUS TRAIL, CONCRETE CURBS, AND CONSTRUCTION LIMITS SHALL BE FIELD STAKED BY CONTRACTOR. CONTRACTOR WILL NEED APPROVAL BY RAMSEY COUNTY LANDSCAPE ARCHITECT PRIOR TO COMMENCING CONSTRUCTION. COORDINATE WITH BID PACK #2 CONTRACTOR

**SPOT GRADES & DRAINAGE REQUIREMENTS:** ALL SPOT ELEVATIONS REPRESENT FINISHED SURFACE GRADE UNLESS OTHERWISE NOTED.

THE CONTRACTOR SHALL REVIEW GRADING WITH THE LA-ENG.. PRIOR TO START TO ENSURE PROPER DRAINAGE. THE INTENT OF ALL PROPOSED SPOT GRADES AND GRADING IS TO MATCH EXISTING GRADES ADJACENT TO NEW CONSTRUCTION TO ENSURE PROPER DRAINAGE AND BLENDING OF NEW GRADES WITH EXISTING ONES. MAX. SLOPES SHALL NOT BE GREATER THAN 4:1 UNLESS OTHERWISE NOTED ON THE PLAN.

**SUB CUT REQUIREMENTS:** GRADES AS SHOWN ARE TO FINISH GRADE. CONTRACTOR SHALL SUB CUT IN ACCORDANCE WITH PAVEMENT SECTIONS.

CONTRACTOR SHALL BE RESPONSIBLE FOR ANY SURVEYING RELATING TO SITE GRADING. THE CONTRACTOR SHALL FIELD VERIFY ALL GRADES WITH THE LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER OF ANY DISCREPANCIES OR VARIATION FROM PLAN.

**TOPSOIL STRIPPING, STOCKPILING AND RE-SPREADING REQUIREMENTS:** TOPSOIL SHALL BE STRIPPED FROM ALL DISTURBED AREAS FROM COMMON EXCAVATION AND SHALL BE SALVAGED AND STOCKPILED. THE LANDSCAPE ARCHITECT SHALL DETERMINE PLACEMENT OF THE STOCKPILE PRIOR TO CONSTRUCTION.

EXISTING TOPSOIL FROM COMMON EXCAVATION SHALL BE SALVAGED AND STOCKPILED IN THE TEMPORARY STORAGE AREA INDICATED ON THE PLANS. SALVAGED TOPSOIL SHALL BE FREE OF CONTAMINANTS & DEBRIS ROOTS. WEEDS AND ROCK OVER 1/2" IN SIZE AND FOREIGN MATERIAL.

CONTRACTOR SHALL STRIP, STOCKPILE & RE-SPREAD SUFFICIENT TOPSOIL TO PROVIDE A MINIMUM 4 INCH DEPTH (COMPACTED) TO ALL DISTURBED AREAS TO BE SEEDED, UNLESS OTHERWISE NOTED. ALL DISTURBED AREAS TO RECEIVED SEED/TURF ESTABLISHMENT AND ADD SOIL AMENDMENTS FOR OPTIMUM PLANT GROWTH. TOPSOIL SHALL BE IN A RELATIVELY DRY STATE WHEN PLACED. FINE GRADE TOPSOIL TO ELIMINATE ROUGH OR LOW SPOTS. MANUALLY SPREAD TOPSOIL CLOSE TO TREES, PLANTS, AND PAVEMENT TO PREVENT DAMAGE.

EXCESS STOCKPILE MATERIAL THAT IS NOT SUITEABLE FOR REUSE SHALL BE DISPOSED OFF SITE BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL STOCKPILE AREAS AFTER MATERIAL IS REMOVED.

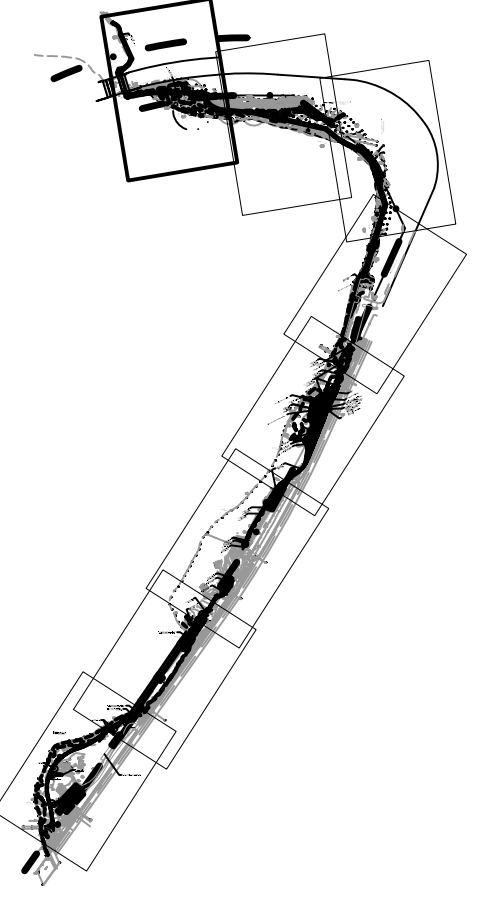
IMPORTED TOPSOIL SHALL BE PLACED IN AREAS WITH INADEQUATE TOPSOIL AS DETERMINED IN THE FIELD BY OWNER'S REPRESENTATIVE. CLEAN TOPSOIL IMPORT SHALL CONFORM TO MNDOT 3877 TYPE A REQUIREMENTS

**SILT AND TREE PROTECTIVE FENCE:** CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING SILT FENCE PER PLAN PRIOR TO CONSTRUCTION. SILT FENCE LOCATIONS SHALL BE REVIEWED PRIOR TO CONSTRUCTION.

CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL STORM DRAIN INLETS

CONTRACTOR SHALL ERECT AND MAINTAIN PROTECTIVE FENCING FOR EXISTING TREES THAT ARE TO REMAIN AND THAT ARE NEAR THE CONSTRUCTION ZONE. OWNER WILL WALK THE SITE WITH THE CONTRACTOR PRIOR TO ROUGH GRADING TO IDENTIFY TREES TO BE PROTECTED TREE PROTECTION INCLUDING PROTECTIVE FENCING SHALL BE CONSIDERED INCIDENTAL TO THE GRADING WORK AND SHOULD BE INCLUDED IN THE CONTRACTORS BID PRICE FOR THAT WORK REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

**SHEET KEY**



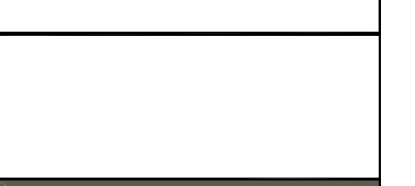
**NOTE:** Prior to any excavation, the contractor shall verify the location of all underground utilities.

