KWIK TRIP STORE #1078

CITY SUBMITTAL

CITY OF LAKE ELMO
WASHINGTON COUNTY, MINNESOTA

OWNER

KWIK TRIP, INC
NATHAN BYOM
1626 OAK STREET
LA CROSSE, WI 54602
PHONE: 608-791-7448
EMAIL: nbyom@kwiktrip.com

CIVIL ENGINEER

CARLSON MCCAIN, INC.
JOSEPH RADACH
3890 PHEASANT RIDGE DR NE, #100
BLAINE, MN 55449
PHONE: 763-489-7912

EMAIL: jradach@carlsonmccain.com

SITE DESIGNER

CARLSON MCCAIN, INC.
JOSEPH RADACH
3890 PHEASANT RIDGE DR NE, #100
BLAINE, MN 55449
PHONE: 763-489-7912

EMAIL: jradach@carlsonmccain.com

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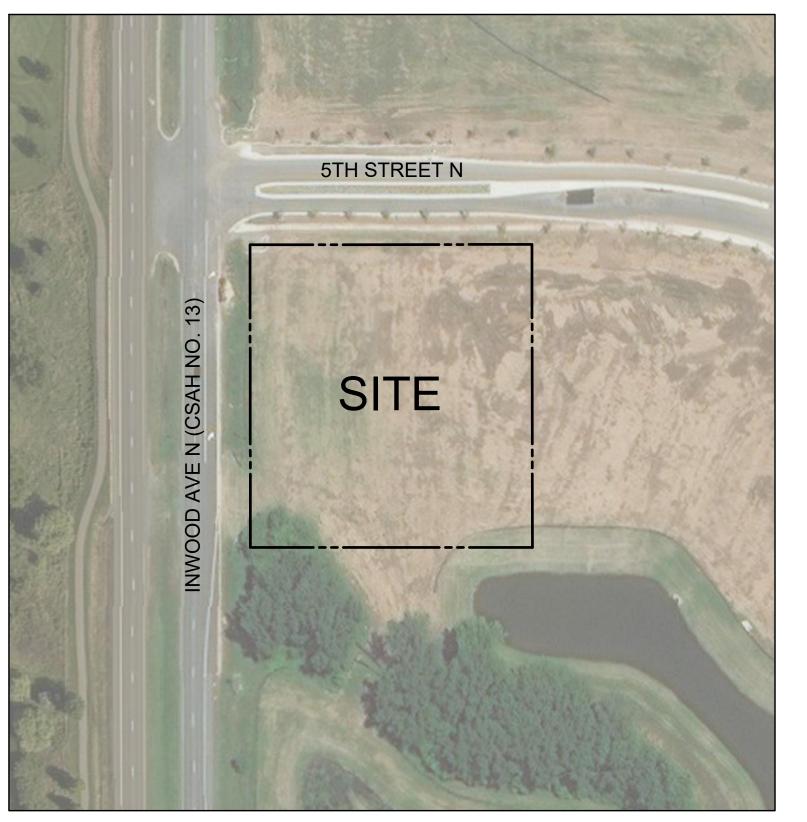
CARLSON MCCAIN, INC.
THOMAS BALLUFF
3890 PHEASANT RIDGE DR NE, #100
BLAINE, MN 55449

PHONE: 763-489-7913

EMAIL: tballuff@carlsonmccain.com



SITE LOCATION MAP



AERIAL LOCATION MAP

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KWIK TRIP, Inc. P.O. BOX 2107 1626 OAK STREET LA CROSSE, WI 54602-2107 PH. (608) 781-8988 FAX (608) 781-8960



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.

Name: Joseph T. Radach, P.E.

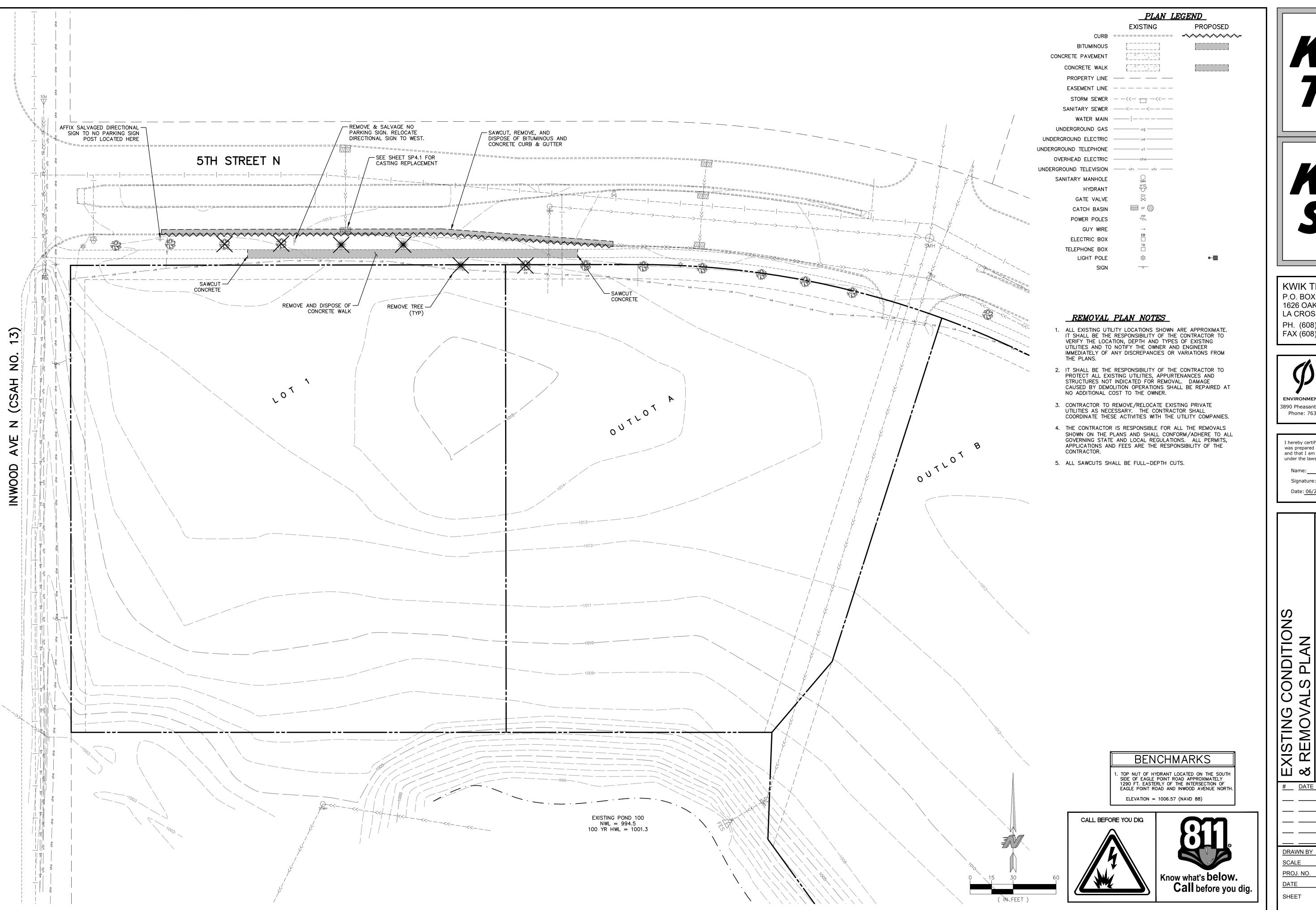
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Date: 06/28/19 License #: 45889

CONVENIENCE STORE #1078
WITH SINGLE BAY CARWASH
INWOOD AVE N & 5TH STREET N

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DATE	2019-06-28

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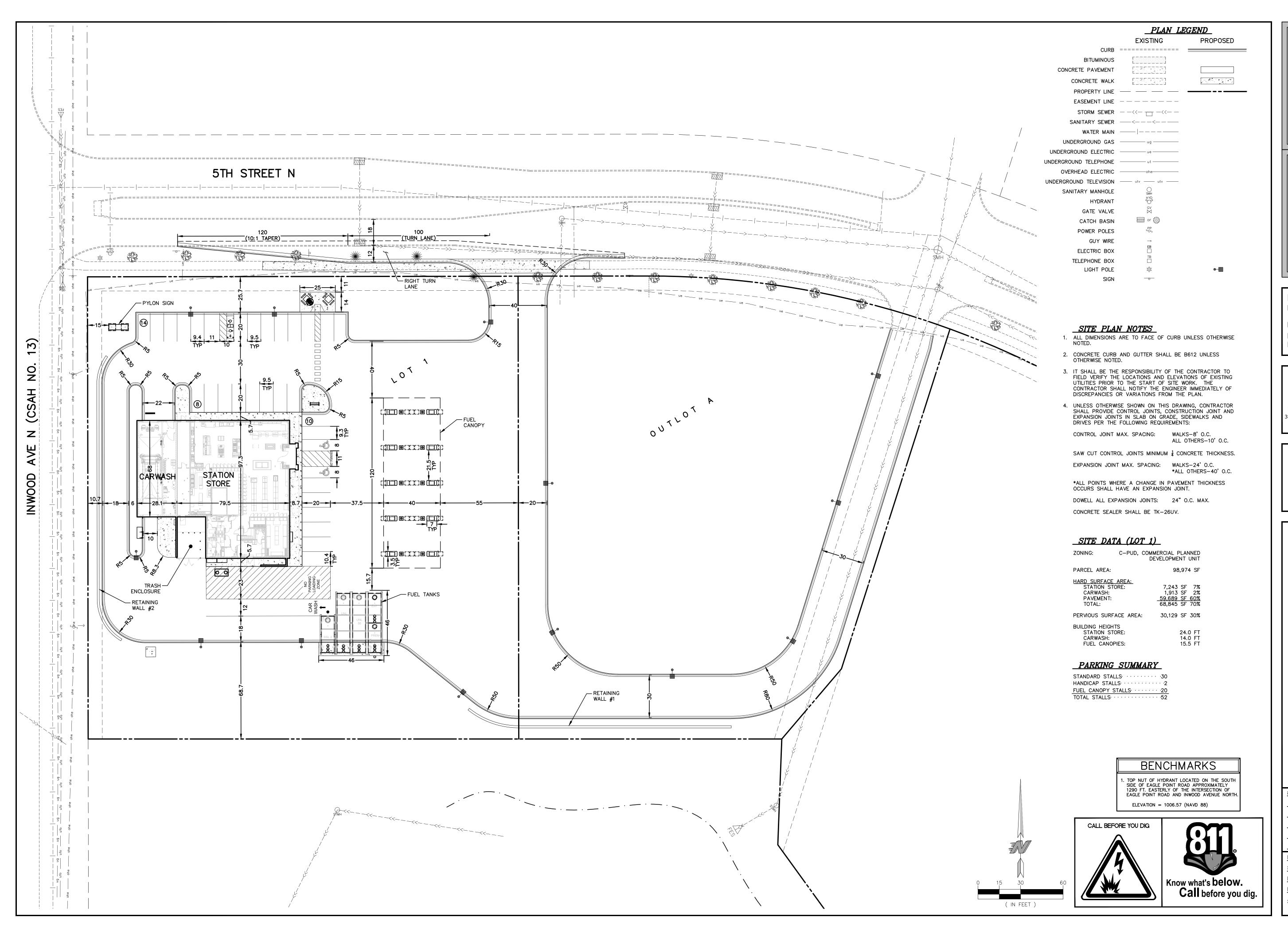
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under the laws of the State of Minnesota.

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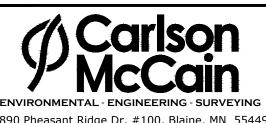
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Phone: 763-489-7900 Fax: 763-489-7959

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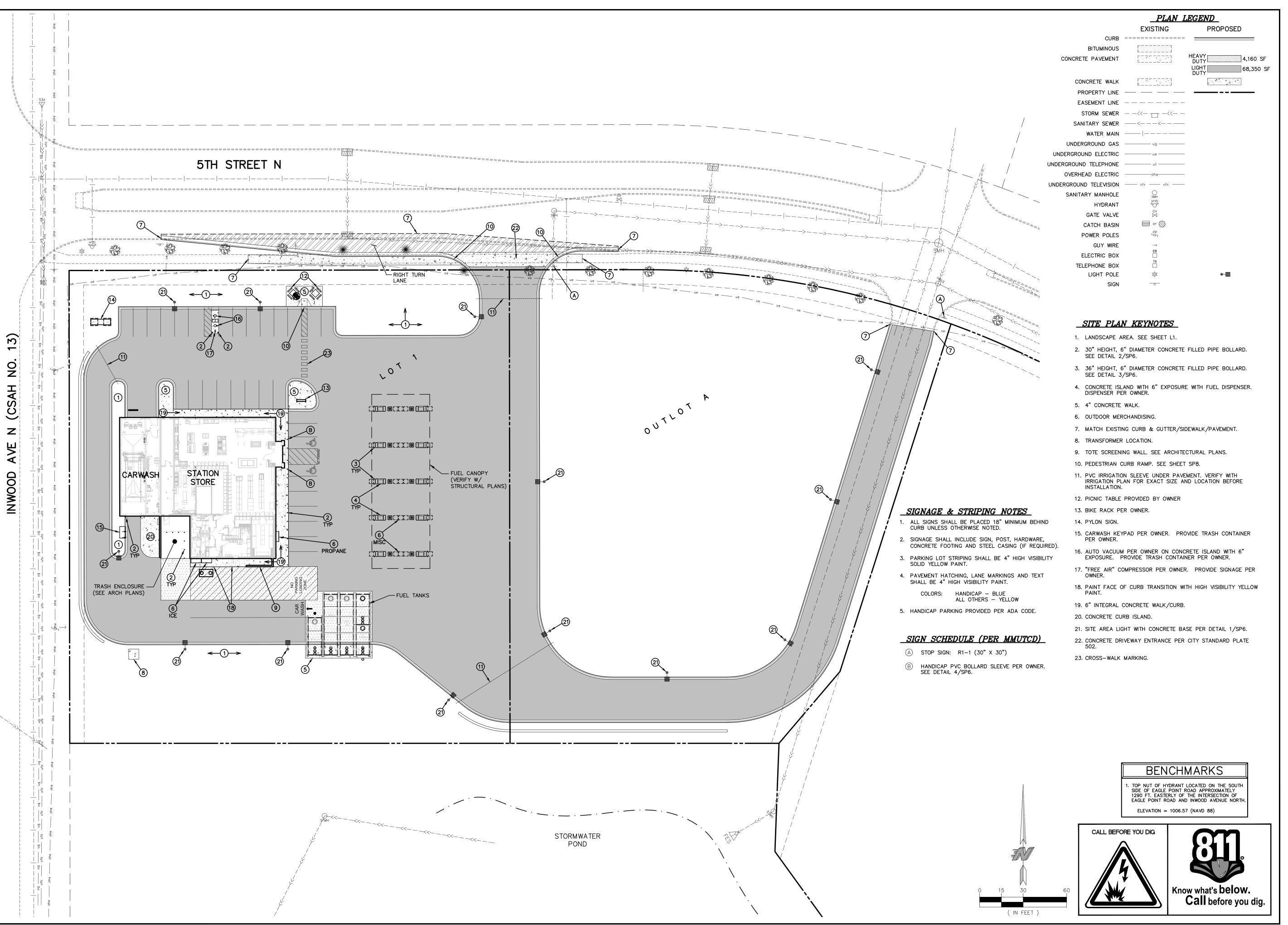
under the laws of the State of Minnesota.

ORE #1078 CARWASH

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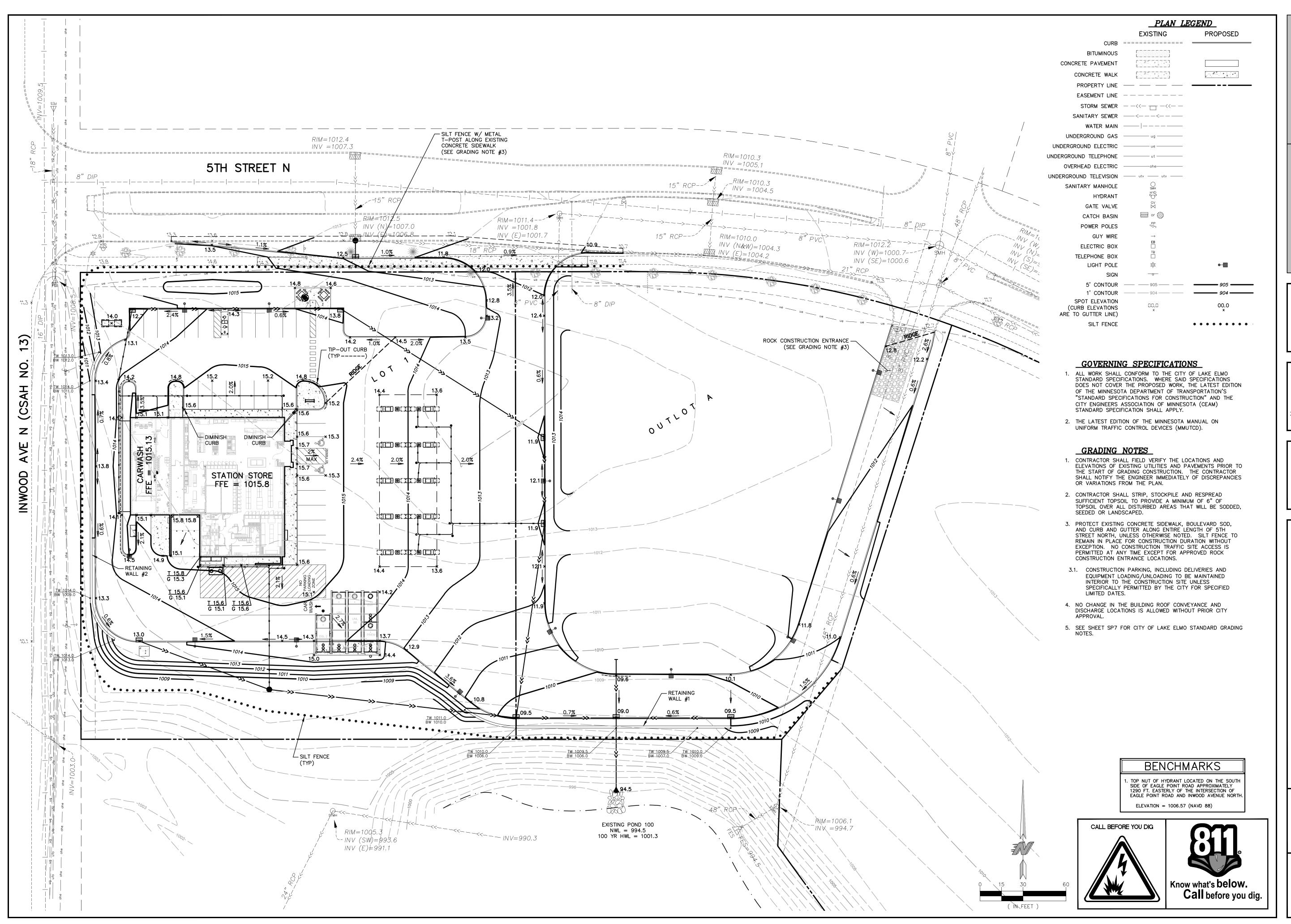
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ORE #1078 CARWASH

