

CONSTRUCTION NOTE

CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO MAINTAIN OPERATION OF EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT. IN THE EVENT THAT AN INTERRUPTION OF SERVICE IS UNAVOIDABLE IN ORDER TO COMPLETE THE WORK, CONTRACTOR SHALL PROVIDE ADEQUATE NOTIFICATION TO ALL AFFECTED BUSINESSES AND/OR RESIDENCES A MINIMUM OF 3 WORKING DAYS IN ADVANCE OF ANY INTERRUPTION.

MINNESOTA STREETCAR MUSEUM ISAACS CARBARN EXPANSION

MINNEAPOLIS, HENNEPIN, MN

LEGEND

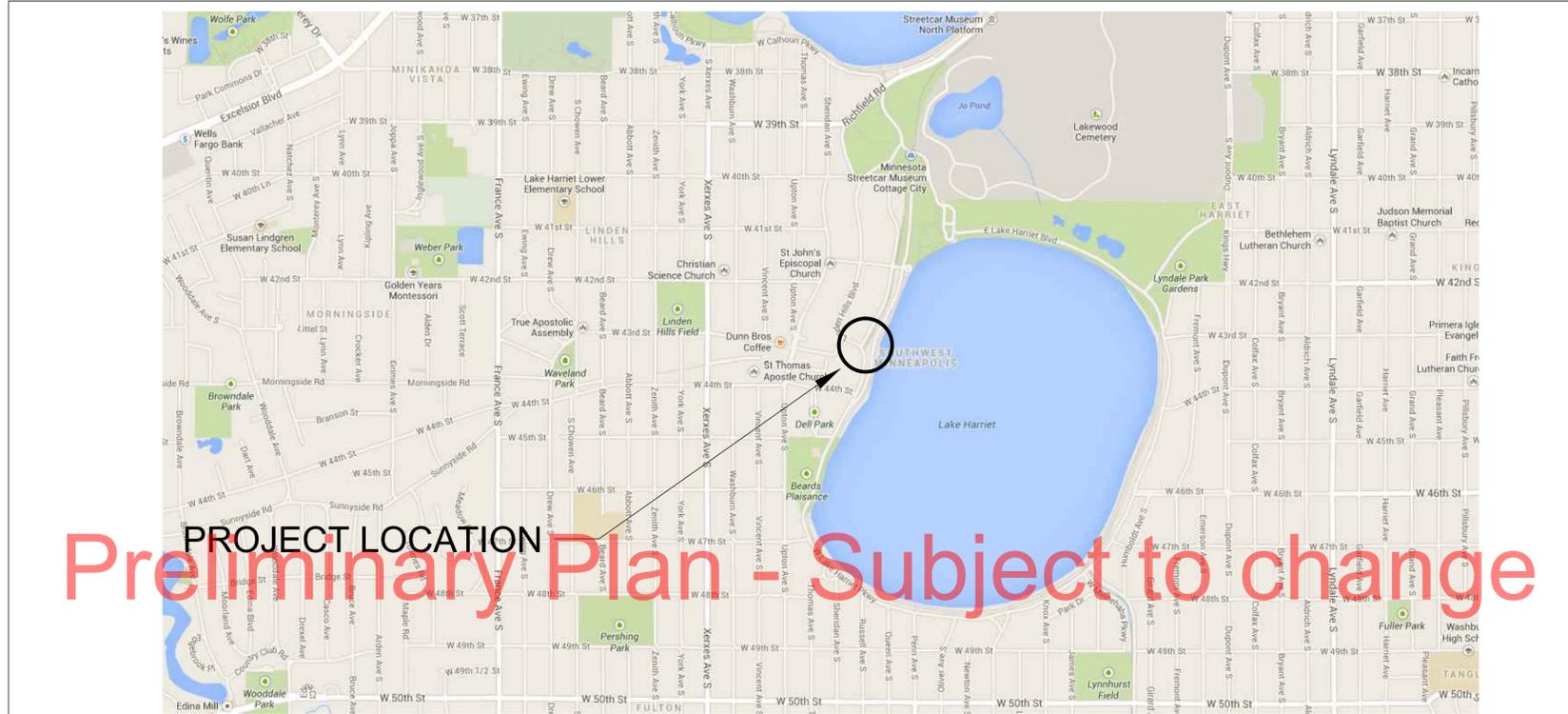
FEATURE	EXISTING	PROPOSED
SILT FENCE		—SF—SF—SF—SF—
CONSTRUCTION FENCE		—CF—CF—CF—CF—
DELINEATED WETLAND	—WD—WD—WD—WD—	
WATERLINE/Shoreline	—WS—WS—WS—WS—	
OVERHEAD ELECTRIC LINES	E-O	
BURIED ELECTRIC LINES	E-U	
FIBER OPTIC LINES	FO	
GAS LINES	G	
PIPELINE	PL	
OVERHEAD TELEPHONE	T-O	
BURIED TELEPHONE	T-U	
TELEPHONE MANHOLE	T-U	⊙
TELEPHONE CABLE PEDESTAL	T-U	⊞
OVERHEAD CABLE TV	TV-O	
BURIED CABLE TV	TV-U	
TV CABLE PEDESTAL	TV-U	⊞
BARBED WIRE FENCE		—X—X—X—X—X—
CHAIN LINK FENCE		—O—O—O—O—O—
STOCKADE/WOOD FENCE		—S—S—S—S—S—
GUARD RAIL		—G—G—G—G—G—
CENTER LINE ROADWAY		—C—C—C—C—C—
CENTER LINE RAILROAD		—R—R—R—R—R—
SANITARY SEWER LINE		—SS—SS—SS—SS—
SANITARY SEWER FORCEMAIN	FM-U	FM
SANITARY SEWER MANHOLE	FM-U	⊙
STORM SEWER LINE		—S—S—S—S—S—
STORM SEWER CULVERT		—C—C—C—C—C—
STORM SEWER FORCEMAIN	FM-U	FM
STORM SEWER MANHOLE	FM-U	⊙
WATERMAIN		—W—W—W—W—W—
WATERMAIN MANHOLE		⊙
HYDRANT		⊞
WATER VALVE		⊞

EXISTING UTILITIES

THE LOCATION OF UNDERGROUND FACILITIES AND/OR STRUCTURES AS SHOWN ON THE PLANS ARE BASED ON AVAILABLE RECORD AT THE TIME THE PLANS WERE PREPARED AND ARE NOT GUARANTEED TO BE COMPLETE OR CORRECT.

THE SUBSURFACE UTILITY INFORMATION SHOWN IS UTILITY QUALITY LEVEL D, AS DETERMINED USING THE GUIDELINES OF "CI/ASCE 38-02 STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITIES 72 HOURS PRIOR TO CONSTRUCTION TO DETERMINE THE EXACT LOCATION OF ALL FACILITIES AND TO PROVIDE ADEQUATE PROTECTION OF SAID UTILITIES DURING THE COURSE OF WORK.



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GOPHER STATE ONE-CALL

All Minnesota excavators, including homeowners and farmers, are responsible for notifying GSOC of their proposed excavations so facility operators with underground facilities near the excavation site can be informed of pending excavation.

GSOC reminds you that anyone excavating in Minnesota must have their own one-call ticket. If you are a sub-contractor and you are excavating, protect yourself and your company by obtaining your own one-call ticket. The general contractor's ticket does not apply to subcontractors.

You must contact GSOC to provide information necessary to complete a locate ticket at least two (2) business days (not including weekends and holidays) before excavating. You may contact GSOC up to 14 calendar days prior to beginning excavation to provide facility operators additional time to mark the area of proposed excavation.

Methods of Providing Information for Locate Requests

GSOC asks for your help when you are processing your locate requests during the busy digging season of April through October. If at all possible, avoid using the telephone to contact GSOC between the peak calling hours of 7 am and 11 am, Monday and Tuesday. Please use our E-Ticket system to submit your tickets, which can be submitted 24/7.

