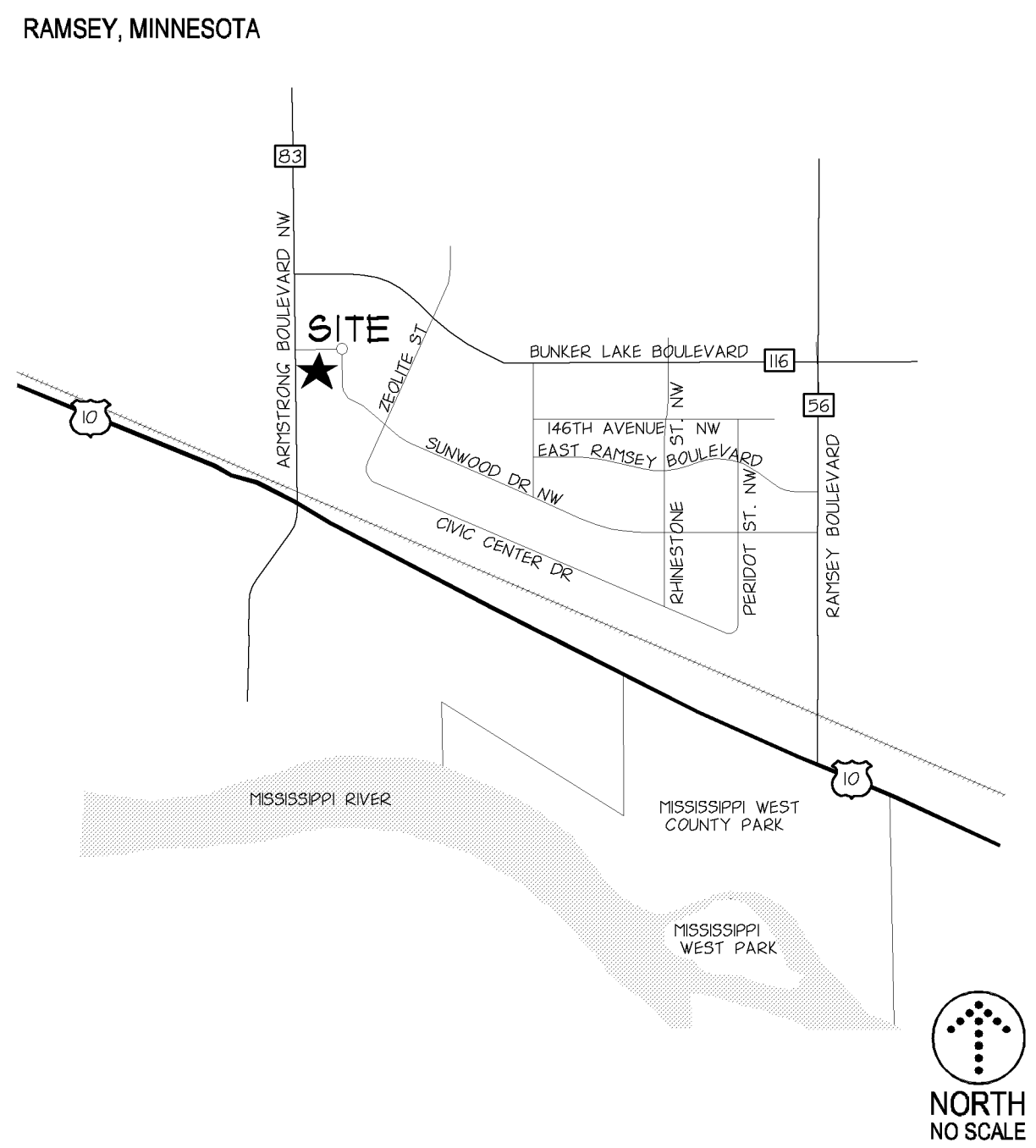
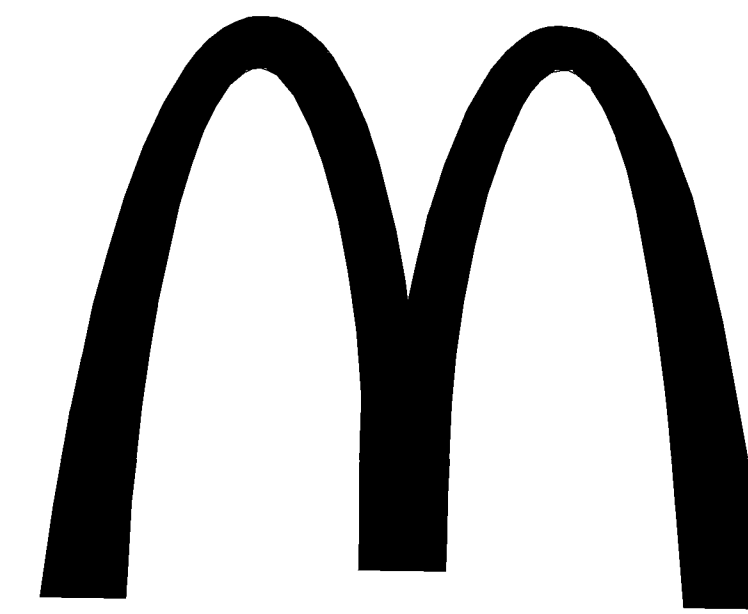


AREA LOCATION MAP



McDONALD'S USA, LLC.