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1078 /ASH

CONTROL PLAN
CONVENIENCE STORE #1078
WITH SINGLE BAY CARWASH

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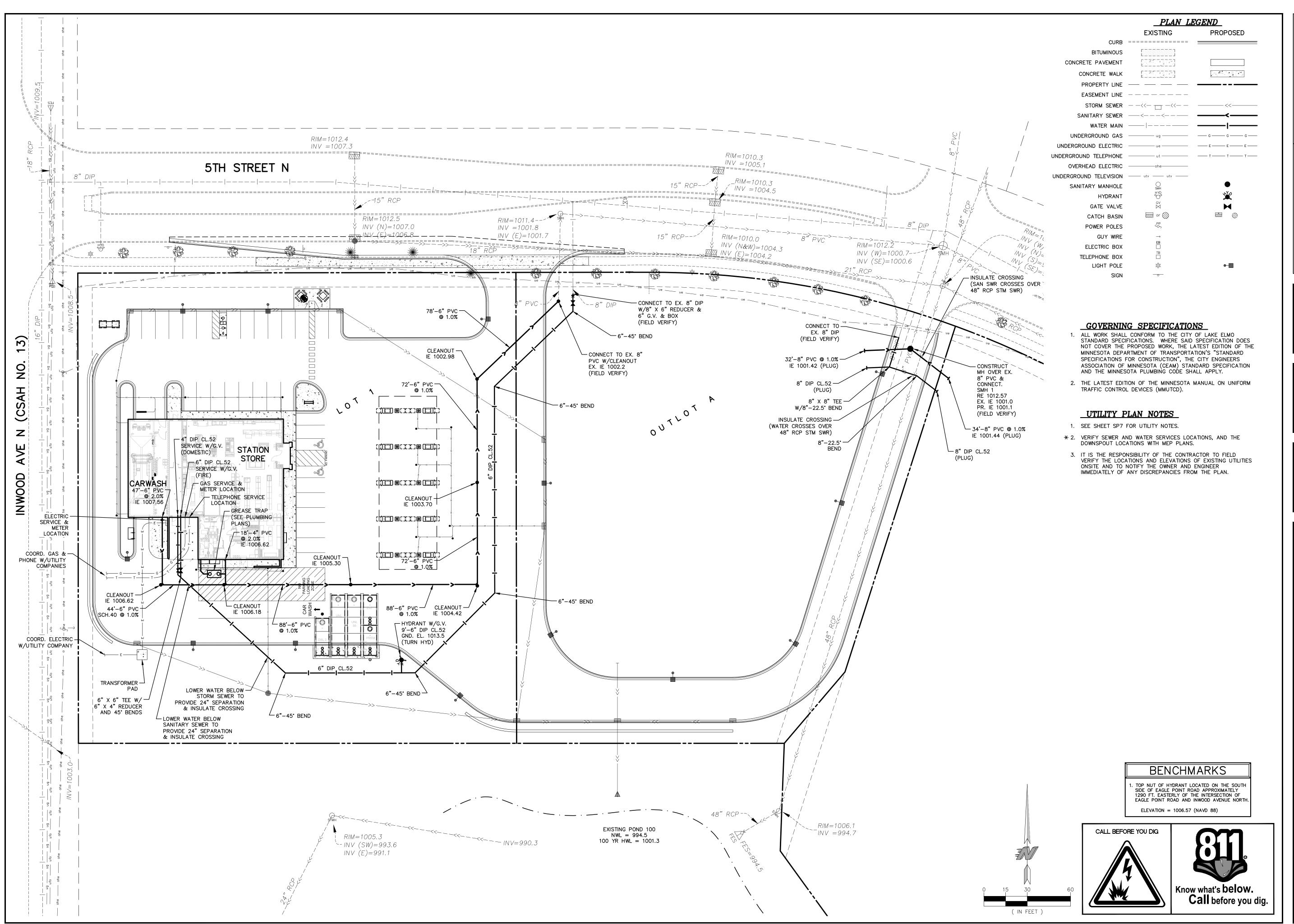
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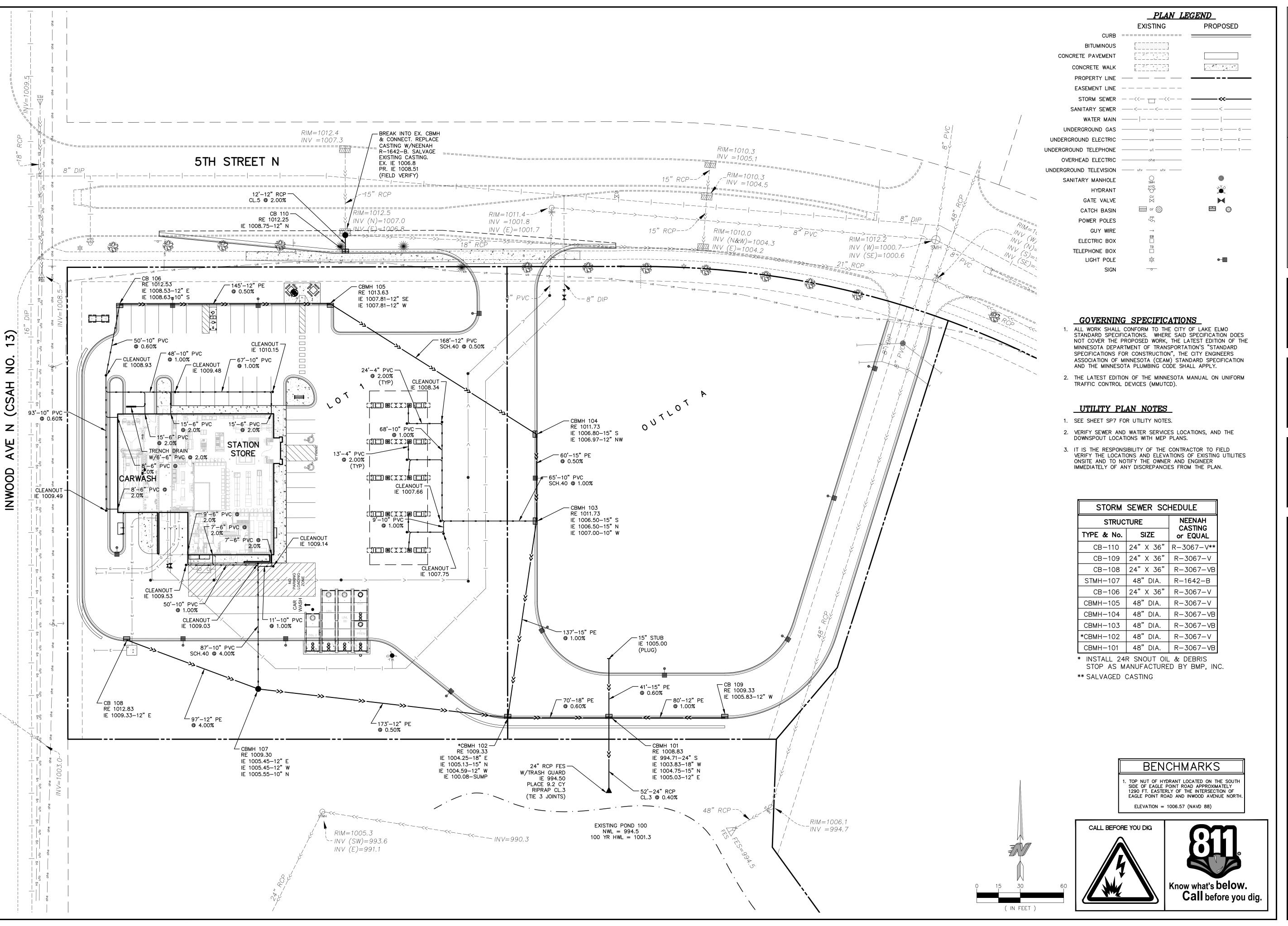
Name: Joseph T. Radach, P.E.
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under the laws of the State of Minnesota.

CONVENIENCE STORE #1078
WITH SINGLE BAY CARWASH
INWOOD AVE N & 5TH STREET N
LAKE ELMO, MINNESOTA

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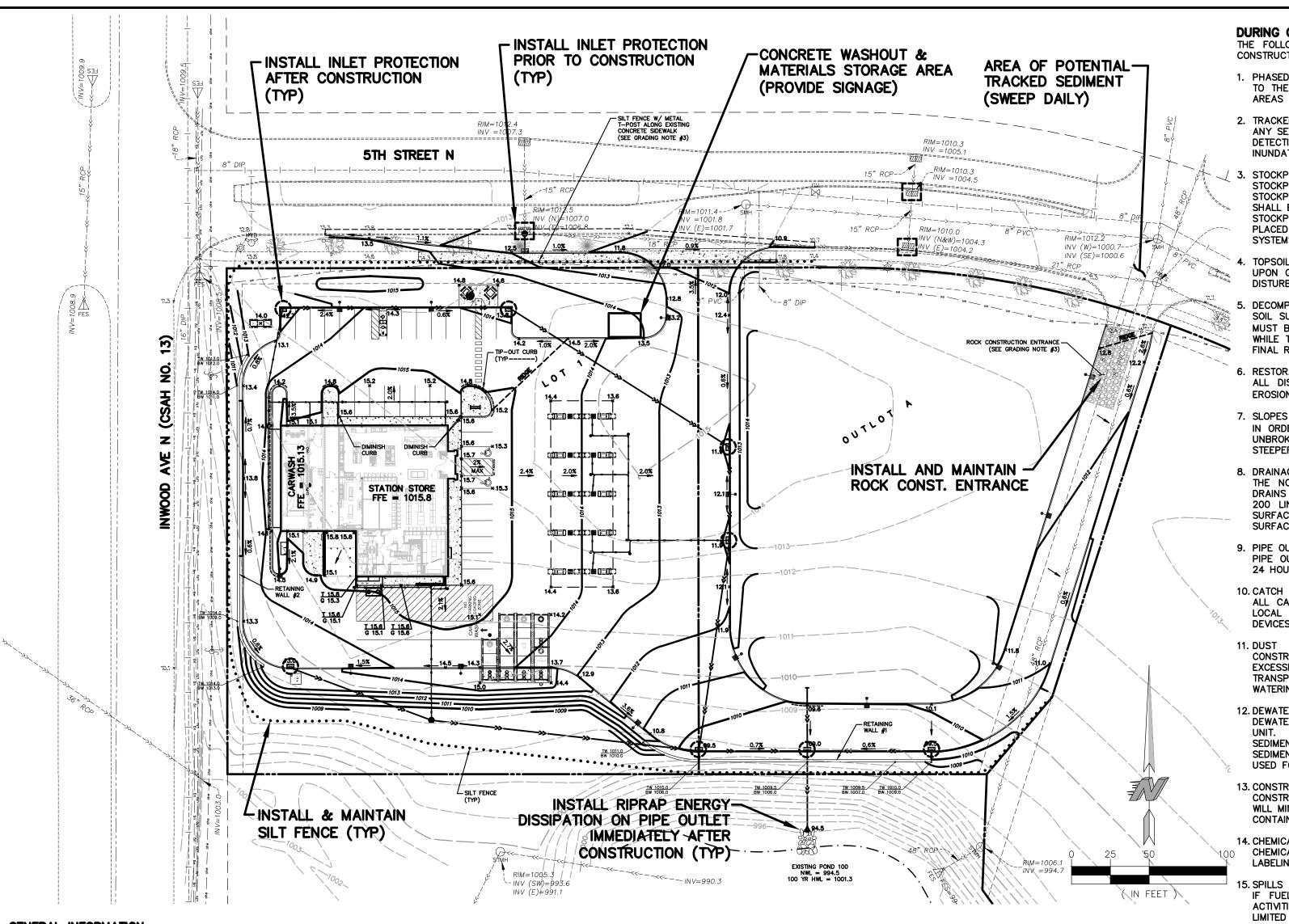
I (STORM SEWER)

CONVENIENCE STORE #1078 WITH SINGLE BAY CARWASH

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GENERAL INFORMATION

MINNESOTA'S CONSTRUCTION STORMWATER PERMIT IS AN EXTENSION OF THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM STORMWATER PROGRAM, WHICH IS PART OF THE FEDERAL CLEAN WATER ACT. REGULATED PARTIES MUST DEVELOP A STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE SWPPP PROVIDES INFORMATION ON THE EXISTING AND PROPOSED SITE CONDITIONS, CONTROL MEASURES FOR STORMWATER POLLUTION PREVENTION BEFORE, DURING AND AFTER CONSTRUCTION, INSPECTION, MAINTENANCE AND INFORMATION RELATED TO THE PERMANENT STORMWATER MANAGEMENT SYSTEM. THE SWPPP SHALL BE KEPT ON SITE AT ALL TIMES DURING ACTIVE

PROJECT INFORMATION

PROJECT NAME: KWIK TRIP STORE 1078 PROJECT LOCATION: LAKE ELMO, WASHINGTON COUNTY, MINNESOTA PROJECT OWNER: KWIK TRIP, INC.

RESPONSIBLE PARTIES

THE OWNER MUST IDENTIFY A PERSON KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BMP'S WHO WILL OVERSEE THE IMPLEMENTATION OF THE SWPPP, AND THE INSTALLATION, INSPECTION AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMP'S.

SITE MANAGER: NATHAN BYOM - KWIK TRIP, INC.

TRAINING DOCUMENTATION: CONSTRUCTION SITE MANAGEMENT (5/31/20 EXPIRATION) - UNIVERSITY OF MN

EXISTING SITE CONDITIONS

THE SITE IS LOCATED IN THE SOUTHEAST QUADRANT OF THE INTERSECTION OF INWOOD AVENUE NORTH AND 5TH STREET NORTH IN LAKE ELMO, MINNESOTA. THE SITE IS BOUNDED ON THE WEST BY INWOOD AVENUE, ON THE NORTH BY 5TH STREET NORTH, ON THE EAST BY VACANT COMMERCIAL LAND, AND ON THE SOUTH BY A LARGE STORMWATER MANAGEMENT POND/INFILTRATION BASIN. THE SITE IS CURRENTLY UNDEVELOPED GRASSLAND, BUT WAS RECENTLY MASS GRADED FOR FUTURE DEVELOPMENT. THE KWIK TRIP SITE BOUNDARY CONSISTS OF 2.25 ACRES. THE ADJACENT OUTLOT A CONSISTS OF 1.90 ACRES. THERE ARE NO IMPERVIOUS SURFACES ONSITE.

THE SITE HAS A ROLLED TOPOGRAPHY, WITH ELEVATIONS RANGING FROM 1015 IN THE NORTH/CENTRAL PORTION OF THE SITE, DOWN TO ABOUT 1004 IN THE SOUTH. THERE IS AN EXISTING STORMWATER POND LOCATED JUST SOUTH OF THE SITE, AND AN EXISTING INFILTRATION BASIN LOCATED FURTHER SOUTH AND WEST OF THE SITE. THE MAJORITY OF THE STORMWATER FROM THE SITE DRAINS SOUTH TO THE EXISTING STORMWATER POND, WITH LESSER PORTIONS DRAINING NORTH TO 5TH STREET NORTH AND WEST TO THE INWOOD AVENUE NORTH ROADSIDE DITCH.

KWIK TRIP PLANS ON DEVELOPING THE SITE INTO A CONVENIENCE STORE WITH SINGLE BAY CARWASH, FUELING CANOPY, AND ASSOCIATED PARKING AND DRIVE AREAS. DURING CONSTRUCTION, APPROXIMATELY 3.2 ACRES WILL BE DISTURBED. AFTER THE SITE IS CONSTRUCTION, THE KWIK TRIP LOT WILL CONTAIN 1.58 ACRES OF IMPERVIOUS SURFACE. THE ADJACENT OUTLOT WILL CONTAIN 0.48 ACRES OF IMPERVIOUS SURFACE.

STORMWATER FROM THE SITE WILL BE COLLECTED IN STORM SEWER AND ROUTED TO THE EXISTING STORMWATER POND LOCATED IMMEDIATELY SOUTH OF THE SITE. THIS STORMWATER POND WAS DESIGNED TO COLLECT AND TREAT STORMWATER FROM THE SITE IN A FULLY DEVELOPED CONDITION. A SUMP CATCH BASIN MANHOLE EQUIPPED WITH A SNOUT OIL/DEBRIS STOP WILL BE USED IN THE MOST DOWNSTREAM MANHOLE FROM THE KWIK TRIP SITE TO PREVENT OIL AND DEBRIS FROM BEING DISCHARGED TO THE POND. NO ADDITIONAL STORMWATER MANAGEMENT IS PROPOSED FOR THE SITE.

SOIL INFORMATION

IN FEBRUARY OF 2019, BRAUN INTERTEC DRILLED FOUR SOIL BORINGS TO APPROXIMATE NEAR SURFACE SOILS. THE BORINGS INDICATE THAT NEAR SURFACE SOILS CONSISTS PRIMARILY OF SILTY SAND FILL OVER LAYERS OF NATIVE LEAN CLAY, POORLY GRADED SAND, AND/OR SILTY/CLAYEY SAND. THESE SOILS GENERALLY FALL WITHIN THE HYDROLOGIC SOIL GROUP "B". GROUNDWATER WAS OBSERVED IN TWO BORINGS, AND WAS GENERALLY AT AN ELEVATION OF 994.4.

WETLAND CONSIDERATIONS THERE ARE NO WETLANDS ONSITE.

STORMWATER RECEIVING WATERS

RUNOFF FROM THE SITE EITHER DRAINS TO THE EXISTING STORMWATER POND LOCATED IMMEDIATELY SOUTH OF THE SITE. THIS STORMWATER POND DISCHARGES TO AN EXISTING DITCH THAT DRAINS SOUTH UNDER INTERSTATE HIGHWAY 94, AND ULTIMATELY TO WILMES LAKE.

SPECIAL/IMPAIRED WATER CONSIDERATIONS

THERE ARE NO SPECIAL OR IMPAIRED WATERS WITHIN ONE MILE OF THE SITE.

STORMWATER MANAGEMENT PLAN

THE STORMWATER MANAGEMENT SYSTEM FOR THE OVERALL INWOOD DEVELOPMENT WAS DESIGNED TO COLLECT AND TREAT STORMWATER FROM THE PROPOSED SITE IN A FULLY DEVELOPED CONDITION. SPECIFICALLY, THE EXISTING STORMWATER POND LOCATED IMMEDIATELY SOUTH OF THE SITE WAS SIZED TO COLLECT AND TREAT STORMWATER FROM THE PROPOSED SITE. STORM SEWER WILL BE USED TO COLLECT STORMWATER FROM THE SITE.

STORMWATER FROM THE SITE WILL BE COLLECTED IN STORM SEWER AND ROUTED TO THE EXISTING STORMWATER POND LOCATED IMMEDIATELY SOUTH OF THE SITE. A SUMP CATCH BASIN MANHOLE EQUIPPED WITH A SNOUT OIL/DEBRIS STOP WILL BE USED IN THE MOST DOWNSTREAM MANHOLE FROM THE KWIK TRIP SITE TO PREVENT OIL AND DEBRIS FROM BEING DISCHARGED TO THE POND. NO ADDITIONAL STORMWATER MANAGEMENT IS PROPOSED FOR THE SITE.

PRIOR TO START OF CONSTRUCTION

THE FOLLOWING STORMWATER POLLUTION PREVENTION MEASURES SHALL BE IMPLEMENTED PRIOR TO CONSTRUCTION. REFER TO GRADING AND EROSION CONTROL PLANS FOR LOCATIONS.

- SILT FENCE SHALL BE INSTALLED AT THE LIMIT OF GRADING ON ANY FILL SLOPE. ADDITIONAL SILT FENCE MAY BE REQUIRED IN CUT SLOPE AREAS. SILT FENCE SHALL ALSO BE INSTALLED AROUND ANY INFILTRATION/FILTRATION PRACTICE.
- 2. ROCK CONSTRUCTION ENTRANCE ROCK CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE FIELD ENTRANCES TO THE SITE.
- ALL CATCH BASINS SHALL BE PROTECTED WITH INLET PROTECTION DEVICES APPROVED BY THE LOCAL GOVERNING
- UNIT. THESE SHALL INCLUDE, BUT ARE NOT LIMITED TO, WIMCO PROTECTION DEVICES, INFRASAFE PROTECTION DEVICES, FILTER FABRIC, BIO ROLLS AND STRAW BALES. 4. TEMPORARY SEDIMENTATION BASIN

WHERE TEN (10) OR MORE ACRES OF DISTURBED SOIL DRAIN TO A COMMON LOCATION, A TEMPORARY (OR PERMANENT) SEDIMENT BASIN MUST BE PROVIDED PRIOR TO RUNOFF LEAVING THE CONSTRUCTION SITE OR ENTERING SURFACE WATERS. THE TEMPORARY (OR PERMANENT) BASINS MUST BE CONSTRUCTED AND MADE OPERATIONAL CONCURRENT WITH THE START OF SOIL DISTURBANCE THAT IS UPGRADIENT OF THE AREA AND CONTRIBUTES RUNOFF TO THE BASIN. WHERE THE TEMPORARY SEDIMENT BASIN IS NOT ATTAINABLE DUE TO SITE LIMITATIONS, EQUIVALENT SEDIMENT CONTROLS SUCH AS SMALLER SEDIMENT BASINS, AND/OR SEDIMENT TRAPS, SILT FENCES, VEGETATIVE BUFFER STRIPS OR ANY APPROPRIATE COMBINATION OF MEASURES ARE REQUIRED FOR ALL DOWN SLOPE BOUNDARIES OF THE CONSTRUCTION AREA AND FOR THOSE SIDE SLOPE BOUNDARIES DEEMED APPROPRIATE AS DICTATED BY INDIVIDUAL SITE CONDITIONS. IN DETERMINING WHETHER INSTALLING A SEDIMENT BASIN IS ATTAINABLE, THE PERMITTEE(S) MUST CONSIDER PUBLIC SAFETY AND MAY CONSIDER FACTORS SUCH AS SITE SOILS, SLOPE AND AVAILABLE ARÉA ON SITE. THE BASIN MUST BE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF PART III.C. OF THE MPCA CONSTRUCTION STORMWATER PERMIT.