Note: Emergency calls are exempt from this request and are always accepted.

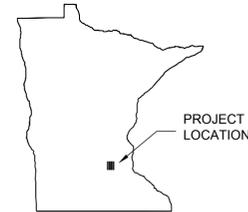
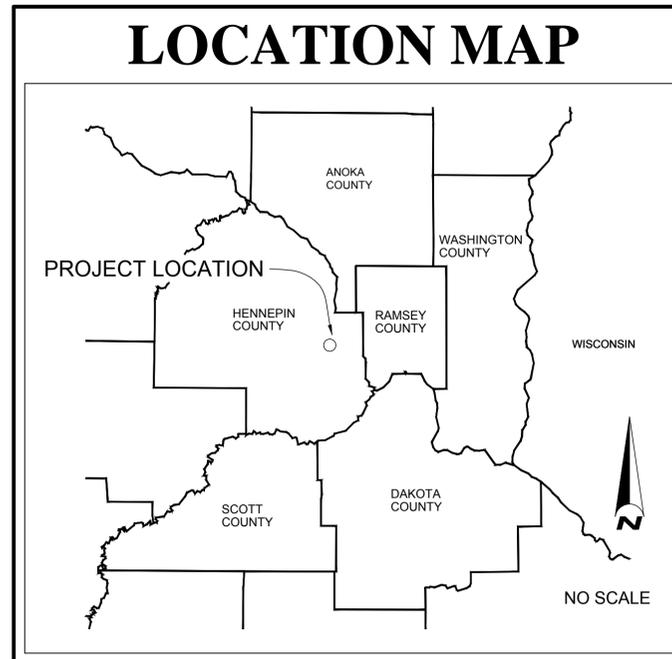
GSOC offers excavators several convenient options for providing information to process locate tickets:

E-Ticket: www.gopherstateonecall.org/submit

Telephone: Locates - 651-454-0002 or 800-252-1166 OR Emergency Locates - 866-640-3637
 GSOC can be contacted between 6 am and 6 pm, Monday through Friday, April through October, and 7 am and 5 pm November through March to process excavation, meet and non-excavation locate requests. Emergency locate requests may be submitted 24 hours a day. Before contacting GSOC, make sure all excavation information is ready.

811
 811 is another telephone number available to contact GSOC. With 811 being so close in numeric proximity to 911, you will first be instructed to make sure this is not an emergency for which 911 is applicable and that you are in fact trying to contact GSOC.

When your locate ticket is complete, you will be given a ticket number. Keep this ticket number to track which facility operators have responded to your one-call request.



GOVERNING SPECIFICATIONS

THE 2005 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING FIELD MANUAL FOR TEMPORARY CONTROL ZONE LAYOUTS.

CLIENT

MINNESOTA STREETCAR MUSEUM
 PO BOX 14467
 MINNEAPOLIS, MN 55414-0467

ENGINEER

EMMONS & OLIVIER RESOURCES, INC.
 651 HALE AVENUE NORTH
 OAKDALE, MINNESOTA 55128-7534
 TELEPHONE: (651) 770-8448
 FAX: (651) 770-2552
 eorinc.com

NO	DATE	BY	REVISION
6			
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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 PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Derek R. Lash
 DEREK R. LASH
 DATE: 07/22/2013 LICENSE # 45156

SUBMISSION DATE:
07/22/2013

DESIGN BY DRL DRAWN BY DAS

EOR PROJECT NO.
01099-0001

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STATE PROJECT NO. --- CITY PROJECT NO. ---

TITLE SHEET

SHEET 01 OF 08 SHEETS

CITY OF MINNEAPOLIS STANDARD EROSION AND SEDIMENT CONTROL NOTES FOR PLANS

- CONTRACTOR MUST CALL A CONSTRUCTION START 48 HOURS PRIOR TO ANY LAND DISTURBANCES 612-673-3867. FAILURE TO DO SO MAY RESULT IN FINES, THE REVOCATION OF PERMIT AND A STOP WORK ORDER BEING ISSUED.
- INSTALL PERIMETER EROSION CONTROL AT THE LOCATIONS SHOWN ON THE PLANS PRIOR TO THE COMMENCEMENT OF ANY LAND DISTURBANCE OR CONSTRUCTION ACTIVITIES.
- BEFORE BEGINNING CONSTRUCTION, INSTALL A TEMPORARY ROCK CONSTRUCTION ENTRANCE AT EACH POINT WHERE VEHICLES EXIT THE CONSTRUCTION SITE. USE 2 INCH OR GREATER DIAMETER ROCK IN A LAYER AT LEAST 6 INCHES THICK ACROSS THE ENTIRE WIDTH OF THE ENTRANCE. EXTEND THE ROCK ENTRANCE AT LEAST 50 FEET INTO THE CONSTRUCTION ZONE USING A GEO-TEXTILE FABRIC BENEATH THE AGGREGATE TO PREVENT MIGRATION OF SOIL INTO THE ROCK FROM BELOW.
- REMOVE ALL SOILS AND SEDIMENTS TRACKED OR OTHERWISE DEPOSITED ONTO PUBLIC AND PRIVATE PAVEMENT AREAS. REMOVAL SHALL BE ON A DAILY BASIS WHEN TRACKING OCCURS AND MAY BE ORDERED BY MINNEAPOLIS INSPECTORS AT ANY TIME IF CONDITIONS WARRANT. SWEEPING SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE CONSTRUCTION AND DONE IN A MANNER TO PREVENT DUST BEING BLOWN TO ADJACENT PROPERTIES.
- INSTALL INLET PROTECTION AT ALL PUBLIC AND PRIVATE CATCH BASIN INLETS, WHICH RECEIVE RUNOFF FROM THE DISTURBED AREAS. CONTRACTOR SHALL CLEAN, REMOVE SEDIMENT OR REPLACE STORM DRAIN INLET PROTECTION DEVICES ON A ROUTINE BASIS SUCH THAT THE DEVICES ARE FULLY FUNCTIONAL FOR THE NEXT RAIN EVENT. SEDIMENT DEPOSITED IN AND/OR PLUGGING DRAINAGE SYSTEMS IS THE RESPONSIBILITY OF THE CONTRACTOR. HAY BALES OR FILTER FABRIC WRAPPED GRATES ARE NOT ALLOWED FOR INLET PROTECTION.
- LOCATE SOIL OR DIRT STOCKPILES NO LESS THAN 25 FEET FROM ANY PUBLIC OR PRIVATE ROADWAY OR DRAINAGE CHANNEL. IF REMAINING FOR MORE THAN SEVEN DAYS, STABILIZE THE STOCKPILES BY MULCHING, VEGETATIVE COVER, TARPS, OR OTHER MEANS. CONTROL EROSION FROM ALL STOCKPILES BY PLACING SILT BARRIERS AROUND THE PILES. TEMPORARY STOCKPILES LOCATED ON PAVED SURFACES MUST BE NO LESS THAN TWO FEET FROM THE DRAINAGE/GUTTER LINE AND SHALL BE COVERED IF LEFT MORE THAN 24 HOURS.
- MAINTAIN ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES IN PLACE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED. INSPECT TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES ON A DAILY BASIS AND REPLACE DETERIORATED, DAMAGED, OR ROTTED EROSION CONTROL DEVICES IMMEDIATELY.
- TEMPORARILY OR PERMANENTLY STABILIZE ALL CONSTRUCTION AREAS WHICH HAVE UNDERGONE FINAL GRADING, AND ALL AREAS IN WHICH GRADING OR SITE BUILDING CONSTRUCTION OPERATIONS ARE NOT ACTIVELY UNDERWAY AGAINST EROSION DUE TO RAIN, WIND AND RUNNING WATER WITHIN 7-14 DAYS. USE SEED AND MULCH, EROSION CONTROL MATTING, AND/OR SODDING AND STAKING IN GREEN SPACE AREAS. REMOVE ALL TEMPORARY SYNTHETIC, STRUCTURAL, NON-BIODEGRADABLE EROSION AND SEDIMENT CONTROL DEVICES AFTER THE SITE HAS UNDERGONE FINAL STABILIZATION WITH PERMANENT VEGETATION ESTABLISHMENT. FINAL STABILIZATION FOR PURPOSES OF THIS REMOVAL IS 70% ESTABLISHED COVER OVER DENUDED AREA.
- READY MIXED CONCRETE AND CONCRETE BATCH/MIX PLANTS ARE PROHIBITED WITHIN THE PUBLIC RIGHT OF WAY. ALL CONCRETE RELATED PRODUCTION, CLEANING AND MIXING ACTIVITIES SHALL BE DONE IN THE DESIGNATED CONCRETE MIXING/WASHOUT LOCATIONS AS SHOWN IN THE EROSION CONTROL PLAN. UNDER NO CIRCUMSTANCE MAY WASHOUT WATER DRAIN ONTO THE PUBLIC RIGHT OF WAY OR INTO ANY PUBLIC OR PRIVATE STORM DRAIN CONVEYANCE.
- CHANGES TO APPROVED EROSION CONTROL PLAN MUST BE APPROVED BY THE EROSION CONTROL INSPECTOR PRIOR TO IMPLEMENTATION. CONTRACTOR TO PROVIDE INSTALLATION AND DETAILS FOR ALL PROPOSED ALTERNATE TYPE DEVICES.
- IF DEWATERING OR PUMPING OF WATER IS NECESSARY, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS AND/OR APPROVALS PRIOR TO DISCHARGE OF ANY WATER FROM THE SITE. IF THE DISCHARGE FROM THE DEWATERING OR PUMPING PROCESS IS TURBID OR CONTAINS SEDIMENT LADEN WATER, IT MUST BE TREATED THROUGH THE USE OF SEDIMENT TRAPS, VEGETATIVE FILTER STRIPS, OR OTHER SEDIMENT REDUCING MEASURES SUCH THAT THE DISCHARGE IS NOT VISIBLY DIFFERENT FROM THE RECEIVING WATER. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AT THE DISCHARGE POINT TO PREVENT SCOUR EROSION. THE CONTRACTOR SHALL PROVIDE A DEWATERING/PUMPING PLAN TO THE EROSION CONTROL INSPECTOR PRIOR TO INITIATING DEWATERING ACTIVITIES.