RAMSEY, MINNESOTA

ABBREVIATIONS

D & @	100 YR.	A.B.	A.D.	A/C	ADD.	ADDL.	ADJ.	AHJ	ALT.	ALUM.	ANOD.	APPROX.	ARCH	AUTO	AVG.	B.C.	B.Y.W.	BFE	BLDC	BSMT.	C.F.	C.F.S.	C.G.	C.I.	C.L.	C.M.U.	C.O.	C.O.E.	C.Y.	CB	CBH	CEM.	CF	CTP	CONC.	CONJ.	CONST.	CONT.	CONTR.	COP.	CU	D.S.	DEC.	DEMO.	DEPT.	DET.	DI.	DIAG.	DIM.	DIP	DN	DWG.	E.	E.J.	E.O.F.	E.O.S.	E.W.	EA	EL.	ELEV.	ELER.	ENGR.	ENTR.	EQ	EQIP.	EQUIV.	EXIST.	EXP.	F & I	F.B.O.	F.C.	F.D.	F.D.C.	F.V.	FB	FBWO	FBLO	FDN.	FES	FFE	FLR.	FT, OR (')	FUT.	G.B.	G.C.	GAL.	GALV.	GR.	H.	H.P.	HDRP	HGT.	HORIZ.	HYAC	HYD	IN, OR (')	INFO.	INS.	INSUL.	INV.	JT.	Joint	L.F.	Lineal Feet	L.P.	Low Point / Liquid Petroleum	LB.	Pound	LG.	Local Government Unit	LONG.	Longitude	LT	Light / Lighting	MANIT.	Maintenance	MAS.	Masonry	MATL.	Material	MAX.	Maximum	MECH.	Mechanical	MED.	Medium	MFR.	Manufacturer	MH	Manhole	MNL	Minimum / Minute	MISC.	Miscellaneous	MNDOT	Minnesota Department Of Transportation	MOD.	Module / Modular	MUL.	Mulch	N.	North	N.C.	Not In Contract	NO, OR #	None to Scale	NOM	Nominal	NTS	Not to Scale	NWE	Normal Water Elevation	NWL	Normal Water Level	O.C.	On Center	O.D.	Outside Dimension	OH	Overhead	OHWL	Ordinary High Water Level	OPNG.	Opening	ORIG.	Original	P.C.	Point of Curvature	P.I.	Point of Intersection	P.IV	Post Indicator Valve	P.L.	Property Line	P.O.B.	Point of Beginning	P.S.F.	Pounds Per Square Foot	P.S.I.	Pounds Per Square Inch	P.T.	Point of Tangency	P.V.C.	Point of Vertical Curvature	P.V.I.	Point of Vertical Intersection	P.V.T.	Point of Vertical Tangency	PE	Polyethylene	PEL	Pedestal / Pedestrian	PERF.	Perforated	PREP.	Preparation	PROP.	Proposed	PVC	Poly-Vinyl-Chloride (Pipng)	PVTM	Pavement	QTY.	Quantity	R	Radius	RAD.	Roof Drain	R.E.	Remove Existing	R.O.	Rough Opening	R.P.	Radius Point	RCP	Reinforced Concrete Pipe	R.S.	Rough Slab	RSD	Roof Scape Drain	RE	Regarding	RENF.	Reinforced	REQD	Required	REV.	Revised / Reversed	REGU	Regulatory Government Unit	ROW	Right of Way	S.	Sault	S.F.	Square Feet	SAN.	Sanitary Sewer	SECT.	Section	SE	Side Exit	SEWO	Side Exit Walk Out	SHT.	Sheet	SLNT.	Sealant	SPEC.	Specification	SSD	Square	SSD	Subsurface drain	STHM	Storm Sewer Manhole	STD.	Standard	STRUCT.	Structural	SYMT.	Symmetrical	T	Thickness	T/R	Tap of Run	T/W	Top of Wall	TEMP.	Temporary	THK.	Thick / Thickness	TNH	Top Nat. Hydrant	TYP.	Typical	U.N.O.	Unless Noted Otherwise	V.B.	Vapor Barrier	V.C.	Vertical Curve	V.L.F.	Verify in Field	VER.	Verify	VERT.	Vertical	VEST.	Ventilator	W	Width	W.P.T.	Working Point	W.W.F.	Welded Wire Fabric	W/W	Wet	W/O	Without	WO	Walk Out	WTL	Wetland	W/P	Waterproof	WT.	Weight	YD.	Yard	YR.	Year
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SYMBOLS

EXISTING	DESCRIPTION	NEW	DESCRIPTION
	BUSH/SHRUB		CONTOUR
	CONFEROUS TREE		SPOT ELEVATION
	DECIDUOUS TREE		BUILDING
	WETLAND		CANOPY / OVERHANG
	STEEL/WOOD POST		UNDERGROUND STRUCTURE
	SIGN-TRAFFIC/OTHER		CONCRETE
	SIGN-TRAFFIC/OTHER		CONCRETE CURB
	MAIL BOX		EDGE OF PAVEMENT
	HANDICAPPED STALL		FENCING
	PERC TEST		GUARD RAIL
	MONITORING WELL		CONCRETE RETAINING WALL
	CABLE TV BOX		MODULAR RETAINING WALL
	GAS METER		FIELDSTONE RETAINING WALL
	STREET LITE		DOORWAY
	GUY WIRE		LIGHT STANDARD
	POWER POLE		POWER POLE
	ELECTRIC BOX		SLOPE DIRECTION
	ELECTRIC METER		CATCH BASIN
	ELECTRIC MANHOLE		MANHOLE
	ELECTRIC TOWER		BOLLARD
	SANITARY MANHOLE		STORM SEWER
	SEWER CLEANOUT		SANITARY SEWER-WASTE
	BEEHIVE CATCH BASIN		FORCE MAIN
	CATCH BASIN		ROOF DRAIN SYSTEM
	FLARED END SECTION		WATERMAN
	CONCRETE SURFACE		FIRE LINE (IF SEPARATE)
	STORM MANHOLE		FIRE DEPARTMENT CONNECTION
	TELEPHONE BOX		CULVERT & END SECTION
	TELEPHONE MANHOLE		GAS LINE
	TRAFFIC CONTROL BOX		SOL SUBDRAN
	HAND HOLE		ELECTRIC-OVERHEAD
	TRAFFIC LIGHT		ELECTRIC-UNDERGROUND
	GATE VALVE		TELEPHONE-OVERHEAD
	HYDRANT		UNDERGROUND CABLE/TV
	WATER METER		OVERHEAD CABLE/TV
	CURB STOP BOX		LAWN SPRINKLER SLEEVE
	WATER MANHOLE		
	WELL		
	CABLE TV		
	GAS LINE		
	POWER OVERHEAD		
	POWER UNDERGROUND		
	SANITARY SEWER		
	STORM SEWER		
	TELEPHONE OVERHEAD		
	TELEPHONE UNDERGROUND		
	WATERMAN		
	FENCE LINE		
	DECIDUOUS TREE LINE		
	CONFEROUS TREE LINE		
	CURB & GUTTER		
	BITUMINOUS SURFACE		

EROSION CONTROL SYMBOLS

SYMBOL	DESCRIPTION
	SEDIMENT CONTROL FENCE
	INLET PROTECTION

DRAWING SYMBOLS

SYMBOL	DESCRIPTION
	NOTE REFERENCE
	PARKING STALL COUNT
	LARGE SHEET DETAIL
	COORDINATE POINT
	REVISION - ADDENDUM, BULLETIN, ETC.
	REVISED AREA (THIS ISSUE)

LEGAL DESCRIPTION

LOT 4, BLOCK 1, COR TWO, ANOKA COUNTY, MINNESOTA.