DURING CONSTRUCTION

THE FOLLOWING STORMWATER POLLUTION PREVENTION MEASURES SHALL BE IMPLEMENTED DURING CONSTRUCTION. REFER TO GRADING AND EROSION CONTROL PLANS FOR LOCATIONS.

- TO THE EXTENT POSSIBLE, GRADING SHALL BE PHASED TO MINIMIZE THE AMOUNT OF DISTURBED AREAS DURING SITE CONSTRUCTION.

ANY SEDIMENT TRACKED FROM THE SITE ONTO THE STREET SHALL BE REMOVED IMMEDIATELY UPON DETECTION. THE ROCK CONSTRUCTION ENTRANCE SHALL BE INSPECTED AND REPAIRED IF INUNDATED WITH SEDIMENT.

STOCKPILES SHALL BE PLACED IN AN AREA THAT WILL MINIMIZE THE NEED FOR RELOCATION. IF A STOCKPILE WILL REMAIN IN PLACE FOR AN EXTENDED PERIOD OF TIME, STABILIZATION MEASURES SHALL BE IMPLEMENTED, INCLUDING BUT NOT LIMITED TO, SEEDING AND SILT FENCING. TEMPORARY STOCKPILES MUST HAVE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS AND CANNOT BE PLACED IN SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB AND GUTTER

UPON GRADING COMPLETION, A MINIMUM OF 6 INCHES OF TOPSOIL SHALL BE PLACED OVER ALL DISTURBED AREAS, EXCLUDING PROPOSED STREETS AND PARKING AREAS.

SOIL SURFACES COMPACTED DURING CONSTRUCTION AND REMAINING DISTURBED PERVIOUS AREAS MUST BE DECOMPACTED THROUGH SOIL AMENDMENT AND/OR RIPPING TO A DEPTH OF 18 INCHES WHILE TAKING CARE TO AVOID UTILITIES, TREE ROOTS AND OTHER EXISTING VEGETATION PRIOR TO FINAL REVEGETATION OR OTHER STABILIZATION

ALL DISTURBED AREAS NOT ACTIVELY WORKED SHALL BE RESTORED WITH SEED AND MULCH, EROSION CONTROL BLANKET AND/OR SOD WITHIN 7 DAYS.

IN ORDER TO MAINTAIN SHEET FLOW AND MINIMIZE RILLS AND/OR GULLIES, THERE SHALL BE NO UNBROKEN SLOPE LENGTH OF GREATER THAN 75 FEET FOR SLOPES WITH A GRADE OF 3:1 OR

8. DRAINAGE DITCHES THE NORMAL WETTED PERIMETER OF ANY TEMPORARY OR PERMANENT DRAINAGE DITCH THAT DRAINS WATER FROM THE SITE, OR DIVERTS WATER AROUND THE SITE, MUST BE STABILIZED WITHIN 200 LINEAL FEET FROM THE PROPERTY EDGE, OR FROM THE POINT OF DISCHARGE TO ANY SURFACE WATER. STABILIZATION MUST BE COMPLETED WITHIN 24 HOURS OF CONNECTING TO A

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

10. CATCH BASINS ALL CATCH BASINS SHALL BE PROTECTED WITH INLET PROTECTION DEVICES APPROVED BY THE LOCAL GOVERNING UNIT. THESE SHALL INCLUDE, BUT ARE NOT LIMITED TO, WIMCO PROTECTION DEVICES, INFRASAFE PROTECTION DEVICES, FILTER FABRIC, BIO ROLLS AND STRAW BALES.

USED FOR EROSION AND SEDIMENT CONTROL AND ENERGY DISSIPATION.

CONTAINED IN DUMPSTERS AND REMOVED FROM THE SITE AS NECESSARY.

WATERING AND CALCIUM CHLORIDE APPLICATION.

CONSTRUCTION DUST SHALL BE CONTAINED TO THE EXTENT POSSIBLE. IF THE SITE BECOMES EXCESSIVELY DUSTY, APPROPRIATE MEASURES SHALL BE TAKEN TO REDUCE DUST BEING TRANSPORTED FROM THE SITE. DUST CONTROL MEASURES INCLUDE, BUT ARE NOT LIMITED TO,

DEWATERING ACTIVITIES SHALL BE CONDUCTED WITH AND APPROVED BY THE LOCAL GOVERNING UNIT. IF THERE WILL BE ANY DEWATERING OR BASIN DRAINING THAT MAY HAVE TURBID OR SEDIMENT LADEN DISCHARGE, THE WATER MUST BE DISCHARGED TO A TEMPORARY OR PERMANENT SEDIMENTATION BASIN ON THE PROJECT SITE WHENEVER POSSIBLE. APPROPRIATE BMPS SHALL BE

13. CONSTRUCTION MATERIALS AND DEBRIS CONSTRUCTION MATERIALS SHALL BE STORED IN AN ORDERLY MANNER AND IN AN AREA THAT WILL MINIMIZE CONFLICTS WITH OTHER CONSTRUCTION ACTIVITIES. CONSTRUCTION DEBRIS SHALL BE

CHEMICALS SHALL BE STORED IN A SAFE AREA IN SEALED CONTAINERS WITH THE ORIGINAL ABELING AND MATERIAL SAFETY DATA SHEETS AVAILABLE

15. SPILLS AND CONTAMINATION IF FUEL, OIL OR A HAZARDOUS CHEMICAL IS SPILLED OR DETECTED DURING CONSTRUCTION ACTIVITIES, ALL APPROPRIATE AGENCIES SHALL BE IMMEDIATELY NOTIFIED, INCLUDING, BUT NOT LIMITED TO, THE MINNESOTA DUTY OFFICER AT 800-422-0798.

16. CONCRETE WASHOUT AREA PERMITTEES MUST PROVIDE EFFECTIVE CONTAINMENT FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OPERATIONS (E.G., CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS) RELATED TO THE CONSTRUCTION ACTIVITY. PERMITTEES MUST PREVENT LIQUID AND SOLID WASHOUT WASTES FROM CONTACTING THE GROUND AND MUST DESIGN THE CONTAINMENT SO IT DOES NOT RESULT IN RUNOFF FROM THE WASHOUT OPERATIONS OR AREAS. PERMITTEES MUST PROPERLY DISPOSE LIQUID AND SOLID WASTES IN COMPLIANCE WITH MPCA RULES. PERMITTEES MUST INSTALL A SIGN INDICATING THE LOCATION OF THE WASHOUT FACILITY.

WHEN THE SITE HAS BEEN COMPLETELY CONSTRUCTED, THE SITE MUST UNDERGO FINAL STABILIZATION. FINAL STABILIZATION OCCURS WHEN ALL OF THE GRADING, INFRASTRUCTURE AND BUILDING ACTIVITIES HAVE BEEN COMPLETED. TO ACHIEVE FINAL STABILIZATION, THE FOLLOWING MEASURES SHALL BE

- 1. ALL DISTURBED AREAS WITHOUT PERMANENT IMPERVIOUS SURFACES SHALL BE DECOMPACTED AND STABILIZED BY A UNIFORM PERENNIAL VEGETATIVE COVER. AREAS NOT REQUIRING SOD OR EROSION CONTROL BLANKET SHALL BE SEEDED AND MULCHED.
- 2. SEDIMENT FROM CONVEYANCES AND TEMPORARY SEDIMENTATION BASINS THAT ARE TO BE USED AS PERMANENT WATER QUALITY MANAGEMENT BASINS SHALL BE CLEANED OUT. SEDIMENTATION BASINS SHALL BE SUFFICIENTLY CLEANED OUT TO RETURN THE BASIN TO DESIGN CAPACITY. SEDIMENT MUST BE STABILIZED TO PREVENT IT FROM BEING WASHED BACK INTO THE BASIN OR CONVEYANCES DISCHARGING OFF-SITE OR TO SURFACE WATERS.
- 3. WHEN STABILIZED VEGETATION HAS BEEN ESTABLISHED OVER 70 PERCENT OF THE PERVIOUS SURFACE AREA, ALL SYNTHETIC TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED BY THE CONTRACTOR. THIS INCLUDES, BUT IS NOT LIMITED TO, SILT FENCE, TREE FENCE AND CATCH BASIN INLET PROTECTION DEVICES.

NOTICE OF TERMINATION

THE PERMITEE(S) MUST SUBMIT A NOTICE OF TERMINATION (NOT) TO THE MPCA WITHIN 30 DAYS AFTER FINAL STABILIZATION IS COMPLETE, OR ANOTHER OWNER/OPERATOR (PERMITTEE) HAS ASSUMED CONTROL OVER ALL AREAS OF THE SITE THAT HAVE NOT UNDERGONE FINAL STABILIZATION.

INSPECTIONS & RECORD KEEPING

STORMWATER POLLUTION PREVENTION INSPECTIONS SHALL OCCUR 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 MAY BE CEASED DURING FROZEN GROUND CONDITIONS. WHERE WORK HAS BEEN SUSPENDED DUE TO FROZEN GROUND CONDITIONS, THE REQUIRED INSPECTIONS AND MAINTENANCE MUST TAKE PLACE WITHIN 24 HOURS AFTER RUNOFF OCCURS AT THE SITE OR PRIOR TO RESUMING CONSTRUCTION,

WHICHEVER COMES FIRST. DURING THE COURSE OF CONSTRUCTION, IT MAY BE DETERMINED THAT ADDITIONAL STORMWATER POLLUTION PREVENTION MEASURES MAY BE NEEDED, OR CERTAIN MEASURES ARE NOT PRACTICAL TO INSTALL. IN THESE CASES, AN AMENDMENT TO THE SWPPP SHALL BE MADE, AND SUPPORTING REASONS SHALL BE DOCUMENTED IN THE SWPPP.

- 1. RECORD NAME OF INSPECTOR AND DATE AND TIME OF INSPECTION.
- 2. RECORD RAINFALL AMOUNT SINCE MOST RECENT INPSECTION.
- 3. INSPECT ROCK CONSTRUCTION ENTRANCES FOR SEDIMENTATION. INSPECT ADJACENT STREETS FOR SEDIMENT TRACKING.
- 4. INSPECT SITE FOR EXCESSIVE EROSION AND SEDIMENT ACCUMULATION.
- A. INSPECT SILT FENCE AND OTHER TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES FOR EROSION, SEDIMENTATION AND MALFUNCTIONING.

- B. INSPECT FLARED END SECTIONS FOR EROSION AND SEDIMENTATION. C. INSPECT PONDS, INFILTRATION BASINS, TEMPORARY SEDIMENTATION BASINS AND ALL OTHER BMP'S FOR EROSION AND SEDIMENTATION
- D. INSPECT SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS FOR EVIDENCE OF SEDIMENT BEING DEPOSITED BY EROSION.
- 5. INSPECT SITE AND ADJACENT PROPERTIES FOR CONSTRUCTION DEBRIS, TRASH AND SPILLS.
- 6. INSPECT STABILIZED AREAS FOR EROSION
- 7. RECORD RECOMMENDED REPAIRS, MAINTENANCE AND/OR REPLACEMENTS REQUIRED TO ENSURE EROSION AND SEDIMENTATION CONTROL MEASURES ARE SUFFICIENT.
- 8. RECORD RECOMMENDED AMENDMENTS TO THE SWPPP.
- 9. RECORD REPAIRS, MAINTENANCE AND/OR REPLACEMENTS THAT WERE COMPLETED SINCE THE LAST

THE OWNER/CONTRACTOR IS RESPONSIBLE FOR THE OPERATION, INSPECTION AND MAINTENANCE OF ALL STORMWATER POLLUTION PREVENTION MEASURES FOR THE DURATION OF THE PROJECT. THE FOLLOWING GUIDELINES SHALL BE USED TO DETERMINE NECESSARY REPAIRS, MAINTENANCE AND/OR REPLACEMENT OF THE EROSION AND SEDIMENTATION CONTROL MEASURES.

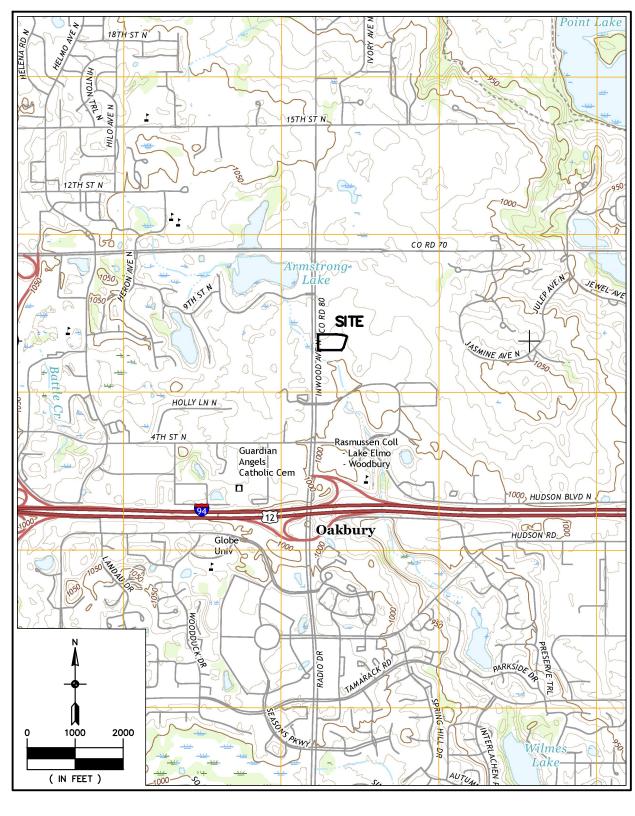
- 1. ROCK CONSTRUCTION ENTRANCES SHALL BE REPAIRED OR REPLACED IF THE ROCK BECOMES INUNDATED WITH SEDIMENT AND/OR EXCESSIVE SEDIMENT IS BEING TRACKED FROM THE SITE. SEDIMENT TRACKED ONTO ADJACENT STREETS SHALL BE REMOVED. MEASURES SHALL BE TAKEN IMMEDIATELY UPON DISCOVERY.
- 2. SILT FENCE SHALL BE REPAIRED OR REPLACED WHEN SEDIMENT REACHES 1/3 THE HEIGHT OF THE SILT FENCE, THE SILT FENCE IS DAMAGED AND/OR THE SILT FENCE BECOMES NONFUNCTIONAL. MEASURES SHALL BE TAKEN WITHIN 24 HOURS OF DISCOVERY.
- 3. CATCH BASIN INLET PROTECTION DEVICES SHALL BE CLEANED WHEN SEDIMENT REACHES 1 THE HEIGHT OF THE SEDIMENT TRAP AND/OR REPAIRED OR REPLACED IF THE DEVICE BECOMES NONFUNCTIONAL. MEASURES SHALL BE TAKEN WITHIN 72 HOURS OF DISCOVERY.
- ACCUMULATED AT THE OUTLET. IF A FLARED END SECTION BECOMES NONFUNCTIONAL OR DAMAGED, IT SHALL BE REPAIRED OR REPLACED. MEASURES SHALL BE TAKEN WITHIN 72 HOURS

4. FLARED END SECTIONS SHALL BE CLEANED IF DEBRIS IS RESTRICTING FLOW OR IF SEDIMENT HAS

- 5. IF SEDIMENT IS OBSERVED OFF-SITE OR NEAR SURFACE WATERS, THE SOURCE OF SEDIMENT SHALL BE DETECTED AND ADDITIONAL MEASURES SHALL BE IMPLEMENTED. THE PERMITEE(S) SHALL COORDINATE SEDIMENT RETRIEVAL FROM SURFACE WATERS WITH ALL APPROPRIATE AGENCIES. MEASURES SHALL BE TAKEN WITHIN 7 DAYS OF DISCOVERY.
- 6. PONDS, INFILTRATION BASINS, TEMPORARY SEDIMENTATION BASINS AND ALL OTHER BMP'S SHALL BE CLEANED IF DEBRIS IS PRESENT AND/OR EXCESSIVE SEDIMENTATION HAS OCCURRED. TEMPORARY AND PERMANENT SEDIMENTATION BASINS MUST BE DRAINED AND THE SEDIMENT REMOVED WHEN SEDIMENT HAS FILLED THE BASIN TO 1/2 THE STORAGE VOLUME. NO SEDIMENT SHALL BE ALLOWED TO ACCUMULATE IN INFILTRATION BASINS. MEASURES SHALL BE TAKEN WITHIN 72 HOURS OF DISCOVERY.

THE FOLLOWING TABLE PROVIDES ESTIMATED QUANTITIES FOR STORMWATER POLLUTION PREVENTION THROUGHOUT THE PROJECT.

ITEM		ESTIMATED QUANTITY		
DOOK ENTERANCE	+	QUANTITI		
ROCK ENTRANCE	EA.	1		
SILT FENCE	L.F.	1,200		
INLET PROTECTION	EA.	11		
EROSION CONTROL BLANKET	S.Y.	AS NEEDED		
TURF ESTABLISHMENT	AC.	1.5		







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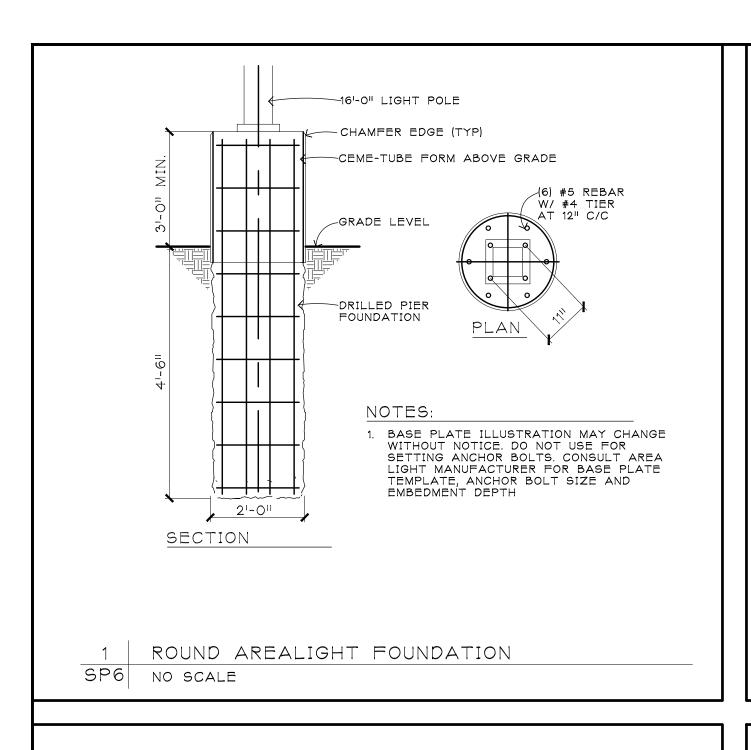


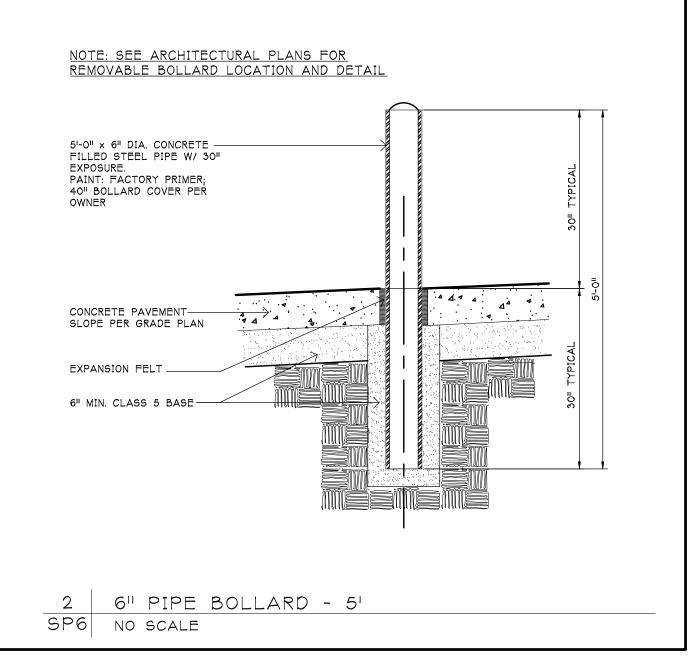
hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer

