Preliminary Site Development Plans

for

9200 Hudson Blvd Redevelopment

Lake Elmo, Minnesota

Presented by:

Wasatch Storage Partners

BENCHMARKS

BM NO. 1
TOP NUT HYDRANT WEST OF EXISTING ENTRY.
ELEV.=990.64

BM NO. 2
TOP NUT OF HYDRANT NEAR EAST PROPERTY LINE.
ELEV.=991.23

CONSULTANT CONTACT LIST:

DEVELOPER/OWNER
WASATCH STORAGE PARTNERS
131 S. 700 E, SUITE 102
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CONTACT: SCOTT WYCKOFF

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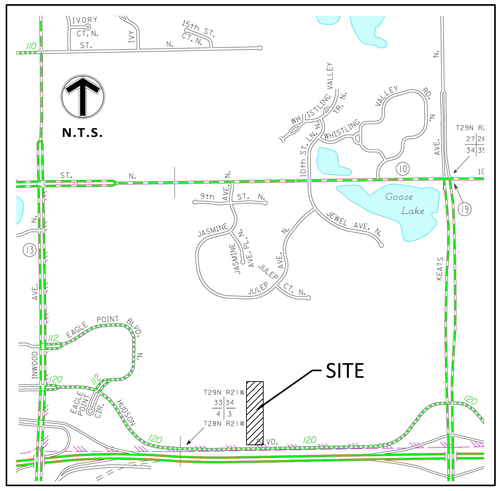

VICINITY MAP
NO SCALE

SHEET INDEX

SHEET	DESCRIPTION
C1.01	TITLE SHEET
C2.01	EXISTING CONDITIONS & TREE REMOVAL PLAN
C3.01	SITE PLAN
C3.02	FIRE TURNING EXHIBIT
C4.01	GRADING AND DRAINAGE PLAN
C4.02	CITY STANDARD GRADING & EC NOTES
C6.01	UTILITY PLAN
L1.01	LANDSCAPE PLAN

*AN ALTA SURVEY DATED 8/25/2016, COMPLETED BY SAMBATEK, HAS BEEN INCLUDED.

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Client
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131 S. 700 E, SUITE 102
AMERICAN FORK, UT 84003

Project
9200 HUDSON BLVD REDEVELOPMENT

Location
LAKE ELMO, MN

Certification

Summary
Designed: MGB Drawn: JMW
Approved: MCA Book / Page:
Phase: PRELIMINARY Initial Issued: 07/25/2016

Revision History

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	7/25/2016		CUP APPLICATION
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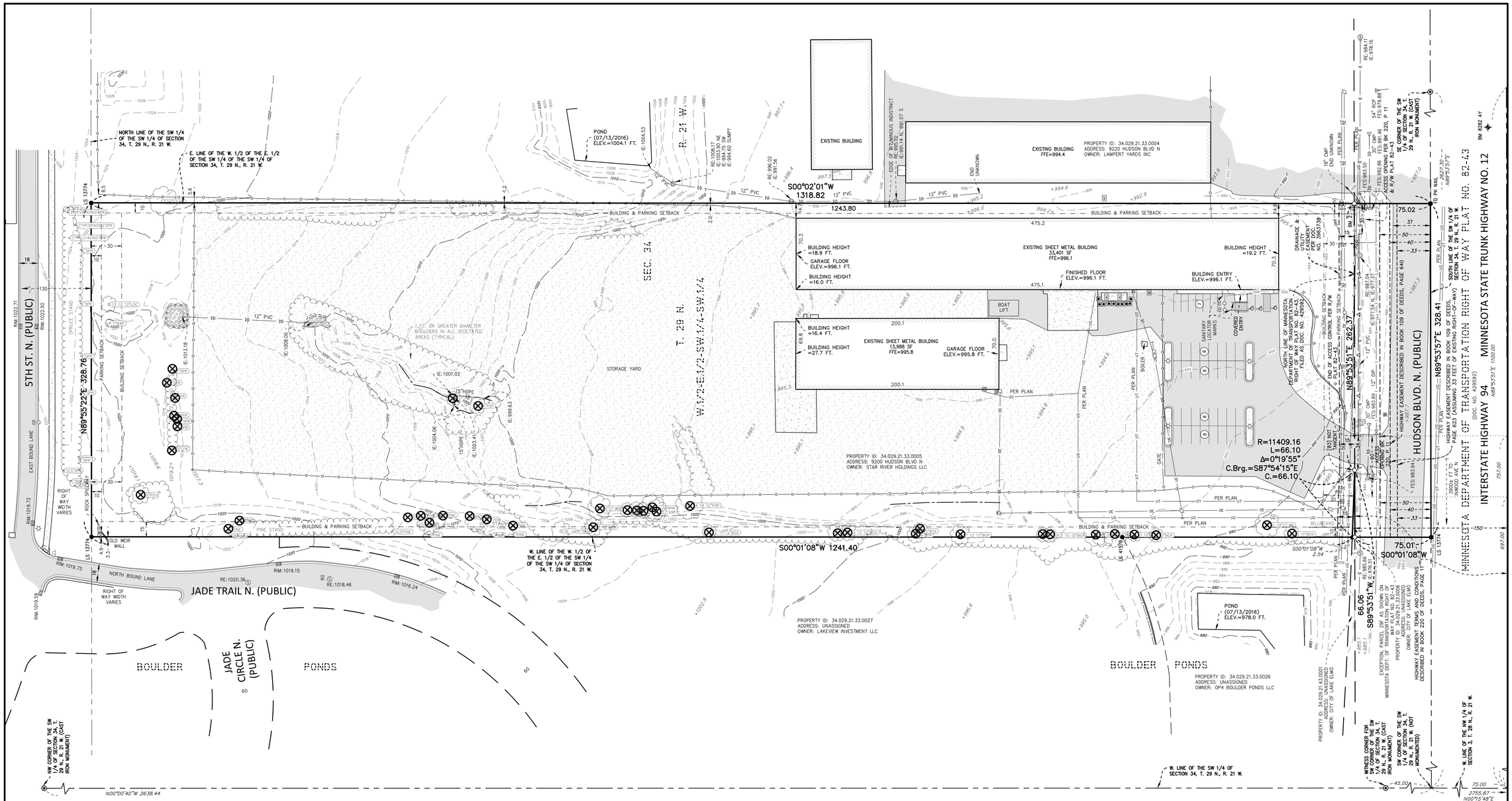
Sheet Title
TITLE SHEET

Sheet No. Revision
C1.01

Project No. WAS20602



LEGEND

- FOUND MONUMENT
- SET MONUMENT MARKED LS 47481
- ELECTRIC METER
- LIGHT
- AIR CONDITIONER
- GUY ANCHOR
- HANDICAP STALL
- UTILITY POLE
- POST
- SIGN
- WATERMAIN
- SANITARY SEWER
- STORM SEWER
- FLARED END SECTION
- ELECTRIC TRANSFORMER
- TELEPHONE PEDESTAL
- GAS METER
- OVERHEAD WIRE
- CHAIN LINK FENCE
- IRON FENCE
- WIRE FENCE
- WOOD FENCE
- EASEMENT LINE
- SETBACK LINE
- RESTRICTED ACCESS
- CONCRETE CURB
- BUILDING LINE
- BUILDING CANOPY
- BITUMINOUS SURFACE
- CONCRETE SURFACE
- LANDSCAPE SURFACE
- DECIDUOUS TREE
- CONIFEROUS TREE
- TREE TO BE REMOVED

PROPERTY SUMMARY

1. SUBJECT PROPERTIES ADDRESS IS 9200 HUDSON BLVD, ITS PROPERTY IDENTIFICATION NUMBER IS 429592.
2. THE GROSS AREA OF THE SUBJECT PROPERTY IS 9.381 ACRES OR 408,645 SQUARE FEET.
3. THE SUBJECT PROPERTY IS ZONED COMMERCIAL, PER THE CITY OF LAKE ELMO CODE.
4. THE BUILDING(S) AND EXTERIOR DIMENSIONS OF THE OUTSIDE WALL AT GROUND LEVEL ARE SHOWN ON THE SURVEY. IT MAY NOT BE THE FOUNDATION WALL.

BENCHMARKS

1. THE VERTICAL DATUM IS BASED ON NAVD88. THE ORIGINATING BENCH MARKS IS 8282 AY, REFERENCED FROM THE MNDOT GEODETIC DATABASE

   BENCHMARK #1
   TOP NUT OF HYDRANT WEST OF EXISTING ENTRY AS INDICATED AT BM 1. ELEV.=990.64 FEET

   BENCHMARK #2
   TOP NUT OF HYDRANT NEAR EAST PROPERTY LINE AS INDICATED AT BM 2. ELEV.=991.23 FEET

SURVEY NOTES

1. This survey was prepared utilizing the Fidelity National Title Insurance Company Title Commitment No. FAH16002317, bearing an effective date of 03/28/2016.
2. The bearing system is based on the Washington County coordinate system, NAD83 (1986 Adjust) . With an assumed bearing of North 89 degrees 53 minutes 57 seconds East for the south line of the Southwest Quarter of Section 34 , Township 29 North , Range 21 West.

NORTH

0 40 80

SCALE IN FEET

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131 S. 700 E, SUITE 102
AMERICAN FORK, UT 84003

Project
9200 HUDSON BLVD REDEVELOPMENT

Location
LAKE ELMO, MN

Certification

Summary
Designed: GS Drawn: GS
Approved: RMB Book / Page:
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Sheet Title
EXISTING CONDITIONS & TREE REMOVAL PLAN

Sheet No. Revision
C2.01

Project No. WAS20602

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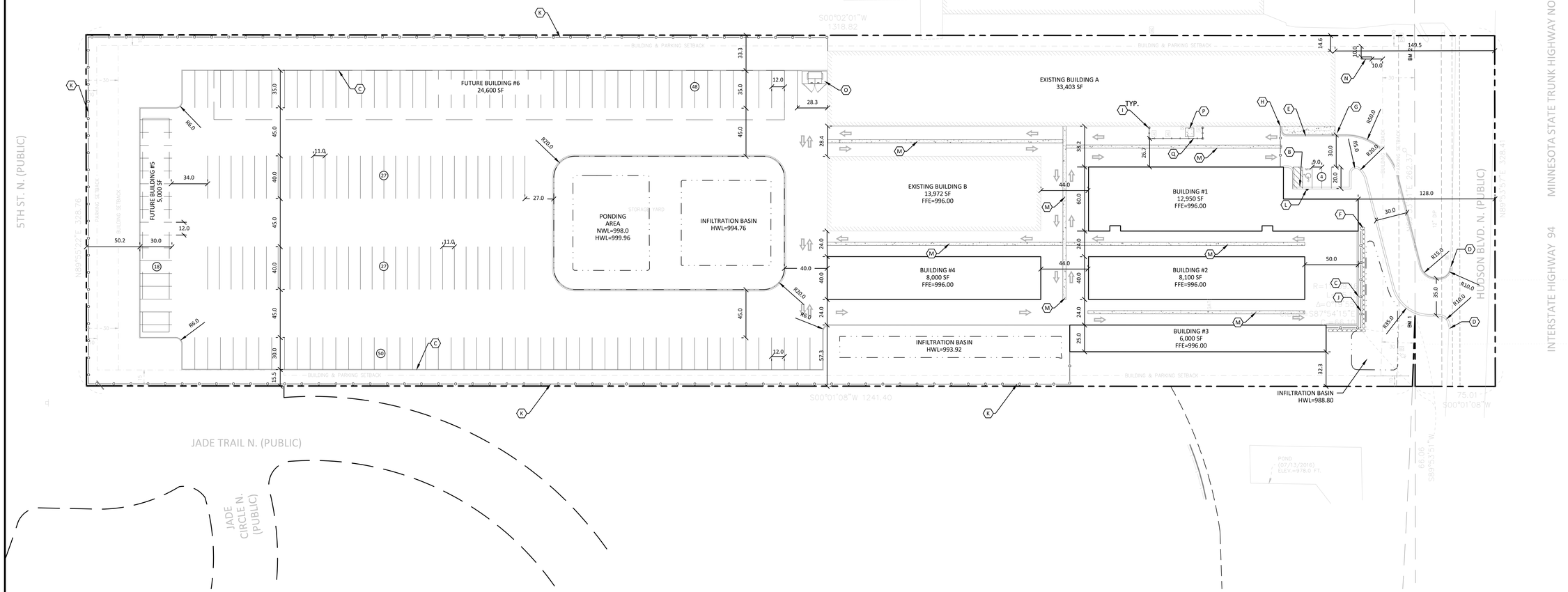