Call 48 hours prior to digging.

**GOPHER STATE ONE CALL**  
Metro Area: 651-454-8388  
Mn. Toll Free: 1-800-252-1166



**RAMSEY COUNTY  
PARKS AND RECREATION**  
2015 N. VAN DYKE STREET  
MAPLEWOOD, MN 55109  
TEL: (651) 748-2500  
FAX: (651) 748-2508



**CONTACT INFORMATION:**  
B. Gus Blumer, Landscape Architect  
2015 N. Van Dyke Street  
Maplewood, MN 55109  
brett.blumer@co.ramsey.mn.us  
651.748.2500

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota.

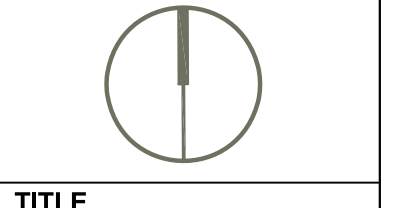
Registration: Landscape Architect  
State: Minnesota  
Number: 42344  
Signature: B. Gus Blumer

NO.	DATE:	DESCRIPTION:
1	X/Y/ZZ	X DOCUMENTS

DESIGN PHASE:  
**BID DOCUMENTS**

**KELLER LAKE TRAIL PROJECT  
LOWER KELLER TO SPOON LAKE  
BID PACKAGE #1 - BITUMINOUS TRAIL PAVING**  
RAMSEY COUNTY PARKS AND RECREATION DEPARTMENT  
KELLER REGIONAL PARK

DATE: MAY 2013  
DESIGNED BY: BGB  
DRAWN BY: BGB  
CHECKED BY: SAY



TITLE  
**SITE PLAN**

**BD 2.8**

SHEET 10 OF 30



**RAMSEY COUNTY PARKS DEPARTMENT  
KELLER LAKE TRAIL PROJECT  
STORMWATER POLLUTION PREVENTION PLAN**

**PROJECT DESCRIPTION/LOCATION**

THE KELLER LAKE TRAIL PROJECT ENTAILS THE CONSTRUCTION OF A COMBINED PERMEABLE BITUMINOUS / BOARDWALK RECREATIONAL TRAIL FOR PEDESTRIAN AND BICYCLE TRAFFIC. THE TRAIL WILL RUN ALONG THE EAST BANKS OF KELLER AND SPOON LAKES IN THE CITY OF MAPLEWOOD FROM THE LOWER KELLER PICNIC AREA OFF HWY 61, UNDER A NEW HIGHWAY 36 BRIDGE AT THE KELLER LAKE CHANNEL, AND ENDING AT THE SPOON LAKE (EAST) PARK AREA.

**CONSTRUCTION ACTIVITY INFORMATION**

TOTAL PROJECT AREA = 2.65 ACRES  
TOTAL AREA OF DISTURBANCE = 2.15 ACRES  
IMPERVIOUS AREA = NO ADDITIONAL IMPERVIOUS SURFACE WILL BE CREATED DURING THIS PROJECT

**DATES OF CONSTRUCTION:**

PROJECTED CONSTRUCTION START DATE: AUGUST 1, 2013 CONSTRUCTION END DATE: SEPTEMBER 30, 2013

**WATERSHED DISTRICTS:**

RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

**RECEIVING WATERS:**

KELLER / SPOON LAKE (#62-0010)

- KELLER LAKE IS LISTED AS IMPAIRED FOR NUTRIENT/EUTROPHICATION BIOLOGICAL INDICATORS AND PERFLUOROOCTANE SULFONATE (PFOS) IN FISH TISSUE

**PROJECT CONTACTS**

THE PROJECT SUPERVISOR AND CONTRACTOR ARE RESPONSIBLE FOR IMPLEMENTATION OF THE SWPPP AND INSTALLATION, INSPECTION AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMP'S BEFORE AND DURING CONSTRUCTION. RAMSEY COUNTY PARK AND RECREATION DEPARTMENT STAFF IS ALSO AVAILABLE FOR ASSISTANCE.

**NAME ORGANIZATION DUTY CONTACT INFORMATION**

BRETT BLUMER RAMSEY COUNTY PARKS PROJECT SUPERVISOR OFFICE :  
651-748-2500  
BRETT.BLUMER@CO.RAMSEY.MN.US

ALAN RUPNOW RAMSEY COUNTY PUBLIC WORKS SWPPP / EROSION CONTROL COORDINATOR OFFICE: 651-266-7162  
MOBILE: 651-755-4151  
ALAN.RUPNOW@CO.RAMSEY.MN.US

(CONTRACTOR FOREMAN NAME)

(CONTRACTING COMPANY)

EROSION CONTROL SUPERVISOR OFFICE:

MOBILE:  
EMAIL

Name	Organization	Duty	Contact Information
Brett Blumer	Ramsey County Parks	Project Supervisor	office : 651-748-2500 brett.blumer@co.ramsey.mn.us
Alan Rupnow	Ramsey County Public Works	SWPPP / Erosion Control Coordinator	office: 651-266-7162 mobile: 651-755-4151 alan.rupnow@co.ramsey.mn.us
(Contractor Foreman Name)	(Contracting Company)	Erosion Control Supervisor	office: mobile: email
Paige Ahlborg	RWMWD	Permit Coordinator	651-792-7964 paige.ahlborg@rwmwd.org

THE CONTRACTOR SHALL:

1. SUBMIT THE NPDES PERMIT APPLICATION AND COMPLY WITH ALL REQUIREMENTS
2. COMPLY WITH ALL SWPPP REQUIREMENTS
3. OVERSEE MAINTENANCE PRACTICES IDENTIFIED IN THE SWPPP
4. FILE THE NOTICE OF TERMINATION

AFTER NOTICE OF TERMINATION HAS BEEN FILED, OWNER SHALL BE RESPONSIBLE FOR ASSIGNING RESPONSIBILITY FOR PERMANENT MAINTENANCE MEASURES

**EROSION PREVENTION PRACTICES**

APPROPRIATE CONSTRUCTION PRACTICES WILL BE USED TO MINIMIZE EROSION. ALL EXPOSED SOIL AREAS (INCLUDING STORM WATER POND SIDE SLOPES OR EXPOSED SOILS WITH A POSITIVE SLOPE TO A STORM WATER CONVEYANCE WITH A CONTINUOUS POSITIVE SLOPE WITHIN 200 LINEAL FEET OF A SURFACE WATER, WILL HAVE TEMPORARY EROSION PROTECTION OR PERMANENT COVER FOR THE EXPOSED SOIL AREAS YEAR ROUND, AND WITHIN 7 DAYS OF LAST BEING WORKED.