STORM SEWER NOTES

- STORM SEWER CONSTRUCTION IS IN ACCORDANCE WITH MNDOT 2501-2511 SPECIFICATIONS.
- STORM SEWER SHALL BE DUAL WALL HDPE ECOFLOW WT AS MANUFACTURED BY PRINSCO OR APPROVED EQUAL.
- CATCH BASINS SHALL BE PRECAST REINFORCED CONCRETE. CASTING SHALL BE AS SPECIFIED ON THE PLANS OR APPROVED EQUAL.
- MANHOLES SHALL BE PRECAST REINFORCED CONCRETE IN ACCORDANCE WITH ASTM C478. CASTING SHALL BE NEENAH R-1733. MANHOLES SHALL HAVE A MINIMUM OF 2 AND A MAXIMUM OF 4 ADJUSTMENT RINGS.

TREE PROTECTION NOTES

- SIGNIFICANT TREE = A DECIDUOUS TREE OF AT LEAST 12 CALIPER INCHES OR CONIFEROUS TREE OF AT LEAST 15 FEET IN HEIGHT, EXCLUDING A DISEASED TREE WHICH IS LIKELY TO DIE. LESS DESIRABLE TREES AS NOTED BY THE CITY ARE (ELM, COTTONWOOD, POPLARS, BOXELDER, AND WILLOW)
- BEFORE LAND CLEARING BEGINS, CONTRACTOR SHOULD MEET WITH THE CONSULTANT ON SITE TO REVIEW ALL WORK PROCEDURES, ACCESS ROUTES, STORAGE AREAS AND TREE PROTECTION MEASURES.
- NO FILL SHOULD BE PLACED AGAINST THE TRUNK, ON THE ROOT CROWN, OR WITHIN THE DRIP LINE AREA OF ANY TREES THAT ARE TO BE SAVED.
- CARE MUST BE TAKEN TO PREVENT CHANGE IN THE SOIL CHEMISTRY DUE TO CONCRETE WASHOUT AND LEAKAGE OR SPILLAGE OF TOXIC MATERIALS SUCH AS PAINTS OR FUELS.
- ALL CONSTRUCTION EQUIPMENT, VEHICLE TRAFFIC AND STORAGE AREAS MUST BE LOCATED OUTSIDE OF ANY TREE PROTECTION AREA.
- IF WOUNDING OF SAVED TREES OCCUR, A NON-TOXIC WOUND DRESSING MUST BE APPLIED IMMEDIATELY. (EXCAVATORS MUST HAVE A NON-TOXIC TREE WOUND DRESSING WITH THEM ON DEVELOPMENT SITES.)
- TREE PROTECTION FENCE SHALL BE PLACED OUTSIDE OF THE DRIP LINE OF ALL SIGNIFICANT TREES TO BE SAVED. FENCE TO REMAIN UNTIL ALL SITE WORK IS COMPLETED. FENCE SHOULD NOT BE MOVED OR RELOCATED WITHOUT VERBAL OR WRITTEN COMMUNICATION WITH THE CONSULTANT. HEAVY DUTY SILT FENCE SHALL BE USED FOR TREE PROTECTION FENCE.
- PRUNING OF TREES MUST NOT TAKE PLACE FROM APRIL 15 TO JULY 1.