BENCHMARK

PROJECT BENCHMARK:
COR CONTROL POINT: 'COR-ARM'
CONTROL POINT LOCATED AT THE NORTHWEST QUADRANT OF ARMSTRONG
BOULEVARD NW AND BUNKER LAKE BOULEVARD NW.
ELEVATION = 868.32 (NGVD 29)

SITE BENCHMARK:
TOP NUT OF FIRE HYDRANT
LOCATION: NORTHEAST QUADRANT OF ZEOLITE STREET NW AND BUNKER LAKE
BOULEVARD NW.
ELEVATION = 873.80 (NGVD 29)

OWNER

McDONALD'S USA, LLC.
1650 WEST 32ND STREET #303
BLOOMINGTON, MN 55431-9888
TEL (952) 885-4779
FAX (952) 885-4769
CONTACT: ADAM JERSTAD

CIVIL SHEET INDEX

SHEET NO.	DESCRIPTION
C0.1	CIVIL TITLE SHEET
C1.1	EXISTING CONDITIONS & DEMOLITION
C2.1	SITE PLAN
C3.1	GRADING, DRAINAGE, PAVING & EROSION CONTROL
C3.2	MN NPDES SWPPP NOTES
C4.1	UTILITIES
C7.1	CIVIL CONSTRUCTION DETAILS
C7.2	SITE PHOTOMETRICS
EP2.1	LANDSCAPE PLAN
L2.1	LANDSCAPE PLAN
L7.1	LANDSCAPE DETAILS

REV	DATE	REVISION HISTORY
	11-26-2012	CITY SUBMITTAL

CERTIFICATION

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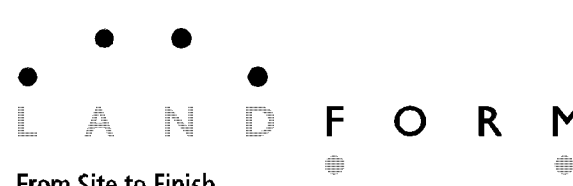
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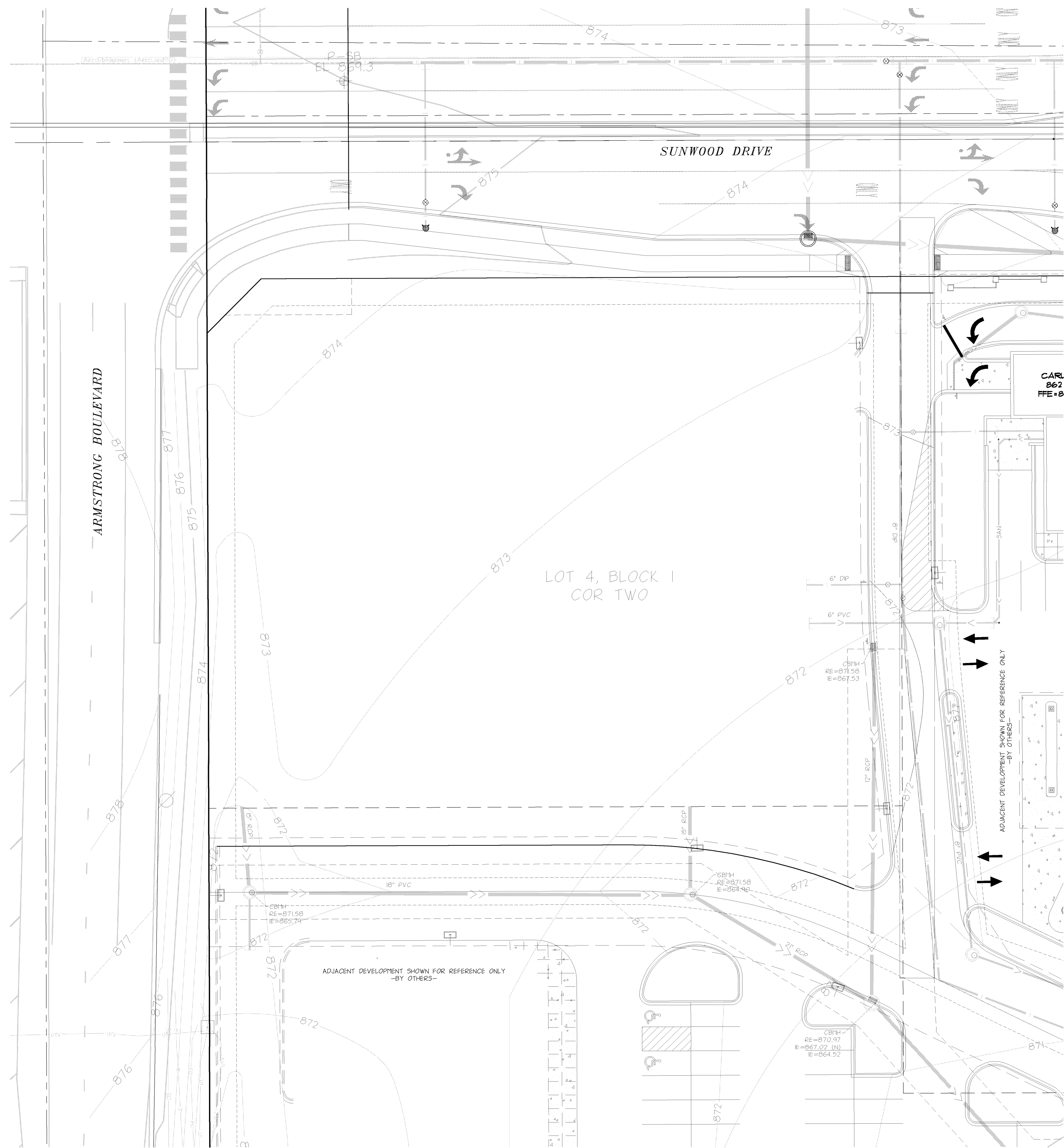
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FAX (952) 885-4769
CONTACT: ADAM JERSTAD



105 South Fifth Avenue
Suite 513
Minneapolis, MN 55401
Tel: 612-252-9070
Fax: 612-252-9077
Web: landform.net

SHEET NO. C0.1
FILE NAME: C001MCD100.DWG
PROJECT NO. MCD11100



EXISTING CONDITIONS

1. BACKGROUND INFORMATION SHOWN IS FROM SURVEY BY LANDFORM MINNEAPOLIS, MN, ON OCTOBER 2, 2012 AND NOVEMBER 16, 2012, EXPRESSLY FOR THIS PROJECT; RAMSEY, MINNESOTA RECORD DRAWINGS; UTILITY SERVICE PROVIDERS, AND CONCURRENT CONSTRUCTION DOCUMENTS. LANDFORM OFFERS NO WARRANTY, EXPRESSED OR WRITTEN, FOR INFORMATION PROVIDED BY OTHERS. EXISTING PROJECT CONDITIONS SHALL BE VERIFIED PRIOR TO BEGINNING CONSTRUCTION. ERRORS, INCONSISTENCIES, OR OMISSIONS DISCOVERED SHALL BE REPORTED TO THE ENGINEER.