DEVELOPMENT NOTES

1. ALL DIMENSIONS ARE ROUNDED TO THE NEAREST TENTH FOOT.
2. ALL DIMENSIONS SHOWN ARE TO THE FACE OF CURB TO FACE OF CURB UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL REVIEW PAVEMENT GRADIENT AND CONSTRUCT "GUTTER OUT" WHERE WATER DRAINS AWAY FROM CURB. ALL OTHER AREAS SHALL BE CONSTRUCTED AS "GUTTER IN" CURB. COORDINATE WITH GRADING CONTRACTOR.
4. ALL AREAS ARE ROUNDED TO THE NEAREST SQUARE FOOT.
5. ALL PARKING STALLS TO BE 9' IN WIDTH AND 20' IN LENGTH UNLESS OTHERWISE INDICATED.
6. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF EXIT PORCHES, RAMPS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
7. SEE ARCHITECTURAL PLANS FOR LIGHT POLE FOUNDATION DETAIL AND FOR EXACT LOCATIONS OF LIGHT POLE.
8. ALL GRADIENTS ON SIDEWALKS ALONG THE ADA ROUTE SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 5% (1:20), EXCEPT AT CURB RAMPS (1:12), AND A MAXIMUM CROSS SLOPE OF 2.08% (1:48). THE MAXIMUM SLOPE IN ANY DIRECTION ON AN ADA PARKING STALL OR ACCESS ISLE SHALL BE 2.08% (1:48). THE CONTRACTOR SHALL REVIEW AND VERIFY THE GRADIENT IN THE FIELD ALONG THE ADA ROUTES PRIOR TO PLACING CONCRETE OR BITUMINOUS PAVEMENT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF THERE IS A DISCREPANCY BETWEEN THE GRADIENT IN THE FIELD VERSUS THE DESIGN GRADIENT AND COORDINATE WITH GRADING CONTRACTOR.
9. "NO PARKING"/"FIRE LANE" SIGNS SHALL BE PLACED ALONG ALL DRIVEWAYS AS REQUIRED BY CITY.

KEY NOTES

A. BUILDING, STOOPS, STAIRS (SEE ARCHITECTURAL PLANS).
B. BITUMINOUS CURB.
C. B-612 6CONCRETE CURB AND GUTTER.
D. CONNECT TO EXISTING CURB.
E. FLAT CURB SECTION.
F. SEGMENTAL BLOCK RETAINING WALL (DESIGN BY OTHERS)
G. NOSE DOWN CURB.
H. ALUMINUM ENTRY GATE (DESIGN BY OTHERS)
I. CONCRETE PIPE BOLLARD
J. ALUMINUM FENCE (DESIGN BY OTHERS)
K. VINYL COATED CHAIN LINK FENCE (DESIGN BY OTHERS)
L. ACCESSIBLE SIGNAGE
M. 3' WIDE CONCRETE VALLEY GUTTER
N. PYLON SIGN (DESIGN BY OTHERS)
O. TRASH ENCLOSURE (DESIGN BY OTHERS)
P. TRANSFORMER PAD (DESIGN BY OTHERS)
Q. OPAQUE MAINTENANCE FREE PANEL SCREENING FENCE

LEGEND

	PROPOSED	EXISTING
PROPERTY LIMIT		
CURB & GUTTER		
EASEMENT		
BUILDING		
RETAINING WALL		
WETLAND LIMITS		
TREELINE		
SAWCUT LINE		
SIGN		
PIPE BOLLARD		
NUMBER OF PARKING STALLS PER ROW	(XX)	
KEY NOTE	XX	

STANDARD DUTY ASPHALT PAVING
HEAVY DUTY ASPHALT PAVING
CONCRETE PAVING

DEVELOPMENT SUMMARY

AREA		
GROSS SITE AREA	408,645 SF	9.38 AC
IMPERVIOUS	287,060 SF	6.59 AC
PERVIOUS	121,585 SF	2.79 AC
BUILDING SETBACKS		
FRONT		30 FEET
INTERIOR SIDE		10 FEET
CORNER SIDE		25 FEET
REAR		30 FEET
REAR ACCESSORY BUILDING		10 FEET
RESIDENTIAL ZONE (FROM ADJACENT LOT LINE)		50 FEET
PARKING SETBACKS		
FRONT		15 FEET
INTERIOR SIDE		10 FEET
CORNER SIDE		15 FEET
REAR		10 FEET
RESIDENTIAL ZONE (FROM ADJACENT LOT LINE)		35 FEET
ZONING		
EXISTING ZONING		COMMERCIAL
PROPOSED ZONING		COMMERCIAL
PARKING SUMMARY		
9' X 20' STALLS		5
ACCESSIBLE STALLS		1
RV PARKING STALLS		170

NORTH
0 40 80
SCALE IN FEET

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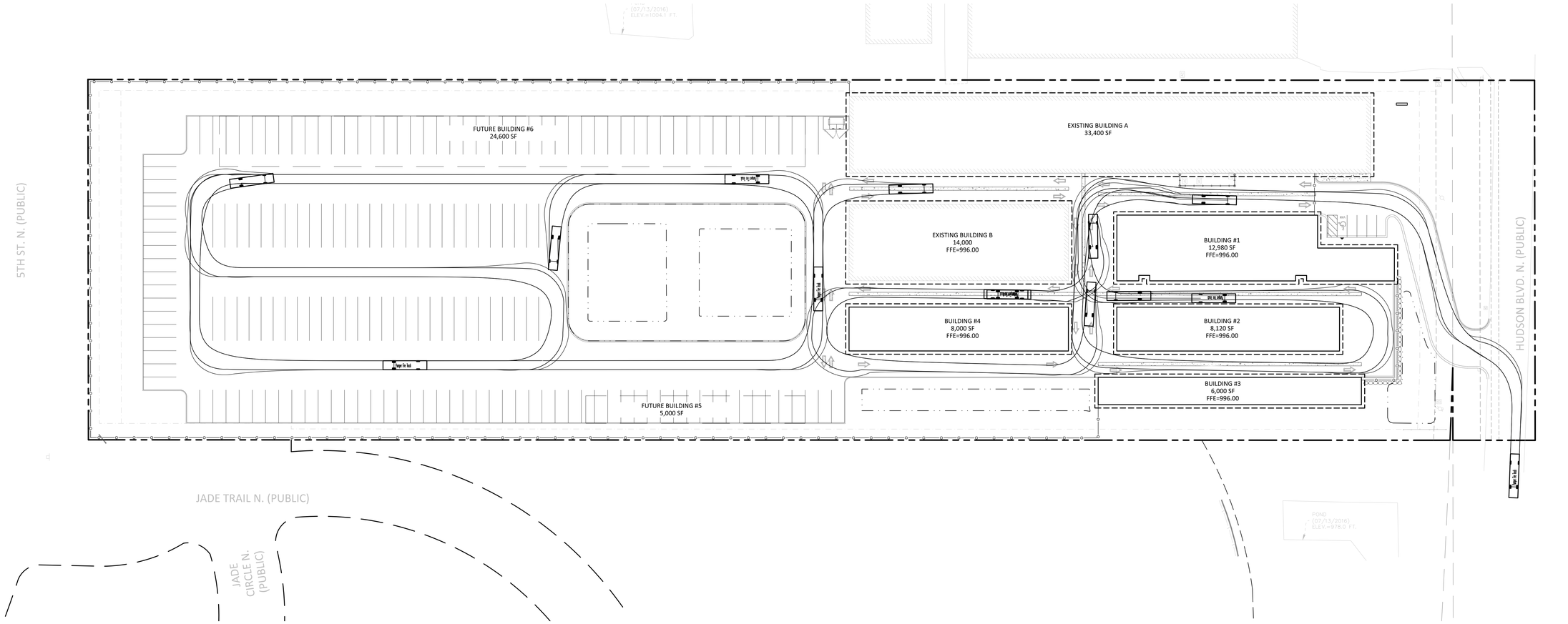
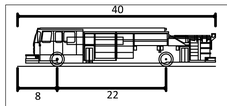
Sheet Title
SITE PLAN

Sheet No. Revision
C3.01

Project No. WAS20602





Pumper Fire Truck	
Overall Length	40.000ft
Overall Width	8.167ft
Overall Body Height	7.745ft
Min Body Ground Clearance	0.656ft
Track Width	8.167ft
Lock-to-lock time	5.00s
Max Wheel Angle	45.00°

LEGEND

	PROPOSED	EXISTING	
PROPERTY LIMIT			STANDARD DUTY ASPHALT PAVING
CURB & GUTTER			
EASEMENT			HEAVY DUTY ASPHALT PAVING
BUILDING			
RETAINING WALL			CONCRETE PAVING
WETLAND LIMITS		WL	
TREELINE			
SAWCUT LINE			
SIGN			
PIPE BOLLARD			
NUMBER OF PARKING STALLS PER ROW	XX		
KEY NOTE	XX		

DEVELOPMENT SUMMARY

AREA		
GROSS SITE AREA	408,645 SF	9.38 AC
IMPERVIOUS	287,060 SF	6.59 AC
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INTERIOR SIDE		10 FEET
CORNER SIDE		25 FEET
REAR		30 FEET
REAR ACCESSORY BUILDING		10 FEET
RESIDENTIAL ZONE (FROM ADJACENT LOT LINE)		50 FEET
PARKING SETBACKS		
FRONT		15 FEET
INTERIOR SIDE		10 FEET
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REAR		10 FEET
RESIDENTIAL ZONE (FROM ADJACENT LOT LINE)		35 FEET
ZONING		
EXISTING ZONING		COMMERCIAL
PROPOSED ZONING		COMMERCIAL
PARKING SUMMARY		
9' X 20' STALLS		5
ACCESSIBLE STALLS		1
RV PARKING STALLS		170

NORTH

0 40 80

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Revision History

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Sheet Title
FIRE TURNING EXHIBIT

Sheet No. Revision
C3.02

Project No. WAS20602

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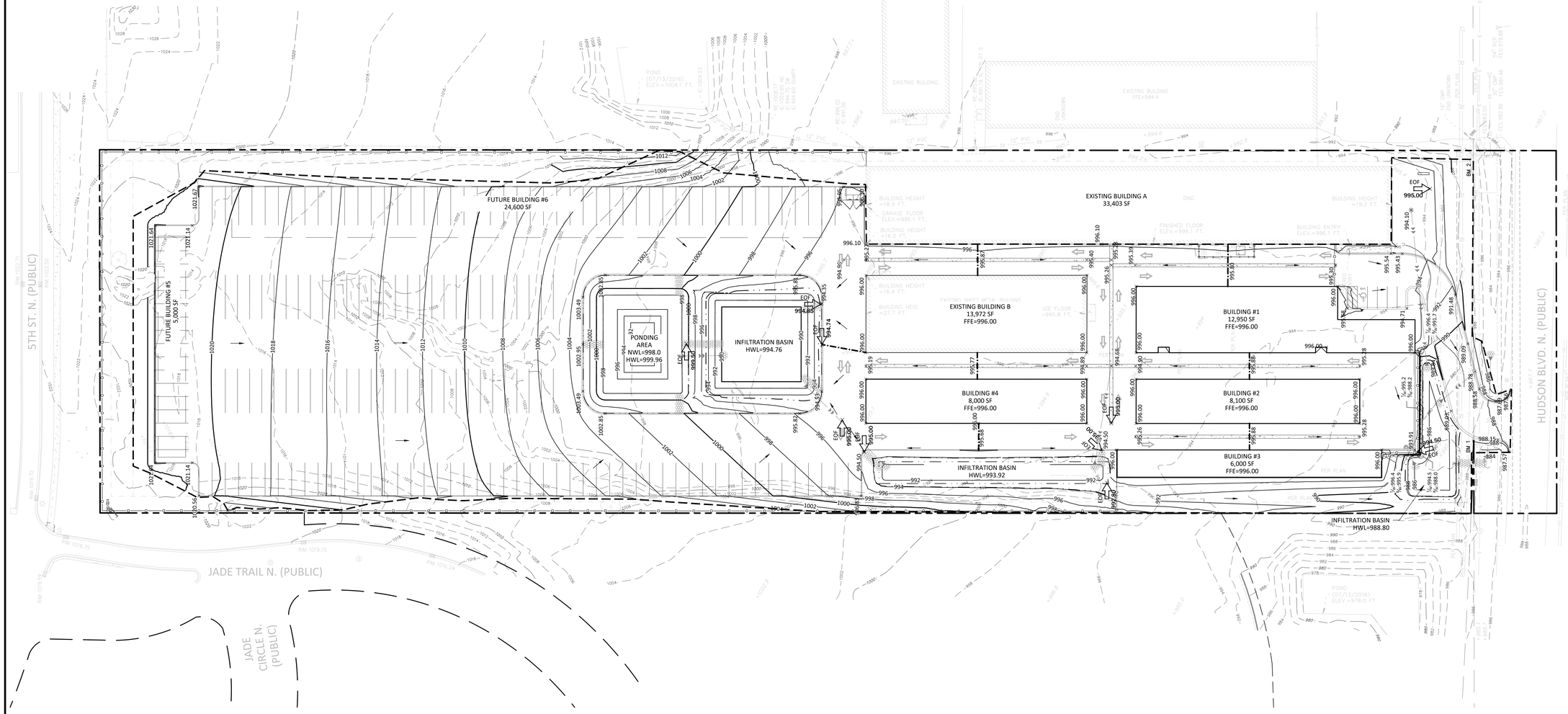