GRADING & EROSION CONTROL NOTES

- CONTRACTOR SHALL CONTACT 'GOPHER STATE ONE CALL' WITHIN TWO WORKING DAYS PRIOR TO EXCAVATION/ CONSTRUCTION, FOR UTILITY LOCATIONS. TWIN CITIES METRO AREA: 651-454-0002 OR TOLL-FREE: 1-800-252-1166.
- CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES AND TOPOGRAPHIC FEATURES PRIOR TO START OF SITE GRADING. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES OR VARIATIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HORIZONTAL AND VERTICAL CONTROL.
- INSTALL PERIMETER EROSION CONTROL AND TREE PROTECTION MEASURES BEFORE BEGINNING SITE GRADING ACTIVITIES. MAINTAIN EROSION CONTROLS THROUGHOUT THE GRADING PROCESS AND REMOVE WHEN APPROVED BY ENGINEER.
- CONTRACTOR TO ADHERE TO ALL REQUIREMENTS OF THE MINNESOTA POLLUTION CONTROL AGENCY N.P.D.E.S. PERMIT, INCLUDING THE REQUIREMENT TO MINIMIZE THE AREA DISTURBED BY GRADING AT ANY GIVEN TIME AND TO COMPLETE TURF RESTORATION WITHIN THE TIME REQUIRED BY THE PERMIT AFTER COMPLETION OF GRADING OF AN AREA.
- ALL EXPOSED SOIL AREAS WITHIN 100 FEET OF A WATER OF THE STATE OR ANY STORMWATER CONVEYANCE SYSTEM WHICH IS CONNECTED TO A WATER OF THE STATE MUST BE STABILIZED WITHIN 7 DAYS (STEEPER THAN 3:1 SLOPES), 14 DAYS (10:1 TO 3:1 SLOPES), OR 21 DAYS (FLATTER THAN 10:1).
- ALL CONSTRUCTION ENTRANCES SHALL BE SURFACED WITH CRUSHED ROCK ACROSS FULL WIDTH FROM ENTRANCE POINT TO 50 FEET INTO THE CONSTRUCTION ZONE. SEE DETAIL.
- INLET PROTECTION IS TO BE USED DURING CONSTRUCTION. SEE DETAIL.
- ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH CITY, WATERSHED DISTRICT AND N.P.D.E.S. PERMITS.
- THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES, INCLUDING THE REMOVAL OF ACCUMULATED SILT IN FRONT OF SILT FENCES OR SEDIMENT LOGS DURING THE DURATION OF THE CONSTRUCTION.
- MAINTAIN EXISTING EROSION CONTROL AND TREE PROTECTION MEASURES. RE-ESTABLISH ANY EXISTING EROSION CONTROL DISTURBED BY CONSTRUCTION.
- CONTRACTOR SHALL PROVIDE ADDITIONAL TEMPORARY EROSION CONTROL MEASURES AS REQUIRED FOR CONSTRUCTION.
- REMOVE ALL EROSION CONTROL MEASURES AFTER VEGETATION HAS BEEN APPROVED BY ENGINEER.
- THE CONTRACTOR SHALL REMOVE ALL SOILS AND SEDIMENT TRACKED ONTO EXISTING STREETS AND PAVED AREAS.
- IF BLOWING DUST BECOMES A NUISANCE, THE CONTRACTOR SHALL APPLY WATER FROM A TANK TRUCK TO ALL CONSTRUCTION AREAS.
- SWEEP ADJACENT STREETS IN ACCORDANCE WITH CITY REQUIREMENTS.
- INSPECT EROSION CONTROL DEVICES AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. IMMEDIATELY REPAIR FAILED OR FAILING EROSION CONTROL DEVICES.
- SEDIMENT REMOVAL - SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT.
- ANY SEDIMENT REMAINING IN PLACE AFTER THE EROSION CONTROL DEVICE IS NO LONGER REQUIRED SHALL BE GRADED TO CONFORM WITH THE EXISTING GRADE, PREPARED, AND SEEDED WITH THE APPROPRIATE SEED MIX AS DIRECTED BY THE OWNER.
- SUITABLE GRADING MATERIAL SHALL CONSIST OF ALL SOIL ENCOUNTERED ON THE SITE WITH EXCEPTION OF TOPSOIL, DEBRIS, ORGANIC MATERIAL AND OTHER UNSTABLE MATERIAL. STOCKPILE TOPSOIL AND GRANULAR FILL AT LOCATIONS DIRECTED BY CONTRACTOR.
- EXISTING GRANULAR MATERIALS SHALL BE SEGREGATED AND STOCKPILED FOR REUSE ON-SITE.
- CONTRACTOR SHALL STRIP, STOCKPILE AND RE-SPREAD EXISTING ON-SITE TOPSOIL TO PROVIDE A UNIFORM THICKNESS ON ALL DISTURBED AREAS TO BE REVEGETATED.
- SUBGRADE EXCAVATION SHALL BE BACKFILLED IMMEDIATELY AFTER EXCAVATION TO HELP OFFSET ANY STABILITY PROBLEMS DUE TO WATER SEEPAGE OR STEEP SLOPES.
- GRADES SHOWN ARE FINISHED GRADES, CONTRACTOR SHALL ROUGH GRADE TO SUBGRADE ELEVATION, LEAVE SITE READY FOR SUBBASE.
- COMPLETION OF SITE GRADING OPERATIONS SHALL RESULT IN ALL AREAS BEING GRADED TO 'PLAN SUBGRADE ELEVATION'. BUILDING PAD AREAS SHALL BE DETERMINED BY REFERRING TO THE ARCHITECTURAL DRAWINGS.
- FINAL SUBGRADE GRADING TOLERANCES ARE ±0.1 FEET OF PLAN GRADES.
- ALL EXCESS MATERIAL, BITUMINOUS SURFACING, CONCRETE ITEMS, ANY ABANDONED UTILITY ITEMS, AND OTHER UNSTABLE MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OFF THE CONSTRUCTION SITE.
- CONTRACTOR IS RESPONSIBLE FOR GRADING AND SLOPING THE FINISHED GROUND SURFACE TO PROVIDE SMOOTH & UNIFORM SLOPES, WHICH PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS AND PREVENT PONDING IN LOWER AREAS. CONTACT ENGINEER IF FIELD ADJUSTMENTS TO GRADING PLANS ARE REQUIRED.
- FINISHED GROUND ADJACENT TO BUILDING SHALL BE 6" BELOW FLOOR ELEVATION. SLOPE GROUND AWAY FROM BUILDING A MINIMUM OF 6" IN 10 FEET, BEYOND 10 FEET REFER TO PLAN GRADES.
- OUTSIDE OF BUILDING AREA, DECOMPACT GREENSPACE AND REVEGETATE.
- TURF RESTORATION IS IN ACCORDANCE WITH THE GRADING, EROSION AND SEDIMENT CONTROL PLAN.
- SLOPES AT 3:1 OR STEEPER, AND/OR WHERE INDICATED ON THE PLANS SHALL BE SEEDED AND HAVE A WOOD FIBER BLANKET INSTALLED OR MAY BE HYDROSEEDDED WITH TACKIFER MULCH.

Preliminary Plan - Subject to change

Drawing name: X:\Clients_P\Private\0109_MN_Streetcar_Museum\0001_Museum_Addition\09_GINS_ProjectName\dwg_CD_Package.dwg
Xrefs: X:\BASE_01\09-0001.dwg; P:\BASE_01\09-0001.dwg

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NO	DATE	BY	REVISION

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 PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Derek R. Lash

DEREK R. LASH
DATE: 07/22/2013

SUBMISSION DATE:
07/22/2013

DESIGN BY DRL DRAWN BY DAS

EOR PROJECT NO.
01099-0001

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ISAACS CARBARN EXPANSION
MINNEAPOLIS, HENNEPIN, MN

STATE PROJECT NO. --- CITY PROJECT NO. .

SCHEDULE OF QUANTITIES AND NOTES

SHEET 02 OF 08 SHEETS

DISCLAIMER:

ALL PROPERTY BOUNDARY INFORMATION SHOWN INCLUDES, BUT NOT LIMITED TO PUBLIC WORKS RIGHT-OF-WAY, PRIVATE LOT LINES, AND PARK AND REC PROPERTY ARE PROVIDED BY HENNEPIN COUNTY GIS DATA AND ARE ONLY APPROXIMATE.