DEMOLITION AND CLEARING NOTES

- OBTAIN PERMITS FOR DEMOLITION, CLEARING, AND DISPOSAL PRIOR TO BEGINNING.
- CONTACT UTILITY SERVICE PROVIDERS FOR FIELD LOCATION OF SERVICES 72 HOURS PRIOR TO BEGINNING DEMOLITION AND CLEARING.
- BUILDING DEMOLITION VERIFY WITH OWNER THAT BUILDING HAS BEEN CLEARED OF REGULATED MATERIALS REQUIRING SPECIAL HANDLING OR DISPOSAL AND EXAMINED BY COMPETENT PERSON, REMOVE STRUCTURE, COLUMNS, CANOPIES, AND ANY ASSOCIATED CONSTRUCTION IN ITS ENTIRETY.
- DIMENSIONS SHOWN FOR REMOVAL ARE APPROXIMATE. COORDINATE WITH NEW CONSTRUCTION TO ENSURE APPROPRIATE REMOVAL OF EXISTING FACILITIES.
- SAWCUT EXISTING PAVEMENT. REMOVE CONCRETE WALKS AND CURBING TO THE NEAREST EXISTING JOINT BEYOND CONSTRUCTION LIMITS.
- SEE SHEET C3.1 FOR EROSION PREVENTION AND SEDIMENT CONTROL MEASURES THAT MUST BE IN PLACE PRIOR TO DISTURBANCES TO SITE.
- COMPLETE DEMOLITION WITH MINIMAL DISRUPTION OF TRAFFIC. COORDINATE LANE CLOSURES WITH THE REGULATORY AUTHORITY AND PROVIDE ADVANCE NOTIFICATION TO AFFECTED EMERGENCY RESPONSE PROVIDERS.
- PROVIDE BARRICADES, LIGHTS, SIGNS, TRAFFIC CONTROL, AND OTHER MEASURES NECESSARY FOR PROTECTION AND SAFETY OF THE PUBLIC AND MAINTAIN THROUGHOUT CONSTRUCTION. THE CITY REQUIRES TRAFFIC CONTROL MEASURES TO BE IN PLACE DURING UTILITY INSTALLATION, EXISTING BUILDING DEMOLITION, DRIVEWAY INSTALLATION, SIDEWALK INSTALLATION AND FINAL RESTORATION WITHIN THE RIGHT-OF-WAY.
- PROTECT STRUCTURES, UTILITIES, TREES, PLANT MATERIAL, SOIL, AND ADJACENT PROPERTY FROM DAMAGE DURING CONSTRUCTION UNLESS NOTED FOR REMOVAL. DAMAGE SHALL BE REPAIRED TO EQUAL OR BETTER CONDITION AT NO ADDITIONAL COST.
- REMOVE TREES NOTED, INCLUDING ROOT STRUCTURES, FROM THE SITE. COORDINATE WITH OWNER TO MARK TREES TO BE SAVED OR TRANSPLANTED PRIOR TO CLEARING.
- REMOVE EXISTING SITE FEATURES INCLUDING, BUT NOT LIMITED TO, UNDERGROUND UTILITIES, PAVING, CURBING, WALKWAYS, FENCING, RETAINING WALLS, SCREEN WALLS, APRONS, LIGHTING, RELATED FOUNDATIONS EXCEPT FOR THE BUILDING FOUNDATION, SIGNAGE, BOLLARDS, LANDSCAPING, AND STAIRWAYS WITHIN THE CONSTRUCTION LIMITS UNLESS NOTED OTHERWISE.
- COORDINATE REMOVAL, RELOCATION, TERMINATION, AND RE-USE OF EXISTING PRIVATE UTILITY SERVICES AND APPLIANCES WITH THE UTILITY COMPANIES. RESTORE ELECTRIC HANDHOLES, PULLBOXES, POWERPOLES, GUYLINES, AND STRUCTURES DISTURBED BY CONSTRUCTION IN ACCORDANCE WITH UTILITY OWNER REQUIREMENTS.
- EXISTING PIPING AND CONDUITS MAY BE ABANDONED IN-PLACE IF FILLED WITH SAND AND IF NOT IN LOCATION OF PROPOSED BUILDING OR IN CONFLICT WITH PROPOSED UTILITIES OR STRUCTURES. TERMINATE EXISTING SERVICES AT THE SUPPLY SIDE IN CONFORMANCE WITH PROVIDER'S STANDARDS.
- HALL DEMOLITION DEBRIS OFF-SITE TO A FACILITY APPROVED BY REGULATORY AUTHORITIES FOR THE HANDLING OF DEMOLITION DEBRIS.

DEMOLITION LEGEND

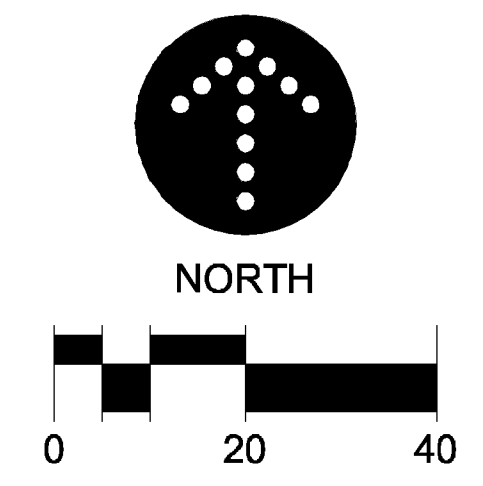
- ////// DEMO CURB
- SAWCUT

REV	DATE	DESCRIPTION
	11-26-2012	CITY SUBMITTAL

CERTIFICATION
 I hereby certify that the engineering documents were prepared by me or under my direct personal supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
 Christopher M. Call
 License number 46244
 Date 3 DEC. 2012