THE NORMAL WETTED PERIMETER OF TEMPORARY OR PERMANENT DRAINAGE DITCHES WILL BE STABILIZED WITHIN 200 FEET OF THE PROPERTY EDGE, OR POINT OF DISCHARGE. STABILIZATION WILL BE COMPLETED WITHIN 24 HOURS OF CONNECTION.

PIPE OUTLETS MUST BE PROVIDED WITH TEMPORARY OR PERMANENT ENERGY DISSIPATION WITHIN 24 HOURS OF CONNECTION TO A SURFACE WATER.

**SEDIMENT CONTROL PRACTICES**

SEDIMENT CONTROL PRACTICES WILL BE ESTABLISHED ON ALL DOWN GRADIENT PERIMETER BEFORE ANY UPGRADE LAND DISTURBING ACTIVITIES BEGIN.

ALL STORM DRAIN INLETS WILL BE PROTECTED BY APPROPRIATE BMP'S DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED. DURING ANY ACTIVITIES THAT HAVE THE POTENTIAL TO CREATE CONCRETE SLURRY/WASHOUT RUN-OFF, STANDARD INLET PROTECTION BMP'S ARE INSUFFICIENT. THE CONTRACTOR MUST PREVENT ALL CEMENTITIOUS MATERIAL FROM ENTERING THE STORM SEWER SYSTEM AND/OR SURFACE WATERS.

TEMPORARY SOIL STOCKPILES WILL HAVE PERIMETER CONTROLS, AND WILL NOT BE PLACED IN STORM WATER CONVEYANCES OR SURFACE WATERS.

VEHICLE TRACKING OF SEDIMENT FROM THE CONSTRUCTION SITE WILL BE MINIMIZED USING THE APPROPRIATE BMP'S. STREET SWEEPING (WET SWEEPER WITH A VACUUM ASSISTED PICK-UP BROOM) WILL BE USED IF SUCH BMP'S ARE NOT ADEQUATE TO PREVENT SEDIMENT FROM BEING TRACKED ONTO THE STREET.

**EROSION AND SEDIMENT CONTROL SEQUENCING**

GRADING AND UTILITY- SILT FENCE, CONSTRUCTION ENTRANCE, AND/OR OTHER PERIMETER EROSION CONTROL MEASURE WILL BE INSTALLED PRIOR TO THE START OF ANY GRADING AND LAND DISTURBING ACTIVITY. TOPSOIL STOCKPILES WILL BE STORED AND PROTECTED ON SITE. TEMPORARY STABILIZATION WILL BE ESTABLISHED BY SEED AND MULCH, EROSION CONTROL BLANKET, AND SOD AS SPECIFIED IN PLAN SHEETS PRIOR TO PROJECT COMPLETION.

**EROSION AND SEDIMENT CONTROL ESTIMATED QUANTITIES**

Item	Unit	Estimated Quantity
Silt fence/ bio-log	LF	3500
Flotation Silt Curtain (Still water type)	LF	800
Street Sweeper	Hour	40
Storm Drain Inlet Protection	Each	5
Erosion Control Supervisor	L.S.	1

**POLLUTION PREVENTION MANAGEMENT MEASURES**

**SOLID WASTE:** COLLECTED SEDIMENT, ASPHALT, CONCRETE MILLINGS, FLOATING DEBRIS, PAPER, PLASTIC, FABRIC, CONSTRUCTION AND DEMOLITION DEBRIS AND OTHER WASTES MUST BE DISPOSED OF PROPERLY AND MUST COMPLY WITH MPCA REGULATIONS.

**AIRBORNE WASTE:** CONCRETE MAINTENANCE PROJECTS ARE CAPABLE OF PRODUCING LARGE AMOUNTS OF POLLUTING DUST AS A RESULT OF CUTTING AND GRINDING OPERATIONS. AIRBORNE POLLUTANTS HAVE THE POTENTIAL TO CONTAMINATE LOCAL WATER RESOURCES AS WELL AS RESULT IN A PUBLIC NUISANCE AND HEALTH HAZARD. ALL CONCRETE DUST PRODUCTIONS WILL BE MINIMIZED BY USING EQUIPMENT WITH WETTING CAPABILITY OR DUST PRODUCTION WILL BE MITIGATED USING AIR MISTING EQUIPMENT.

**HAZARDOUS WASTE:** OIL, GASOLINE, PAINT, AND ANY HAZARDOUS SUBSTANCES MUST BE PROPERLY STORED, INCLUDING SECONDARY CONTAINMENT TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. RESTRICTED ACCESS TO STORAGE AREAS MUST BE PROVIDED TO PREVENT VANDALISM. STORAGE AND DISPOSAL MUST BE IN COMPLIANCE WITH MPCA REGULATIONS.

**EQUIPMENT ON BOARDWALK INSTALLATION:** THE CONTRACTOR SHOULD HAVE SPILL KITS KEPT WITHIN EASY ACCESS TO ANY EQUIPMENT OPERATING ON OR NEXT TO THE LAKE AND WETLAND AREAS TO PREVENT/REDUCE NEGATIVE IMPACTS TO WATER RESOURCES FROM SPONTANEOUS LEAKS OR FLUID LINE BREAKAGES.

**EXTERNAL WASHING AND FUELING OF TRUCKS AND EQUIPMENT:** MUST BE LIMITED TO A DEFINED AREA OF THE SITE. RUNOFF MUST BE CONTAINED AND WASTE PROPERLY DISPOSED OF. NO ENGINE DEGREASING ALLOWED ON SITE.