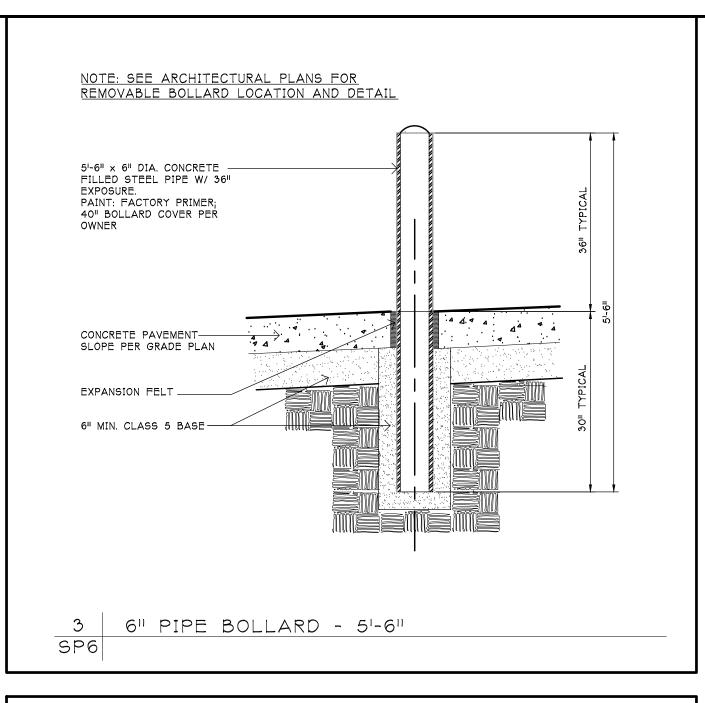
under the laws of the State of Minnesota. Joseph T. Radach, P.E. Signature: 7 T. P Date: 06/28/19 License #: 45889

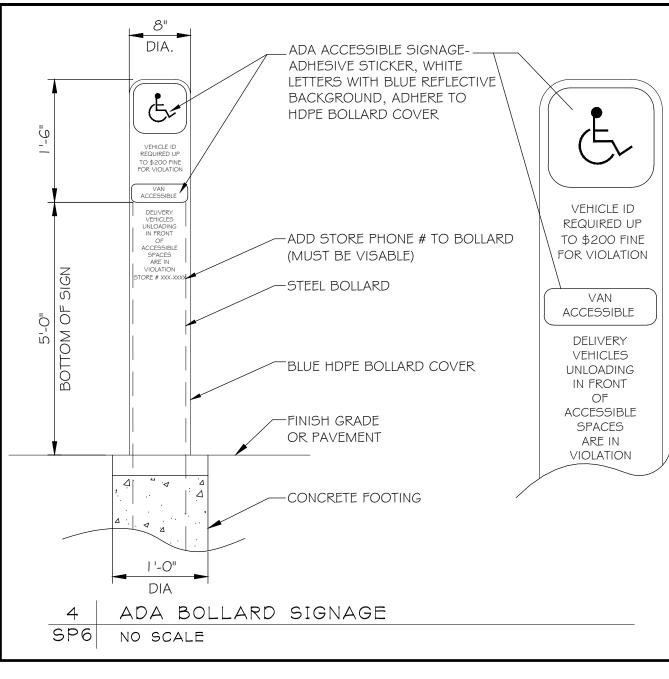
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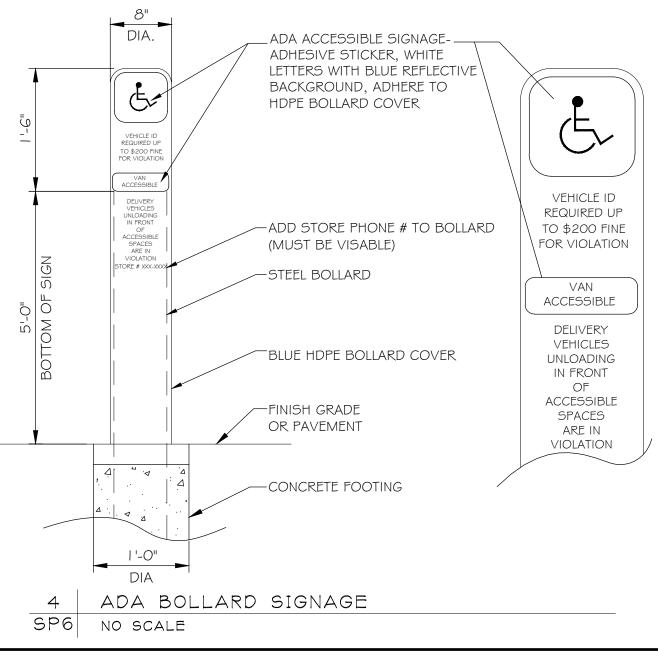








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#3 REBAR- 6" O.C. (TYP)

SECTION A-A

DRAIN-TOP OF CASTING
SEE GRADE PLAN

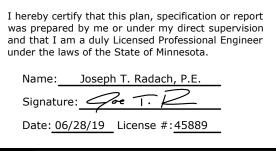
-#3 REBAR- 6" O.C. (TYP)

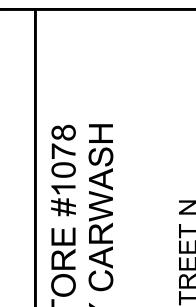
--- DISCHARGE PIPE TO CB/MH

-COMPACTED SUBGRADE (TYP)

-8" COMPACTED BASE MATERIAL (TYP)

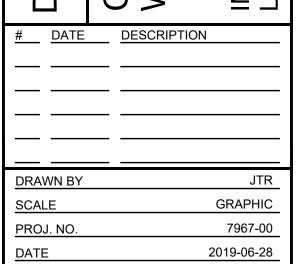
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota. Name: Joseph T. Radach, P.E. Signature: 70e 1. P





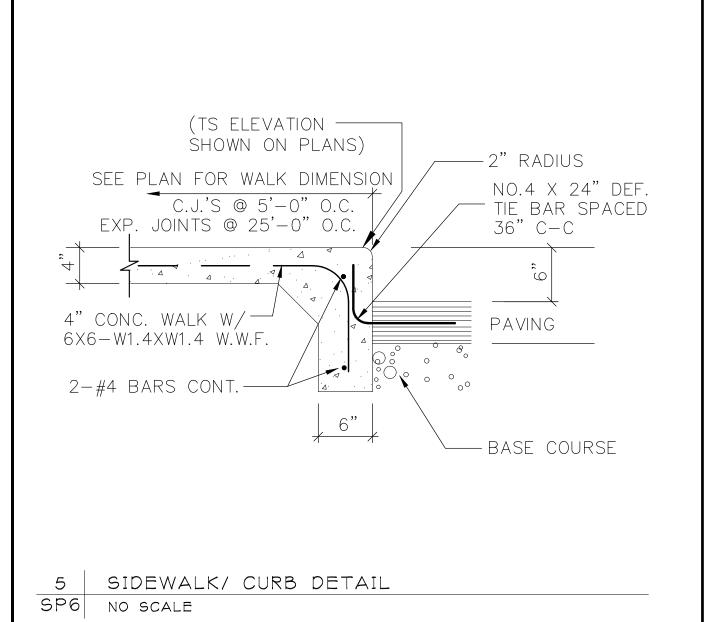
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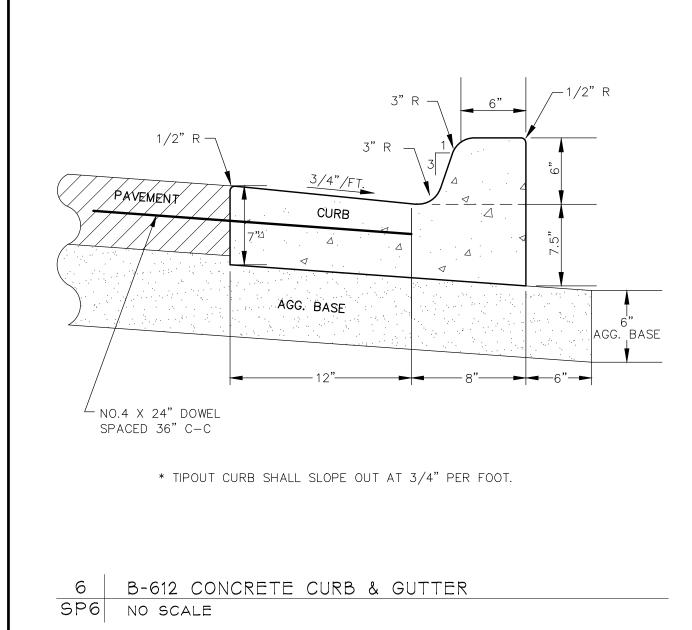
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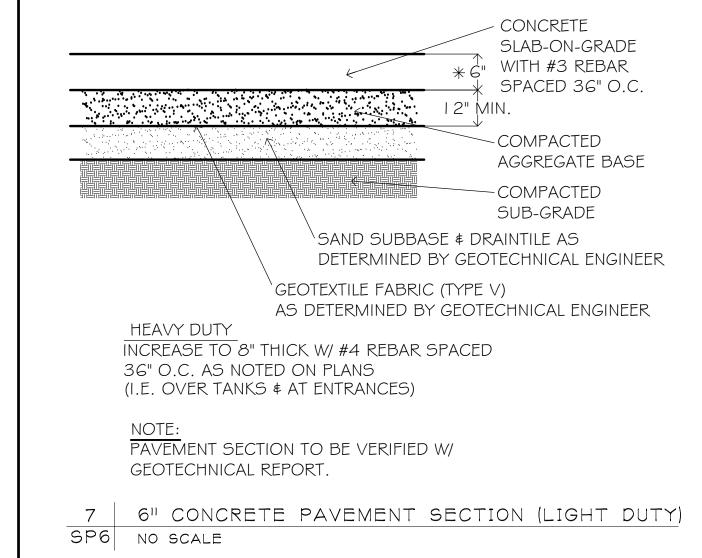


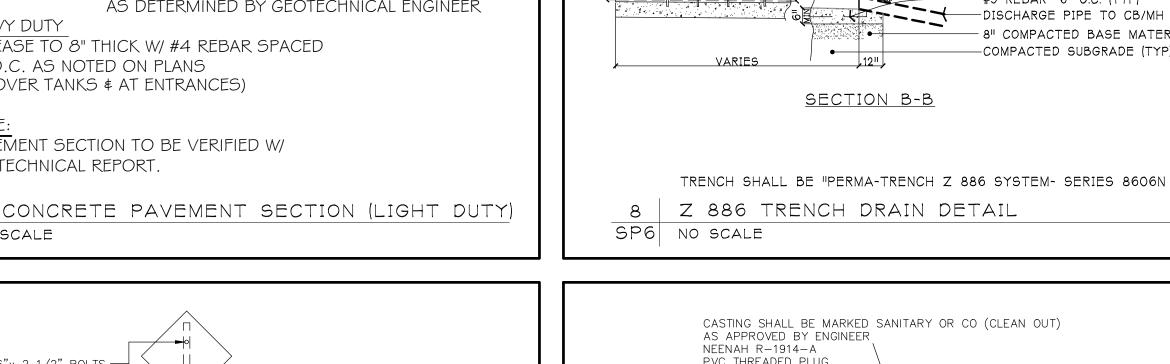
SHEET

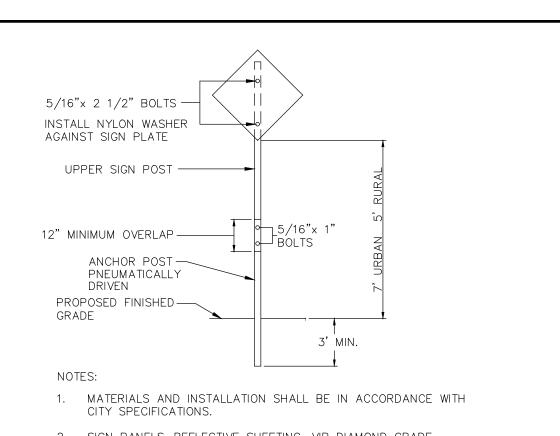
1078 SP6

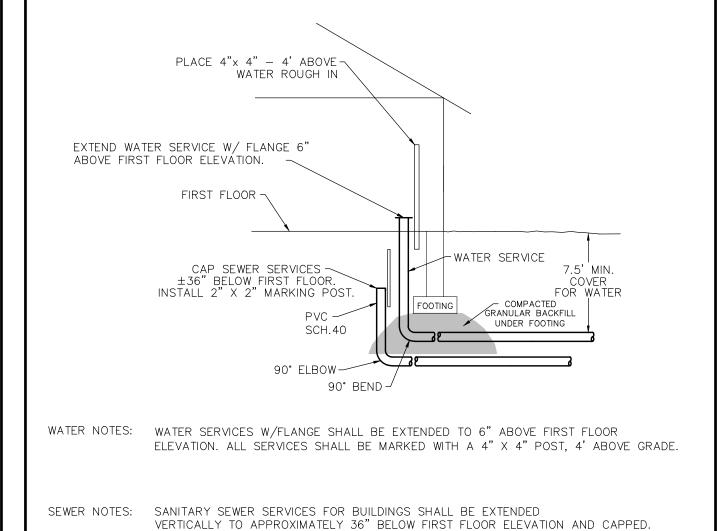








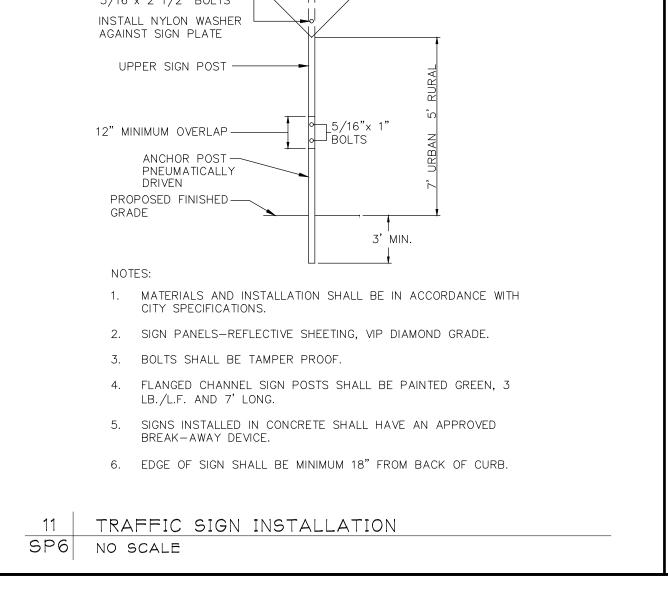


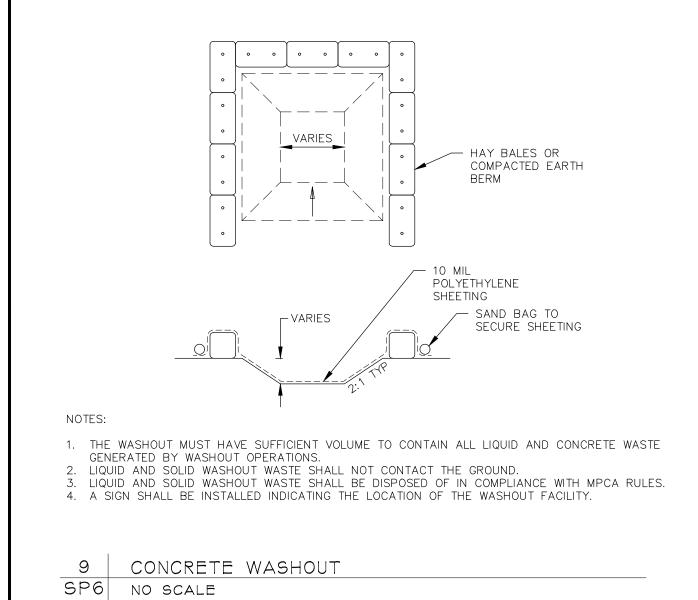


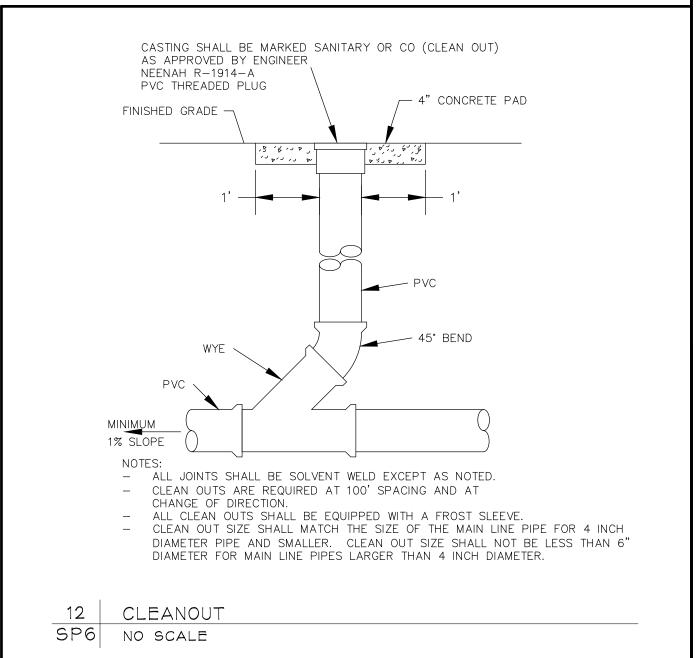
ALL SERVICES SHALL BE MARKED WITH A 2" X 2" POST.

SP6 NO SCALE

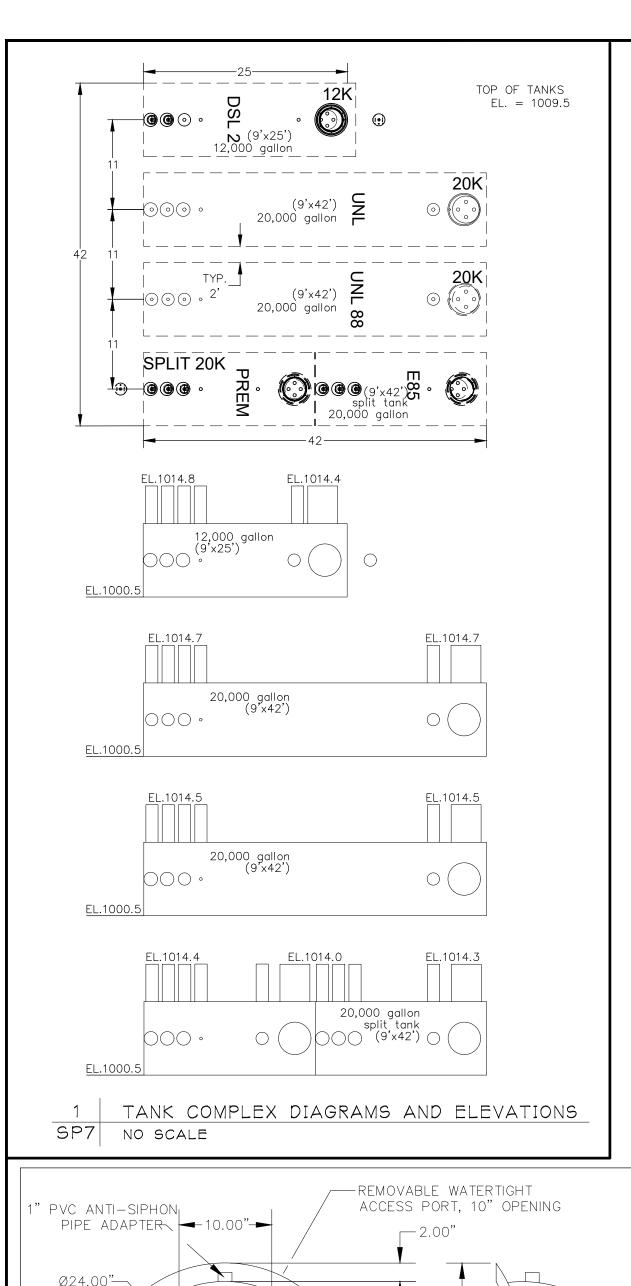
10 | SANITARY & WATER SERVICE INSTALLATION

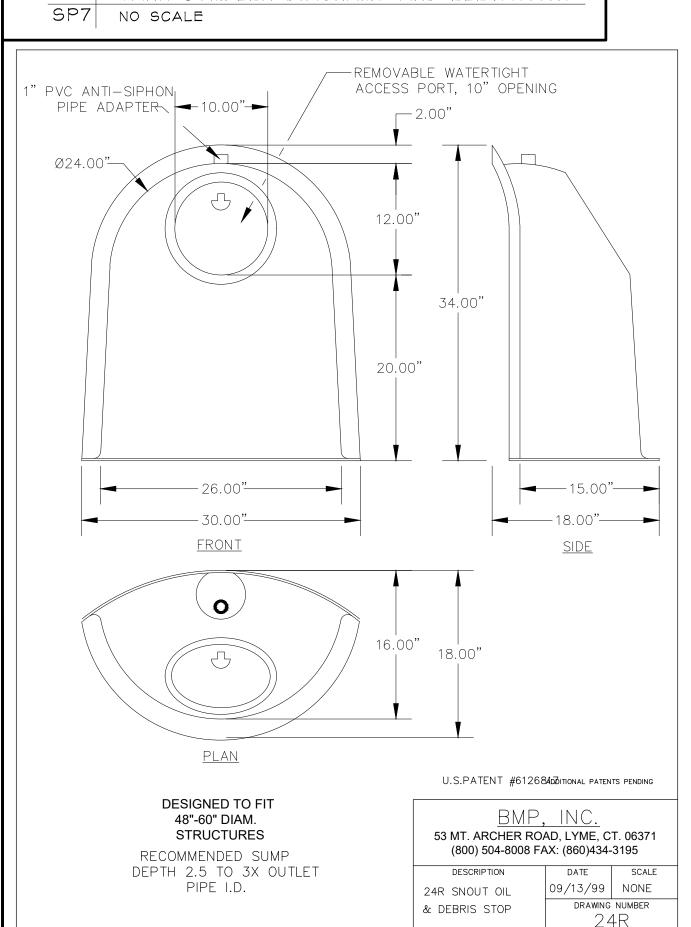


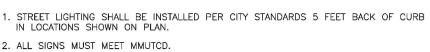




SECTION B-B







- 5. ALL SIGN SHEATHING TO BE TYPE IX DIAMOND GRADE (DG3).
- . SIGN POSTS TO BE SQUARE TUBE SIGN STANDARD WITH OMNI BASE.
- . DEVELOPER TO FURNISH AND INSTALL STREET SIGNS PER CITY STANDARDS.
- POLY PREFORMED PAVEMENT MATERIAL SHALL BE USED FOR ALL PAVEMENT SYMBOLS. 7. EPOXY RESIN AND DROP-ON GLASS BEADS FOR PAVEMENT MARKINGS SHALL MEET THE REQUIREMENTS OF MnDOT "SPECIFICATIONS FOR CONSTRUCTION, 2014 EDITIONS".