GRADING NOTES

1. PROPOSED CONTOURS ARE TO FINISHED SURFACE ELEVATION. SPOT ELEVATIONS ALONG PROPOSED CURB DENOTE GUTTER GRADE.
2. CONTRACTOR SHALL REVIEW PAVEMENT GRADIENT AND CONSTRUCT "GUTTER OUT" WHERE WATER DRAINS AWAY FROM CURB. ALL OTHER AREAS SHALL BE CONSTRUCTED AS "GUTTER IN" CURB.
3. ALL GRADIENT ON SIDEWALKS ALONG THE ADA ROUTE SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 5% (1:20), EXCEPT AT CURB RAMPS (1:12), AND A MAXIMUM CROSS SLOPE OF 2.08% (1:48). MAXIMUM SLOPE IN ANY DIRECTION ON AN ADA PARKING STALL OR ACCESS AISLE SHALL BE IN 2.08% (1:48). CONTRACTOR SHALL REVIEW AND VERIFY THE GRADIENT IN THE FIELD ALONG THE ADA ROUTES PRIOR TO PLACING CONCRETE OR BITUMINOUS. CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF THERE IS A DISCREPANCY BETWEEN THE GRADIENT IN THE FIELD VERSUS THE DESIGN GRADIENT. COORDINATE ALL WORK WITH PAVING CONTRACTOR.
4. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASES OF THIS PROJECT.
5. SAFETY NOTICE TO CONTRACTORS: IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE DUTY OF THE ENGINEER OR THE DEVELOPER TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN, ON OR NEAR THE CONSTRUCTION SITE.
6. CONTRACTOR SHALL COMPLETE THE SITE GRADING CONSTRUCTION IN ACCORDANCE WITH THE REQUIREMENTS OF THE OWNER'S SOILS ENGINEER. ALL SOIL TESTING SHALL BE COMPLETED BY THE OWNER'S SOILS ENGINEER. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED SOIL TESTS AND INSPECTIONS WITH THE SOILS ENGINEER.

   A GEOTECHNICAL ENGINEERING SOILS REPORT HAS BEEN COMPLETED BY:

   COMPANY: TERRACON
   ADDRESS: 13400 15TH AVE N, PLYMOUTH, MN
   PHONE: 763-489-3100
   DATED: 7/21/2016

   CONTRACTOR SHALL OBTAIN A COPY OF THE SOILS REPORT.
7. CONTRACTOR SHALL COMPLETE DEWATERING AS REQUIRED TO COMPLETE THE SITE GRADING CONSTRUCTION.
8. PRIOR TO PLACEMENT OF THE AGGREGATE BASE, A TEST ROLL SHALL BE PERFORMED ON THE STREET AND PARKING AREA SUBGRADE. CONTRACTOR SHALL PROVIDE A LOADED TANDEM AXLE TRUCK WITH A GROSS WEIGHT OF 25 TONS. THE TEST ROLLING SHALL BE AT THE DIRECTION OF THE SOILS ENGINEER AND SHALL BE COMPLETED IN AREAS AS DIRECTED BY THE SOILS ENGINEER. CORRECTION OF THE SUBGRADE SOILS SHALL BE COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SOILS ENGINEER.
9. REPLACE ALL SUBGRADE SOIL DISTURBED DURING THE CONSTRUCTION THAT HAVE BECOME UNSUITABLE AND WILL NOT PASS A TEST ROLL. REMOVE UNSUITABLE SOIL FROM THE SITE AND IMPORT SUITABLE SOIL AT NO ADDITIONAL COST TO THE OWNER.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING VEHICULAR AND PEDESTRIAN TRAFFIC CONTROL DEVICES SUCH AS BARRICADES, WARNING SIGNS, DIRECTIONAL SIGNS, FLAGMEN AND LIGHTS TO CONTROL THE MOVEMENT OF TRAFFIC WHERE NECESSARY. TRAFFIC CONTROL DEVICES SHALL CONFORM TO APPROPRIATE MINNESOTA DEPARTMENT OF TRANSPORTATION STANDARDS.
11. EXISTING TREES AND OTHER NATURAL VEGETATION WITHIN THE PROJECT AND/OR ADJACENT TO THE PROJECT ARE OF PRIME CONCERN TO THE CONTRACTOR'S OPERATIONS AND SHALL BE A RESTRICTED AREA. CONTRACTOR SHALL PROTECT TREES TO REMAIN AT ALL TIMES. EQUIPMENT SHALL NOT NEEDLESSLY BE OPERATED UNDER NEARBY TREES AND EXTREME CAUTION SHALL BE EXERCISED WHEN WORKING ADJACENT TO TREES. SHOULD ANY PORTION OF THE TREE BRANCHES REQUIRE REMOVAL TO PERMIT OPERATION OF THE CONTRACTOR'S EQUIPMENT, CONTRACTOR SHALL OBTAIN THE SERVICES OF A PROFESSIONAL TREE TRIMMING SERVICE TO TRIM THE TREES PRIOR TO THE BEGINNING OF OPERATION. SHOULD CONTRACTOR'S OPERATIONS RESULT IN THE BREAKING OF ANY LIMBS, THE BROKEN LIMBS SHOULD BE REMOVED IMMEDIATELY AND CUTS SHALL BE PROPERLY PROTECTED TO MINIMIZE ANY LASTING DAMAGE TO THE TREE. NO TREES SHALL BE REMOVED WITHOUT AUTHORIZATION BY THE ENGINEER. COSTS FOR TRIMMING SERVICES SHALL BE CONSIDERED INCIDENTAL TO THE GRADING CONSTRUCTION AND NO SPECIAL PAYMENT WILL BE MADE.
    11.a. RESTRICTED AREAS SHALL INCLUDE ALL DESIGNATED TREED AREAS OUTSIDE OF THE DESIGNATED CONSTRUCTION ZONE. ALL VEGETATION WITHIN THE RESTRICTED AREAS SHALL REMAIN.
    11.b. CONTRACTOR SHALL RESTRICT ALL GRADING AND CONSTRUCTION ACTIVITIES TO AREAS DESIGNATED ON THE PLANS. ACTIVITIES WITHIN THE CONSTRUCTION MAY BE RESTRICTED TO A NARROWER WIDTH IN THE FIELD TO SAVE ADDITIONAL TREES AS DIRECTED BY THE OWNER.
    11.c. ACTIVITIES PROHIBITED OUTSIDE OF THE CONSTRUCTION BOUNDARIES WOULD INCLUDE, BUT NOT BE LIMITED TO: SOIL AND OTHER MATERIAL STOCKPILING, EQUIPMENT OR MACHINERY STORAGE, DRIVING OF ANY VEHICLE, LEAKAGE OR SPILLAGE OF ANY "WASHOUT" OR OTHER TOXIC MATERIAL. THE COLLECTION OF OTHER DEBRIS AND SOIL STOCKPILING WILL BE IN AN AREA DETERMINED ON-SITE BY THE ENGINEER.
    11.d. ALL RESTRICTED AREAS SHALL BE FENCED OFF WITH BRIGHT ORANGE POLYETHYLENE SAFETY NETTING AND STEEL STAKES AS SHOWN ON THE TREE PROTECTION DETAIL. AT NO TIME SHALL THIS FENCING BE REMOVED OR ACTIVITY OF ANY KIND TAKE PLACE WITHIN IT. FINAL PLACEMENT OF ALL PROTECTIVE FENCING SHALL BE COMPLETE BEFORE ANY WORK COMMENCES ON-SITE.
    11.e. BEFORE COMMENCING WITH ANY EXCAVATION CONTRACTOR SHALL COMPLETE ALL PREPARATORY WORK REGARDING TREE REMOVAL, ROOT PRUNING, TREE PRUNING AND STUMP REMOVAL TO THE SATISFACTION OF THE OWNER.
    11.f. PREPARATORY WORK SHALL INCLUDE THE FOLLOWING AND SHALL BE COMPLETED UNDER THE DIRECT SUPERVISION OF THE OWNER'S REPRESENTATIVE:
    11.f.a. TREE REMOVAL: CONTRACTOR SHALL FELL THE TREES. AT NO TIME SHALL TREES BE BULLDOZED OUT, BUT SHALL BE CUT DOWN AND STUMPS REMOVED SEPARATELY. PRIOR TO THE FELLING OF ALL TREES, PROPER REMOVAL OF A PORTION OR ALL OF THE CANOPY SHALL BE COMPLETED SO THAT TREES IN THE RESTRICTED AREAS SHALL NOT BE INJURED IN THE PROCESS.
    11.f.b. ROOT PRUNING: BEFORE ANY STUMPS ARE TO BE REMOVED, ALL ROOTS SHALL BE SEVERED FROM ROOTS IN THE RESTRICTED AREAS BY SAW CUTTING WITH A VERMEER DESIGNED FOR ROOT PRUNING, BY HAND, OR WITH A CHAINSAW. TREE ROOTS PROJECTING INTO THE CONSTRUCTION ZONE SHALL BE EXPOSED PRIOR TO ROOT PRUNING WITH SMALL MACHINERY, I.E..., BOBCAT.
    11.f.c. STUMP REMOVAL: AT SUCH TIME THAT ROOTS HAVE BEEN PROPERLY SEVERED, STUMPS MAY BE REMOVED. WHERE REMOVAL OF CERTAIN STUMPS COULD CAUSE DAMAGE TO EXISTING PROTECTED TREES, TREE STUMPS SHALL BE GROUND OUT. ALL STUMP REMOVAL SHALL BE UNDER THE DIRECT SUPERVISION OF THE OWNER'S REPRESENTATIVE.
    11.f.d. TREE PRUNING: PROPER PRUNING OF TREES IN THE RESTRICTED ZONE SHALL BE DIRECTED BY AND SUPERVISION AT ALL TIMES BY THE OWNER'S REPRESENTATIVE.
    11.g. AN OWNER'S REPRESENTATIVE WILL BE AVAILABLE AT ALL TIMES DURING THE PREPARATORY AND CONSTRUCTION PERIOD.
    11.h. MULCH RATHER THAN SEED OR SOD WILL BE USED AT THE BASE OF QUALITY TREES TO A PERIMETER DETERMINED BY THE OWNER'S REPRESENTATIVE. AREAS TO BE SEEDED FOR EROSION CONTROL PURPOSES WITHIN THE CONSTRUCTION ZONE ARE TO BE DETERMINED BY THE OWNER'S REPRESENTATIVE. NATURAL GROUND COVER WILL BE MAINTAINED WHEREVER POSSIBLE.
    11.i. THE USE OF RETAINING WALLS NEAR TREES, IN ADDITION TO THOSE REQUIRED ON THE PLANS SHALL BE DETERMINED IN THE FIELD, BASED ON TREE LOCATIONS AND TOPOGRAPHY.
12. EXCAVATE TOPSOIL FROM AREAS TO BE FURTHER EXCAVATED OR REGRADED AND STOCKPILE IN AREAS DESIGNATED ON THE SITE. CONTRACTOR SHALL SALVAGE ENOUGH TOPSOIL FOR RESPREADING ON THE SITE AS SPECIFIED. EXCESS TOPSOIL SHALL BE PLACED IN EMBANKMENT AREAS, OUTSIDE OF BUILDING PADS, ROADWAYS AND PARKING AREAS. CONTRACTOR SHALL SUBCUT CUT AREAS, WHERE TURF IS TO BE ESTABLISHED, TO A DEPTH OF 6 INCHES. RESPREAD TOPSOIL IN AREAS WHERE TURF IS TO BE ESTABLISHED TO A MINIMUM DEPTH OF 6 INCHES.
13. TRENCH BORROW CONSTRUCTION: IF ALLOWED BY THE OWNER, CONTRACTOR SHALL COMPLETE "TRENCH BORROW" EXCAVATION IN AREAS DIRECTED BY THE ENGINEER IN ORDER TO OBTAIN STRUCTURAL MATERIAL. TREES SHALL NOT BE REMOVED OR DAMAGED AS A RESULT OF THE EXCAVATION, UNLESS APPROVED BY THE ENGINEER. THE EXCAVATION SHALL COMMENCE A MINIMUM OF 10 FEET FROM THE LIMIT OF THE BUILDING PAD. THE EXCAVATION FROM THIS LIMIT SHALL EXTEND AT A MINIMUM SLOPE OF 1 FOOT HORIZONTAL TO 1 FOOT VERTICAL (1:1) DOWNWARD AND OUTWARD FROM THE FINISHED SURFACE GRADE ELEVATION. THE TRENCH BORROW EXCAVATION SHALL BE BACKFILLED TO THE PROPOSED FINISHED GRADE ELEVATION, AND SHALL BE COMPACTED IN ACCORDANCE WITH REQUIREMENTS OF THE QUALITY COMPACTION METHOD AS OUTLINED IN MN/DOT SPECIFICATION 2105.3F2. SNOW FENCE SHALL BE FURNISHED AND PLACED ALONG THE PERIMETER OF THE TRENCH BORROW AREA WHERE THE SLOPES EXCEED 2 FOOT HORIZONTAL TO 1 FOOT VERTICAL (2:1).
14. FINISHED GRADING SHALL BE COMPLETED, CONTRACTOR SHALL UNIFORMLY GRADE AREAS WITHIN LIMITS OF GRADING, INCLUDING ADJACENT TRANSITION AREAS. PROVIDE A SMOOTH FINISHED SURFACE WITHIN SPECIFIED TOLERANCES, WITH UNIFORM LEVELS OR SLOPES BETWEEN POINTS WHERE ELEVATIONS ARE SHOWN, OR BETWEEN SUCH POINTS AND EXISTING GRADES. AREAS THAT HAVE BEEN FINISHED GRADED SHALL BE PROTECTED FROM SUBSEQUENT CONSTRUCTION OPERATIONS, TRAFFIC AND EROSION. REPAIR ALL AREAS THAT HAVE BECOME RUTTED, ERODED OR HAS SETTLED BELOW THE CORRECT GRADE. ALL AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO EQUAL OR BETTER THAN ORIGINAL CONDITION OR TO THE REQUIREMENTS OF THE NEW WORK.
15. TOLERANCES
    15.a. THE RESIDENTIAL BUILDING SUBGRADE FINISHED SURFACE ELEVATION SHALL NOT VARY BY MORE THAN 0.30 FOOT ABOVE, OR 0.30 FOOT BELOW, THE PRESCRIBED ELEVATION AT ANY POINT WHERE MEASUREMENT IS MADE.
    15.b. THE COMMERCIAL BUILDING SUBGRADE FINISHED SURFACE ELEVATION SHALL NOT VARY BY MORE THAN 0.10 FOOT ABOVE, OR 0.10 FOOT BELOW, THE PRESCRIBED ELEVATION AT ANY POINT WHERE MEASUREMENT IS MADE.
    15.c. THE STREET OR PARKING AREA SUBGRADE FINISHED SURFACE ELEVATION SHALL NOT VARY BY MORE THAN 0.05 FOOT ABOVE, OR 0.10 FOOT BELOW, THE PRESCRIBED ELEVATION OF ANY POINT WHERE MEASUREMENT IS MADE.
    15.d. AREAS WHICH ARE TO RECEIVE TOPSOIL SHALL BE GRADED TO WITHIN 0.30 FOOT ABOVE OR BELOW THE REQUIRED ELEVATION, UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
    15.e. TOPSOIL SHALL BE GRADED TO PLUS OR MINUS 1/2 INCH OF THE SPECIFIED THICKNESS.
16. AFTER THE SITE GRADING IS COMPLETED, IF EXCESS OR SHORTAGE OF SOIL MATERIAL EXISTS, CONTRACTOR SHALL TRANSPORT ALL EXCESS SOIL MATERIAL OFF THE SITE TO AN AREA SELECTED BY THE CONTRACTOR, OR IMPORT SUITABLE MATERIAL TO THE SITE.
17. CONTRACTOR SHALL DETERMINE THE LOCATION OF ANY HAUL ROADS THAT MAY BE REQUIRED TO COMPLETE THE SITE GRADING CONSTRUCTION AND SHALL INDICATE HAUL ROADS ON EROSION AND SEDIMENT CONTROL "SITE MAP". CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE GOVERNING AUTHORITY OF EACH ROADWAY. CONTRACTOR SHALL POST WHATEVER SECURITY, AND COMPLY WITH ALL CONDITIONS WHICH ARE REQUIRED BY EACH GOVERNING AUTHORITY OF EACH ROADWAY.
18. DISTURBED AREAS WITHIN WETLAND MITIGATION SITE AND ANY DISTURBED AREAS WITHIN THE WETLAND SHALL BE RESTORED WITH 6 TO 12 INCHES OF ORGANIC SOILS, PREFERABLY SOILS THAT WERE PREVIOUSLY REMOVED FROM WETLAND AREAS. SEEDING IN THE WETLAND MITIGATION AREAS ABOVE THE NORMAL WATER LEVEL SHALL BE MN STATE SEED MIX 34-271, WET MEADOW SOUTH AND WEST, OR APPROVED EQUAL. FOR STATE SEED MIXES, OATS AND WINTER WHEAT SHOULD BE SELECTED BASED ON THE TIME OF YEAR THAT THE MIX IS BEING USED. OATS SHOULD BE INCLUDED IN MIXES IF BEING USED BETWEEN OCTOBER 15TH AND AUGUST 1ST. WINTER WHEAT SHOULD BE USED BETWEEN AUGUST 1ST AND OCTOBER 15TH. THE SEEDING RATE IS THE SAME FOR OATS AND WINTER WHEAT. MIX 34-271 SHOULD BE APPLIED AT 12 POUNDS PER ACRE. SEED SHALL BE WATERED UNTIL A HEALTHY STAND OF VEGETATION IS OBTAINED.
19. FILL PLACED WITHIN THE BUILDING PAD AREAS SHALL BE IN CONFORMANCE WITH HUD/FHA PROCEDURES AND DATA SHEET 79G.
20. RETAINING WALL(S) SHALL BE CONSTRUCTED OF MODULAR BLOCK. CONTRACTOR SHALL SUBMIT TO THE ENGINEER AND LOCAL AUTHORITY CERTIFIED ENGINEERING DRAWINGS, DESIGN CALCULATIONS AND SOIL BORINGS. THE CERTIFIED ENGINEER FOR THE RETAINING WALL(S) SHALL PROVIDE CONSTRUCTION OBSERVATIONS OF THE RETAINING WALL IMPROVEMENT, AND A LETTER CERTIFYING THE INSTALLATION OF THE WALL(S) WAS CONSTRUCTED IN CONFORMANCE WITH THE PLANS AND SPECIFICATIONS.