**SANITARY WASTE:** ANY PORTABLE SANITARY FACILITIES INSTALLED AS PART OF THE PROJECT SHALL BE PLACED OUTSIDE OF HTE SENSITIVE AREAS OF THE PROJECT AND PROPERLY SECURED TO PREVENT TIPPING AND SPILLING

**INSPECTIONS AND MAINTENANCE**

INSPECTIONS WILL BE CONDUCTED ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS.

INSPECTIONS AND MAINTENANCE RECORDS WILL BE RETAINED ON SITE WITH THE SWPPP.

ALL PERIMETER CONTROL BMP'S SUCH AS SILT FENCE, COMPOST LOGS, AND BIOROLLS MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/3 THE HEIGHT OF THE FENCE. THESE REPAIRS MUST BE MADE WITHIN 24 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS. BMP'S USED AS SLURRY CONTAINMENT MUST BE CLEANED OUT DAILY.

CONSTRUCTION SITE VEHICLE EXIT LOCATIONS MUST BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING ONTO PAVED SURFACES. TRACKED SEDIMENT MUST BE REMOVED FROM ALL OFF-SITE PAVED SURFACES, WITHIN 24 HOURS OF DISCOVERY.

**CONCRETE MANAGEMENT**

OPERATIONS THAT HAVE THE POTENTIAL TO GENERATE CONCRETE SLURRY AND DUSTS WILL REQUIRE CONCURRENT MONITORING AS PART OF THE QUALITY ASSURANCE AND CONTROL PROGRAM, AND DOCUMENTATION OF PERFORMANCE OF CONTROL MEASURES. THE EROSION CONTROL SUPERVISOR MUST HAVE THE AUTHORITY TO IMMEDIATELY CURTAIL ILLICIT OPERATIONS AND AMEND THE SWPPP UNTIL ACCEPTABLE CONTAINMENT IS ACHIEVED, USING A MINIMUM CONTROL PERFORMANCE MEASURES OF ZERO LIQUID WASTE DISCHARGE, PH ABATEMENT TO NEAR 7, TURBIDITY REDUCTION TO VISIBLY CLEAR WATER, AND OPACITY MEASUREMENTS LESS THAN 20 PERCENT OF NATURAL BACKGROUND.

WASHOUT OF PUMPER, MIXER, AND READY MIX MACHINES, EQUIPMENT MAINTENANCE, WASHOFF OR PUMPER, MIXER, PAVER, SLIP FORMER AND READY MIX MACHINES, TOOLS, AND EQUIPMENT

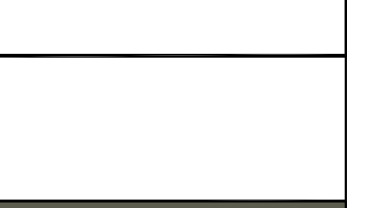
THE CONTRACTOR SHALL USE COMMON SENSE TO PREVENT LIQUID CEMENTITIOUS WASTES FROM CONTACTING SURFACE WATERS AND SOILS TO BE ULTIMATELY VEGETATED. THIS MAY BE ACCOMPLISHED FOLLOWING MN/DOT GUIDANCE DOCUMENTS LOCATED AT

HTTP://WWW.DOT.STATE.MN.US/ENVIRONMENT/PDF/CONCRETE-WASHOFF.PDF

ADDITIONAL SUPPORT AND TECHNICAL ADVICE MAY BE OBTAINED FROM THE SWPPP COORDINATOR LISTED ABOVE.



2015 N. VAN DYKE STREET  
MAPLEWOOD, MN 55109  
TEL: (651) 748-2500  
FAX: (651) 748-2508



**CONTACT INFORMATION:**  
B. Gus Blumer, Landscape Architect  
6515 N. Van Dyke Street  
Maplewood, MN 55109  
brett.blumer@co.ramsey.mn.us  
651.748.2500

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota.

Registration: Landscape Architect  
State: Minnesota  
Number: 42844  
Signature: B. Gus Blumer