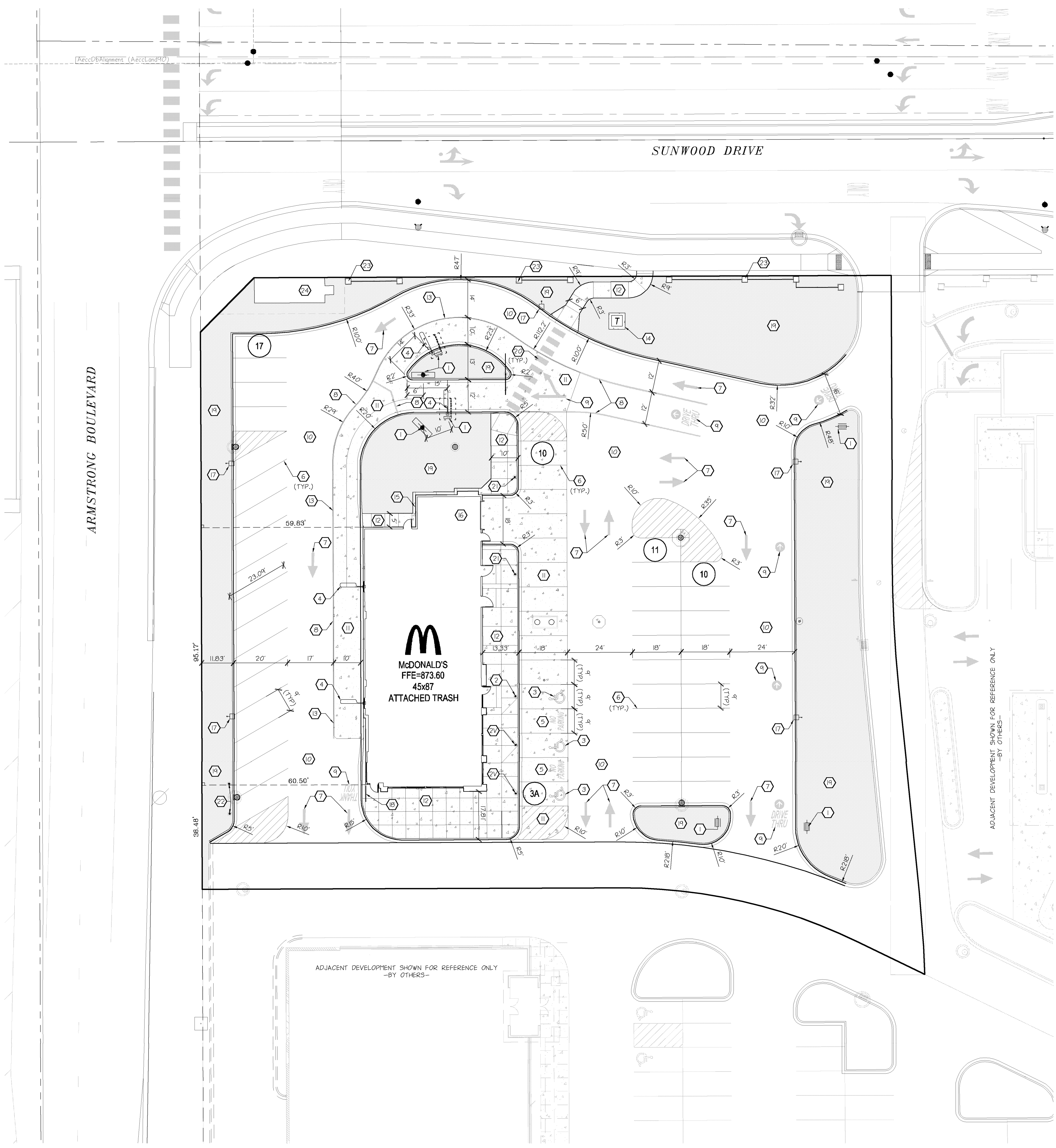
McDONALD'S USA, LLC.
 THESE DRAWINGS AND SPECIFICATIONS ARE THE CONFIDENTIAL AND PROPRIETARY PROPERTY OF McDONALD'S CORPORATION AND SHALL NOT BE COPIED OR REPRODUCED WITHOUT WRITTEN AUTHORIZATION. THE CONTRACT DOCUMENTS WERE PREPARED FOR USE ON THIS SPECIFIC SITE IN CONNECTION WITH ITS ISSUE DATE AND REFERENCE OR EXEMPLE ON ANOTHER PROJECT REQUIRES THE SERVICES OF PROPERLY LICENSED ARCHITECTS AND ENGINEERS. REPRODUCTION OF THE CONTRACT DOCUMENTS FOR REUSE ON ANOTHER PROJECT IS NOT AUTHORIZED.
 OFFICE ADDRESS
 1620 W. 52ND STREET #100 BLOOMINGTON, MINNESOTA 55431-9888 (952)-884-4355

DRAWN BY MJK/CNC	STATE MN
PROTO. ISSUED	COUNTY ANOKA
REVIEWED BY EMK/CNC	CITY ARMSTRONG & SUNWOOD
DATE REVIEWED 11-22-2012	EXISTING CONDITIONS & DEMOLITION
DATE ISSUED 11-26-2012	NATIONAL NUMBER STATE NUMBER



LANDFORM
 From Site to Finish
 105 South Fifth Avenue
 Suite 513
 Minneapolis, MN 55401
 Tel: 612-252-9070
 Fax: 612-252-9077
 Web: landform.net

SHEET NO. **C1.1**
 FILE NAME: C101MC100.DWG
 PROJECT NO: MCD11100



SITE CONSTRUCTION NOTES

- ① DRIVE-THRU SIGNAGE. SEE MCDONALD'S AREA CONSTRUCTION MANAGER.
- ② STATE AND ADA APPROVED ACCESSIBLE SIGN AND BOLLARDS PER DETAIL C7.1/6.
- ③ STATE AND ADA APPROVED ACCESSIBLE SIGN WITH VAN ACCESSIBLE SIGN AND BOLLARDS PER DETAIL C7.1/6.
- ④ STATE AND ADA APPROVED PAINTED ACCESSIBLE SYMBOL, 3-RHS (WHITE). SEE DETAIL C7.1/5.
- ⑤ DETECTOR LOOP.
- ⑥ STRIPED TO MEET A.D.A. ACCESSIBLE REQUIREMENTS.
- ⑦ PAINT 4" WIDE STRIPE, WHITE.
- ⑧ 1'-0" WIDE PAINTED DIRECTIONAL ARROWS, WHITE.
- ⑨ 6" WIDE PAINTED STRIPE, PMS-123 YELLOW.
- ⑩ PAINTED GRAPHICS, PMS-123 YELLOW.
- ⑪ BITUMINOUS PAVEMENT. REFER TO GEO-TECHNICAL REPORT AND SHEET C3.1 FOR SPECIFICATIONS. SEE MCDONALD'S AREA CONSTRUCTION MANAGER.
- ⑫ CONCRETE DRIVE APRONS AND SLABS. REFER TO GEOTECHNICAL REPORT AND SHEET C3.1 AND SHEET C3.1 FOR SPECIFICATIONS.
- ⑬ PROVIDE 4" CONCRETE SIDEWALK. MEET AND MATCH EXISTING SIDEWALK. REFER TO SHEET C3.1.
- ⑭ EDGE OF CONCRETE AT DRIVE-THRU.
- ⑮ TRANSFORMER PAD. GENERAL CONTRACTOR TO LOCATE & INSTALL TO MEET UTILITY COMPANY REQUIREMENTS.
- ⑯ GAS METER LOCATION.
- ⑰ TRASH ENCLOSURE.
- ⑱ METAL HALIDE LOT LIGHT. REFER TO SHEET EP2.1 FOR DETAILS.
- ⑲ PROVIDE 6' X 42" RAILING. REFER TO ARCHITECTURAL PLANS FOR DETAILS.
- ⑳ PLANTING AREA. REFER TO SHEET L2.1.
- ㉑ 2' x 5' CROSSWALK, STRIPE AT 4' ON CENTER, WHITE.
- ㉒ 36" TYPICAL BOLLARD. SEE DETAIL C7.1/6.
- ㉓ O.O.S.P. STALL. SEE MCDONALD'S AREA CONSTRUCTION MANAGER.
- ㉔ FENCING WITH COLUMNS. SEE LANDSCAPE SHEETS.
- ㉕ COR MONUMENT SIGN.