STANDARD PLAN NOTES

ALL WATERMAIN AND ACCESSORIES MUST BE CONSTRUCTED IN ACCORDANCE WITH

SIGNING/PAVEMENT MARKINGS/LIGHTING PLANS

MARCH 2017

LAKE ELMO CITY OF LAKE ELMO

THE CITY OF LAKE ELMO STANDARD SPECIFICATIONS AND DETAILS.

STANDARD DRAWING NO. 900A LAKE ELMO

STREET LIGHTING SHALL BE INSTALLED PER CITY STANDARDS 5 FEET BACK OF CURB IN LOCATIONS SHOWN ON PLAN. ALL SIGNS MUST MEET MMUTCD.

- ALL SIGN SHEATHING TO BE TYPE IX DIAMOND GRADE (DG3).
- SIGN POSTS TO BE SQUARE TUBE SIGN STANDARD WITH OMNI BASE. DEVELOPER TO FURNISH AND INSTALL STREET SIGNS PER CITY STANDARDS.
- POLY PREFORMED PAVEMENT MATERIAL SHALL BE USED FOR ALL PAVEMENT SYMBOLS. . EPOXY RESIN AND DROP-ON GLASS BEADS FOR PAVEMENT MARKINGS SHALL MEET THE REQUIREMENTS OF M-DOT "SPECIFICATIONS FOR CONSTRUCTION, 2014 EDITIONS".

STANDARD PLAN NOTES

SIGNING/PAVEMENT MARKINGS/LIGHTING PLANS

ALL SANITARY SEWER AND ACCESSORIES MUST BE CONSTRUCTED IN ACCORDANCE

ALL SANITARY SEWER PVC PIPE SHALL BE INSTALLED ACCORDING TO CITY STANDARD

DRAWING 103 "GRANULAR MATERIAL BEDDING METHOD (FOR PVC SANITARY SEWER

UNLESS NOTED OTHERWISE, ALL SMOOTH WALLED SANITARY SEWER PVC PIPE AND

SMOOTH WALLED PVC PIPE AND FITTINGS SHALL CONFORM WITH THE REQUIREMENTS

OF ASTM D-3034 FOR THE SIZE, STANDARD DIMENSION RATIO (SDR), AND STRENGTH REQUIREMENTS INDICATED ON THE PLANS, SPECIFICATIONS, AND SPECIAL PROVISIONS.

. REINFORCED CONCRETE PIPE AND FITTINGS SHALL CONFORM WITH THE REQUIREMENTS

. SANITARY SEWER INLET AND OUTLET PIPES SHALL BE JOINED TO THE MANHOLE WITH

A GASKETED, FLEXIBLE, WATERTIGHT CONNECTION TO ALLOW DIFFERENTIAL SETTLEMENT OF THE PIPE AND MANHOLE TO TAKE PLACE.

OF MADOT SPEC 3236 (REINFORCED CONCRETE PIPE) FOR THE TYPE, SIZE, AND STRENGTH CLASS SPECIFIED HEREIN.

JOINTS OF MANHOLE RISER SECTIONS SHALL BE TONGUE AND GROOVE WITH

. A 1'-0" TO 1'-4" MANHOLE SECTION SHALL BE INSTALLED UNDER THE CONE

. ALL SERVICE LINE STUBS MUST HAVE A 2"x2" HARDWOOD MARKER WITH METAL

UPON MAKING A CONNECTION TO AN EXISTING SANITARY SEWER STUB OR MANHOLE,

DIRT AND DEBRIS SHALL BE PREVENTED FROM ENTERING THE EXISTING SEWER BY IMMEDIATELY INSTALLING WATERTIGHT PLUGS AS NEEDED IN THE EXISTING MANHOLE.

. ALL MAINLINE SANITARY SEWER AND SERVICES SHALL HAVE TRACER WIRE PER CITY

SECTION TO ALLOW FOR HEIGHT ADJUSTMENT WHENEVER POSSIBLE.

RUBBER "O" RING JOINTS PROVIDED ON ALL SANITARY SEWER MANHOLES.

WITH THE CITY OF LAKE ELMO STANDARD SPECIFICATIONS AND DETAILS.

FITTINGS SHALL BE SDR 35 WITH ELASTOMERIC GASKETED JOINTS.

4. ALL SANITARY SEWER SERVICES SHALL BE 4-INCH PVC, SCH. 40.

CITY OF LAKE ELMO

COMPACTED BACKFILL-ASTM D2321 100% VIRGIN GRANULAR BEDDING MATERIAL (MnDOT SPEC. 3149.2F) — GRANULAR MATERIAL BEDDING (TO BE USED WHERE, IN THE OPINION OF THE ENGINEER, UNSTABLE MATERIAL PREVENTS USE OF THE "EARTH FOUNDATION" DETAIL) EARTH FOUNDATION (EXCEPT SANITARY SEWER)

O.D.+2'

PIPE FOUNDATION DETAILS

STRENGTH CLASS SPECIFIED HEREIN.

MARCH 2017

CITY OF LAKE ELMO

ALL STORM SEWER AND ACCESSORIES MUST BE CONSTRUCTED IN ACCORDANCE

REINFORCED CONCRETE PIPE AND FITTINGS SHALL CONFORM WITH THE REQUIREMENTS

PRECAST CONCRETE MANHOLE AND CATCH BASIN SECTIONS SHALL CONFORM TO THE

OF MnDOT SPEC 3236 (REINFORCED CONCRETE PIPE) FOR THE TYPE, SIZE, AND

. A 1'-0" TO 1'-4" MANHOLE SECTION SHALL BE INSTALLED UNDER THE CONE

JOINTS OF MANHOLE RISER SECTIONS SHALL BE TONGUE AND GROOVE WITH

. RIP-RAP SHALL BE HAND-PLACED OVER GEOTEXTILE FABRIC AND CONFORM TO

THE GEOTEXTILE FABRIC USED UNDER RIP-RAP SHALL EXTEND 3 FT UNDER THE

ALL SILT SHALL BE CLEANED OUT FROM THE RIP-RAP AT THE END OF THE PROJECT.

. STORM SEWER STRUCTURES WITHIN 10 FT OF WATERMAIN ARE TO HAVE WATER TIGHT

STANDARD PLAN NOTES

STORM SEWER PLANS

CITY OF LAKE ELMO

RUBBER "O" RING JOINTS PROVIDED ON ALL STORM SEWER MANHOLES.

SECTION TO ALLOW FOR HEIGHT ADJUSTMENT WHENEVER POSSIBLE.

3. FURNISH & INSTALL TRASH GUARDS ON ALL FLARED END SECTIONS.

MnDOT SPEC. 3601, CLASS III, OR AS SPECIFIED HEREIN.

CONNECTIONS PER MDH REQUIREMENTS.

MARCH 2017

WITH THE CITY OF LAKE ELMO STANDARD SPECIFICATIONS AND DETAILS.

STANDARD DRAWING NO LAKE ELMO

COMPACTED BACKFILL — ASTM D2321 100% VIRGIN GRANULAR BEDDING MATERIAL (MnDOT SPEC. 3149.2F) GRANULAR MATERIAL BEDDING METHOD (FOR PVC SANITARY SEWER PIPE)

MARCH 2017

AKE ELMO CITY OF LAKE ELMO

BITUMINOUS TRAILS AND SIDEWALKS MUST BE CONSTRUCTED TO MAINTAIN POSITIVE

TOPSOIL AND BACKFILLING OPERATIONS MUST BE COMPLETED TO AVOID DAMAGE TO THE BITUMINOUS TRAILS AND SIDEWALKS. FINAL GRADE OF BACKFILL AND TOPSOIL MUST BE FLUSH WITH THE PATH EDGE TO AVOID TRAPPING WATER.

DIVIDE SIDEWALK INTO SECTIONS WITH CONTRACTION JOINTS. SPACING SHALL NOT

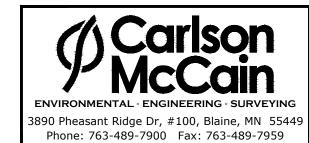
BE LESS THAN 3 FT NOR GREATER THAN 12 FT IN ANY DIMENSION. PLACE ½ INCH EXPANSION JOINT FILLER AT 50 FT (MAXIMUM) INTERVALS.

. CONCRETE PEDESTRIAN RAMPS MUST BE CONSTRUCTED AT ALL INTERSECTIONS.

DRAINAGE AWAY FROM THE PATHWAYS THROUGHOUT THE ENTIRE LENGTH.

STANDARD DRAWING NO 103 LAKE ELMO

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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. Name: <u>Joseph T. Radach</u>, P.E. Signature: 70e 1. P Date: 06/28/19 License #: 45889

STANDARD PLAN NOTES SIDEWALKS AND TRAILS

MARCH 2017

CITY OF LAKE ELMO

STANDARD DRAWING NO 500A LAKE ELMO

PROTECT ALL STORM SEWER INLETS AS SPECIFIED HEREIN AND MAINTAIN UNTIL STREET CONSTRUCTION IS COMPLETED.

MAINTAIN ALL SILT FENCE AND REPAIR OR REPLACE AS NEEDED OR REQUIRED UNTIL TURF HAS BEEN ESTABLISHED. RESTORATION WORK SHALL BEGIN WITHIN 7 DAYS OF FINAL GRADING.

BOULEVARD AND DITCH RESTORATION INCLUDES FINE GRADING, WHICH INCLUDES THE REMOVAL OF ROCKS, DEBRIS AND SOIL CHUNKS, WHILE MAINTAINING POSITIVE

RESTORE ALL DISTURBED AREAS WITH 6 INCHES OF TOPSOIL CONFORMING TO

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LAKE ELMO 9. DEWATERING. EACH EXCAVATION SHALL BE KEPT DRY DURING THE COURSE OF ALL WORK HEREIN, INCLUDING SUBGRADE CORRECTION, PIPE INSTALLATION, STRUCTURE CONSTRUCTION AND BACKFILLING, TO THE EXTENT THAT NO DAMAGE FROM HYDROSTATIC PRESSURE, FLOATATION OR OTHER DAMAGE RESULTS. ALL EXCAVATIONS SHALL BE DEWATERED TO A DEPTH OF AT LEAST 3 INCHES BELOW THE BOTTOM OF THE CONCRETE SLAB OR PIPE TO BE INSTALLED THEREIN. THE CONTRACTOR MAY USE ANY METHOD OR COMBINATION OF METHODS FOR FOR DEWATERING HE CHOOSES; HOWEVER, ALL DEWATERING METHODS AND EQUIPMENT WHICH IN THE OPINION OF THE ENGINEER, ARE INEFFECTIVE SHALL BE ABANDONED, IMPROVED, REPLACED OR THERWISE ALTERED TO OBTAIN EFFECTIVE DEWATERING. THE CONTRACTOR SHALL PROVIDE ALL POWER, PUMPS, MATERIALS AND APPARATUS NECESSARY, AND SHALL BE RESPONSIBLE FOR DISPOSING OF THE WATER PUMPED FROM THE EXCAVATION IN A MANNER WHICH WILL NOT INTERFERE WITH OTHER WORK WITHIN THE AREA AND NOT TO DAMAGE PUBLIC OR PRIVATE PROPERTY. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE CONDITION OF ANY PIPE, CONDUIT, DITCH, CHANNEL OR NATURAL WATERCOURSE UTILIZED FOR DRAINAGE PURPOSES, AND ALL EROSION, SEDIMENT OR OTHER ADVERSE RESULTS OF THEIR USE SHALL BE REPAIRED.

10. 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

11. 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 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.

2. 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

STANDARD PLAN NOTES GRADING AND EROSION CONTOL PLANS

MARCH 2017

STANDARD DRAWING NO. 600A LAKE ELMO

CITY OF LAKE ELMO

STANDARD DRAWING NO. 600B LAKE ELMO

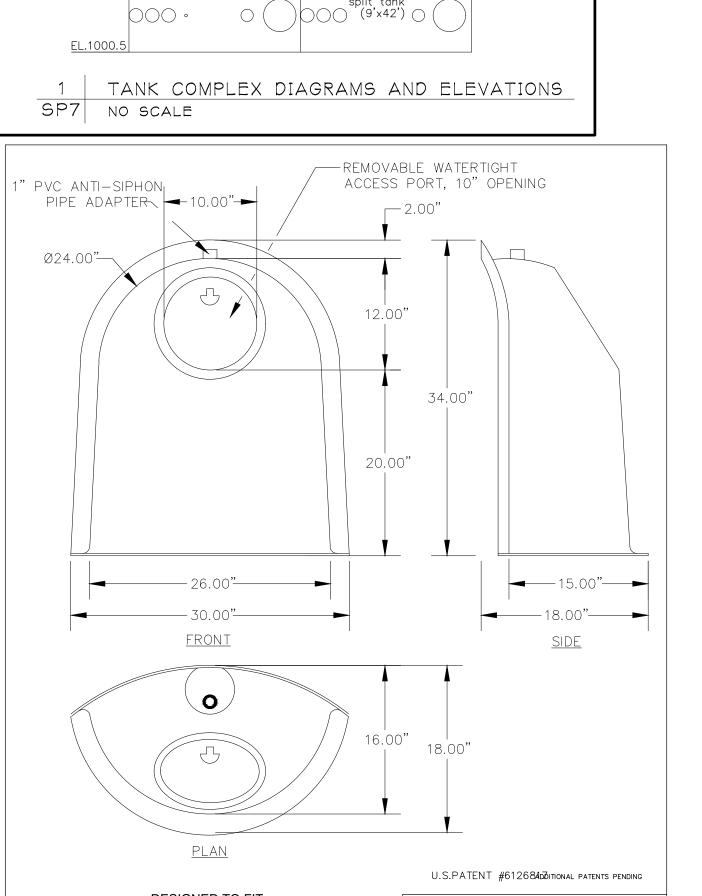
MARCH 2017

STANDARD DRAWING NO

MARCH 2017

CITY OF LAKE ELMO

STANDARD PLAN NOTES SITE RESTORATION PLANS STANDARD DRAWING NO. 600D



. MANIPULATION OF EXISTING VALVES SHALL BE PERFORMED ONLY BY CITY PERSONNEL. 5. WATERMAIN SHALL BE DUCTILE IRON PIPE, ENCASED IN POLYETHYLENE, CLASS-52. . ALL FITTINGS SHALL COMPLY WITH CEAM SPEC. 2611.2.A1. ALL FITTINGS SHALL BE DUCTILE IRON PIPE WITH POLYETHYLENE ENCASEMENT. ALL CONNECTIONS SHALL BE INSTALLED UTILIZING COR-BLUE NUTS & BOLTS. 5. USE GATE VALVES FOR ALL APPLICATIONS UP THROUGH 12 INCHES. . GATE VALVES SHALL BE RESILIENT WEDGE AMERICAN FLOW CONTROL SERIES 2500 OR APPROVED EQUAL. GATE VALVES MUST COMPLY WITH CEAM SPEC 2611.2.C.2. . USE BUTTERFLY VALVES FOR ALL APPLICATIONS GREATER THAN 12 INCHES. B. BUTTERFLY VALVES SHALL BE MUELLER LINESEAL III, OR APPROVED EQUAL. BUTTERFLY VALVES SHALL COMPLY WITH CEAM SPEC. 2611.2.C3. . BOLTS AND NUTS ON ALL VALVES AND HYDRANTS SHALL BE STAINLESS STEEL. O. ALL HYDRANTS SHALL BE INSTALLED 5.0 FEET BACK OF CURB.

HYDRANTS SHALL BE WATEROUS "PACER," MODEL WB-67 OR APPROVED EQUAL, FITTED WITH FH 800 SERIES FLEX STAKE AND PAINTED RED. . HYDRANTS SHALL HAVE TWO OUTLET NOZZLES FOR 2-1/2 (I.D.) HOSE CONNECTIONS

AND ONE 4" STORZ NOZZLE (MODEL WB-67) AND PENTAGON NUT END CAP. THE CURB STOP SERVICE ASSEMBLY SHALL HAVE A MINIMUM 1-FT ADJUSTMENT RANGE AND SHALL EXTEND 6 INCHES ABOVE FINISHED GRADE FULLY EXTENDED.

. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING WATER TO HOMES AND BUSINESSES WHOSE WATER SUPPLY IS DISRUPTED DURING THE COURSE OF THE PROJECT.

STANDARD PLAN NOTES

WATERMAIN PLANS

. THE CONTRACTOR SHALL CONDUCT OPERATIONS AND IMPLEMENT MINNESOTA

ISSUE A STOP WORK ORDER FOR ALL DEVELOPMENT WORK AND BUILDING

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 ISSUED AS TO BE TO BE A STORMARY OF THE WORK AND TO BE COMPLETED. THE ENGINEER MAY

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 THE OR INLET. INLET PROTECTION OF THE OR INLET. INLET PROTECTION OF THE OR INLET. INLET PROTECTION OF THE OR INLET. IN ADMINISTRATION OF THE ORDER O

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.

STANDARD PLAN NOTES

GRADING AND EROSION CONTROL PLANS

CITY OF LAKE ELMO

MARCH 2017

MARCH 2017

CITY OF LAKE ELMO

TANDARD DRAWING NO 200A LAKE ELMO

MARCH 2017

SPECIFICATIONS AND DETAILS.

STANDARD PLAN NOTES SANITARY SEWER PLANS

CITY OF LAKE ELMO

STANDARD DRAWING NO 300A

STANDARD DRAWING NO.

900A

LAKE ELMO

13. 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 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.

> 14. 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. MATCH THE FINISHED GRADE TO THE ADJACENT AREA.

15. 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.

16. 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.