NO. DATE: DESCRIPTION:  
1 X/Y/ZZ X DOCUMENTS

DESIGN PHASE:  
**BID DOCUMENTS**

**KELLER LAKE TRAIL PROJECT  
LOWER KELLER TO SPOON LAKE  
BID PACKAGE #1 - BITUMINOUS TRAIL PAVING**

RAMSEY COUNTY PARKS AND RECREATION DEPARTMENT  
KELLER REGIONAL PARK

DATE: MAY 2013

DESIGNED BY: BGB  
DRAWN BY: BGB  
CHECKED BY: SAY

TITLE  
SWPPP KEY PLAN

**BD 3.0**

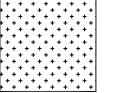





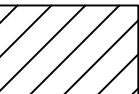
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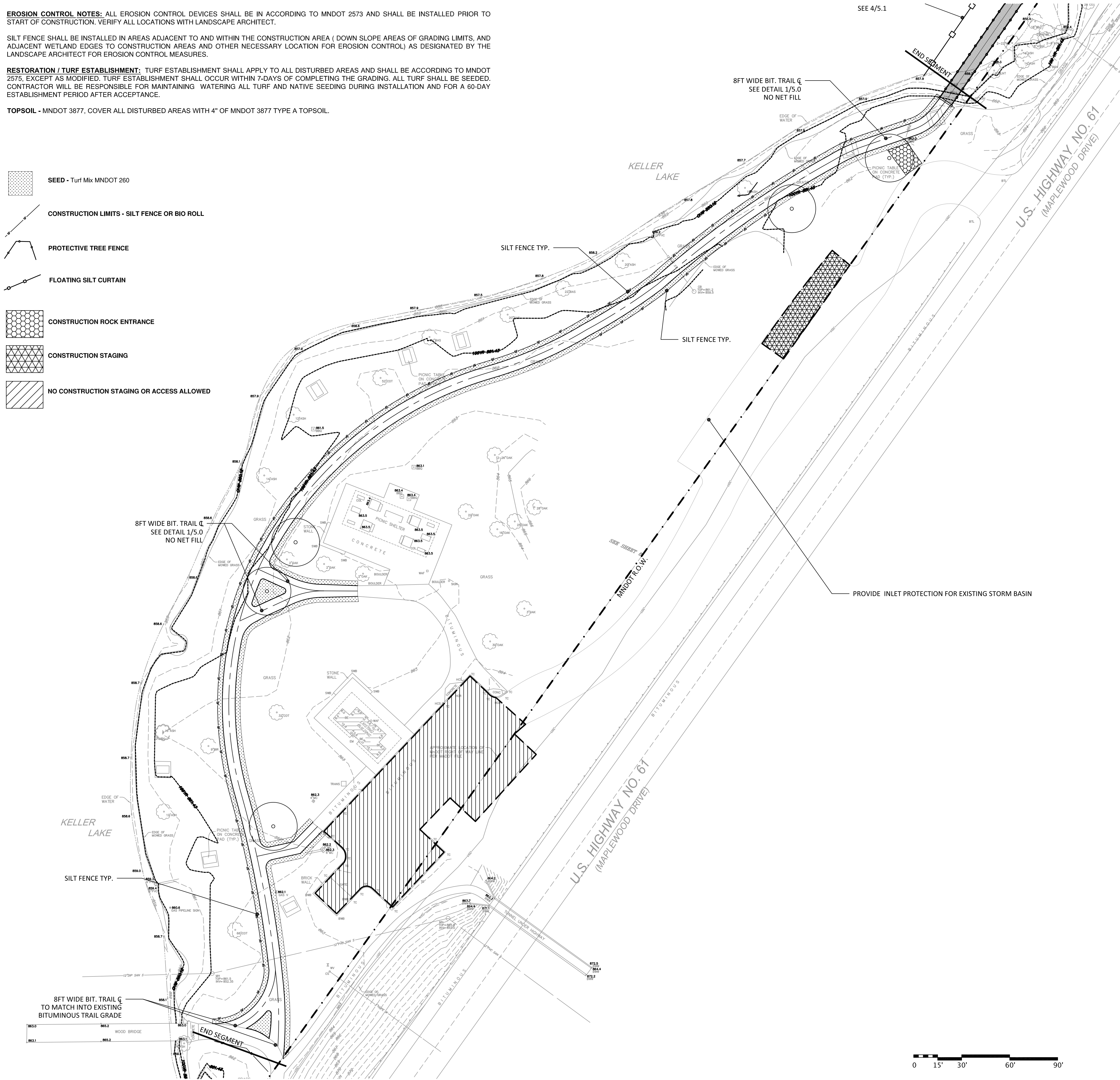
**EROSION CONTROL NOTES:** ALL EROSION CONTROL DEVICES SHALL BE IN ACCORDING TO MNDOT 2573 AND SHALL BE INSTALLED PRIOR TO START OF CONSTRUCTION. VERIFY ALL LOCATIONS WITH LANDSCAPE ARCHITECT.

SILT FENCE SHALL BE INSTALLED IN AREAS ADJACENT TO AND WITHIN THE CONSTRUCTION AREA (DOWN SLOPE AREAS OF GRADING LIMITS, AND ADJACENT WETLAND EDGES TO CONSTRUCTION AREAS AND OTHER NECESSARY LOCATION FOR EROSION CONTROL) AS DESIGNATED BY THE LANDSCAPE ARCHITECT FOR EROSION CONTROL MEASURES.

**RESTORATION / TURF ESTABLISHMENT:** TURF ESTABLISHMENT SHALL APPLY TO ALL DISTURBED AREAS AND SHALL BE ACCORDING TO MNDOT 2575, EXCEPT AS MODIFIED. TURF ESTABLISHMENT SHALL OCCUR WITHIN 7-DAYS OF COMPLETING THE GRADING. ALL TURF SHALL BE SEEDED, CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING WATERING ALL TURF AND NATIVE SEEDING DURING INSTALLATION AND FOR A 60-DAY ESTABLISHMENT PERIOD AFTER ACCEPTANCE.

**TOPSOIL -** MNDOT 3877, COVER ALL DISTURBED AREAS WITH 4" OF MNDOT 3877 TYPE A TOPSOIL.

-  SEED - Turf Mix MNDOT 260
-  CONSTRUCTION LIMITS - SILT FENCE OR BIO ROLL
-  PROTECTIVE TREE FENCE
-  FLOATING SILT CURTAIN
-  CONSTRUCTION ROCK ENTRANCE
-  CONSTRUCTION STAGING
-  NO CONSTRUCTION STAGING OR ACCESS ALLOWED



SEE 4/5.1

8FT WIDE BIT. TRAIL Q SEE DETAIL 1/5.0 NO NET FILL

SILT FENCE TYP.

SILT FENCE TYP.

8FT WIDE BIT. TRAIL Q SEE DETAIL 1/5.0 NO NET FILL

PROVIDE INLET PROTECTION FOR EXISTING STORM BASIN

**GENERAL SWPPP NOTES:**

**EROSION PREVENTION PRACTICES**  
 APPROPRIATE CONSTRUCTION PRACTICES WILL BE USED TO MINIMIZE EROSION. ALL EXPOSED SOIL AREAS (INCLUDING STORM WATER POND SIDE SLOPES OR EXPOSED SOILS WITH A POSITIVE SLOPE TO A STORM WATER CONVEYANCE WITH A CONTINUOUS POSITIVE SLOPE WITHIN 200 LINEAL FEET OF A SURFACE WATER, WILL HAVE **TEMPORARY EROSION PROTECTION** OR **PERMANENT COVER** FOR THE EXPOSED SOIL AREAS YEAR ROUND, AND WITHIN 7 DAYS OF LAST BEING WORKED. THE NORMAL WETTED PERIMETER OF TEMPORARY OR PERMANENT DRAINAGE DITCHES WILL BE **STABILIZED** WITHIN 200 FEET OF THE PROPERTY EDGE, OR POINT OF DISCHARGE. STABILIZATION WILL BE COMPLETED WITHIN 24 HOURS OF CONNECTION. PIPE OUTLETS MUST BE PROVIDED WITH TEMPORARY OR PERMANENT **ENERGY DISSIPATION** WITHIN 24 HOURS OF CONNECTION TO A SURFACE WATER.