SITE PLAN NOTES

- 1. OBTAIN ALL NECESSARY PERMITS FOR CONSTRUCTION WITHIN OR USE OF, PUBLIC RIGHT-OF-WAY.
- 2. THE DIGITAL FILE, WHICH CAN BE OBTAINED FROM THE ENGINEER, SHALL BE USED FOR STAKING. DISCREPANCIES BETWEEN THE DRAWINGS AND THE DIGITAL FILE SHALL BE REPORTED TO THE ENGINEER. THE BUILDING FOOTPRINT, AS SHOWN ON THESE DRAWINGS, AND THE DIGITAL FILE, SHALL BE COMPARED TO THE STRUCTURAL DRAWINGS PRIOR TO STAKING.
- 3. DIMENSIONS SHOWN ARE TO FACE OF CURB AND EXTERIOR FACE OF BUILDING UNLESS NOTED OTHERWISE.
- 4. CONTRACTOR MUST USE MCDONALD'S APPROVED STENCILS FOR PAVEMENT MARKINGS - CONTACT:
PAVEMENT STENCIL COMPANY
P.O. BOX 80034
ROANOKE, VA 24014
PH 800-250-5547
FX 540-427-1526
pavementstencil.net

■ NEW GREEN SPACE (LANDSCAPE AREA)

PARKING SUMMARY

PROVIDED PARKING:		
STANDARD STALLS	(9'x18')	48 EA.
ACCESSIBLE STALLS (A)	(9'x18')	3 EA.
TOTAL PARKING STALLS PROVIDED		51 EA.

AREA SUMMARY

EXISTING: OVERALL SITE		
PERVIOUS	59,205 S.F.	100%
IMPERVIOUS	0 S.F.	0%
TOTAL	59,205 S.F.	100.0%

PROPOSED: OVERALL SITE		
PERVIOUS	12,830 S.F.	21.7%
IMPERVIOUS	46,375 S.F.	78.3%
TOTAL	59,205 S.F.	100.0%

BUILDING AREA AND COVERAGE 4,574 S.F. (0.105 AC.)

ZONING SUMMARY

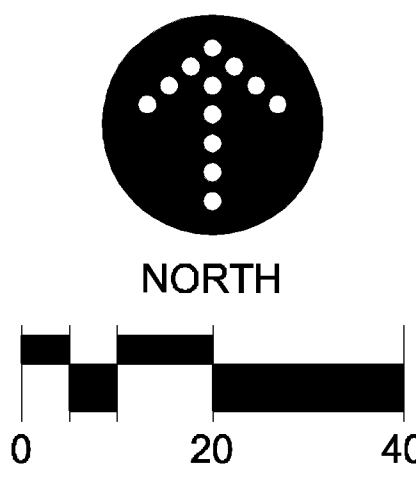
CURRENT ZONING COR 2

REV	DATE	DESCRIPTION
	11-26-2012	CITY SUBMITTAL

CERTIFICATION
I hereby certify that the engineering documents were prepared by me or under my direct personal supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
CHRISTOPHER M. RAMSEY
CONSTRUCTION
License number 46244
Date 3 DEC. 2012

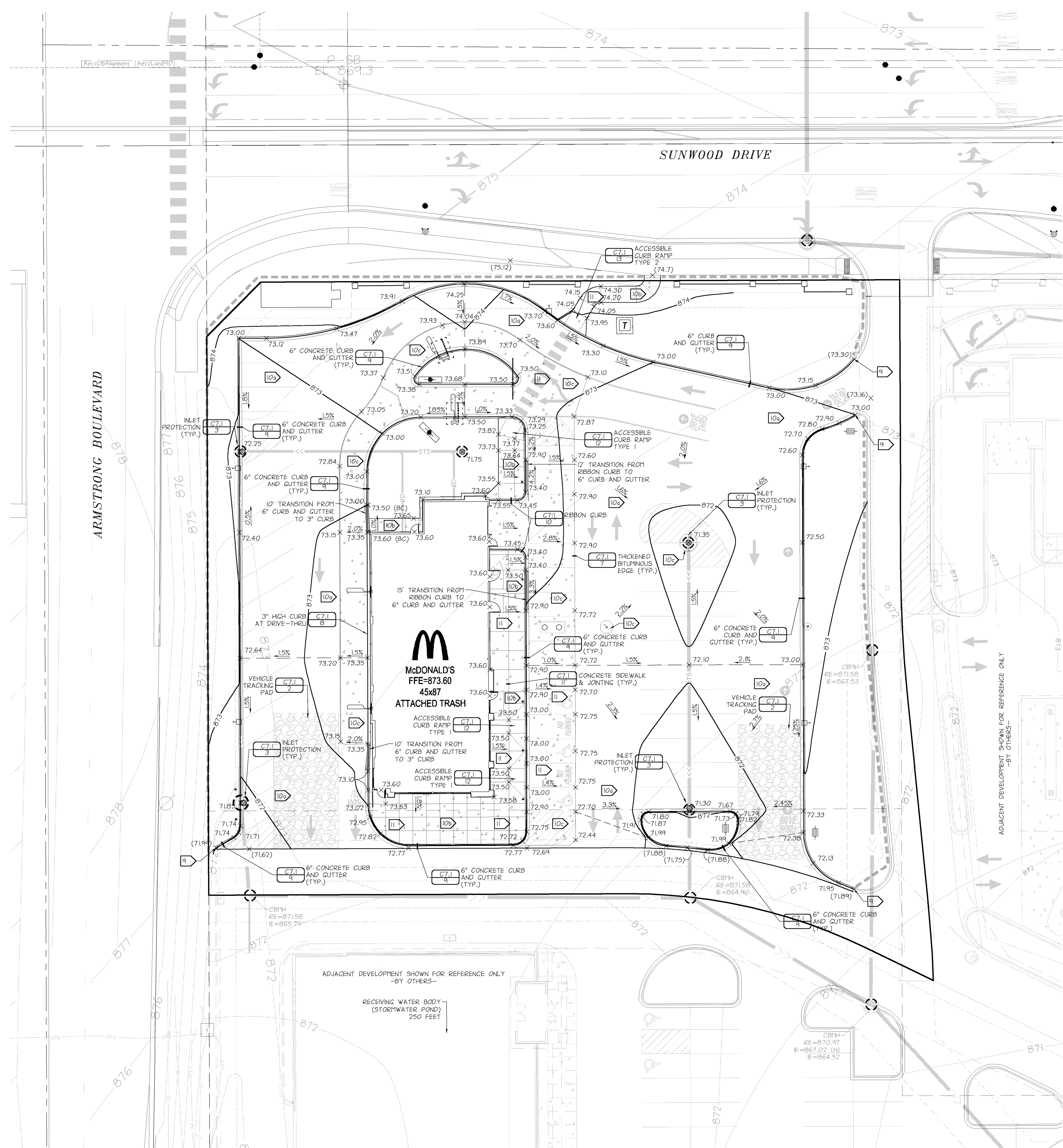
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OFFICE ADDRESS: #100 BLOOMINGTON, MINNESOTA 55431-9888 (952)-884-4355
#620 W. 52ND STREET