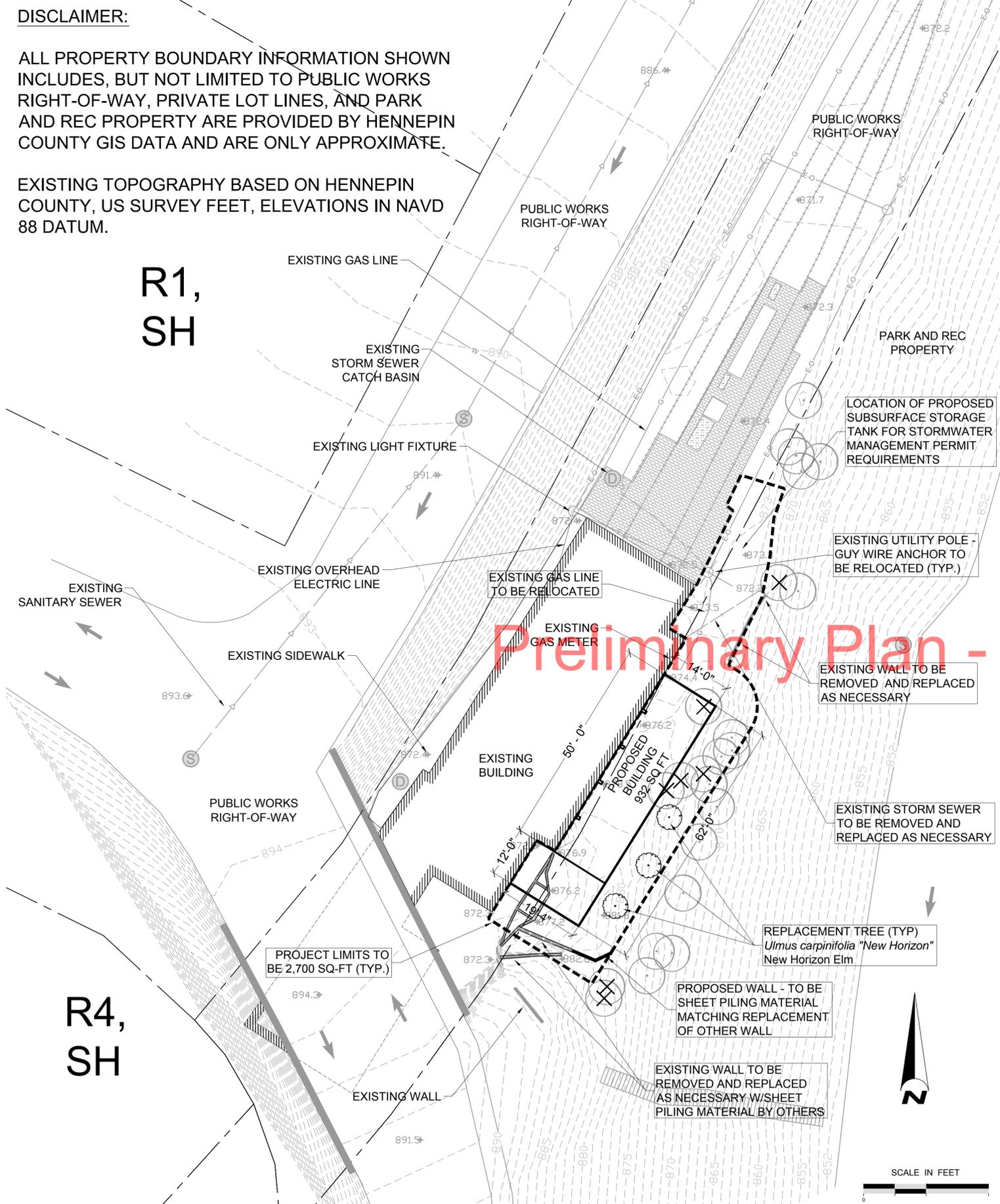
EXISTING TOPOGRAPHY BASED ON HENNEPIN COUNTY, US SURVEY FEET, ELEVATIONS IN NAVD 88 DATUM.

PROJECT LIMITS TO INCLUDE:

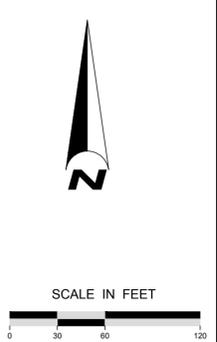
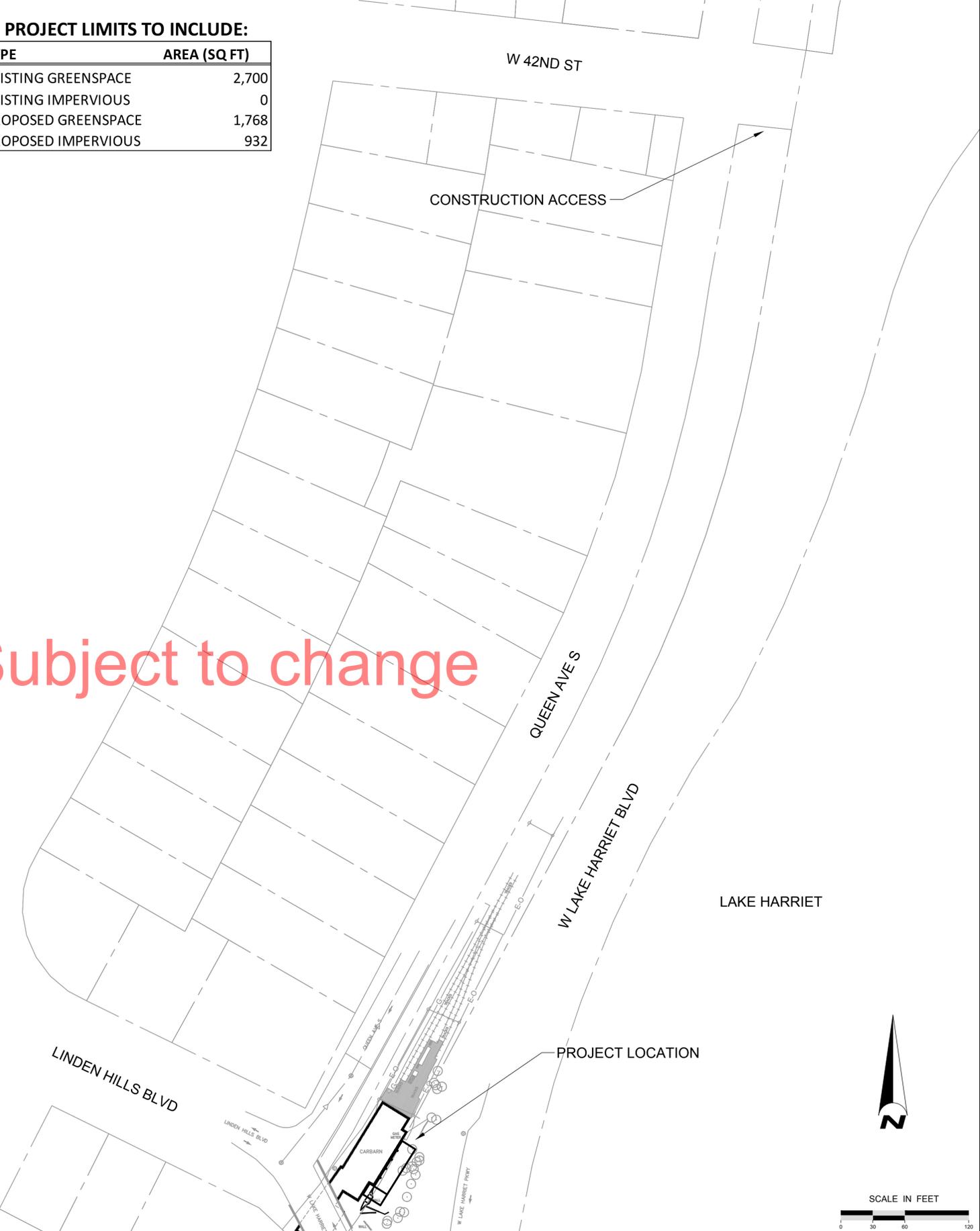
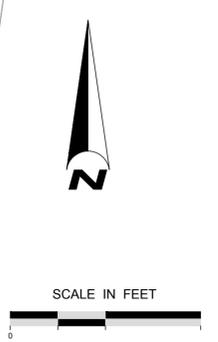
TYPE	AREA (SQ FT)
EXISTING GREENSPACE	2,700
EXISTING IMPERVIOUS	0
PROPOSED GREENSPACE	1,768
PROPOSED IMPERVIOUS	932

R1,
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R4,
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Preliminary Plan - Subject to change



NO	DATE	BY	REVISION
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I HEREBY CERTIFY THAT THIS SURVEY, PLAN, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MINNESOTA.

JAY R. HILL
DATE: 07/22/2013 LICENSE # 24552

SUBMISSION DATE: 07/22/2013
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EXISTING CONDITIONS AND SITE PLAN
SHEET 03 OF 08 SHEETS

Preliminary Plan - Subject to change

AREA OF DISTURBANCE OUTSIDE OF BUILDING FOOTPRINT SHALL BE DECOMPACTED BY MEANS OF RIPPING OR SCARIFYING AND INCORPORATING TOPSOIL INTO TOP 12" OF SURFACE MINIMUM TO ACHIEVE PRE-CONSTRUCTION SITE CONDITIONS (TYP.)

9" DIA. COMPOST LOG TO BE USED IN LIEU OF SILT FENCE AS PERIMETER CONTROL AND CONSTRUCTION LIMITS - TO BE INSTALLED ON EROSION CONTROL BLANKET OR TRENCHED AND STAKED PER DETAIL(TYP.)

RAILROAD TIE RETAINING WALLS TO BE REMOVED AND REPLACED WITH SHEET PILING TYPE MATERIAL BY OTHERS (TYP.)