17. 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. 18. 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

CITY OF LAKE ELMO

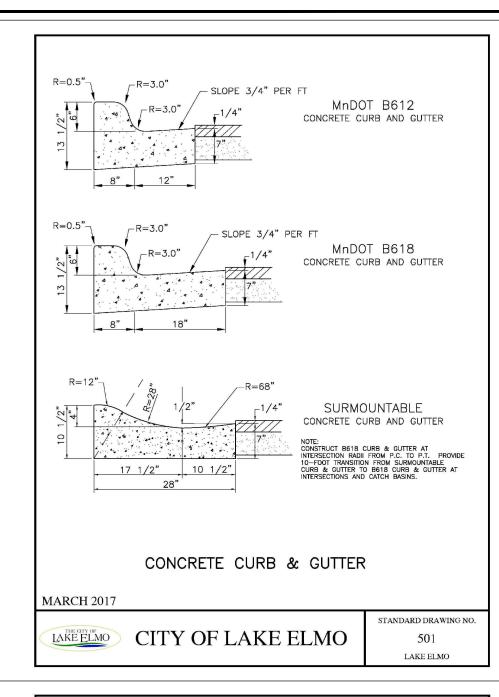
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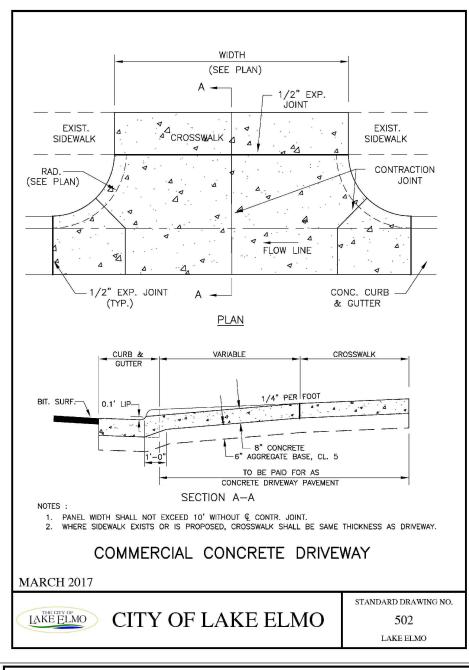
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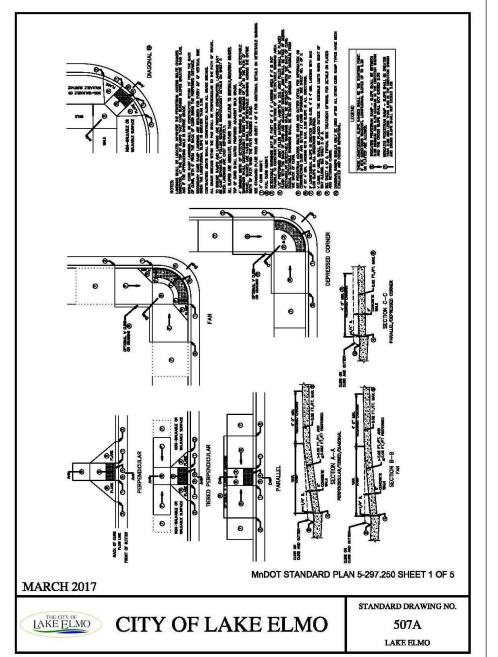
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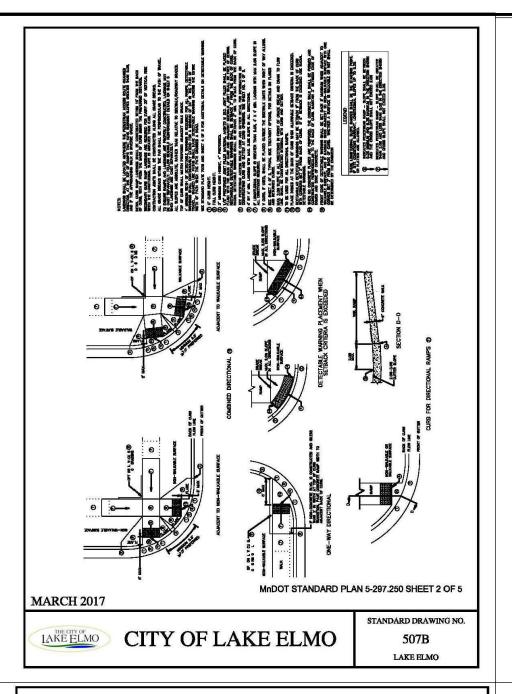
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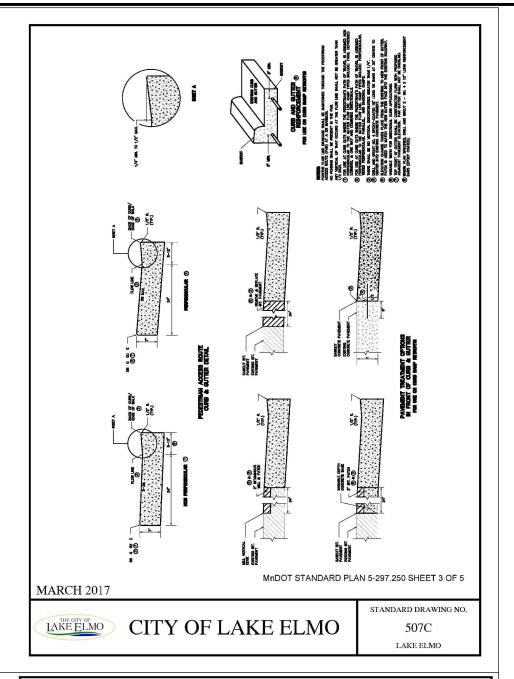
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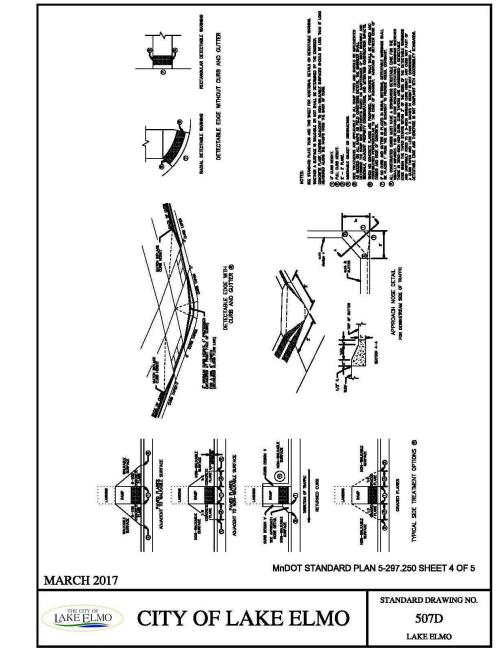


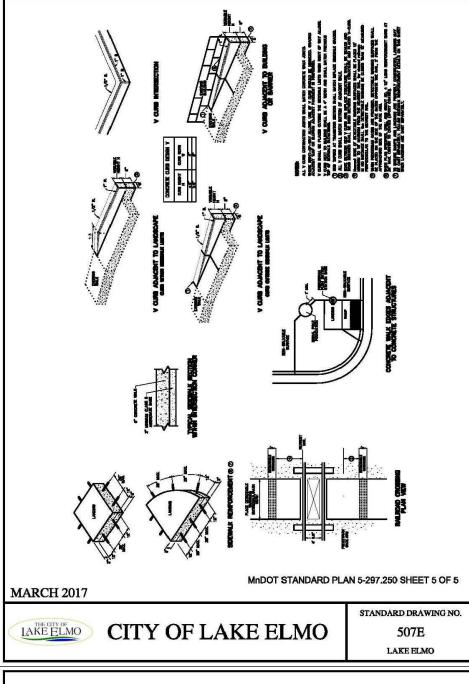


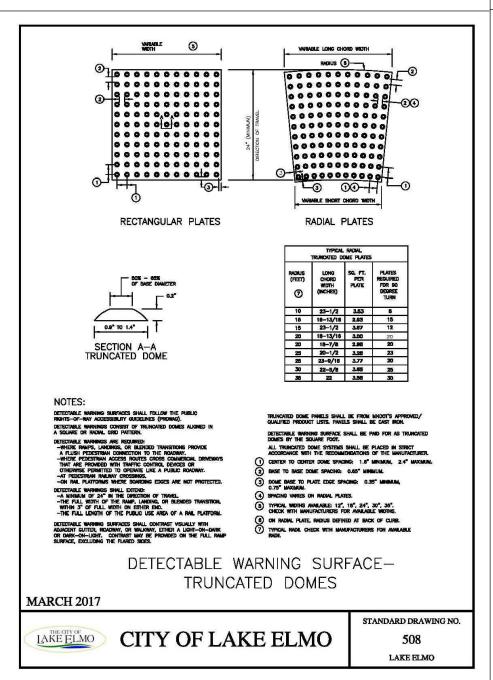


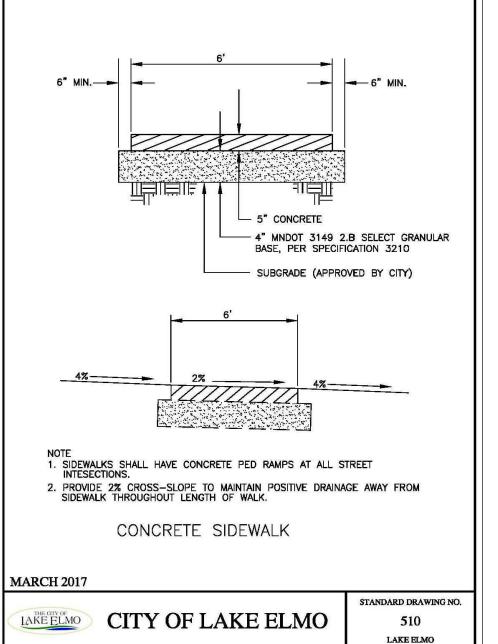


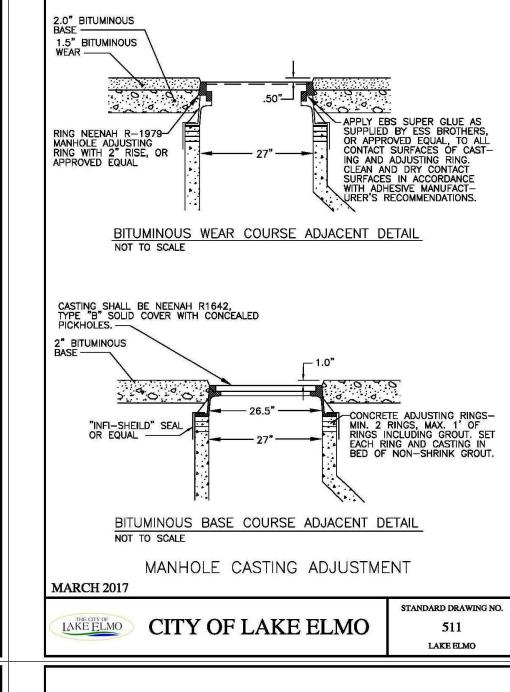


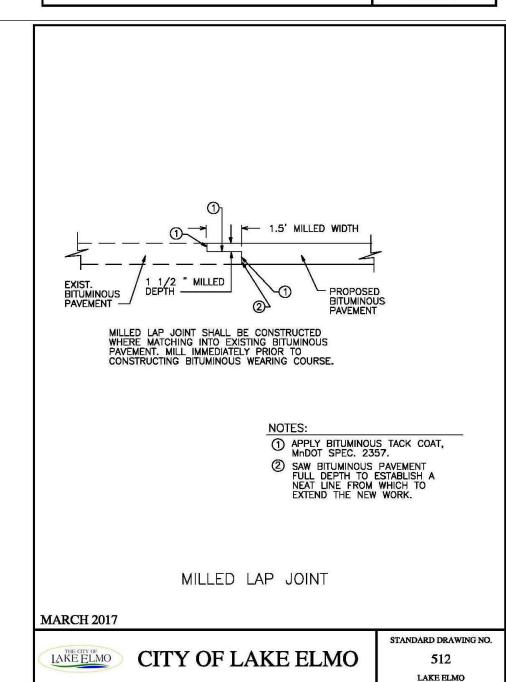


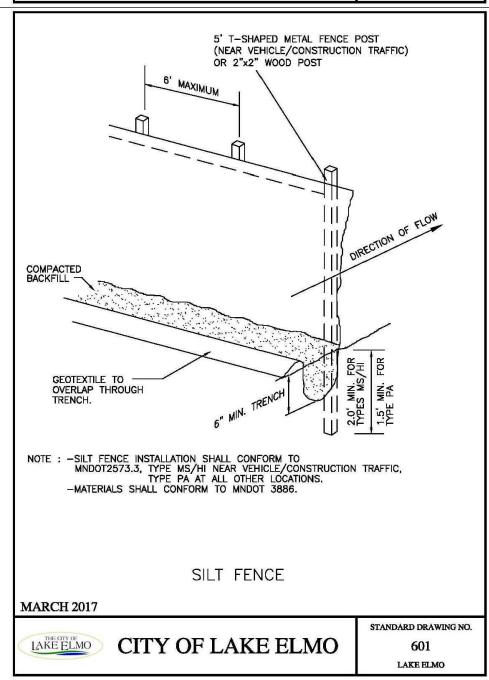


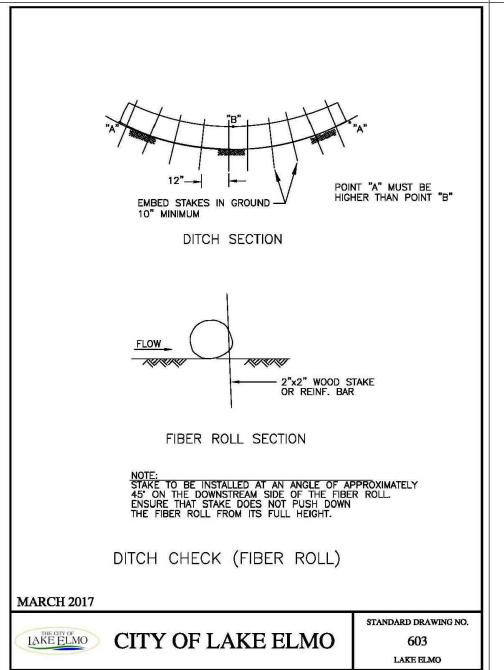


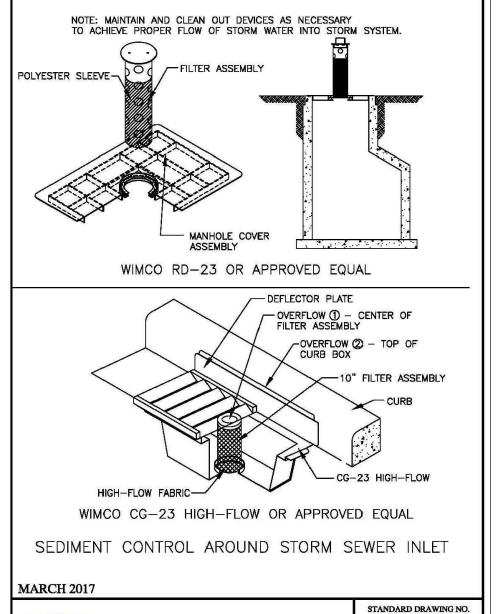








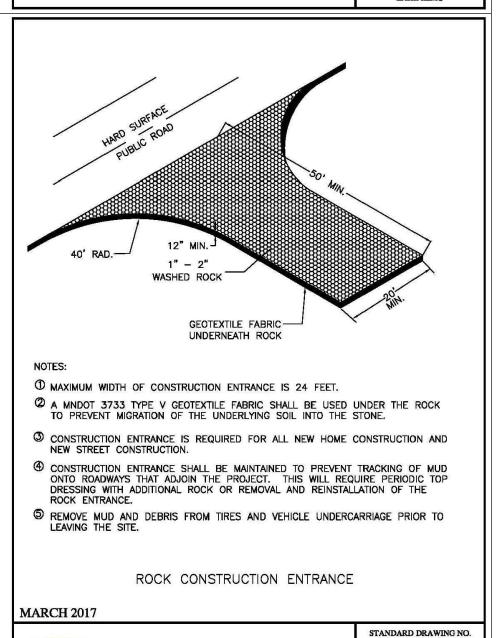




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LAKE ELMO

CITY OF LAKE ELMO



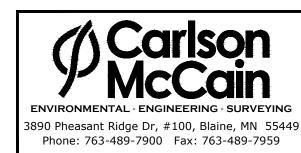
LAKE ELMO

LAKE ELMO CITY OF LAKE ELMO





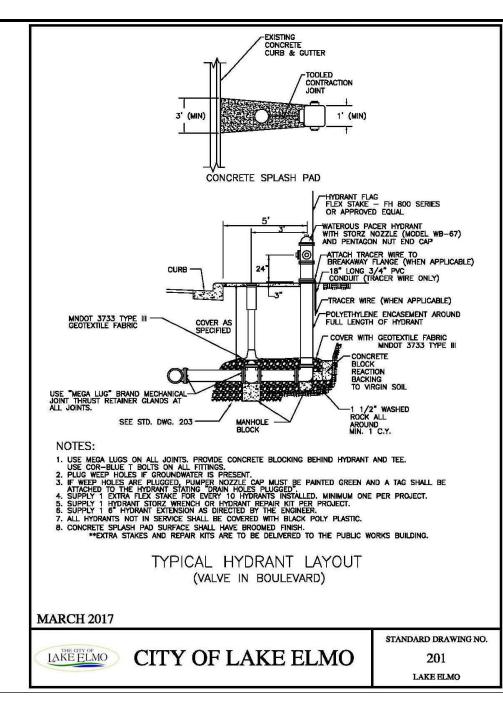
KWIK TRIP, Inc. P.O. BOX 2107 1626 OAK STREET LA CROSSE, WI 54602-2107 PH. (608) 781-8988 FAX (608) 781-8960

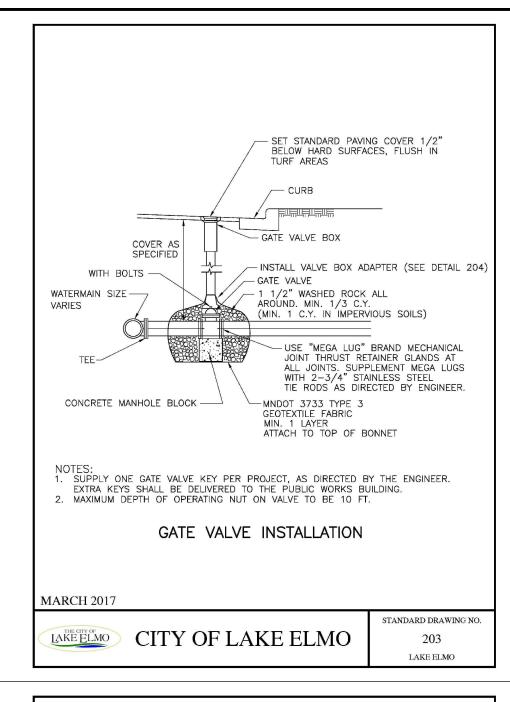


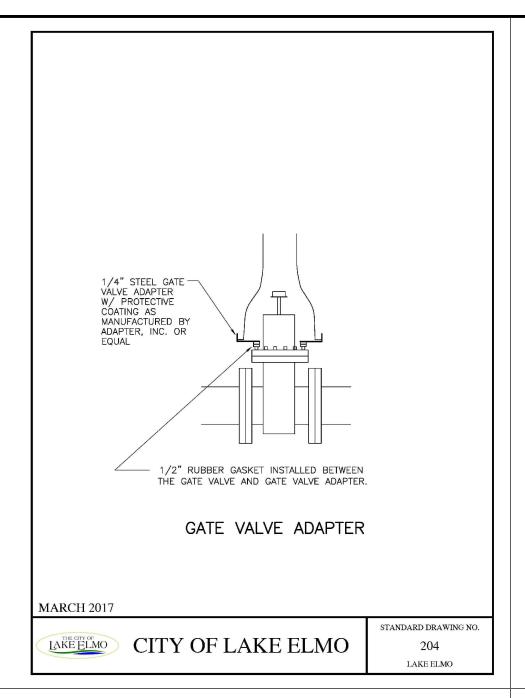
STORE #1078
SAY CARWASH

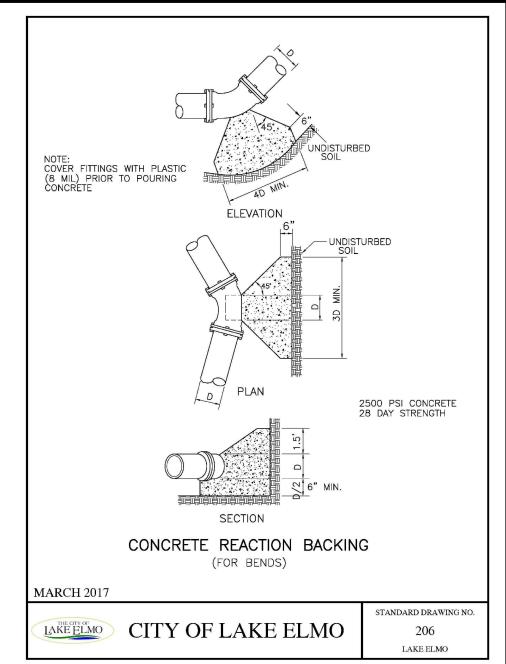
CONVENIENCE STORE WITH SINGLE BAY CAI INWOOD AVE N & 5TH STREE LAKE ELMO, MINNESOTA