**SEE SHEET C4.02 FOR CITY OF LAKE ELMO STANDARD PLAN NOTES FOR GRADING AND EROSION CONTROL

INFILTRATION BASIN CONSTRUCTION NOTES

1. INFILTRATION BASIN CONSTRUCTION REQUIREMENTS:
   (INCLUDES ALL DEVICES USING FILTRATION THROUGH A SOIL MEDIUM TO CAPTURE STORM WATER RUNOFF BUT ARE NOT LIMITED TO: INFILTRATION BASINS, INFILTRATION TRENCHES, BIOFILTRATION BASINS, RAINWATER GARDENS, SAND FILTERS, ORGANIC FILTERS, BIORETENTION AREAS, ENHANCED SWALES, DRY STORAGE PONDS WITH UNDERDRAIN DISCHARGE, AND NATURAL DEPRESSIONS (IF USED TO PROVIDE STORMWATER TREATMENT OF NEW IMPERIOUS SURFACE))
   1.a. THE INFILTRATION BASIN SHALL BE EXCAVATED TO NO LOWER THAN 2.0 FEET ABOVE FINISHED GRADE DURING CONSTRUCTION WITH THE EXCEPTION OF INSTALLING THE INLET FLARED END SECTION (IF APPLICABLE). ONCE STREET AND UTILITY CONSTRUCTION CEASES AND "FINAL STABILIZATION" (AS DEFINED ACCORDING TO MNR1000001 CONSTRUCTION STORM WATER PERMIT SECTION IV.G) OF CONTRIBUTING DRAINAGE AREA HAS BEEN COMPLETED, AND ONLY AFTER THE OWNER'S ENGINEER AUTHORIZES CONTRACTOR TO PROCEED, INFILTRATION BASIN SHALL BE EXCAVATED TO FINISHED GRADE.
   1.b. HEAVY EQUIPMENT SHALL NOT TRAVEL WITHIN THE INFILTRATION BASIN AREA. EXCAVATION WITHIN THE INFILTRATION BASIN SHALL BE PERFORMED BY USE OF A BACKHOE BUCKET WITH TEETH. CONTRACTOR SHALL DISC OR TILL THE SOILS IF REQUIRED BY THE SOILS ENGINEER.
   1.c. INFILTRATION BASIN SHALL BE PROTECTED BY SILT FENCE DURING ALL CONSTRUCTION ACTIVITIES. ALL DEPOSITED SEDIMENT DURING CONSTRUCTION ACTIVITY SHALL BE PROPERLY DISPOSED OF DOWNSTREAM OF INFILTRATION BASIN, IF POSSIBLE.
   1.d. ALL FLARED END SECTION INLETS AND CATCH BASIN MANHOLE INLETS SHALL HAVE INLET EROSION CONTROL PROTECTION IN PLACE UNTIL FINAL STABILIZATION BASIN HAS OCCURRED.
   1.e. ABOVE THE INFILTRATION BASIN OUTLET ELEVATION, INCLUDING THE BERM AND DISTURBED AREAS, A MINIMUM OF 4" DEPTH OF TOPSOIL MATERIAL SHALL BE PLACED TO THE FINISHED GRADE ELEVATION. TOPSOIL SHALL MEET (MN/DOT) SPECIFICATION. THE AREA SHALL BE SEEDED WITH MN STATE SEED MIXTURE 25-131 (LOW MAINTENANCE TURF) APPLIED AT A RATE OF 220 LBS/ACRE, OR MN STATE SEED MIXTURE 35-241 (MESIC PRAIRIE GENERAL) APPLIED AT A RATE OF 36.5 LBS/ACRE. SOD MEETING (MN/DOT) SPECIFICATION 3878.2-B CAN BE SUBSTITUTED FOR SEED.

      SEED APPLICATION PROCEDURE:
      MIXTURE APPLICATION PROCEDURES SHALL FOLLOW (MN/DOT) SPECIFICATION 2575.3. SEED SHALL BE SECURED BY USE OF (MN/DOT) SPECIFICATION 3885 BLANKET.