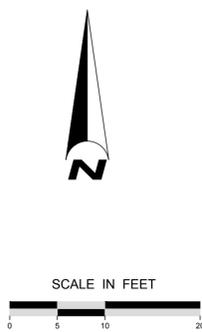
NOTES:

CONSTRUCTION ACCESS FROM 42ND AT NORTH END OF PUBLIC WORKS ROW (SEE SITE PLAN FOR LOCATION)

SEED DISTURBED AREA W/MN STATE SEED MIX 36-211 WOODLAND EDGE SOUTH & WEST AT A RATE OF 34.50 LB/AC.

INSTALL MNDOT CAT 2. EROSION CONTROL BLANKET OR MULCH W/TACKFIER ON ALL VEGETATED AREAS.

INSTALL TREES AND SHRUBS PER TREE PLAN.



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NO	DATE	BY	REVISION

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Derek R. Lash

DEREK R. LASH
DATE: 07/22/2013
LICENSE # 45156

SUBMISSION DATE:
07/22/2013

DESIGN BY DRL
DRAWN BY DAS

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4291 QUEEN AVE S
MINNEAPOLIS, MN 55410

ISAACS CARBARN EXPANSION
MINNEAPOLIS, HENNEPIN, MN

STATE PROJECT NO. --- CITY PROJECT NO. .

GRADING, EROSION AND SEDIMENT CONTROL PLAN

SHEET 04 OF 08 SHEETS

DRAINAGE AREA NOT INCLUDED IN PROJECT LIMITS BUT UNDER CONSIDERATION FOR EXTRA STORMWATER MANAGEMENT AND GRANT ASSISTANCE FROM MINNEHAHA CREEK WATERSHED DISTRICT (TYP.)

Preliminary Plan - Subject to Change

DRAINAGE AREA INCLUDED IN PROJECT LIMITS REQUIRING STORMWATER MANAGEMENT (TYP.)

15-FEET OF 4" HDPE @0.00% W/SCOURSTOP MAT AND CAT. 2 EROSION CONTROL BLANKET OR APPROVED EQUAL IE: 869.50 (4")

INSTALL SHEET PILING TYPE MATERIAL ALONG EAST SIDE OF STORAGE TANK DURING INSTALLATION TO MINIMIZE TREE IMPACTS

72" DIA. X 55' FOOT SUBSURFACE STORAGE TANK FOR PROJECT LIMITS REQUIRING STORMWATER MANAGEMENT
RIM: 872.50
TOP OF TANK: 870.50
BOT OF TANK: 864.50

SCUPPER CONNECTION TO STORAGE TANK PER MANUFACTURER'S SPECIFICATIONS

LOCATION OF STORAGE TANK W/CONTROLLED DISCHARGE FOR DRAINAGE AREA NOT INCLUDED IN PROJECT LIMITS BUT UNDER CONSIDERATION FOR EXTRA STORMWATER MANAGEMENT AND GRANT ASSISTANCE FROM MINNEHAHA CREEK WATERSHED DISTRICT (TYP.)

GUTTERS TO BE INSTALLED ON EAST SIDE OF PROPOSED BUILDING EXPANSION (TYP.)



EXISTING DRAINAGE AREAS

PROPOSED DRAINAGE AREAS

6			
5			
4			
3			
2			
1			
NO	DATE	BY	REVISION

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Derek R. Lash
DEREK R. LASH
DATE: 07/22/2013 LICENSE # 45156

SUBMISSION DATE:
07/22/2013

DESIGN BY DRL DRAWN BY DAS

EOR PROJECT NO.
01099-0001

EOR Emmons & Olivier Resources, Inc.
651 Hale Avenue North
Oakdale, MN 55128
Tele: 651.770.8448
community www.eorinc.com

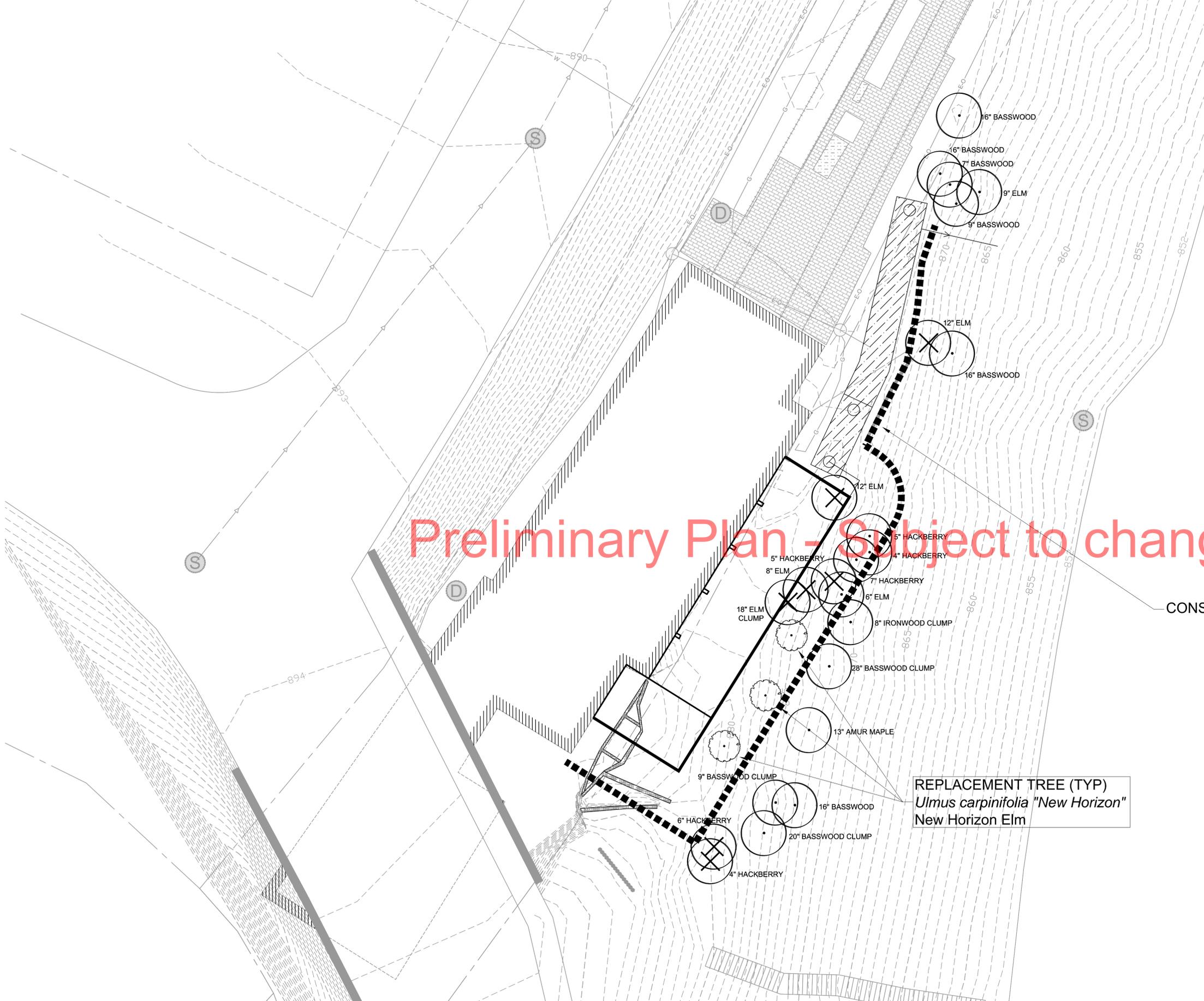
GEORGE K. ISAACS
CARBARN
4291 QUEEN AVE S
MINNEAPOLIS, MN 55410

ISAACS CARBARN EXPANSION
MINNEAPOLIS, HENNEPIN, MN

STATE PROJECT NO. --- CITY PROJECT NO. ---

STORMWATER MANAGEMENT PLAN

SHEET 05 OF 08 SHEETS



TREES TO BE IMPACTED

Species	Size (DBH IN)
HACKBERRY	4
HACKBERRY	6
ELM	18
ELM	8
HACKBERRY	5
ELM	12
ELM	12

TOTAL TREES
REQUIRING
MITIGATION 3

Preliminary Plan - Subject to change

CONSTRUCTION LIMITS (TYP.)