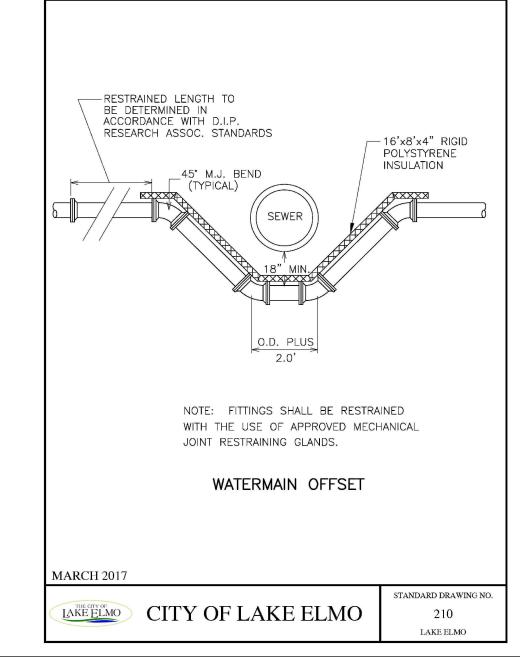
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SCALE	GRAPHIC
PROJ. NO.	7967-00
DATE	2019-06-28
SHEET	1078 SP8

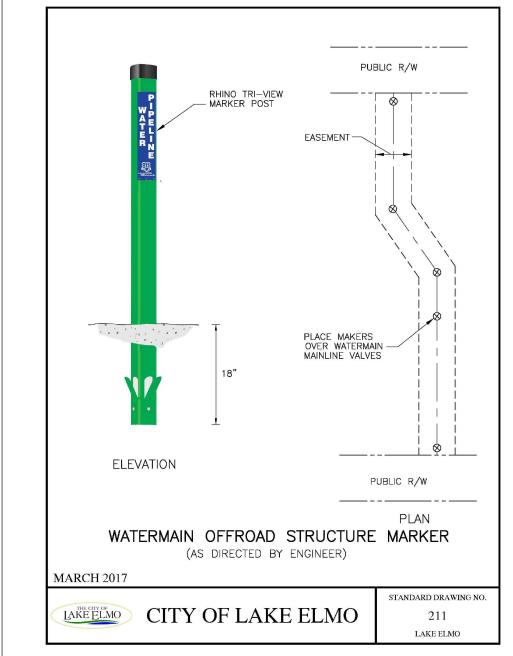


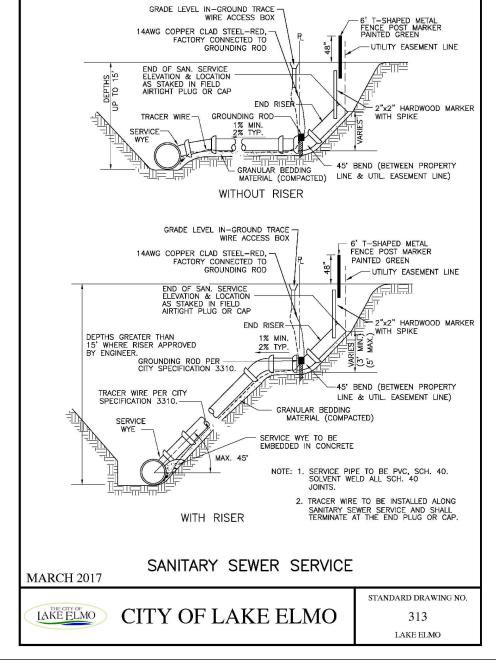


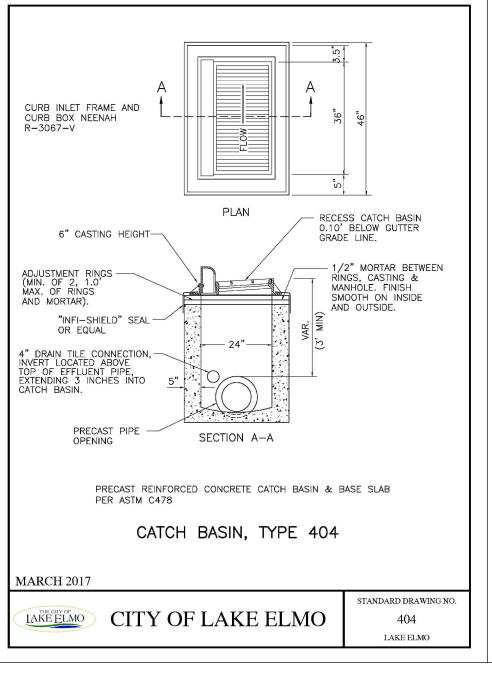


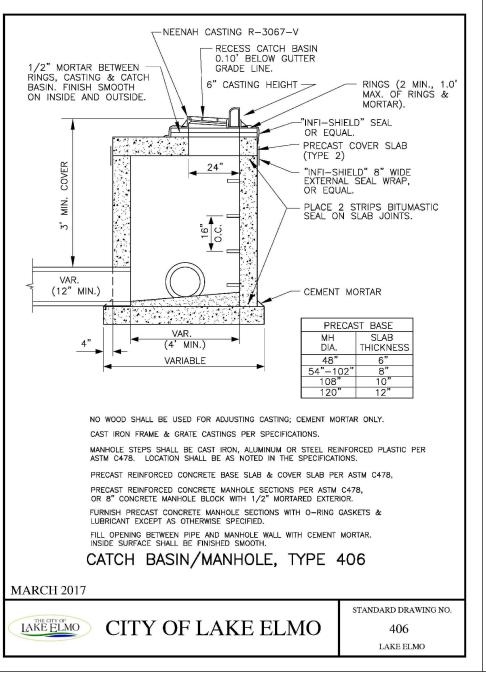


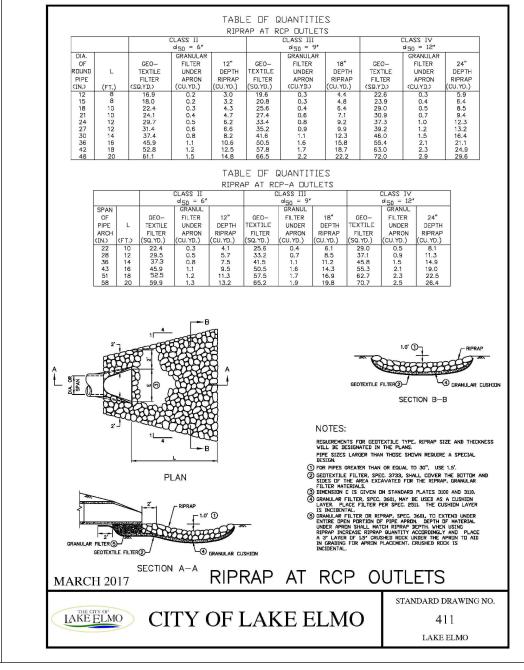
















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I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Name: Joseph T. Radach, P.E.

Signature: 1. Date: 06/28/19 License #:45889

SONVENIENCE STORE #1078
VITH SINGLE BAY CARWASH

WOOD AVE N & 5TH STREET N

AKE ELMO, MINNESOTA

DATE DESCRIPTION

DATE DESCRIPTION

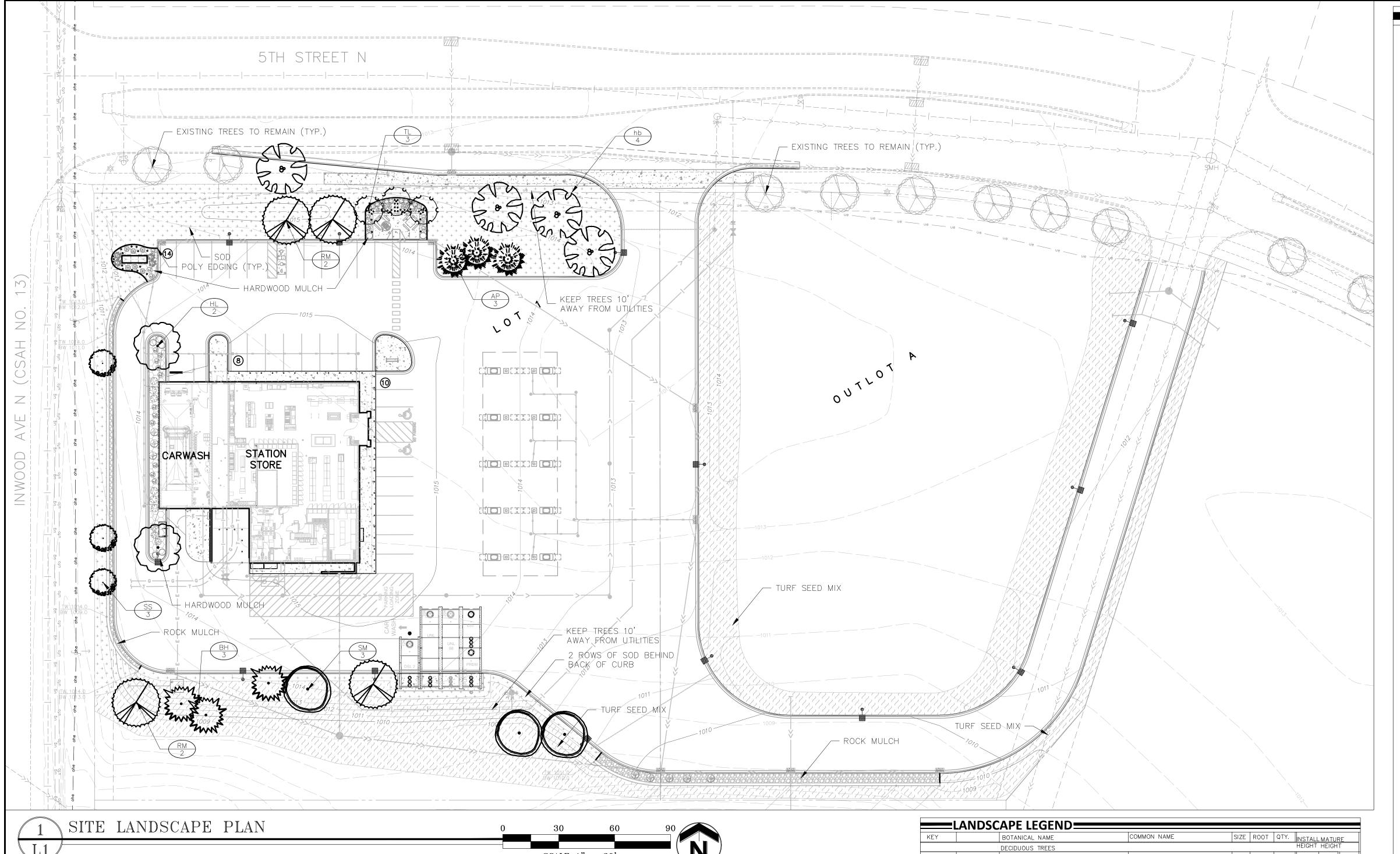
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SCALE GRAPHIC

PROJ. NO. 7967-00

DATE 2019-06-28

SHEET 1078 SP9



- 1. A MINIMUM OF (1) TREE PER 50 LF
- 1. A MINIMUM OF (1) TREE PER 5
 OF STREET FRONTAGE.
- TOTAL STREET FRONTAGE = 630 LF.
- •• 630/50 = 13 TREES REQUIRED 2. ADDITIONALLY, (5) TREES SHALL BE PLANTED
- PER (1) ACRE OF DEVELOPED LAND OR
- DISTURBED BY DEVELOPMENT ACTIVITY
- OVERALL SITE ACREAGE = (98,974sf) = 2.27 ac
 2.27 x 5 = 12 TREES REQUIRED
- 4. AT LEAST 25% OF TREE COUNT SHALL BE DECIDUOUS OR CONIFEROUS
- 5. IRRIGATION SHALL BE PROVIDED FOR ALL SOD/SEED AND LANDSCAPE
- AREAS PER LAKE ELMO DETAILS/SPECIFICATIONS

LANDSCAPE QUANIT	TIES
SOD	1,425 sy
TURF SEED	26,735sf
NATIVE SEED	0 sf
HARDWOOD MULCH BED	13 yds
HARDWOOD (1/4cy Per Tree)	5 yds
ROCK MULCH	13 yds
POLY EDGING	140 lf

	SEED MIX LEGEND (FOR ALL SHE	TS)
SYM.	TYPE	SEED MIX
	NATIVE WET PRAIRIE	MN SEED MIX 34-271 (old bwsr w2)
	WETLAND FRINGE	MN SEED MIX 35-221 (old bwsr u6)
+ + + +	COMMERCIAL TURF — SOD	HIGHLAND SOD
	MNDOT 260 ALL AREAS DISTURBED BY CONSTRUCTION NOT INTENDED SODDED, OR RETENTION BASINS	MN SEED MIX 25-131 (OLD MNDOT 260) & (USE EROSION CONTROL BLANKET FOR SLOPES OVER 3:1)
	MESIC GENERAL ROADSIDE FOR GENERAL STABILIZATION OF PAD AREAS	MN SEED MIX 25-131 (USE EROSION CONTROL BLANKET FOR SLOPES OVER 3:1)
	HARDWOOD MULCH SHREDDED HARDWOOD MULCH	(NATURAL COLOR)
	3/4" TRAP ROCK	TRAP ROCK, COORDINATE WITH OWNER

KEY		APE LEGEND BOTANICAL NAME	COMMON NAME	SIZE	ROOT	QTY.	INSTALL	MΔTH	RF
		DECIDUOUS TREES			ļ.	1	HEIGHT	HEIGH	iT
HL		GLEDITSIA TRIACANTHOS VAR. INERMIS 'SHADEMASTER'	SHADEMASTER HONEYLOCUST	2.5"	BB	2	10'	50'	скотсн
НВ	Ser S	CELTIS OCCIDENTALIS	HACKBERRY	2.5"	BB	4	15'	50'	NO "V" CRC
SM		ACER SACCHARUM	SUGAR MAPLE	2.5"	BB	3	14'	50'	LEADER
RM		ACER RUBRUM 'NOTHWOODS'	NORTHWOODS MAPLE	2.5"	BB	4	14'	50'	STRAIT
		ORNAMENTAL TREES		<u> </u>		•			L L
SS		MALUS X 'SPRING SNOW'	SPRING SNOW CRABAPPLE	1.5"	BB	3	8'	25'	LEAD
TL	\bigcirc	SYRINGA RETICULATA	JAPANESE TREE LILAC	1.5"	BB	3	8'	20'	STRAIT NO "V"
		EVERGREEN TREES							
вн		PICEA GLAUCA VAR. DENSATA	BLACK HILLS SPRUCE	6'	BB	3	6'	40'	L FORM GRADF
NS	3 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	PICEA ABES	NORWAY SPRUCE	6'	BB	3	6'	60'	FULL TO GF

CONTRACTOR TO VERIFY QUANTITIES SHOWN ON THE PLAN.

PLANTING NOTES

- 1. 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.

 2. ALL TREES MUST BE STRAIGHT TRUNKED AND FULL HEADED AND MEET ALL REQUIREMENTS SPECIFIED.
- 3. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANTS WHICH ARE DEEMED UNSATISFACTORY BEFORE, DURING, OR AFTER INSTALLATION.
- 4. NO SUBSTITUTIONS OF PLANT MATERIAL SHALL BE ACCEPTED UNLESS APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT.
 5. ALL PLANTING STOCK SHALL CONFORM TO THE "AMERICAN"

STANDARD FOR NURSERY STOCK," ANSI-Z60, LATEST EDITION, OF THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. AND

- SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIALS.

 6. 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.

 '. 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.

 8. ALL PLANTING AREAS MUST BE COMPLETELY MULCHED AS
- SPECIFIED.

 9. 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.

 10. PLACE LANDSCAPE FILTER FABRIC UNDER ALL ROCK MULCHED AREAS. FILTER FABRIC SHALL BE 100% INTERWOVEN 5.1oz NEEDLE PUNCHED POLYPROPYLENE FABRIC MANUFACTURED BY DEWITT. USE PRO 5 "WEED BARRIER" OR APPROVED FOLIAL
- EQUAL.

 11. PLACE EDGING BETWEEN ALL PLANTING/ROCK BEDS AND
 TURF. EDGING SHALL BE POLY.

 12. THE PLAN TAKES PRECEDENCE OVER THE LANDSCAPE LEGEND
- IF DISCREPANCIES EXIST. THE SPECIFICATIONS TAKE
 PRECEDENCE OVER THE PLANTING NOTES AND GENERAL
 NOTES.

 13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MULCHES
 AND PLANTING SOIL QUANTITIES TO COMPLETE THE WORK
- SHOWN ON THE PLAN. VERIFY ALL QUANTITIES SHOWN ON THE LANDSCAPE LEGEND.
- 14. LONG-TERM STORAGE OF MATERIALS OR SUPPLIES ON-SITE WILL NOT BE ALLOWED.
 15. THE CONTRACTOR SHALL KEEP PAVEMENTS, PLANTERS AND BUILDINGS CLEAN AND UNSTAINED. ALL PEDESTRIAN AND VEHICLE ACCESS TO BE MAINTAINED THROUGHOUT CONSTRUCTION PERIOD. ALL WASTES SHALL BE PROMPTLY REMOVED FROM THE SITE. 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. ANY DAMAGE TO EXISTING
- EXPENSE.

 16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE CODES, REGULATIONS, AND PERMITS

FACILITIES SHALL BE REPAVED AT THE CONTRACTOR'S

- GOVERNING THE WORK.

 17. LOCATE AND VERIFY ALL UTILITIES, INCLUDING IRRIGATION LINES, WITH THE OWNER FOR PROPRIETARY UTILITIES AND GOPHER STATE ONE CALL AT 454-0002 (TWIN CITIES METRO AREA) OR 800-252-1166 (GREATER MINNESOTA) 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.
- 18. 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.
- 19. PLANTING SOIL FOR TREES, SHRUBS AND GROUND COVERS: FERTILE FRIABLE LOAM CONTAINING A LIBERAL AMOUNT OF HUMUS AND CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH. IT SHALL COMPLY WITH MN/DOT 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 BY ROTOTILLING
- IT INTO THE TOP 12" OF SOIL.

 20. ALL PLANTS SHALL BE GUARANTEED FOR TWO COMPLETE GROWING SEASON (APRIL 1 NOVEMBER 1), UNLESS
- OTHERWISE SPECIFIED. THE GUARANTEE SHALL COVER THE FULL COST OF REPLACEMENT INCLUDING LABOR AND PLANTS.

 21. 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 INSTALL ATION.
- 22. SEASONS/TIME OF PLANTING AND SEEDING: NOTE: THE CONTRACTOR MAY ELECT TO PLANT IN OFF-SEASONS ENTIRELY AT HIS/HER RISK.

 DECIDUOUS POTTED PLANTS: 4/1 6/1; 9/21 11/1

 DECIDUOUS /B&B: 4/1 6/1; 9/21 11/1

 EVERGREEN POTTED PLANTS: 4/1 6/1; 9/21-11/1

 EVERGREEN B&B: 4/1 5/1; 9/21 11/1

 TURF/LAWN SEEDING: 4/1 6/1; 7/20 9/20
- NATIVE MIX SEEDING: 4/1 7/20; 9/20-10/20

 3. 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.
- 24. 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.

 25. 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.

 26. CONTRACTOR SHALL REQUEST IN WRITING, A FINAL
- ACCEPTANCE INSPECTION.

 27. ALL DISTURBED AREAS TO BE TURF SEEDED, ARE TO RECEIVE

 4" TOP SOIL, SEED, MULCH, AND WATER UNTIL A HEALTHY

 STAND OF CRASS IS ORTAINED.
- STAND OF GRASS IS OBTAINED.