DRAWN BY	MJR/CNC	STATE	MN
PHOTO ISSUED		COUNTY	ANOKA
REVIEWED BY	EMK/CNC	CITY	ARMSTRONG & SUNWOOD
DATE REVIEWED	11-22-2012	SHEET NAME	SITE PLAN
DATE ISSUED	11-26-2012	NATIONAL NUMBER	
		STATE NUMBER	



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Web: landform.net

SHEET NO. **C2.1**
FILE NAME: C201MC100.DWG
PROJECT NO: MCD11100



GRADING NOTES

- CONTACT UTILITY SERVICE PROVIDERS FOR FIELD LOCATION OF SERVICES 72 HOURS PRIOR TO BEGINNING GRADING.
- SPREAD A MINIMUM OF 4 INCHES OF TOPSOIL AND SOO ALL TURF AREAS DISTURBED BY CONSTRUCTION. TOP SOIL, WHETHER IMPORTED OR AMENDING THE EXISTING TOPSOIL, MUST MEET OR EXCEED MN/DOT PREMIUM TOPSOIL SPECIFICATIONS (3877.3). THE CITY HAS A LIST OF "PRE-CERTIFIED" SUPPLIERS THAT HAVE SUBMITTED TEST RESULTS VERIFYING THE MATERIAL MEETS THIS SPECIFICATION. IF YOU OPT TO USE AN ALTERNATIVE SUPPLIER, OR IF AMENDING ON-SITE TOPSOIL, DOCUMENTATION MUST BE SUPPLIED TO THE CITY VERIFYING THAT THE MATERIAL MEETS MN/DOT'S PREMIUM TOPSOIL BORROW SPECIFICATION. A COPY OF THE LOAD TICKETS WILL ALSO BE REQUIRED TO PASS THE TOPSOIL INSPECTION.
- REMOVE SURFACE AND GROUND WATER FROM EXCAVATIONS. PROVIDE INITIAL LIFTS OF STABLE FOUNDATION MATERIAL IF EXPOSED SOILS ARE WET AND UNSTABLE.
- REFER TO STRUCTURAL SPECIFICATIONS FOR EARTHWORK REQUIREMENTS FOR BUILDING PAD.
- AN INDEPENDENT TESTING FIRM SHALL VERIFY THE REMOVAL OF ORGANIC AND UNSUITABLE SOILS, SOIL CORRECTION, AND COMPACTION AND PROVIDE PERIODIC REPORTS TO THE OWNER.
- PLACE AND COMPACT FILL USING LIFT THICKNESSES MATCHED TO SOIL TYPE AND COMPACTION EQUIPMENT TO OBTAIN SPECIFIED COMPACTION THROUGHOUT THE LIFT.
- COMPACT MATERIAL IN PAVED AREAS TO 95% OF MAXIMUM DRY DENSITY, STANDARD PROCTOR (ASTM D698) EXCEPT THE TOP 3 FEET WHICH SHALL BE COMPACTED TO 100%. COMPACT TO 98% DENSITY WHERE FILL DEPTH EXCEEDS 10 FEET.

PAVING NOTES

- SPOT ELEVATIONS AT CURBLINES INDICATE FLOWLINES UNLESS NOTED OTHERWISE. SEE SHEET C4.1 FOR RIM ELEVATIONS OF CATCH BASINS.
- MEET AND MATCH EXISTING CURB. PROVIDE 10 FOOT TRANSITION.
- PAVING SECTIONS (REFER TO GEOTECHNICAL REPORT BY NTL DATED, 2-9-2012)
 - a. BITUMINOUS PAVING
 - 2-INCH WEAR
 - TACK COAT
 - 2-INCH BASE
 - 8-INCH AGGREGATE BASE (MN/DOT 313B, CLASS 5)
 - b. CONCRETE WALKWAYS
 - 4-INCH CONCRETE WALK
 - 4-INCH AGGREGATE BASE (MN/DOT 313B, CLASS 5)
 - COMPACTED SUBSOIL
 - c. CONCRETE DRIVES, APRONS, AND EXTERIOR SLABS
 - 8-INCH CONCRETE
 - 8-INCH AGGREGATE BASE (MN/DOT 313B, CLASS 5)
 - COMPACTED SUBSOIL
- ACCESSIBLE PARKING STALLS AND ADJACENT ACCESSIBLE AREAS SHALL HAVE A MAXIMUM GRADE IN ANY GIVEN DIRECTION OF 2.0%. ACCESSIBLE ROUTES SHALL HAVE A MAXIMUM CROSS SLOPE OF 2.0% AND A MAXIMUM LONGITUDINAL SLOPE OF 5.0%

EROSION PREVENTION AND SEDIMENT CONTROL NOTES

- PERIMETER SEDIMENT CONTROLS SHALL BE INSTALLED AND INSPECTED PRIOR TO BEGINNING WORK. MAINTAIN FOR DURATION OF CONSTRUCTION. REMOVE CONTROLS AFTER AREAS CONTRIBUTING RUN OFF ARE PERMANENTLY STABILIZED AND DISPOSE OF OFF SITE.
- LIMIT SOIL DISTURBANCE TO THE GRADING LIMITS SHOWN. SCHEDULE OPERATIONS TO MINIMIZE LENGTH OF EXPOSURE OF DISTURBED AREAS.
- MANAGEMENT PRACTICES SHOWN ARE THE MINIMUM REQUIREMENT. INSTALL AND MAINTAIN ADDITIONAL CONTROLS AS WORK PROCEEDS TO PREVENT EROSION AND CONTROL SEDIMENT CARRIED BY WIND OR WATER.
- RESTORE DISTURBED OPEN AREAS WITH TEMPORARY SEED OR SOO WITHIN 72 HOURS OF COMPLETING GRADING IN EACH AREA.
- SEED, SOO, MULCH AND FERTILIZER SHALL MEET THE FOLLOWING SPECIFICATIONS, AS MODIFIED:

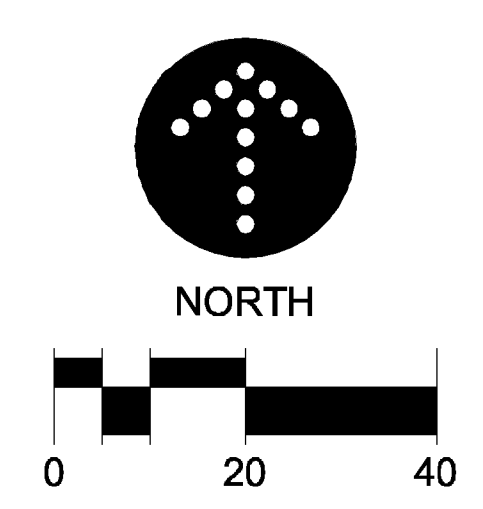
ITEM	SPECIFICATION NUMBER
SEED	MN/DOT 3875
SOO	MN/DOT 3876
TYPE 50 @ 40 LB/AC	
TYPE 10A @ 60 LB/AC	
MULCH (TYPE I DISC ANCHORED)	MN/DOT 3882
FERTILIZER	MN/DOT 3861
GENERAL PLACEMENT	MN/DOT 2575
- SEE LANDSCAPING SHEETS FOR PERMANENT TURF ESTABLISHMENT.
- ALL MATERIAL TRACKED ONTO CITY STREETS MUST BE REMOVED IMMEDIATELY UPON DISCOVERY, OR AS DIRECTED BY THE CITY ENGINEER. THE CONTRACTOR SHOULD HAVE A SWEEPER ON SITE OR AVAILABLE WITHIN 3 HOURS.