**SEDIMENT CONTROL PRACTICES**  
 SEDIMENT CONTROL PRACTICES WILL BE ESTABLISHED ON ALL DOWN GRADIENT PERIMETER BEFORE ANY UPGRADE LAND DISTURBING ACTIVITIES BEGIN. ALL STORM DRAIN INLETS WILL BE PROTECTED BY APPROPRIATE **BMPs** DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED. DURING ANY ACTIVITIES THAT HAVE THE POTENTIAL TO CREATE CONCRETE SLURRY/WASHOUT RUN-OFF, STANDARD INLET PROTECTION BMPs ARE INSUFFICIENT. THE CONTRACTOR MUST PREVENT ALL CEMENTITIOUS MATERIAL FROM ENTERING THE STORM SEWER SYSTEM AND/OR SURFACE WATERS. TEMPORARY SOIL STOCKPILES WILL HAVE **PERIMETER CONTROLS**, AND WILL NOT BE PLACED IN STORM WATER CONVEYANCES OR SURFACE WATERS. VEHICLE TRACKING OF SEDIMENT FROM THE CONSTRUCTION SITE WILL BE MINIMIZED USING THE APPROPRIATE **BMPs**. STREET SWEEPING (WET SWEEPER WITH A VACUUM ASSISTED PICK-UP ROOM) WILL BE USED IF SUCH **BMPs** ARE NOT ADEQUATE TO PREVENT SEDIMENT FROM BEING TRACKED ONTO THE STREET.

**EROSION AND SEDIMENT CONTROL SEQUENCING**  
 GRADING AND UTILITY- SILT FENCE, CONSTRUCTION ENTRANCE, AND/OR OTHER PERIMETER EROSION CONTROL MEASURE WILL BE INSTALLED PRIOR TO THE START OF ANY GRADING AND LAND DISTURBING ACTIVITY. TOPSOIL STOCKPILES WILL BE STORED AND PROTECTED ON SITE. TEMPORARY STABILIZATION WILL BE ESTABLISHED BY SEED AND MULCH, EROSION CONTROL BLANKET, AND SOD AS SPECIFIED IN PLAN SHEETS PRIOR TO PROJECT COMPLETION.

**POLLUTION PREVENTION MANAGEMENT MEASURES**  
**SOLID WASTE:** COLLECTED SEDIMENT, ASPHALT, CONCRETE MILLINGS, FLOATING DEBRIS, PAPER, PLASTIC, FABRIC, CONSTRUCTION AND DEMOLITION DEBRIS AND OTHER WASTES MUST BE DISPOSED OF PROPERLY AND MUST COMPLY WITH MPCA REGULATIONS.

**AIRBORNE WASTE:** CONCRETE MAINTENANCE PROJECTS ARE CAPABLE OF PRODUCING LARGE AMOUNTS OF POLLUTING DUST AS A RESULT OF CUTTING AND GRINDING OPERATIONS. AIRBORNE POLLUTANTS HAVE THE POTENTIAL TO CONTAMINATE LOCAL WATER RESOURCES AS WELL AS RESULT IN A PUBLIC NUISANCE AND HEALTH HAZARD. ALL CONCRETE DUST PRODUCTIONS WILL BE MINIMIZED BY USING EQUIPMENT WITH WETTING CAPABILITY OR DUST PRODUCTION WILL BE MITIGATED USING AIR MISTING EQUIPMENT.

**HAZARDOUS WASTE:** OIL, GASOLINE, PAINT, AND ANY HAZARDOUS SUBSTANCES MUST BE PROPERLY STORED, INCLUDING SECONDARY CONTAINMENT TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. RESTRICTED ACCESS TO STORAGE AREAS MUST BE PROVIDED TO PREVENT VANDALISM. STORAGE AND DISPOSAL MUST BE IN COMPLIANCE WITH MPCA REGULATIONS.

**EQUIPMENT ON BOARDWALK INSTALLATION:** THE CONTRACTOR SHOULD HAVE SPILL KITS KEPT WITHIN EASY ACCESS TO ANY EQUIPMENT OPERATING ON OR NEXT TO THE LAKE AND WETLAND AREAS TO PREVENT/REDUCE NEGATIVE IMPACTS TO WATER RESOURCES FROM SPONTANEOUS LEAKS OR FLUID LINE BREAKAGES.

**EXTERNAL WASHING AND FUELING OF TRUCKS AND EQUIPMENT:** MUST BE LIMITED TO A DEFINED AREA OF THE SITE. RUNOFF MUST BE CONTAINED AND WASTE PROPERLY DISPOSED OF. NO ENGINE DEGREASING ALLOWED ON SITE.

**SANITARY WASTE:** ANY PORTABLE SANITARY FACILITIES INSTALLED AS PART OF THE PROJECT SHALL BE PLACED OUTSIDE OF HTE SENSITIVE AREAS OF THE PROJECT AND PROPERLY SECURED TO PREVENT TIPPING AND SPILLING

**INSPECTIONS AND MAINTENANCE**  
 INSPECTIONS WILL BE CONDUCTED ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS. INSPECTIONS AND MAINTENANCE RECORDS WILL BE RETAINED ON SITE WITH THE **SWPPP**. ALL PERIMETER CONTROL BMPs SUCH AS SILT FENCE, COMPOST LOGS, AND BIOROLLS MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/3 THE HEIGHT OF THE FENCE. THESE REPAIRS MUST BE MADE WITHIN 24 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS. BMPs USED AS SLURRY CONTAINMENT MUST BE CLEANED OUT DAILY. CONSTRUCTION SITE VEHICLE EXIT LOCATIONS MUST BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING ONTO PAVED SURFACES. TRACKED SEDIMENT MUST BE REMOVED FROM ALL OFF-SITE PAVED SURFACES, WITHIN 24 HOURS OF DISCOVERY.

**CONCRETE MANAGEMENT**  
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SHEET KEY



**RAMSEY COUNTY PARKS AND RECREATION**  
 2015 N. VAN DYKE STREET  
 MAPLEWOOD, MN 55109  
 TEL: (651) 748-2500  
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 brell.blumer@co.ramsey.mn.us  
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 Number: 42844  
 Signature: B. Gus Blumer

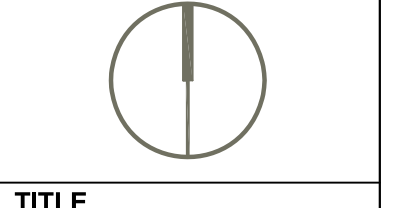
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DESIGN PHASE:

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**KELLER LAKE TRAIL PROJECT  
 LOWER KELLER TO SPOON LAKE  
 BID PACKAGE #1 - BITUMINOUS TRAIL PAVING  
 RAMSEY COUNTY PARKS AND RECREATION DEPARTMENT  
 KELLER REGIONAL PARK**

DATE: MAY 2013  
 DESIGNED BY: BGB  
 DRAWN BY: BGB  
 CHECKED BY: SAY



TITLE  
 SWPPP PLAN


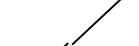


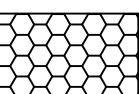


**BD 3.1**  
 SHEET 12 OF 30

**EROSION CONTROL NOTES:** ALL EROSION CONTROL DEVICES SHALL BE IN ACCORDING TO MNDOT 2573 AND SHALL BE INSTALLED PRIOR TO START OF CONSTRUCTION. VERIFY ALL LOCATIONS WITH LANDSCAPE ARCHITECT.