 28. ALL DISTURBED AREAS TO RECEIVE NATIVE WETLAND SEEDED, ARE TO RECEIVE ENGINEERED SOIL, SEED, MULCH, AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.

KWIK TRIP



KWIK TRIP, Inc. P.O. BOX 2107 1626 OAK STREET LA CROSSE, WI 54602-2107 PH. (608) 781-8988 FAX (608) 781-8960



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

Name: James A. Kalkes, RLA
Signature: James A. Kalkes
Date: 06/28/19 License #:45071

ORE #1078 CARWASH

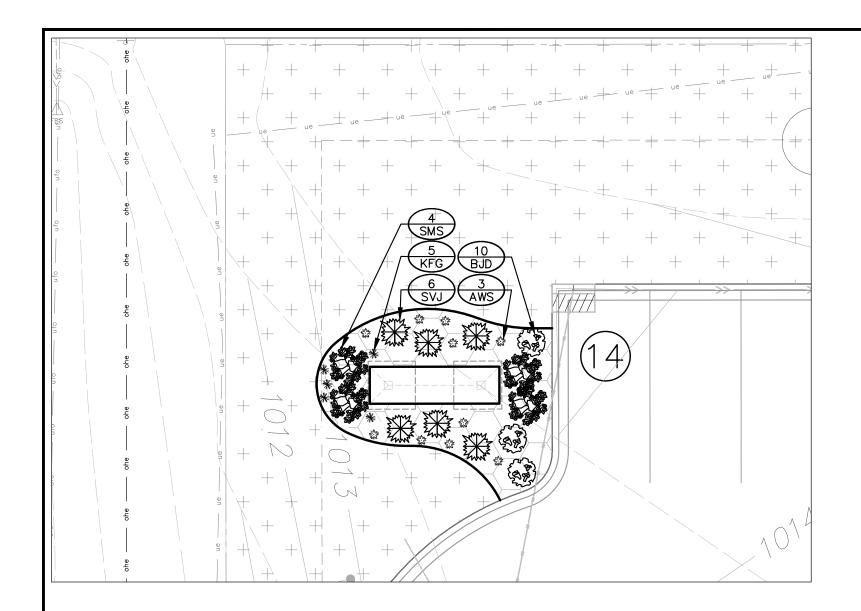
CONVENIENCE STORE WITH SINGLE BAY CAF

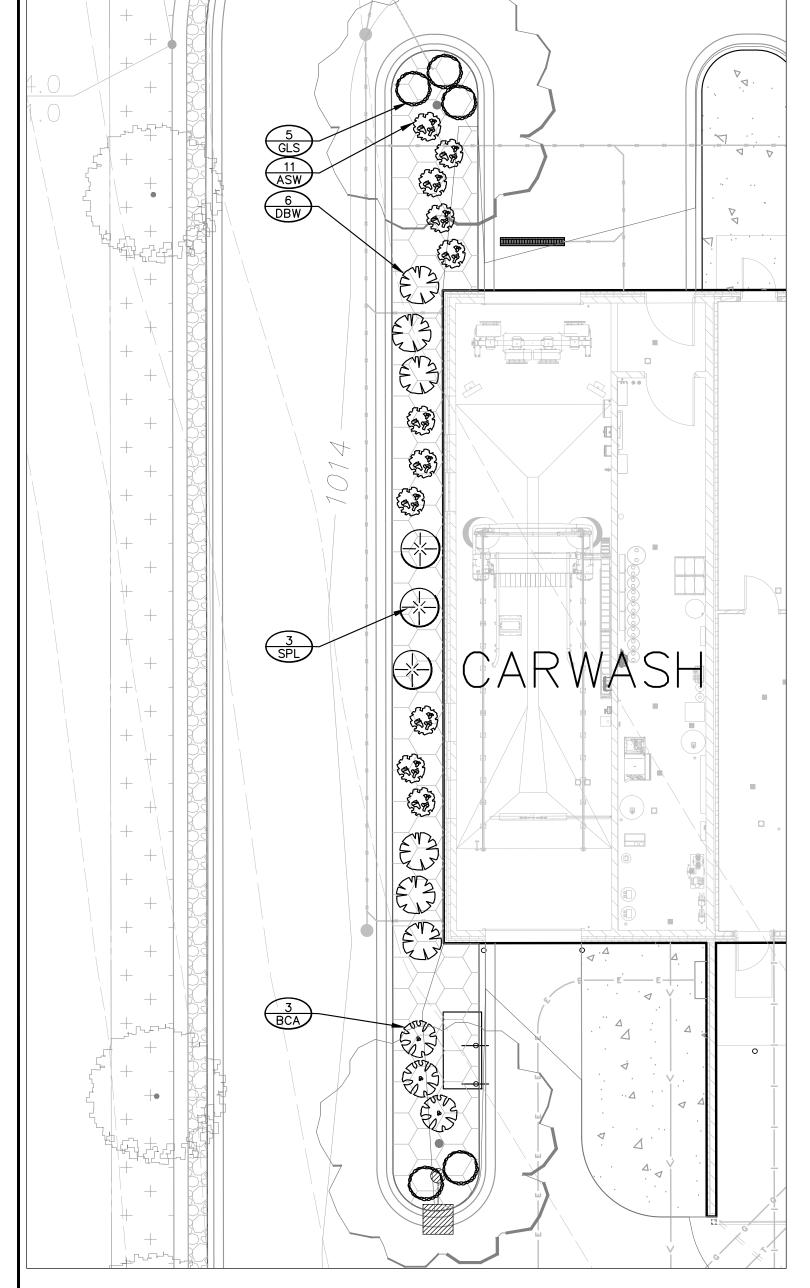
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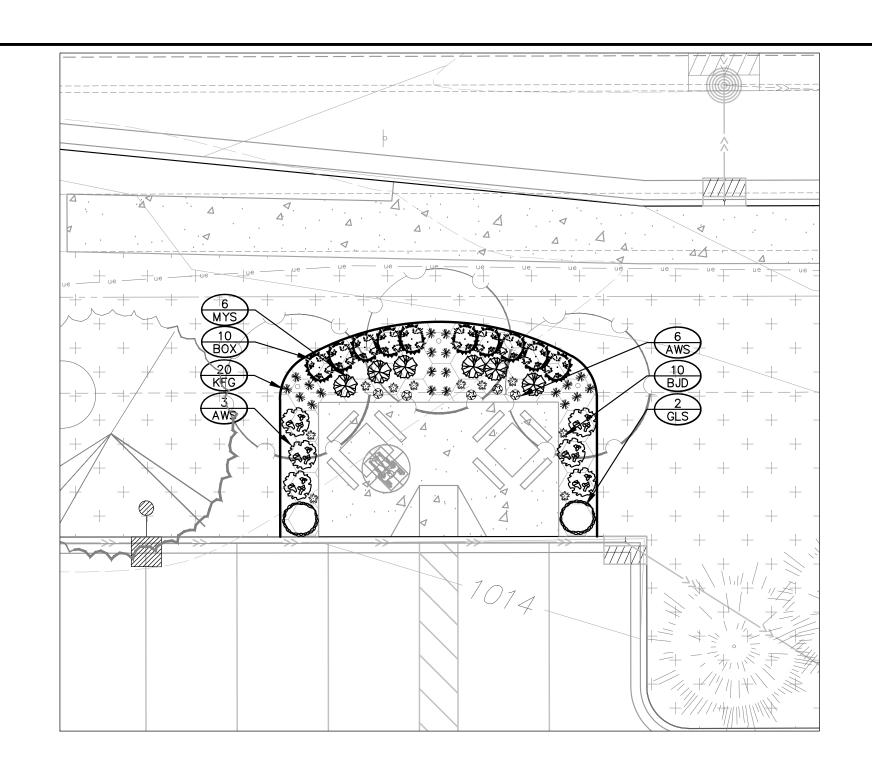
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PROJ. NO.	7967-00			
DATE	2019-06-28			
SHEET	1078 L1			







	LAND	SCAPE LEGEND							
	KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	QTY.	REMARKS	INSTALL HEIGHT	MATURE HEIGHT
		SHRUBS			_			HEIGHT	HEIGHT
NAME OF THE PARTY	SVJ	Juniperious Horizoantalis 'Savin'	SAVIN JUNIPER	#5	CONT.	6		1'	3'x4'
0	вох	Buxus 'Glencoe'	CHICAGOLAND BOXWOOD	#5	CONT.	10		1.5'	3'x3'
0	GLS	Rhus aromatica 'Gro-Low'	GRO-LOW FRAGRANT SUMAC	#5	CONT.	7		1'	2.5'x5'
270	BCA	Viburnum trilobum 'Bailey Compact'	COMPACT AMERICAN CRANBERRYBUSH	#5	CONT.	3		1.5'	4'×4'
	AWS	Spiraea x bumalda 'Anthony Waterer	ANTHONY WATERER SPIREA	#5	CONT	. 20		1.5'	3'x4'
	SMS	Spiraea nipponica 'Snowmound'	SNOWMOUND SPIREA	#5	CONT.	4		1.5'	3'x4'
	MYS	Spiraea thunbergii 'Ogon'	MELLOW YELLOW SPIREA	#5	CONT.	6		1'	3'x4'
	SPL	Syringa x "Bailsugar'	SUGAR PLUM LILAC	#5	CONT.	8		1.5'	4'×4'
Carry Carry	DBW	Salix purpurea 'Nana'	DWARF BLUE ARCTIC WILLOW	#5	CONT	. 6		1'	3'x4'
		PERENNIALS		•	•	,		•	
*	KFG	Calamagrostis acutiflora 'Karl Foerster'	KARL FOERSTER FEATHER REED GRASS	#1	CONT.	25	PLANT 2' O.C.	6"	4'x2'
	SDD	Hemerocallis 'Stella d'Oro'	STELLA D'ORO DAYLILY	#1	CONT.	5	YELLOW FLOWER	6"	1.5'x1.5
	BDL	Hemerocallis 'Baja'	BAJA DAYLILY	#1	CONT.	20	RED FLOWER	6"	2'x1.5'

QUANTITIES SHOWN IN THE PLANTING SCHEDULE ARE FOR THE CONTRACTOR'S CONVENIENCE. CONTRACTOR TO VERIFY QUANTITIES SHOWN ON THE PLAN.

STANDARD PLAN NOTES LANDSCAPE PLANS

- Contractor must contact Gopher State One Call 811 (www.gopherstateonecall.org) prior to tree staking and planting operations to verify underground utilities. Where private utilities exist on-site the Contractor is required to have those located as well.
- 2. Plant materials shall meet American Standard for Nursery Stock: ANSI Z60.1, latest
- 3. No plant substitutions shall be made without the prior written authorization from the City.
- 4. All tree locations to be field staked prior to installation. Contractor to coordinate field review of proposed tree locations with the City and Project Landscape Architect prior to any tree installation.
- 5. All plants shall be planted immediately upon arrival to project site. No plant material is to be left overnight on the project site without being installed unless written approval by
- 6. All trees, shrubs, perennials, turf lawn and native seeding to have a two-year warranty beginning upon written acceptance by the City. Defective plants as determined by the City shall be replaced within 30 days of notice during the growing season, and replacement materials shall receive the same two year warranty until plants are successfully established.
- . Contractor to protect and maintain all plantings and plant beds, including protection from wildlife, weeding, re-mulching, fertilization, irrigation and all other typical forms of horticultural care until the end of the warranty period as determined and approved by
- 8. All plants installed and maintained on City property shall be in accordance with City of Lake Elmo Bee-Safe Resolution No. 2015-13.
- 9. An irrigation system or other water supply adequate to support the specified plant materials shall be provided.

APRIL 2017

2- Amend Planting Soil with MnDOT 3881 B.4 Type 4 Natural Based Fertilizer and MnDOT 3896C or 3896G Additives

3- Mulch ring for individually planted trees shal be a minimum diameter of 6-feet or to extent of lower limbs whichever is greater.

 Remove all nursery twine at trunk at time of planting. No staking allowed unless requested and granted in writing by City.

Notes (cont.):
4- No pruning shall be performed except by approved certified arborist.

5- No equipment shall operate inside the protective fencing including during Fence installati and removal.

6- See Site Preparation Plan for any modifications with the Tree Protection Area.

7- No Wood Chips supplied from diseased trees (elm, ash etc.) or invasive species such as buckthorn.

due to other construction activities need to be tilled prior to planting operations.

Tree Protection Fence: High density polyethylendencing with 3.5" x 1.5" openings; Color-orange; steel Posts installed

TREE PROTECTION

2- Amend Planting Soil with MnDOT 3881 B.4 Type 4 Natural Based Fertilizer and MnDOT 3896C or 3896G Additives

Mulch ring for individually planted trees shall be a minimum diameter of 4-feet.

Round-topped soil berm 4" high x 8" wide above root ball surface shall be constructed around the root ball; Berm shall begin at root

DECIDUOUS TREE

Notes:
1- Refer to specification 329000 for additional requirements.

4- Remove all nursery twine at trunk at time of planting.

Trunk caliper shall meet ANSI Z60.1 latest edition for root ball size

Round-topped soil berm 4* high x 8" wide above root ball surface shall be centered on the downhill side of the root ball for 240"; Berm shall begin at root ball periphery

Planting Soil: MnDOT 3877 F-Boulevard Topsoil Borrow; Planting Soils that are compacted after placement du to other construction activities need to be tilled prior to planti operations.

DECIDUOUS TREE ON SLOPE 5% TO 50%

CITY OF LAKE ELMO

STANDARD DRAWING NO LP2.0 LAKE ELMO

Original slope should pass through the point where the trunk base meets substrate.

Prior to mulching, lightly tamp soil around the root ball in 6" lifts to brace tree. Do not over compact. When the planting hole has been backfilled, pour water around the root ball to settle the soil.

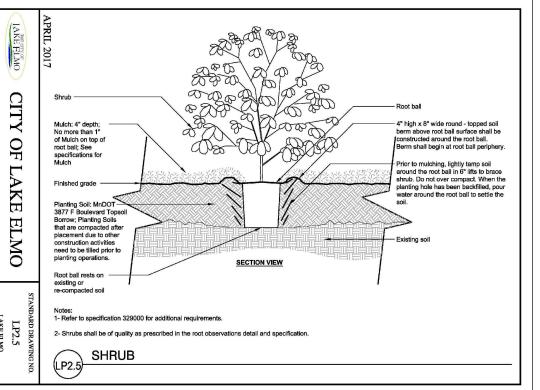
KWIK TRIP, Inc. P.O. BOX 2107 1626 OAK STREET LA CROSSE, WI 54602-2107 PH. (608) 781-8988

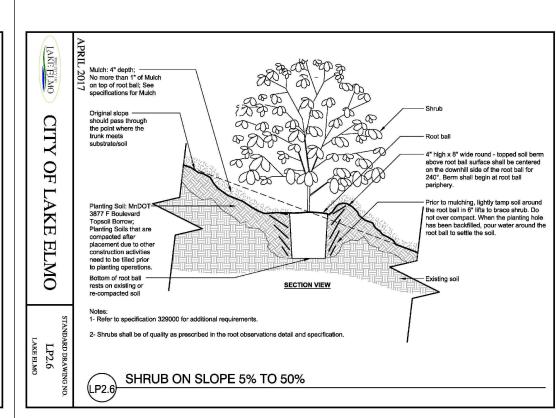


James A. Kalkes, RLA

Notes: 1- Refer to specification 329000 for additional requirements. — Prior to mulching, lightly tamp soil around the root ball in 6" lifts to brace tree. Do not over compact. When the planting hole has been backfilled, pou water around the root ball to settle the soil. / Mulch: 4" depth; No more than 1" of Mulch on top of root ball; See specifications for Mulch SECTION VIEW CONIFEROUS TREE

CONIFEROUS TREE ON SLOPE 5% TO 50%





FAX (608) 781-8960

KWIK TRIP

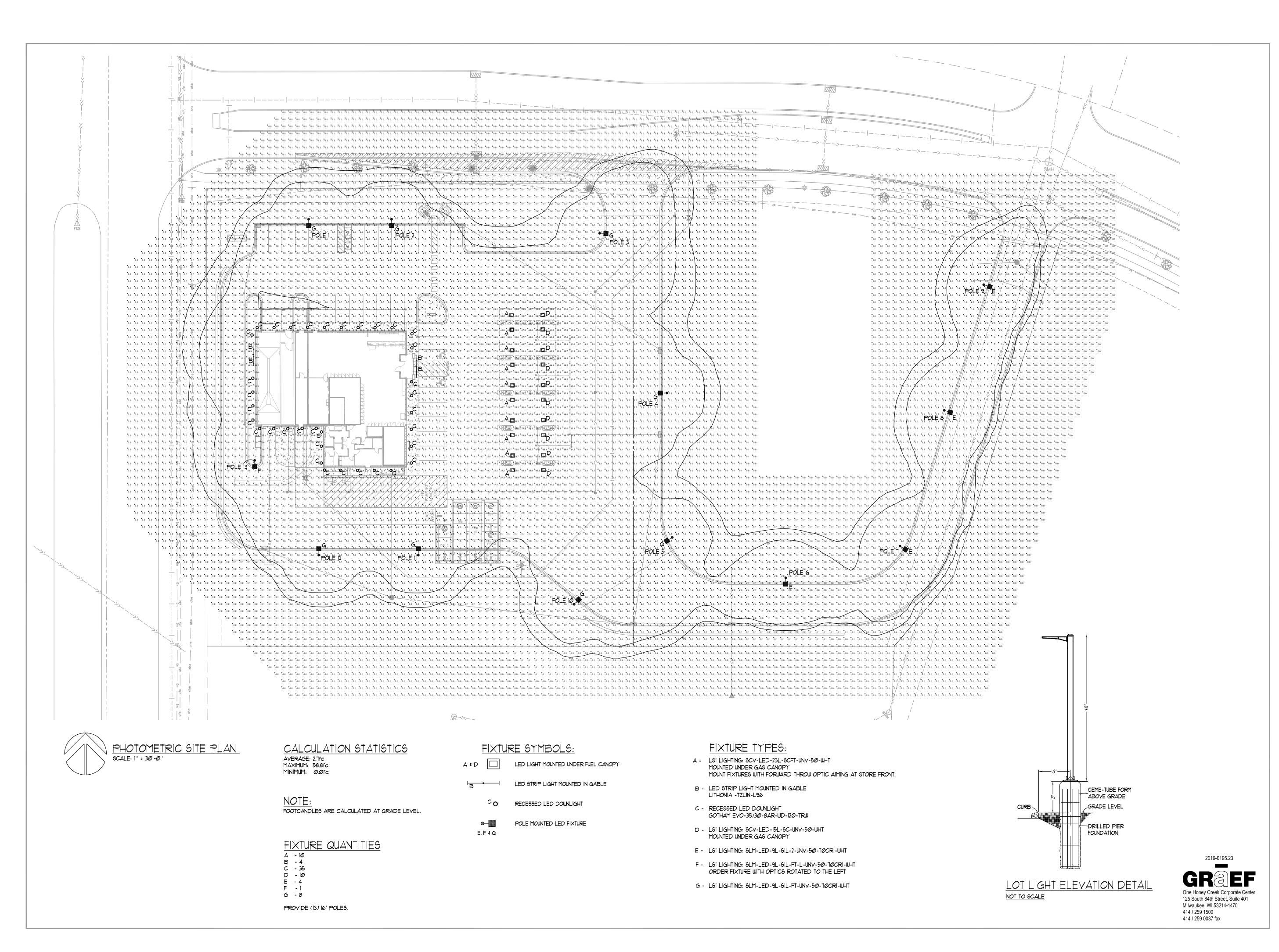
KWIK Star

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.

Date: 06/28/19 License #: 45071

STORE #1078 SAY CARWASH OD AVE N & 5TH STREET ELMO, MINNESOTA CONVENIENCE WITH SINGLE E

DATE DESCRIPTION **GRAPHIC** 7967-00 2019-06-28 1078 L2 SHEET



KWIK TRIP, Inc.
P.O. BOX 2107
1626 OAK STREET
LA CROSSE, WI 54602-2107
PH. (608) 781-8988
FAX (608) 781-8960



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.

Name: Joseph T. Radach, P.E.

Date: 06/28/19 License #:45889

TRIC SITE PLAN

ENCE STORE #1078

SLE BAY CARWASH

PHOTOMETRIC
CONVENIENCE
WITH SINGLE B,

# DATE	DESCRIPTION
DRAWN BY	AMM
SCALE	GRAPHIC
PROJ. NO.	7967-00
DATE	2019-06-28
SHEET	— ,
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