      ABSENT A SOIL TEST, FERTILIZER MEETING ANALYSIS 22-5-10 (NPK) 80% W.I.N. SHALL BE APPLIED AT A RATE OF 350 LBS/ACRE FOR SEED MIXTURE 25-131, OR FERTILIZER WITH AN ANALYSIS OF 18-1-8 (NPK) (FOR LOAMS, CLAY LOAM SOIL), OR 17-10-7 (NPK) (FOR SANDS WITH LESS THAN 30% ORGANIC AND CLAY MATTER) NATURAL BASE SHALL BE APPLIED AT A RATE OF 150 LBS/ACRE FOR SEED MIXTURE 35-241.
   1.f. BELOW THE INFILTRATION BASIN OUTLET, INCLUDING BASIN FLOOR, PLACE PLANTING MEDIUM SOIL BASED ON SITE SOIL CONDITIONS, AND ALSO BASED ON LANDSCAPE ARCHITECT, WATERSHED, AND/OR CITY RECOMMENDATIONS (SEE DETAIL ON PLAN). DISTURBED AREAS TO BE SEEDED WITH MN STATE SEED MIXTURE 33-261 (STORMWATER SOUTH AND WEST) APPLIED AT A RATE OF 35 LBS/ACRE. DRAINTILE INSTALLATION (IF REQUIRED) SHALL BE INSTALLED CONCURRENTLY WITH FLOOR CONSTRUCTION.

      NOTE: INFILTRATION BASIN FLOOR EXCAVATING, PLANTING MEDIUM SOIL PLACEMENT, DRAINTILE INSTALLATION, ETC. SHALL TAKE PLACE ONLY AFTER THE OWNER'S ENGINEER AUTHORIZES CONTRACTOR TO PROCEED AND AFTER INFILTRATION BASIN SIDESLOPES (ABOVE OUTLET ELEVATION) HAVE UNDERGONE "FINAL STABILIZATION" WHICH INCLUDES FLUSHING OUT ACCUMULATED SILT AND SEDIMENT FROM CONTRIBUTING STORM SEWER. EXCAVATED BASIN MATERIAL SHALL BE DISPOSED OF DOWNSTREAM OF BASIN AREA, IF POSSIBLE, OR OFF-SITE.
   1.g. CONTRACTOR SHALL RESEED OR REPLANT ANY AREAS ON WHICH THE ORIGINAL SEED HAS FAILED TO GERMINATE AS DIRECTED BY THE OWNER'S ENGINEER.
   1.h. IF ALTERNATIVE METHODS OF INFILTRATION BASIN CONSTRUCTION ARE PROPOSED BY THE CONTRACTOR, THOSE ALTERNATIVE METHODS WILL REQUIRE WRITTEN APPROVAL BY THE OWNER'S ENGINEER.
   1.i. COSTS FOR REMOBILIZATION (IF REQUIRED) TO COMPLETE INFILTRATION BASIN CONSTRUCTION WILL BE CONDUCTED AT THE CONTRACTOR'S EXPENSE.
2. PERFORMANCE TESTING OF INFILTRATION BASINS:
   (TO BE CONDUCTED IF DESIGN INFILTRATION RATE WAS VERIFIED ACCORDING TO ASTM D-3385-03 "STANDARD TEST METHOD FOR INFILTRATION RATE OF SOILS IN FIELD USING DOUBLE-RING INFILTROMETER".)

   ALL COSTS RELATED TO THE PERFORMANCE INFILTRATION TESTING SHALL BE PAID BY THE OWNER, EXCEPT AS NOTED. THE INFILTRATION BASINS WILL BE TESTED IN ACCORDANCE TO THE FOLLOWING PROCEDURE:
   2.a. A MINIMUM OF TWO INFILTRATION TESTS SHALL BE COMPLETED FOR EACH INFILTRATION BASIN (0.5 ACRE FLOOR AREA OR LESS). THE REQUIRED NUMBER OF TESTS SHALL BE VERIFIED WITH THE SOILS ENGINEER AND THE GOVERNING AUTHORITIES.
   2.b. TWO ADDITIONAL TESTS WILL BE REQUIRED FOR EACH 0.5 ACRE OF INFILTRATION BASIN FLOOR AREA.
   2.c. TEST PROCEDURE WILL FOLLOW ASTM D-3385-09 "STANDARD TEST METHOD FOR INFILTRATION RATE OF SOILS IN FIELD USING DOUBLE-RING INFILTROMETER".
   2.d. TEST WILL BE CONDUCTED AT THE FINISHED BASIN FLOOR ELEVATION.
   2.e. TEST WILL BE FOR A PERIOD AS OUTLINED IN ASTM D-3385-09.
   2.f. THE TEST RESULTS WILL BE AVERAGED TO OBTAIN THE INFILTRATION RATE USED FOR ACCEPTANCE.
   2.g. THE LOWEST MEASURED INFILTRATION RATE SHALL EXCEED THE DESIGN INFILTRATION RATE OF 0.45 INCHES/HOUR.
   2.h. THE AVERAGE OF THE MEASURED INFILTRATION RATES MUST MEET OR EXCEED THE DESIGN RATE OF 0.45 INCHES/HOUR DIVIDED BY THE CORRECTION FACTOR USED IN CALCULATING THE DESIGN RATE AS NOTED IN TABLE 12.3M.8 FROM THE LATEST EDITION OF THE MINNESOTA STORMWATER MANUAL.

      IF THE INFILTRATION RATE AS TESTED DOES NOT MEET OR EXCEED THE REQUIRED RATE AS DETERMINED ABOVE, CONTRACTOR WILL BE REQUIRED TO COMPLETE SOIL CORRECTIVE AND/OR SOIL REPLACEMENT WORK AS NECESSARY WITHIN THE INFILTRATION BASIN AREA AT THE CONTRACTOR'S EXPENSE UNTIL THE INFILTRATION RATE AS TESTED EXCEEDS THE REQUIRED RATE AS DETERMINED ABOVE. SUBSEQUENT RE-TESTING WILL BE REQUIRED UNTIL THE INFILTRATION AS TESTED EXCEEDS THE REQUIRED RATE AS DETERMINED ABOVE. RE-TESTING SHALL BE AT THE CONTRACTOR'S EXPENSE AND WILL BE DEDUCTED FROM THE AMOUNT DUE THE CONTRACTOR.

NORTH
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SCALE IN FEET

LEGEND

	PROPOSED	EXISTING
PROPERTY LIMIT		
CURB & GUTTER		
STORM SEWER		
DRAINTILE		
BUILDING		
RETAINING WALL		
WETLAND LIMITS		
TREELINE		
SPOT ELEVATION	902.5	902.5
CONTOUR	902	902
RIP RAP		
OVERFLOW ELEV.	EOF 902.5	ST 5 902.5
SOIL BORINGS		
GRADE BREAK		

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Location
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Summary
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Approved: MCA Book / Page:
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Sheet Title
GRADING AND DRAINAGE PLAN

Sheet No. Revision
C4.01

Project No. WAS20602

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1. THE CONTRACTOR SHALL CONDUCT OPERATIONS AND IMPLEMENT MINNESOTA POLLUTION CONTROL AGENCY (MPCA) BEST MANAGEMENT PRACTICES (BMP) TO CONTROL SITE SILTATION AND EROSION INTO DRAINAGE WAYS. THE CONTRACTOR SHALL COMPLY WITH ALL CONDITIONS AND COMPLETION DATES RELATIVE TO ALL PERMITS ISSUED FOR THE WORK TO BE COMPLETED. THE ENGINEER MAY ISSUE A STOP WORK ORDER FOR ALL DEVELOPMENT WORK AND BUILDING CONSTRUCTION FOR NONCOMPLIANCE WITH THESE MEASURES.

2. SEQUENCING. ALL SILT FENCE AND OTHER EROSION CONTROL MEASURES SHALL BE IN PLACE AND APPROVED BY ENGINEER PRIOR TO ANY REMOVALS, EXCAVATION OR CONSTRUCTION AND SHALL BE MAINTAINED UNTIL VIABLE TURF OR GROUND COVER HAS BEEN ESTABLISHED AND APPROVED BY THE ENGINEER.

3. SILT FENCE. THE CONTRACTOR SHALL INSTALL SILT FENCE AT THE LOCATIONS SHOWN ON THE PLANS AND IN ACCORDANCE WITH THE CITY STANDARD DETAILS. SILT FENCE DAMS AND INTERIM SUMPS SHALL BE PLACED TO INTERCEPT SILT FROM CONCENTRATED RUNOFF FROM OPEN GRADED AREAS. ADDITIONAL SILT FENCE SHALL BE REQUIRED AS DIRECTED BY THE ENGINEER.

4. STOCKPILES. ALL STOCKPILE AREAS SHALL HAVE SILT FENCE OR SEDIMENT TRAPPING SYSTEMS PLACED AROUND THE ENTIRE PERIMETER.

5. INLET PROTECTION. THE CONTRACTOR SHALL INSTALL INLET PROTECTION ON ALL EXISTING STORM SEWER INLETS IN ACCORDANCE WITH THE CITY STANDARD DETAILS. INLET PROTECTION SHALL ALSO BE PROVIDED ON ALL PROPOSED STORM SEWER INLETS IMMEDIATELY FOLLOWING CONSTRUCTION OF THE INLET. INLET PROTECTION MUST BE INSTALLED IN A MANNER THAT WILL NOT IMPOUND WATER FOR EXTENDED PERIODS OF TIME OR IN A MANNER THAT PRESENTS A HAZARD TO VEHICULAR OR PEDESTRIAN TRAFFIC.

6. TEMPORARY SEDIMENT BASINS. THE CONTRACTOR SHALL INCORPORATE TEMPORARY SEDIMENT BASINS THROUGHOUT THE CONSTRUCTION SITE TO CAPTURE RUNOFF AND SLOW THE FLOW OF WATER AND ALLOW SEDIMENT TO SETTLE OUT. TEMPORARY SEDIMENT BASINS SHALL BE INSTALLED AS DIRECTED BY THE CITY ENGINEER.

7. ROCK CONSTRUCTION ENTRANCE. A ROCK ENTRANCE SHALL BE CONSTRUCTED AND MAINTAINED AS SHOWN ON THE PLAN TO REDUCE TRACKING OF SILT AND DIRT ONTO THE PUBLIC STREETS. A GEOTEXTILE FABRIC SHALL BE PLACED UNDERNEATH THE ROCK. THE ROCK SHALL BE PERIODICALLY REPLENISHED TO MAINTAIN THE INTENDED PERFORMANCE. MUD AND DEBRIS SHALL BE REMOVED OR SCRAPED FROM TIRES AND VEHICLE UNDERCARRIAGE PRIOR TO LEAVING THE SITE.

8. STREET SWEEPING. ALL STREETS USED FOR ACCESS TO THE SITE AND HAUL ROUTES USED FOR CONSTRUCTION EQUIPMENT AND MATERIAL SUPPLIES SHALL BE CLEANED AT THE END OF EACH WORKING DAY. THE CITY OR ENGINEER MAY ORDER ADDITIONAL SWEEPING OF THE STREETS AS DEEMED REQUIRED AT DEVELOPER/CONTRACTOR EXPENSE.

9. POSITIVE DRAINAGE AND PROTECTION. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE THROUGHOUT THE SITE AT ALL TIMES. LOW POINTS WITHIN AND ALONG ROADWAYS ARE EXPRESSLY PROHIBITED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY DITCHES, PIPING OR OTHER MEANS TO FACILITATE PROPER DRAINAGE DURING CONSTRUCTION. TO PROTECT PREVIOUSLY GRADED AREAS FROM EROSION, WOOD FIBER BLANKET SHALL BE PLACED IMMEDIATELY ON STEEP SLOPES (1:3 OR GREATER) AND EMBANKMENTS, PERMANENT AND TEMPORARY PONDS, AND OUTLETS AND OVERFLOWS TO PROTECT THE COMPLETED GRADE AND MINIMIZE SILT IN THE RUNOFF.