SILT FENCE SHALL BE INSTALLED IN AREAS ADJACENT TO AND WITHIN THE CONSTRUCTION AREA ( DOWN SLOPE AREAS OF GRADING LIMITS, AND ADJACENT WETLAND EDGES TO CONSTRUCTION AREAS AND OTHER NECESSARY LOCATION FOR EROSION CONTROL) AS DESIGNATED BY THE LANDSCAPE ARCHITECT FOR EROSION CONTROL MEASURES.

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**TOPSOIL -** MNDOT 3877, COVER ALL DISTURBED AREAS WITH 4" OF MNDOT 3877 TYPE A TOPSOIL.

-  SEED - Turf Mix MNDOT 260
-  CONSTRUCTION LIMITS - SILT FENCE OR BIO ROLL
-  FLOATING SILT CURTAIN
-  PROTECTIVE TREE FENCE
-  CONSTRUCTION ROCK ENTRANCE
-  CONSTRUCTION STAGING
-  NO CONSTRUCTION STAGING OR ACCESS ALLOWED

FLOATING SILT CURTAIN TYP.; SEE 4/5.1

KELLER LAKE

U.S. HIGHWAY NO. 61  
(MAPLEWOOD DRIVE)

TRAIL @ L 1/5.0 ET FILL



**GENERAL SWPPP NOTES:**

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**SEDIMENT CONTROL PRACTICES**  
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**EROSION AND SEDIMENT CONTROL SEQUENCING**  
GRADING AND UTILITY- SILT FENCE, CONSTRUCTION ENTRANCE, AND/OR OTHER PERIMETER EROSION CONTROL MEASURE WILL BE INSTALLED PRIOR TO THE START OF ANY GRADING AND LAND DISTURBING ACTIVITY. TOPSOIL STOCKPILES WILL BE STORED AND PROTECTED ON SITE. TEMPORARY STABILIZATION WILL BE ESTABLISHED BY SEED AND MULCH, EROSION CONTROL BLANKET, AND SOD AS SPECIFIED IN PLAN SHEETS PRIOR TO PROJECT COMPLETION.

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**SOLID WASTE:** COLLECTED SEDIMENT, ASPHALT, CONCRETE MILLINGS, FLOATING DEBRIS, PAPER, PLASTIC, FABRIC, CONSTRUCTION AND DEMOLITION DEBRIS AND OTHER WASTES MUST BE DISPOSED OF PROPERLY AND MUST COMPLY WITH MPCA REGULATIONS.

**AIRBORNE WASTE:** CONCRETE MAINTENANCE PROJECTS ARE CAPABLE OF PRODUCING LARGE AMOUNTS OF POLLUTING DUST AS A RESULT OF CUTTING AND GRINDING OPERATIONS. AIRBORNE POLLUTANTS HAVE THE POTENTIAL TO CONTAMINATE LOCAL WATER RESOURCES AS WELL AS RESULT IN A PUBLIC NUISANCE AND HEALTH HAZARD. ALL CONCRETE DUST PRODUCTIONS WILL BE MINIMIZED BY USING EQUIPMENT WITH WETTING CAPABILITY OR DUST PRODUCTION WILL BE MITIGATED USING AIR MISTING EQUIPMENT.

**HAZARDOUS WASTE:** OIL, GASOLINE, PAINT, AND ANY HAZARDOUS SUBSTANCES MUST BE PROPERLY STORED, INCLUDING SECONDARY CONTAINMENT TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. RESTRICTED ACCESS TO STORAGE AREAS MUST BE PROVIDED TO PREVENT VANDALISM. STORAGE AND DISPOSAL MUST BE IN COMPLIANCE WITH MPCA REGULATIONS.

**EQUIPMENT ON BOARDWALK INSTALLATION:** THE CONTRACTOR SHOULD HAVE SPILL KITS KEPT WITHIN EASY ACCESS TO ANY EQUIPMENT OPERATING ON OR NEXT TO THE LAKE AND WETLAND AREAS TO PREVENT/REDUCE NEGATIVE IMPACTS TO WATER RESOURCES FROM SPONTANEOUS LEAKS OR FLUID LINE BREAKAGES.

**EXTERNAL WASHING AND FUELING OF TRUCKS AND EQUIPMENT:** MUST BE LIMITED TO A DEFINED AREA OF THE SITE. RUNOFF MUST BE CONTAINED AND WASTE PROPERLY DISPOSED OF. NO ENGINE DEGREASING ALLOWED ON SITE.