REPLACEMENT TREE (TYP)
Ulmus carpiniifolia "New Horizon"
New Horizon Elm



6			
5			
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3			
2			
1			
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ISAACS CARBARN EXPANSION
Project Name Ln2
MINNEAPOLIS, HENNEPIN, MN
STATE PROJECT NO. --- CITY PROJECT NO. .

TREE PLAN
SHEET 06 OF 08 SHEETS

PROJECT DESCRIPTION

xxx

RECEIVING WATERS

xxx

SPECIAL OR IMPAIRED WATERS (APPENDIX A)

xxx

RESPONSIBLE PARTIES:

The City of Minneapolis (Permitted Owner), and the Contractor (Site Operator), are responsible for the implementation of the SWPPP and all requirements of the NPDES Permit Construction Stormwater General Permit. The Contractor is responsible for installations, inspections, maintenance and repairs of all erosion prevention and sediment control BMP's before, during, and after active construction. Permitted Owner is responsible for the long-term operation and maintenance of all permanent stormwater management systems. The contractor is liable until final stabilization of all disturbed areas has been achieved, all synthetic BMP's have been removed, and the Permit Modification form has been submitted to the MPCA.

PROJECT OWNER	LONG TERM MAINTENANCE	PROJECT CONTRACTOR
City of Minneapolis	Minnesota Streetcar Museum	TBD
xxx	xxx	
xxx	xxx	

INSPECTION AND RECORD KEEPING

The Contractor must assign a trained individual(s) (pursuant to Part III.A.1-2) to oversee the implementation, amendment, inspection, and maintenance of the SWPPP and BMP's. This individual(s) must be available for site inspections within 72 hours upon request by the Permitted Owner, LGU, or the MPCA. Amendments to the SWPPP will be made by the Project Engineer or the contractor after written approval by the Project Engineer.

PROJECT SEQUENCING DATES:

Project start date: xxx Final completion date: xxx

IMPERVIOUS SURFACE AND DISTURBED AREA:

Total disturbed Area = 1,800 sq-ft (0.04 ac)

Post-construction impervious Area = 932 sq-ft (0.02 ac)

Pre-construction impervious Area = 0.00 sq-ft (0.00 ac)

Net increase in impervious Area = 932 sq-ft (0.02 ac)

MISCELLANEOUS EROSION CONTROL NOTES:

Construction shall be governed by the MnDOT spec. book, special provisions, amendments, project specifications, and detail plates. The contractor shall keep the inspection and maintenance log on-site at all times during active construction. Permits and maps relating to this project SWPPP can be found in the project manual.

BMP NOTES:

- BMP's must be adequately designed, installed, and maintained to prevent erosion and sediment from a minimum 0.5 inch rainfall.
- Silt fence is not an acceptable catch basin inlet protection BMP.
- Contractor shall submit a location map and narrative for rock construction entrances (or equivalent), concrete washout locations, and hazardous material storage (if proposed) to the Project Engineer prior to land disturbance.
- Contractor shall submit location map and BMP plan for any stock piles proposed on-site (more than 24 hours) for the Project Engineer's approval.
- Multiple street sweepings may be required at all points of entrance or exit to the site at the discretion of the Project Engineer.

TIMING OF BMP INSTALLATION:

No construction operations, including removals, that require erosion & sediment control per SWPPP can commence until the erosion control supervisor certifies the proper installation of BMP's. The Erosion Prevention and Sediment Control BMP's shall be installed as necessary to minimize erosion from disturbed surfaces and to capture sediment on site. Perimeter controls (silt fence, construction entrances, etc.) shall be installed prior to the start of construction. Contractor shall implement the necessary on site BMP's in accordance with the NPDES permit requirements to prevent nuisance conditions (MN Rules 7050.2010) from any discharges under coverage of the NPDES permit. In some cases multiple applications of some BMP's may be needed to meet these requirements.

CONSTRUCTION SEQUENCING

- Contractor to verify that all applicable permits have been obtained and NPDES permit modification form has been submitted to MPCA prior to the start of construction.
- Contractor shall develop a chain of command with all operators on the site to ensure the SWPPP will be implemented and stay in effect until the project in complete.
- Permittee(s) must plan for and implement appropriate construction phasing, vegetative buffer strips, horizontal slope grading, and other construction practices that minimize erosion, so that the inspection and maintenance requirements of the NPDES construction permit are complied with. The location of areas not to be disturbed (including tree protection fencing) must be delineated (e.g. with flags, stakes, signs, silt fence, orange tree protection fence, etc.) on the project site before work begins.
- Sediment control practices must be established on all down gradient perimeters before any up gradient land disturbing activities begin. These practices shall remain in place until Final Stabilization is achieved.
- Contractor to rough grade site and install utilities, then install and maintain all temporary/permanent erosion control BMPs as shown on plans and in conformance with the NPDES construction permit.
- Contractor to achieve Final Stabilization prior to submission of the Notice Of Termination to the MPCA.

DEWATERING AND BASIN DRAINING

In the event dewatering or basin draining is required, the contractor shall submit a dewatering plan to the Project Engineer for approval prior to undertaking these activities. Dewatering plan must include BMPs to prevent sediment transport, erosion, and adverse impacts to downstream waters. If an approved TMDL Waste Load Allocation is established for construction activities on a receiving waterbody, the contractor must implement all necessary BMPs to meet the assigned Waste Load Allocation. The dewatering plan and DNR appropriations permit will become part of the SWPPP.

POLLUTION PREVENTION MANAGEMENT MEASURES

- Solid waste (collected sediment, asphalt, concrete millings, construction and demolition debris) and other wastes must be disposed of properly and must comply with MPCA disposal requirements.
- Truck and construction vehicle washing is prohibited on site.
- Concrete washout onsite: Contractors and site operators must submit a concrete washout plan to the Project Engineer for approval. Slurry must be contained in a leak-proof containment facility or impermeable liner. The approved plan will be incorporated into the SWPPP.
- Hazardous Materials (oil, gas, paints, lubricants, etc.) must be properly stored, including secondary containment and restricted access. Storage and disposal of hazardous waste must be in compliance with MPCA regulations. Temporary on-site storage devices, specifications, and locations must be submitted by the contractor for review and approval by the Project Engineer.
- No burning of trees, brush, or other vegetative material is allowed within the project area.

SWPPP REQUIREMENTS - LOCATION IN CONSTRUCTION DOCUMENTS		
DESCRIPTION	LOCATION	TITLE
SURFACE WATER RUNOFF ROUTING	PLAN SHEET	
RECEIVING WATERS	PLAN SHEET	
TEMP./PERMANENT EROSION CONTROL	PLAN SHEET	
EROSION CONTROL BMP DETAILS	PLAN SHEET	
SWPPP QUANTITIES	PLAN SHEET	
CONSTRUCTION LIMITS	PLAN SHEET	
EXISTING AND PROPOSED GRADES	PLAN SHEET	

CONTACT INFORMATION			
AGENCY	PERMIT	NAME	PHONE
MPCA	NPDES	DRAINAGE AND GRADING PLAN	651-296-6300
PROJECT/SWPPP ENGINEER		DEREK R. LASH, P.E., CPESC	651-770-8448
EROSION CONTROL SUPERVISOR			
WATERSHED DISTRICT INSPECTOR			

EROSION AND SEDIMENT CONTROL QUANTITIES		
DESCRIPTION	QUANTITY	LOCATION
CONSTRUCTION ENTRANCE	1	AT WEST 42ND STREET
FILTER LOG	165 LF	PERIMETER
EROSION CONTROL BLANKET	200 SQ-YD	THROUGHOUT
RESTORATION (SEEDING AND MULCH)	200 SQ-YD	THROUGHOUT