STANDARD PLAN NOTES

GRADING AND EROSION CONTROL PLANS

FEBRUARY 2013

CITY OF LAKE ELMO

STANDARD DRAWING NO. 600A

LAKE ELMO

10. DRAINAGE DITCHES. THE NORMAL WETTED PERIMETER OF ANY TEMPORARY OR PERMANENT DRAINAGE DITCH OR SWALE THAT DRAINS WATER FROM ANY PORTION OF THE CONSTRUCTION SITE, OR DIVERTS WATER AROUND THE SITE, MUST BE STABILIZED WITHIN 200 LINEAL FEET FROM THE PROPERTY EDGE, OR FROM THE POINT OF DISCHARGE INTO ANY SURFACE WATER. STABILIZATION OF THE LAST 200 LINEAL FEET MUST BE COMPLETED WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER. STABILIZATION OF THE REMAINING PORTIONS OF ANY TEMPORARY OR PERMANENT DITCHES OR SWALES MUST BE COMPLETE WITHIN 14 DAYS AFTER CONNECTING TO A SURFACE WATER AND CONSTRUCTION IN THAT PORTION OF THE DITCH HAS TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY OR PERMANENT DITCHES OR SWALES THAT ARE BEING USED AS A SEDIMENT CONTAINMENT SYSTEM (WITH PROPERLY DESIGNED ROCK DITCH CHECKS, BIO ROLLS, SILT DIKES, ETC.) DO NOT NEED TO BE STABILIZED. THESE AREAS MUST BE STABILIZED WITHIN 24 HOURS AFTER NO LONGER BEING USED AS A SEDIMENT CONTAINMENT SYSTEM.

11. TURF ESTABLISHMENT. ALL EXPOSED SOIL AREAS MUST BE STABILIZED AS SOON AS POSSIBLE TO LIMIT SOIL EROSION BUT IN NO CASE LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.

12. MAINTENANCE AND INSPECTION. EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION AND UNTIL SATISFACTORY ESTABLISHMENT OF PERMANENT GROUND COVER IS OBTAINED. ALL EROSION AND SEDIMENTATION CONTROL MEASURES, AND STORMWATER OUTFALLS MUST BE BE INSPECTED WEEKLY, AND WITHIN 24 HOURS OF THE SITE RECEIVING 0.5 INCHES OF RAIN. REPAIRS MUST BE MADE ON THE SAME DAY OR FOLLOWING DAY OF THE INSPECTION. UNSATISFACTORY CONDITIONS NOT REPAIRED OR CLEANED UP WITHIN 48-HOURS OF NOTIFICATION SHALL RESULT IN A STOP WORK ORDER, AND/OR SAID WORK SHALL BE COMPLETED AT CONTRACTOR'S EXPENSE.

13. REMOVAL. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL TEMPORARY EROSION CONTROL MEASURES, STRUCTURES AND DEVICES ONLY AFTER RECEIVING ENGINEER APPROVAL. ALL DEBRIS, STAKES, AND SILTS ALONG SILT FENCES SHALL BE REMOVED AND DISPOSED OFF SITE. THE CONTRACTOR SHALL HAND RAKE SILTED AREAS ALONG THE FENCE LOCATIONS TO PROVIDE A SMOOTH FINAL GRADE AND SHALL RESTORE THE GROUND SURFACE WITH SEED OR SOD, AS REQUIRED, TO MATCH THE FINISHED GRADE TO THE ADJACENT AREA.

14. FINAL STORM SEWER SYSTEM. AT THE COMPLETION OF THE WORK AND BEFORE THE FINAL WALK THROUGH, THE CONTRACTOR SHALL REMOVE STORM SEWER INLET PROTECTION MEASURES AND THOROUGHLY FLUSH THE STORM SEWER SYSTEM. SEDIMENT AND DEBRIS SHALL BE COMPLETELY REMOVED AND CLEANED AT THE INLETS, OUTLETS, AND DOWNSTREAM OF EACH OUTLET. RIPRAP AND GEOTEXTILE FABRIC MAY REQUIRE REPLACEMENT AS DIRECTED BY THE ENGINEER TO OBTAIN A LIKE NEW INSTALLATION ACCEPTABLE TO THE CITY.

15. DITCH CHECK (BIOROLL BLANKET SYSTEM). BIOROLL AND BLANKET SYSTEMS SHALL BE BE INSTALLED AS DITCH CHECKS ONLY IN SPECIFIED LOCATIONS AS APPROVED BY THE CITY ENGINEER. BIOROLLS ARE NOT TO BE UTILIZED IN AREAS WHERE VEHICLE AND CONSTRUCTION TRAFFIC OCCUR.

STANDARD PLAN NOTES

GRADING AND EROSION CONTOL PLANS

FEBRUARY 2013

CITY OF LAKE ELMO

STANDARD DRAWING NO. 600B

LAKE ELMO

16. FLOTATION SILT CURTAIN. FLOTATION SILT CURTAIN SHALL BE UTILIZED WHEN CONSTRUCTION ACTIVITIES OCCUR DIRECTLY ADJACENT TO LAKES, STREAMS OR WETLANDS IN ORDER TO CONTAIN SEDIMENTS NEAR THE BANKS OF WORKING AREAS. THE INSTALLATION OF FLOTATION SILT CURTAINS WILL BE REQUIRED AS DIRECTED BY THE CITY ENGINEER.

17. CONCRETE WASHOUT ONSITE. ALL LIQUID AND SOLID WASTES GENERATED BY CONCRETE WASHOUT OPERATIONS MUST BE CONTAINED IN A LEAK-PROOF CONTAINMENT FACILITY OR IMPERMEABLE LINER. A COMPACTED CLAY LINER THAT DOES NOT ALLOW WASHOUT LIQUIDS TO ENTER GROUND WATER IS CONSIDERED AN IMPERMEABLE LINER. THE LIQUID AND SOLID WASTES MUST NOT CONTACT THE GROUND, AND THERE MUST NOT BE RUNOFF FROM THE CONCRETE WASHOUT OPERATIONS OR AREAS. LIQUID AND SOLID WASTES MUST BE DISPOSED OF PROPERLY AND IN COMPLIANCE WITH MPCA REGULATIONS. A SIGN MUST BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES.

STANDARD PLAN NOTES

GRADING AND EROSION CONTOL PLANS

FEBRUARY 2013

CITY OF LAKE ELMO

STANDARD DRAWING NO. 600C

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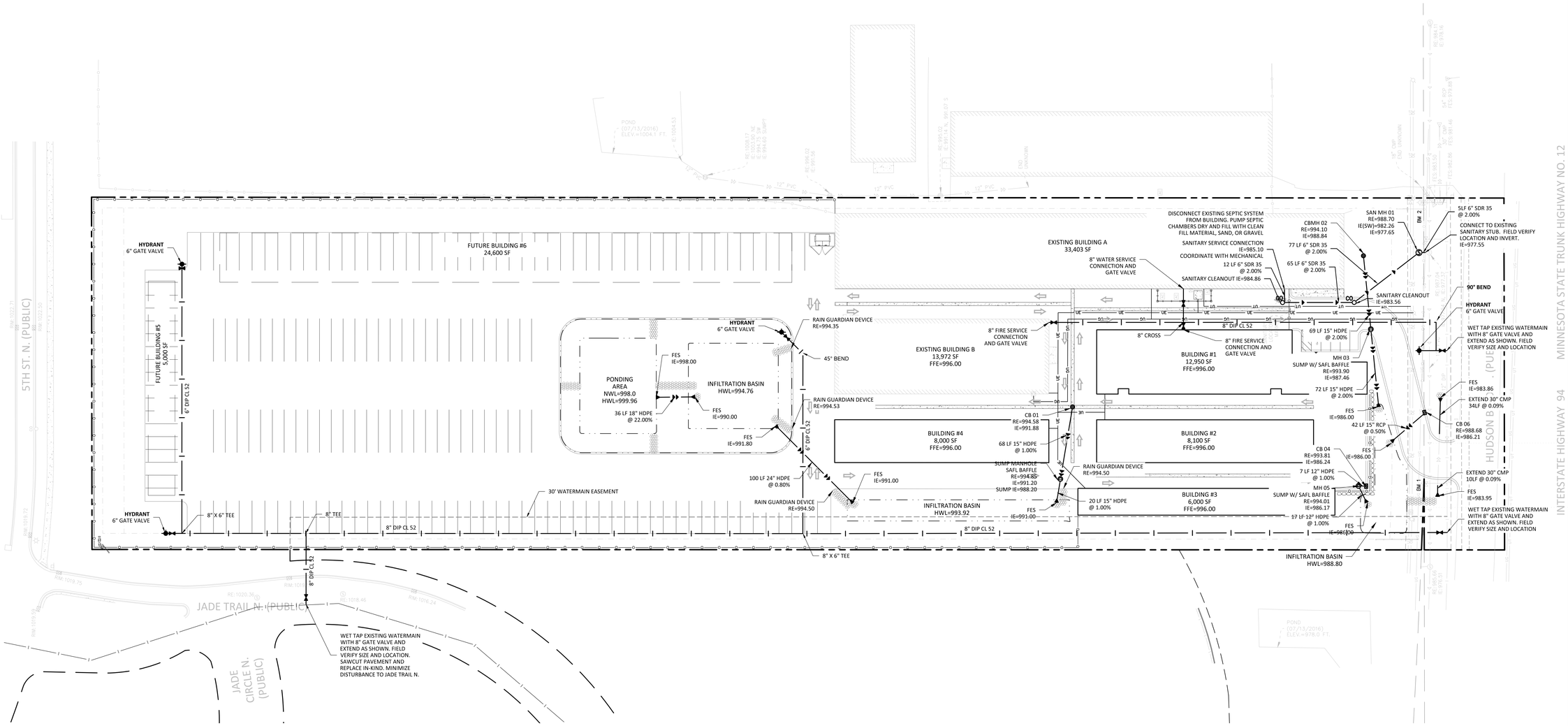
CITY STANDARD GRADING & EC NOTES

Sheet No. Revision

C4.02

Project No. WAS20602



UTILITY CONSTRUCTION NOTES

1. THE UTILITY IMPROVEMENTS FOR THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "STANDARD UTILITIES SPECIFICATIONS" AS PUBLISHED BY THE CITY ENGINEERS ASSOCIATION OF MINNESOTA (CEAM), EXCEPT AS MODIFIED HEREIN. CONTRACTOR SHALL OBTAIN A COPY OF THESE SPECIFICATIONS.
   - 1.1. ALL UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY REQUIREMENTS.
   - 1.2. CONTRACTOR SHALL NOT OPEN, TURN OFF, INTERFERE WITH, OR ATTACH ANY PIPE OR HOSE TO OR TAP WATERMAIN BELONGING TO THE CITY UNLESS DULY AUTHORIZED TO DO SO BY THE CITY. ANY ADVERSE CONSEQUENCES OF ANY SCHEDULED OR UNSCHEDULED DISRUPTIONS OF SERVICE TO THE PUBLIC ARE THE LIABILITY OF CONTRACTOR.
   - 1.3. A MINIMUM VERTICAL SEPARATION OF 18 INCHES AND HORIZONTAL SEPARATION OF 10-FEET BETWEEN OUTSIDE PIPE DIAMETERS IS REQUIRED AT ALL WATERMAIN AND SEWER MAIN (BUILDING, STORM AND SANITARY) CROSSINGS.
2. ALL MATERIALS SHALL BE AS SPECIFIED IN CEAM SPECIFICATIONS EXCEPT AS MODIFIED HEREIN.
   - 2.1. ALL MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY.
   - 2.2. ALL SANITARY SEWER TO BE PVC SDR-35, UNLESS NOTED OTHERWISE.
     - 2.2.1. ALL SANITARY SEWER SERVICES TO BUILDING SHALL BE PVC SCH 40 CONFORMING TO ASTM D2665.
   - 2.3. ALL WATERMAIN TO BE DUCTILE IRON - CLASS 52, UNLESS NOTED OTHERWISE.
     - 2.3.1. ALL WATERMAIN TO HAVE 7.5-FEET OF COVER OVER TOP OF WATERMAIN.
     - 2.3.2. PROVIDE THRUST BLOCKING AND MECHANICAL JOINT RESTRAINTS ON ALL WATERMAIN JOINTS PER CITY STANDARDS.
   - 2.4. ALL STORM SEWER PIPE TO BE SMOOTH INTERIOR DUAL WALL HDPE PIPE WITH WATER TIGHT GASKETS, UNLESS NOTED OTHERWISE.
     - 2.2.1. ALL STORM SEWER PIPE FOR ROOF DRAIN SERVICES TO BUILDING SHALL BE PVC SCH 40 CONFORMING TO ASTM D2665.
   - 2.3. RIP RAP SHALL BE Mn/DOT CLASS 3.
3. COORDINATE ALL BUILDING SERVICE CONNECTION LOCATIONS AND INVERT ELEVATIONS WITH MECHANICAL CONTRACTOR PRIOR TO CONSTRUCTION.
4. ALL BUILDING SERVICE CONNECTIONS (STORM, SANITARY, WATER) WITH FIVE FEET OR LESS COVER ARE TO BE INSULATED FROM BUILDING TO POINT WHERE 5-FEET OF COVER IS ACHIEVED.
5. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASES OF THIS PROJECT.
6. SAFETY NOTICE TO CONTRACTORS: IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE DUTY OF THE ENGINEER OR THE DEVELOPER TO CONDUCT CONSTRUCTION REVIEW OF CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF CONTRACTOR'S SAFETY MEASURES IN, ON OR NEAR THE CONSTRUCTION SITE.
7. ALL AREAS OUTSIDE THE PROPERTY BOUNDARIES THAT ARE DISTURBED BY UTILITY CONSTRUCTION SHALL BE RESTORED IN KIND. SODDED AREAS SHALL BE RESTORED WITH 6 INCHES OF TOPSOIL PLACED BENEATH THE SOD.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING TRAFFIC CONTROL DEVICES SUCH AS BARRICADES, WARNING SIGNS, DIRECTIONAL SIGNS, FLAGMEN AND LIGHTS TO CONTROL THE MOVEMENT OF TRAFFIC WHERE NECESSARY. TRAFFIC CONTROL DEVICES SHALL CONFORM TO APPROPRIATE MINNESOTA DEPARTMENT OF TRANSPORTATION STANDARDS.
9. ALL SOILS TESTING SHALL BE COMPLETED BY AN INDEPENDENT SOILS ENGINEER. EXCAVATION FOR THE PURPOSE OF REMOVING UNSTABLE OR UNSUITABLE SOILS SHALL BE COMPLETED AS REQUIRED BY THE SOILS ENGINEER. THE UTILITY BACKFILL CONSTRUCTION SHALL COMPLY WITH THE REQUIREMENTS OF THE SOILS ENGINEER. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED SOILS TESTS AND SOIL INSPECTIONS WITH THE SOILS ENGINEER.