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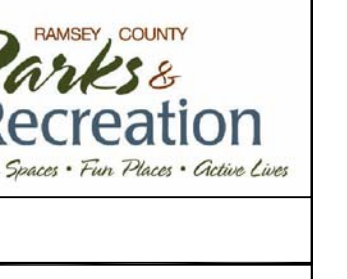
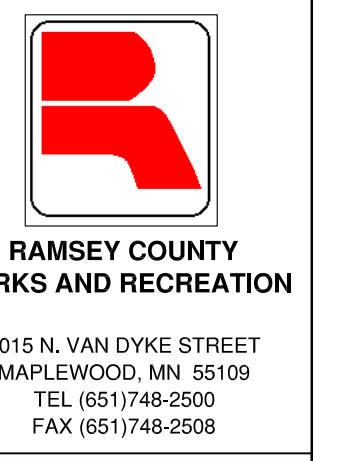
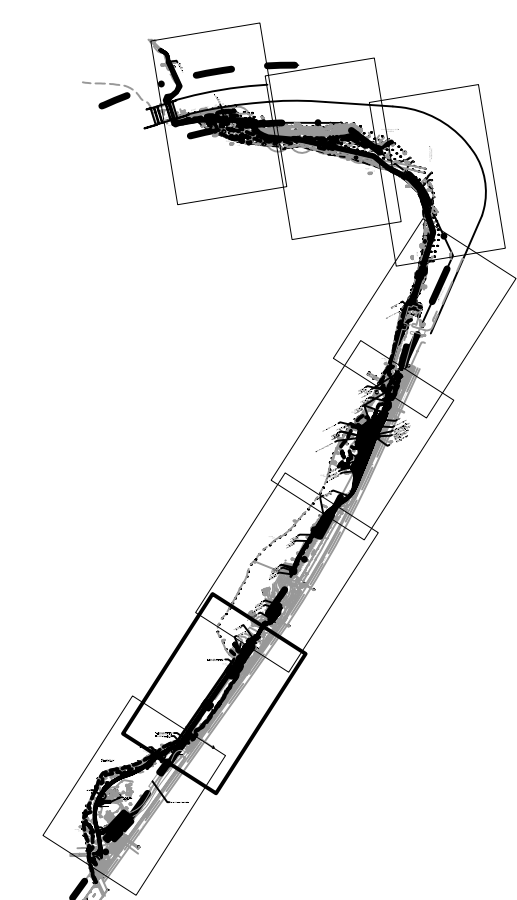
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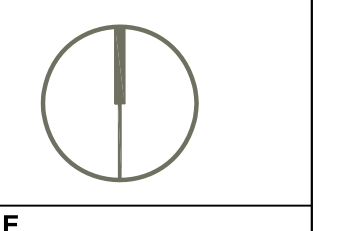
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LOWER KELLER TO SPOON LAKE  
BID PACKAGE #1 - BITUMINOUS TRAIL PAVING  
RAMSEY COUNTY PARKS AND RECREATION DEPARTMENT  
KELLER REGIONAL PARK**

DATE: MAY 2013  
DESIGNED BY: BGB  
DRAWN BY: BGB  
CHECKED BY: SAY



TITLE  
SWPPP PLAN

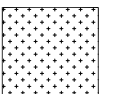
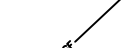

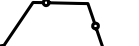



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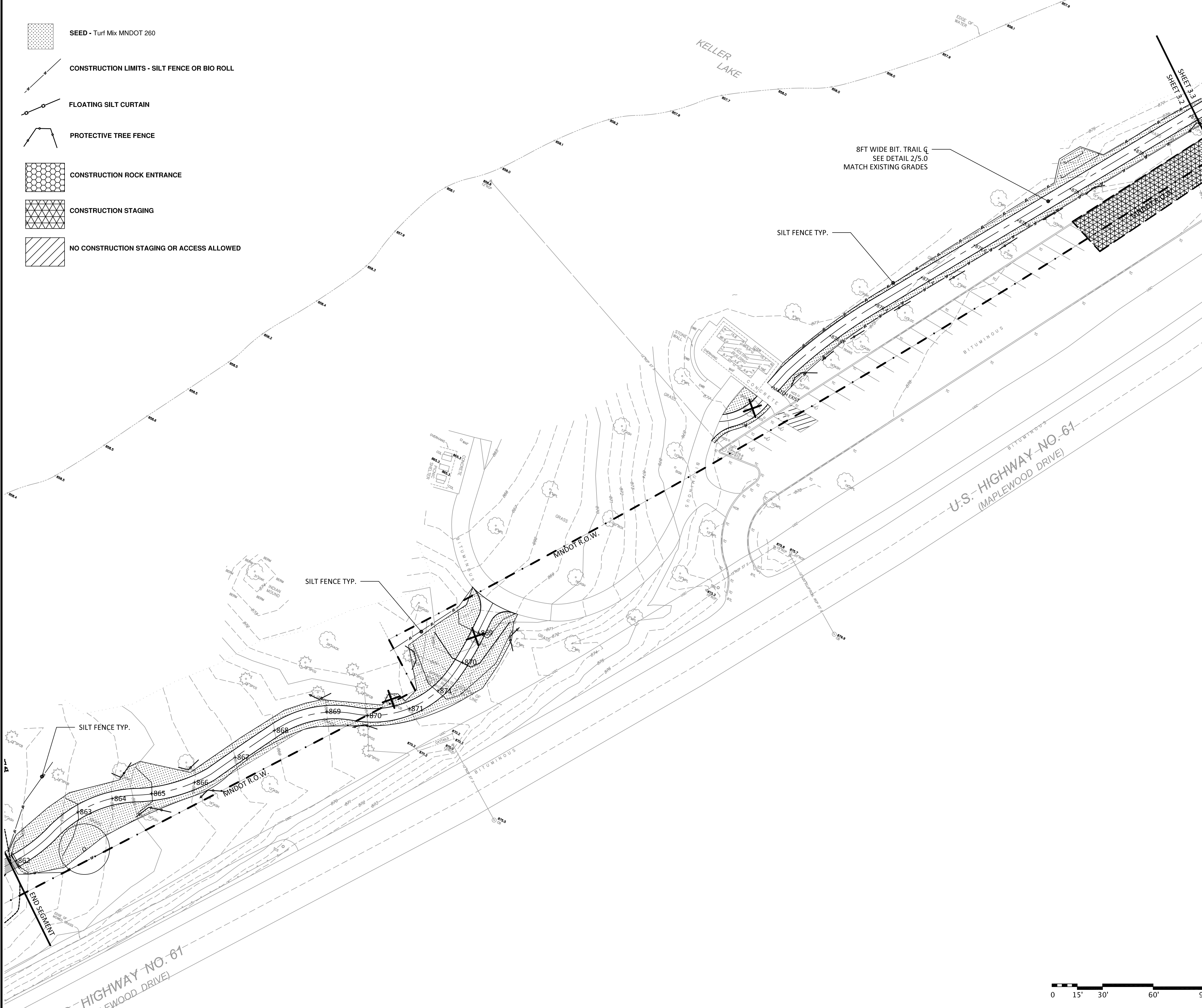
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 Signature: B. Gus Blumer

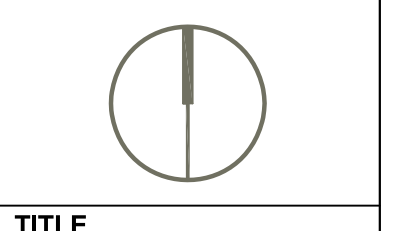
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DATE: MAY 2013  
 DESIGNED BY: BGB  
 DRAWN BY: BGB  
 CHECKED BY: SAY



TITLE  
 SWPPP PLAN

**BD 3.3**

SHEET 14 OF 30