6			
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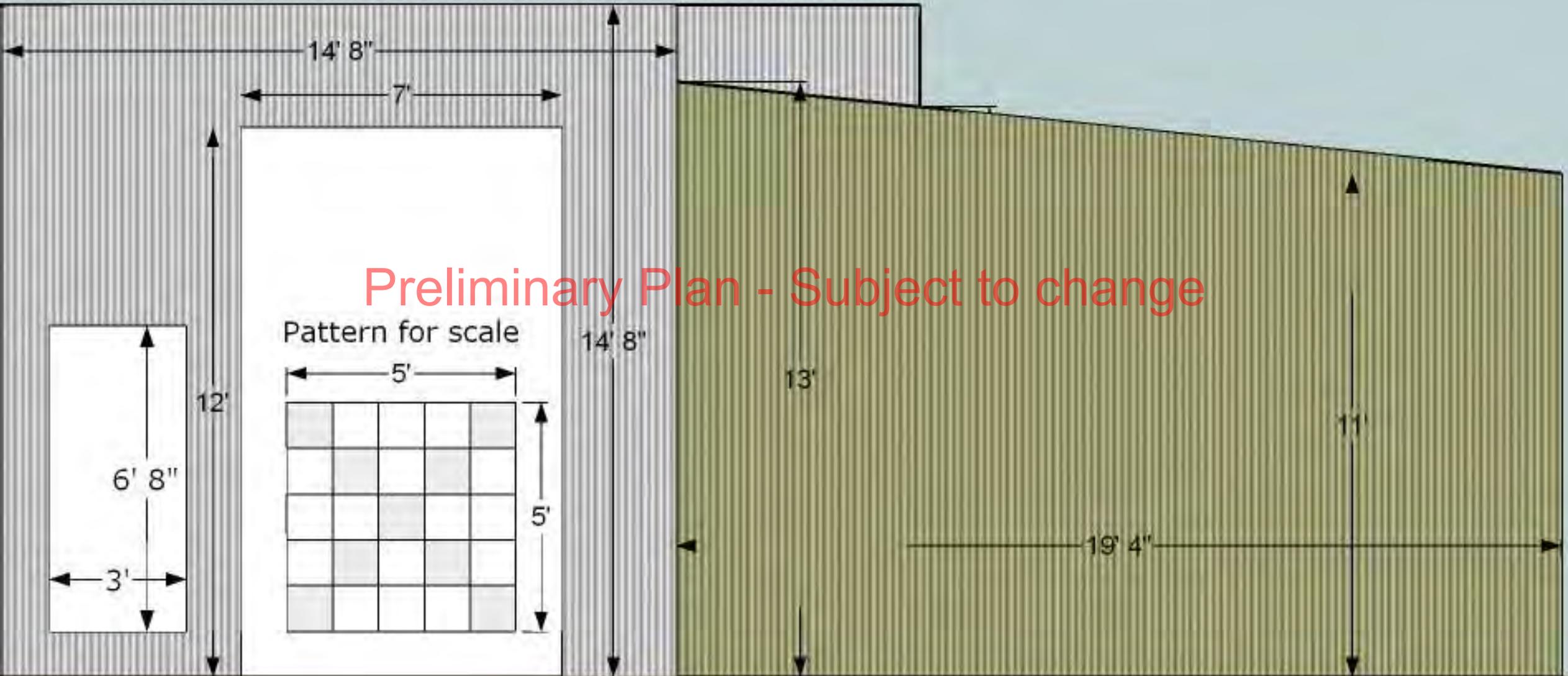
STATE PROJECT NO. --- CITY PROJECT NO. .

SWPPP

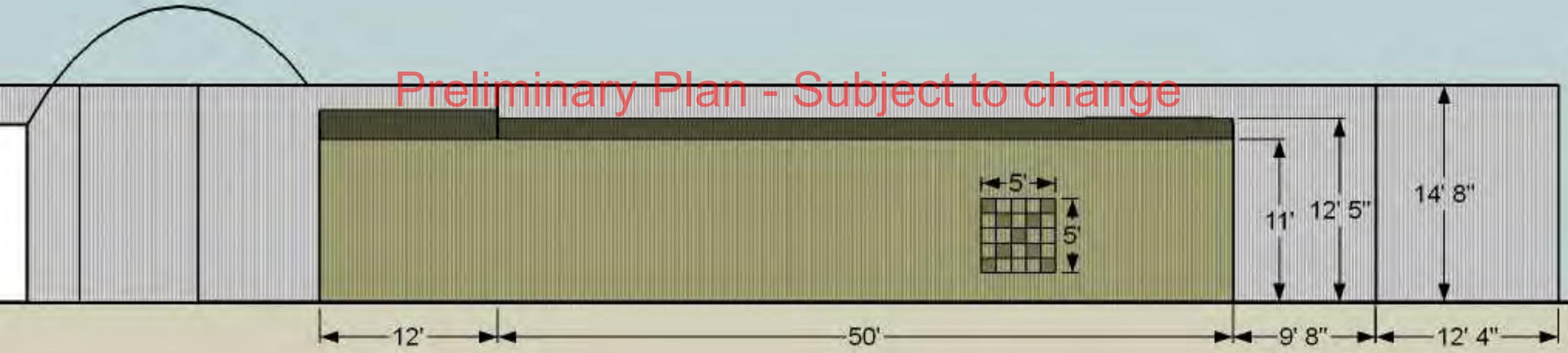
SHEET 08 OF 08 SHEETS

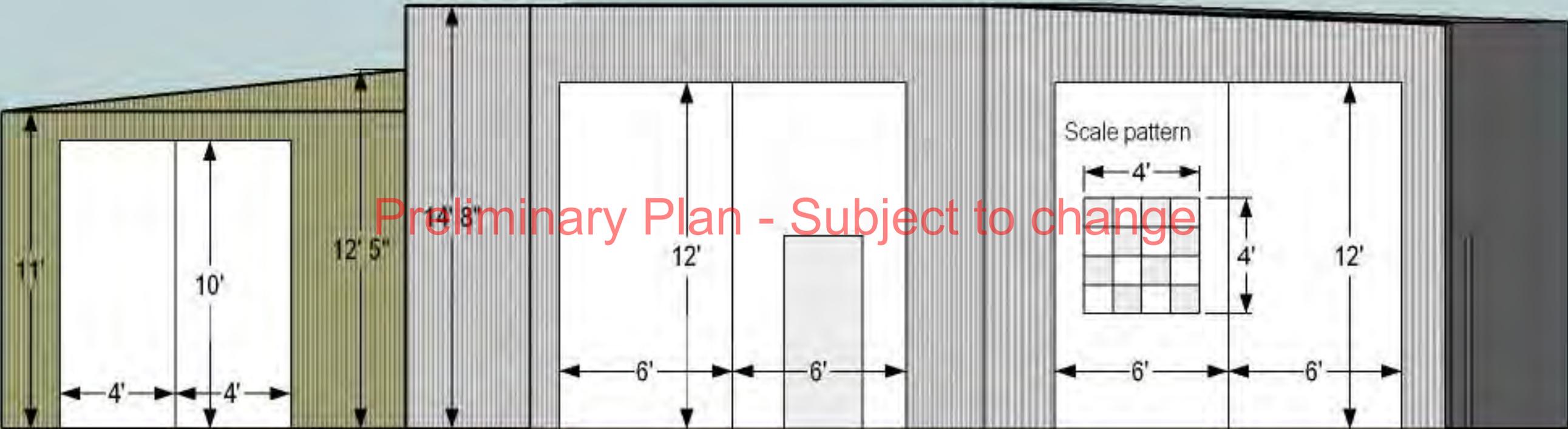
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Xrefs: XBASE_01099-0001.dwg, PBASE_01099-0001

Preliminary Plan - Subject to change



Preliminary Plan - Subject to change





Preliminary Plan - Subject to change

Preliminary Plan - Subject to change