   A GEOTECHNICAL ENGINEERING REPORT HAS BEEN COMPLETED BY:

   COMPANY: TERRACON
   ADDRESS: 13400 15TH AVE N PLYMOUTH, MN
   PHONE: (763) 489-3100
   DATED: 7/21/2016

   CONTRACTOR SHALL OBTAIN A COPY OF THIS SOILS REPORT.
10. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR MANHOLE AND CATCH BASIN STRUCTURES TO ENGINEER. CONTRACTOR SHALL ALLOW 5 WORKING DAYS FOR SHOP DRAWING REVIEW.
11. CONTRACTOR AND MATERIAL SUPPLIER SHALL DETERMINE THE MINIMUM DIAMETER REQUIRED FOR EACH STORM SEWER STRUCTURE.
12. ALL ELECTRIC, TELEPHONE AND GAS EXTENSIONS AND SERVICE LINES TO BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. CONTRACTOR SHALL COORDINATE WITH APPROPRIATE UTILITY PROVIDERS. CONTRACTOR SHALL PROVIDE CARRIER CONDUITS FOR GAS, ELECTRIC AND TELEPHONE CROSSINGS AT PUBLIC STREETS AND DRIVEWAY LOCATIONS.
13. GAS ENTRY WITH GAS METER: CONTRACTOR RESPONSIBLE FOR INSTALLING PIPE BOLLARD PROTECTION AT METER. CONTRACTOR SHALL COORDINATE WITH GAS COMPANY FOR TYING OF INDIVIDUAL METER.
14. PROPOSED LOCATION OF TRANSFORMER PAD: CONTRACTOR TO VERIFY EXACT LOCATION AND SIZE WITH POWER COMPANY PRIOR TO INSTALLATION. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF CONCRETE PAD, CONDUIT, AND PIPE BOLLARDS AS REQUIRED BY THE ELECTRIC COMPANY. CONTRACTOR SHALL COORDINATE SAID WORK WITH THE ELECTRIC COMPANY.
15. WATERMAIN WITHIN 30' EASEMENT TO BE PUBLICLY OWNED AND MAINTAINED. ALL OTHER WATERMAIN TO BE PRIVATELY OWNED AND MAINTAINED.

LEGEND

	PROPOSED	EXISTING
CURB & GUTTER		
STORM SEWER	D	D
SANITARY SEWER	S	S
FORCEMAIN (SAN.)	FM	FM
WATERMAIN	W	W
EASEMENT		
DRAINTILE		
GAS LINE	GL	GL
ELECTRIC	UE	UE
TELEPHONE	UT	UT

LEGEND

	PROPOSED	EXISTING
CURB & GUTTER		
STORM SEWER	D	D
SANITARY SEWER	S	S
FORCEMAIN (SAN.)	FM	FM
WATERMAIN	W	W
EASEMENT		
DRAINTILE		
GAS LINE	GL	GL
ELECTRIC	UE	UE
TELEPHONE	UT	UT

NORTH

0 40 80

SCALE IN FEET

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AMERICAN FORK, UT 84003

Project
9200 HUDSON BLVD REDEVELOPMENT

Location
LAKE ELMO, MN

Certification

Summary
Designed: MGB Drawn: JMW
Approved: MCA Book / Page:
Phase: PRELIMINARY Initial Issued: 07/25/2016

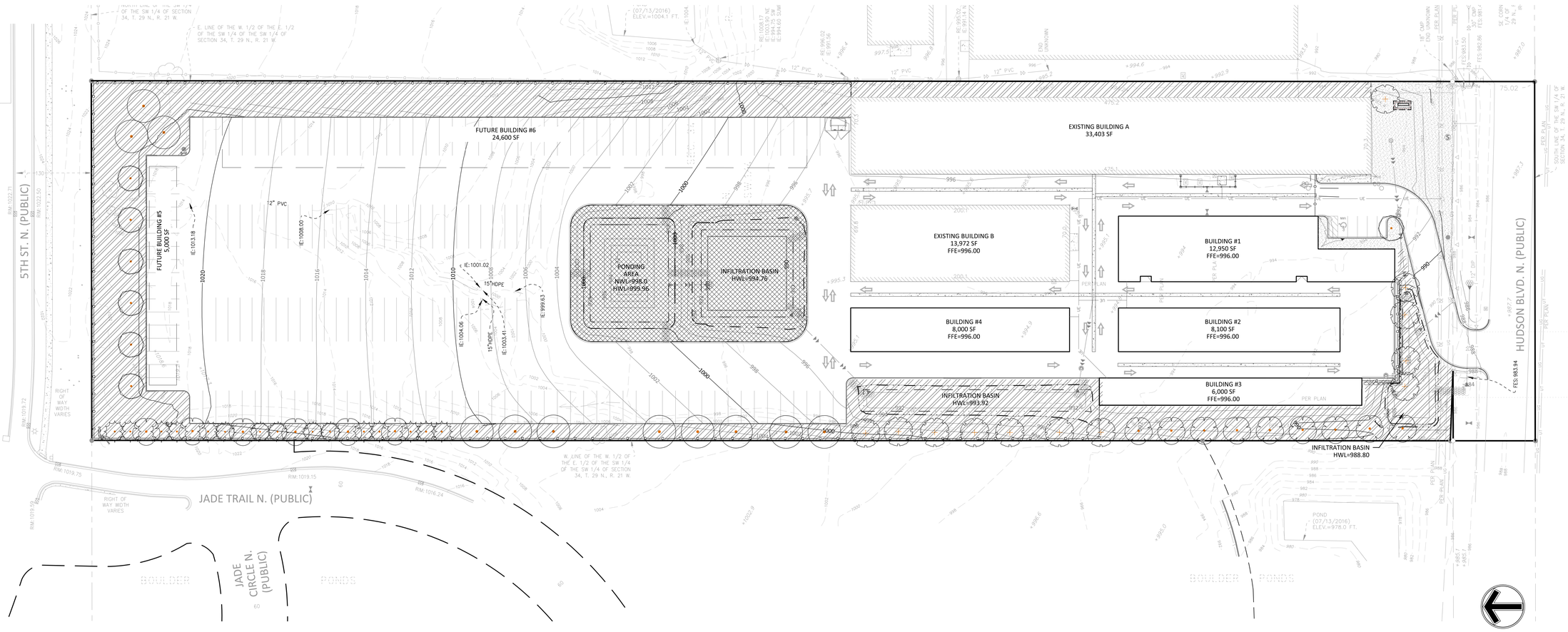
Revision History

No.	Date	By	Submittal / Revision
	7/25/2016		CUP APPLICATION
	8/25/2016		REVISED CUP APPLICATION

Sheet Title
UTILITY PLAN

Sheet No. Revision
C6.01

Project No. WAS20602



PLANT SCHEDULE						
TREES	CODE	BOTANICAL NAME / COMMON NAME	CONT	CAL	SIZE	QTY
	SG	Acer freemanii `Sienna Glen` / Sienna Glen Maple	B & B	2.5"Cal		11
	HB	Celtis occidentalis / Common Hackberry	B & B	2.5"Cal		15
	SO	Quercus bicolor / Swamp White Oak	B & B	2.5"Cal		12
	PE	Ulmus americana `Princeton` / American Elm	B & B	2.5"Cal		7
CONIFERS	CODE	BOTANICAL NAME / COMMON NAME	CONT	CAL	SIZE	QTY
	NS	Picea abies / Norway Spruce	B & B		6`	5
	BS	Picea glauca densata / Black Hills Spruce	B & B		6`	10
PERENNIALS	CODE	BOTANICAL NAME / COMMON NAME	CONT			QTY
	RRD	Hemerocallis x `Rosy Returns` / Daylily	1 gal			20
GROUND COVERS	CODE	BOTANICAL NAME / COMMON NAME	QTY			
	TUR MN2	Turf Seed MN 25-131 / Low Maintenance Turf	84,126 sf			
	TUR MN	Turf Seed MN 33-361 / Stormwater Basin Seed Mix	26,659 sf			
	TUR HIG	Turf Sod Highland Sod / Sod	9,906 sf			

CITY LANDSCAPE CODE

- 1 TREE PER 50 LF OF STREET FRONTAGE
- MINIMUM OF 5 TREES PLANTED/ ACRE OF DISTURBED AREA
- MUST SCREEN RESIDENTIAL AREAS AT A HEIGHT OF 4'
- CONIFERS MUST BE AT LEAST 25% OF TREE TOTAL

TOTAL STREET FRONTAGE: 328.44 LF= 6.57 TREES

TOTAL DISTURBED AREA: 7.66 ACRES = 38.3 TREES

TREE PRESERVATION NOTES

- 30% OF DIAMETER INCHES OF SIGNIFICANT TREES MAY BE REMOVED WITHOUT REPLACEMENT
- COMMON TREES SHALL BE REPLACED AT A RATE OF ½ THE INCHES REMOVED.

TREES TO BE REMOVED:

BOXELDER- 345 INCHES
COTTONWOOD- 60 INCHES
POPLAR- 187 INCHES

TOTAL INCHES REMOVED: 592 INCHES

TOTAL INCHES SUBJECT TO REPLACEMENT: 414.4 INCHES

TOTAL INCHES TO REPLACE: 103.6 INCHES

TOTAL INCHES PROPOSED: 160.5 INCHES

NOTES

GENERAL NOTES:

1. THE CONTRACTOR SHALL INSPECT THE SITE AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS RELATING TO THE NATURE AND SCOPE OF THE WORK.
2. THE CONTRACTOR SHALL VERIFY PLAN LAYOUT AND BRING TO THE ATTENTION OF THE LANDSCAPE ARCHITECT DISCREPANCIES WHICH MAY COMPROMISE THE DESIGN OR INTENT OF THE LAYOUT.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE CODES, REGULATIONS, AND PERMITS GOVERNING THE WORK.
4. THE CONTRACTOR SHALL PROTECT EXISTING ROADS, CURBS/GUTTERS, TRAILS, TREES, LAWNS AND SITE ELEMENTS DURING CONSTRUCTION. DAMAGE TO SAME SHALL BE REPAIRED AND/OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
5. LOCATE AND VERIFY ALL UTILITIES, INCLUDING IRRIGATION LINES, WITH THE OWNER FOR PROPRIETARY UTILITIES AND GOPHER STATE ONE CALL 48 HOURS BEFORE DIGGING. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND REPAIR OF ANY DAMAGES TO SAME. NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONFLICTS TO FACILITATE PLANT RELOCATION.
6. **THE LANDSCAPE CONTRACTOR SHALL COORDINATE THE PHASES OF CONSTRUCTION AND PLANTING INSTALLATION WITH OTHER CONTRACTORS WORKING ON SITE.**
7. THE CONTRACTOR SHALL REVIEW THE SITE FOR DEFICIENCIES IN SITE CONDITIONS WHICH MIGHT NEGATIVELY AFFECT PLANT ESTABLISHMENT, SURVIVAL OR WARRANTY. UNDESIRABLE SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING OF WORK.
8. THE PLAN TAKES PRECEDENCE OVER THE LANDSCAPE LEGEND IF DISCREPANCIES EXIST. QUANTITIES SHOWN IN THE PLANTING SCHEDULE ARE FOR THE CONTRACTOR'S CONVENIENCE. CONTRACTOR TO VERIFY QUANTITIES SHOWN ON THE PLAN.
9. THE SPECIFICATIONS TAKE PRECEDENCE OVER THE PLANTING NOTES AND GENERAL NOTES.
10. EXISTING TREES AND SHRUBS TO REMAIN SHALL BE PROTECTED TO THE DRIP LINE FROM ALL CONSTRUCTION TRAFFIC, STORAGE OF MATERIALS ETC. WITH 4' HT. ORANGE PLASTIC SAFETY FENCING ADEQUATELY SUPPORTED BY STEEL FENCE POSTS 6' O.C. MAXIMUM SPACING.
11. LONG-TERM STORAGE OF MATERIALS OR SUPPLIES ON-SITE WILL NOT BE ALLOWED.
12. CONTRACTOR SHALL REQUEST IN WRITING, A FINAL ACCEPTANCE INSPECTION.

PLANTING NOTES:

1. NO PLANTS SHALL BE INSTALLED UNTIL FINAL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
2. A GRANULAR PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO ALL PLANT BEDS AT THE MANUFACTURERS RECOMMENDED RATE PRIOR TO PLANT INSTALLATION.
3. ALL PLANTING STOCK SHALL CONFORM TO THE "AMERICAN STANDARD FOR NURSERY STOCK," ANSI-260, LATEST EDITION, OF THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIALS.
4. OVERSTORY TREES SHALL BEGIN BRANCHING NO LOWER THAN 6' ABOVE PAVED SURFACES.
5. ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL, FREE OF PESTS AND DISEASE AND BE CONTAINER GROWN OR BALLED AND BURLAPPED AS INDICATED IN THE LANDSCAPE LEGEND.
6. PLANT MATERIALS TO BE INSTALLED PER PLANTING DETAILS.
7. ALL TREES MUST BE STRAIGHT TRUNKED AND FULL HEADED AND MEET ALL REQUIREMENTS SPECIFIED.
8. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANTS WHICH ARE DEEMED UNSATISFACTORY BEFORE, DURING, OR AFTER INSTALLATION.
9. NO SUBSTITUTIONS OF PLANT MATERIAL SHALL BE ACCEPTED UNLESS APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT.
10. ALL PLANT MATERIAL QUANTITIES, SHAPES OF BEDS AND LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE COVERAGE OF ALL PLANTING BEDS AT SPACING SHOWN AND ADJUSTED TO CONFORM TO THE EXACT CONDITIONS OF THE SITE. THE LANDSCAPE ARCHITECT SHALL APPROVE THE STAKING LOCATION OF ALL PLANT MATERIALS PRIOR TO INSTALLATION.
11. ALL PLANTING AREAS MUST BE COMPLETELY MULCHED AS SPECIFIED.
12. MULCH: SHREDDED HARDWOOD MULCH, CLEAN AND FREE OF NOXIOUS WEEDS OR OTHER DELETERIOUS MATERIAL, IN ALL MASS PLANTING BEDS AND FOR TREES, UNLESS INDICATED AS ROCK MULCH ON DRAWINGS. SUBMIT SAMPLE TO LANDSCAPE ARCHITECT PRIOR TO DELIVERY ON-SITE FOR APPROVAL. DELIVER MULCH ON DAY OF INSTALLATION. USE 4" FOR SHRUB BEDS, AND 3" FOR PERENNIAL/GROUND COVER BEDS, UNLESS OTHERWISE DIRECTED.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MULCHES AND PLANTING SOIL QUANTITIES TO COMPLETE THE WORK SHOWN ON THE PLAN.
14. USE ANTI-DESICCANT (WILTPRUF OR APPROVED EQUAL) ON DECIDUOUS PLANTS MOVED IN LEAF AND FOR EVERGREENS MOVED ANYTIME. APPLY AS PER MANUFACTURER'S INSTRUCTION. ALL EVERGREENS SHALL BE SPRAYED IN THE LATE FALL FOR WINTER PROTECTION DURING WARRANTY PERIOD.
14. PLANTING SOIL FOR TREES, SHRUBS AND GROUND COVERS: FERTILE FRIABLE LOAM CONTAINING A LIBERAL AMOUNT (4% MIN.) OF HUMUS AND CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH. IT SHALL COMPLY WITH MNDOT SPECIFICATION 3877 TYPE B SELECT TOPSOIL, MIXTURE SHALL BE FREE FROM HARDPACK SUBSOIL, STONES, CHEMICALS, NOXIOUS WEEDS, ETC. SOIL MIXTURE SHALL HAVE A PH BETWEEN 6.1 AND 7.5 AND 10-0-10 FERTILIZER AT THE RATE OF 3 POUNDS PER CUBIC YARD. IN PLANTING BEDS INCORPORATE THIS MIXTURE THROUGHOUT THE ENTIRE BED IN A 6" LAYER AND ROTO-TILLING IT INTO THE TOP 12" OF SOIL AT A 1:1 RATIO.ANY PLANT STOCK NOT PLANTED ON DAY OF DELIVERY SHALL BE HEELED IN AND WATERED UNTIL INSTALLATION. PLANTS NOT MAINTAINED IN THIS MANNER WILL BE REJECTED.
15. ALL PLANTS SHALL BE GUARANTEED FOR TWO COMPLETE GROWING SEASONS (APRIL 1 - NOVEMBER 1), UNLESS OTHERWISE SPECIFIED. THE GUARANTEE SHALL COVER THE FULL COST OF REPLACEMENT INCLUDING LABOR AND PLANTS.
16. CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AT LEAST 3 DAYS PRIOR TO PLANNED DELIVERY. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AT LEAST 24 HOURS IN ADVANCE OF BEGINNING PLANT INSTALLATION.
17. SEASONS/TIME OF PLANTING AND SEEDING: NOTE: THE CONTRACTOR MAY ELECT TO PLANT IN OFF-SEASONS ENTIRELY AT HIS/HER RISK. DECIDUOUS

17.1.	POTTED PLANTS:	4/1 - 6/1; 9/21 - 11/1
17.2.	DECIDUOUS /B&B:	4/1 - 6/1; 9/21 - 11/1
17.3.	EVERGREEN POTTED PLANTS:	4/1 - 6/1; 9/21-11/1
17.4.	EVERGREEN B&B:	4/1 - 5/1; 9/21 - 11/1
17.5.	TURF/LAWN SEEDING:	4/1 - 6/1; 7/20 - 9/20
17.6.	NATIVE MIX SEEDING:	4/1 - 7/20; 9/20-10/20

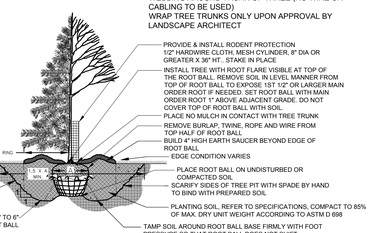
18. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER EACH PORTION OF THE WORK IS IN PLACE. PLANT MATERIAL SHALL BE PROTECTED AND MAINTAINED UNTIL THE INSTALLATION OF THE PLANTS IS COMPLETE, INSPECTION HAS BEEN MADE, AND PLANTINGS ARE ACCEPTED EXCLUSIVE OF THE GUARANTEE. MAINTENANCE SHALL INCLUDE WATERING, CULTIVATING, MULCHING, REMOVAL OF DEAD MATERIALS, RE-SETTING PLANTS TO PROPER GRADE AND KEEPING PLANTS IN A PLUMB POSITION. AFTER ACCEPTANCE, THE OWNER SHALL ASSUME MAINTENANCE RESPONSIBILITIES. HOWEVER, THE CONTRACTOR SHALL CONTINUE TO BE RESPONSIBLE FOR KEEPING THE TREES PLUMB THROUGHOUT THE GUARANTEE PERIOD.
19. ANY PLANT MATERIAL WHICH DIES, TURNS BROWN, OR DEFOLIATES (PRIOR TO TOTAL ACCEPTANCE OF THE WORK) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE AND MEETING ALL LANDSCAPE LEGEND SPECIFICATIONS.
20. WATERING: MAINTAIN A WATERING SCHEDULE WHICH WILL THOROUGHLY WATER ALL PLANTS ONCE A WEEK. IN EXTREMELY HOT, DRY WEATHER, WATER MORE OFTEN AS REQUIRED BY INDICATIONS OF HEAT STRESS SUCH AS WILTING LEAVES. CHECK MOISTURE UNDER MULCH PRIOR TO WATERING TO DETERMINE NEED. CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR WATER.

TURF NOTES:

TURF ESTABLISHMENT SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE PROVISIONS OF THE MN/DOT 2105 AND 2575 EXCEPT AS MODIFIED BELOW:

1. ALL AREAS TO RECEIVE SOD SHALL ALSO RECEIVE 4" OF TOPSOIL PRIOR TO INSTALLING SOD. TOPSOIL SHALL BE FREE OF TREE ROOTS. STUMPS. BUILDING MATERIAL, AND TRASH, AND SHALL BE FREE OF STONES LARGER THAN 1 ½" INCHES IN ANY DIMENSION.
2. WHERE SOD ABUTS PAVED SURFACES, FINISHED GRADE OF SOD/SEED SHALL BE HELD 1" BELOW SURFACE ELEVATION OF TRAIL, SLAB, CURB, ETC.
3. SOD SHALL BE LAID PARALLEL TO THE CONTOURS AND SHALL HAVE STAGGERED JOINTS. ON SLOPES STEEPER THAN 3:1 OR IN DRAINAGE SWALES, SOD SHALL BE STAKED SECURELY.
4. ALL DISTURBED AREAS TO BE TURF SEEDED, ARE TO RECEIVE 4" TOP SOIL, SEED, MULCH, AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED. FOR SLOPES STEEPER THAN 3:1 OR IN DRAINAGE SWALES INSTALL EROSION CONTROL BLANKET.
5. ALL DISTURBED AREAS TO RECEIVE NATIVE SEED, ARE TO RECEIVE PLANTING SOIL, SEED, MULCH, AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED. FOR SLOPES STEEPER THAN 3:1 OR IN DRAINAGE SWALES INSTALL EROSION CONTROL BLANKET.

NOTE:
CONTRACTOR SHALL MAINTAIN TREES IN A PLUMB POSITION THROUGHOUT THE WARRANTY PERIOD. IF STAKING IS REQUIRED BY SITE CONDITIONS, CONTRACTOR TO USE 2 OR 3 STAKE METHOD WITH 1" WEBBING AROUND TRUNK OF THREE (NO WIRE OR CABLING TO BE USED)
WRAP TREE TRUNKS ONLY UPON APPROVAL BY LANDSCAPE ARCHITECT



1 TREE PLANTING DETAIL
NTS

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Project
9200 HUDSON BLVD REDEVELOPMENT

Location
LAKE ELMO, MN

Certification

Summary
Designed: JJM Drawn: JJM
Approved: JJM Book / Page:
Phase: PRELIMINARY Initial Issued: 07/25/2016

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