NPDES AREA SUMMARY

	EXISTING	PROPOSED	ULTIMATE
PERVIOUS	1.20 ACRES	0.34 ACRES	0.34 ACRES
IMPERVIOUS	0 ACRES	0.81 ACRES	0.81 ACRES
TOTAL	1.20 ACRES	1.20 ACRES	1.20 ACRES

LEGEND

- INLET PROTECTION
- CURB TRANSITION
- SILT FENCE



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McDONALD'S USA, LLC.
 FFE-873.60
 ATTACHED TRASH

ARMSTRONG & SUNWOOD
 GRADING, DRAINAGE, PAVING, & EROSION CONTROL PLAN

STATE: MN **COUNTY:** ANOKA **CITY:** RAMSEY

DATE ISSUED: 11-22-2012 **DATE REVISED:** 11-22-2012

PROJECT NO: C3.1 **FILE NAME:** C301MC100.DWG **PROJECT NO:** MCD11100

SITE EVALUATION/ASSESSMENT/PLANNING

- 1. CONTACT INFORMATION/RESPONSIBLE PARTIES
THE OPERATOR SHALL HAVE PRIMARY RESPONSIBILITY AND SIGNIFICANT AUTHORITY FOR THE DEVELOPMENT, IMPLEMENTATION, MAINTENANCE, INSPECTION AND AMENDMENTS TO THE APPROVED SWPPP. DUTIES INCLUDE BUT ARE NOT LIMITED TO:
- ENSURING FULL COMPLIANCE WITH THE SWPPP AND THE PERMIT
- IMPLEMENTING ALL ELEMENTS OF THE SWPPP, INCLUDING BUT NOT LIMITED TO:
- IMPLEMENTING PROMPT AND EFFECTIVE EROSION AND SEDIMENT CONTROL MEASURES
- IMPLEMENTING ALL NON-STORM WATER MANAGEMENT, AND GOOD HOUSEKEEPING BMPs ENSURING THAT NO MATERIALS OTHER THAN STORM WATER ARE DISCHARGED IN QUANTITIES, WHICH WILL HAVE AN ADVERSE EFFECT ON RECEIVING WATERS OR STORM DRAIN SYSTEMS, ETC.
- CONDUCTING ROUTINE INSPECTIONS AND MAINTENANCE
- ENSURING ELIMINATION OF ALL UNAUTHORIZED DISCHARGES
- COORDINATING TO ASSURE ALL OF THE NECESSARY CORRECTIONS/REPAIRS ARE MADE IMMEDIATELY, AND THAT THE PROJECT COMPLIES WITH THE SWPPP, THE PERMIT, AND APPROVED PLANS AT ALL TIMES.

POLLUTION PREVENTION MANAGEMENT MEASURES

- 1. OWNER/OPERATOR MUST DEVELOP POLLUTION PREVENTION MANAGEMENT MEASURES, IMPLEMENT GOOD HOUSEKEEPING BMPs, MUST FOLLOW ALL APPLICABLE FEDERAL, STATE, AND LOCAL BUILDING CODES, OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA), AND THE GENERAL CONDITIONS AND GENERAL REQUIREMENTS OF THE CONSTRUCTION CONTRACT.
2. OPERATOR TO TRACK PROGRESS OF THE FOLLOWING ITEMS ON SITE MAPS:
- PORTABLE TOILETS
- MATERIAL STORAGE AREAS
- VEHICLE AND EQUIPMENT FUELING AND MAINTENANCE AREAS
- CONCRETE WASHOUTS
- PAINT AND STUCCO WASHOUTS
- DUMPSTERS OR OTHER TRASH AND DEBRIS CONTAINERS
- SPILL KITS
- STOCKPILES
- ANY OTHER NON-STRUCTURAL NON-STORM WATER MANAGEMENT BMPs
- ANY TEMPORARILY REMOVED STRUCTURAL BMPs
- ANY CHANGES TO THE STRUCTURAL BMPs
3. SOLID WASTE: COLLECTED SEDIMENT, ASPHALT AND CONCRETE MILLINGS, FLOATING DEBRIS, PAPER, PLASTIC, FABRIC, CONSTRUCTION AND DEMOLITION DEBRIS AND OTHER WASTES MUST BE DISPOSED OF PROPERLY AND MUST COMPLY WITH MPCA DISPOSAL REQUIREMENTS.
4. HAZARDOUS WASTE: OIL, GASOLINE, PAINT AND ANY HAZARDOUS SUBSTANCES MUST BE PROPERLY STORED, INCLUDING SECONDARY CONTAINMENT, TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. RESTRICTED ACCESS TO STORAGE AREAS MUST BE PROVIDED TO PREVENT VANDALISM. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MUST BE IN COMPLIANCE WITH MPCA REGULATIONS.
5. CONCRETE WASHOUT: 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.
6. EXTERNAL VEHICLE WASHING: EXTERNAL WASHING OF TRUCKS AND OTHER CONSTRUCTION VEHICLES MUST BE LIMITED TO A DEFINED AREA OF THE SITE. RUNOFF MUST BE CONTAINED AND WASTE PROPERLY DISPOSED OF. NO ENGINE DEGREASING IS ALLOWED ON SITE.

POST CONSTRUCTION BMPs

- 1. SEE GRADING AND DRAINAGE, UTILITY, AND LANDSCAPE SHEETS FOR POST CONSTRUCTION BMPs.
2. MINIMIZE DISTURBED AREAS AND PROTECT NATURAL FEATURES AND SOIL.
APPROPRIATE CONSTRUCTION PRACTICES (E.G. CONSTRUCTION PHASING, VEGETATIVE BUFFER STRIPS, HORIZONTAL SLOPE GRADING) SHALL BE USED TO MINIMIZE EROSION. AREAS NOT TO BE DISTURBED WILL BE DELINEATED (E.G. WITH FLAGS, STAKES, SIGNS, SILT FENCE ETC.) BEFORE WORK BEGINS.
PHASE CONSTRUCTION ACTIVITY
SEDMINT CONTROL PRACTICES SHALL BE ESTABLISHED ON ALL DOWN GRADIENT PERIMETERS BEFORE ANY UPGRADMENT LAND DISTURBING ACTIVITIES BEGIN. THESE PRACTICES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION HAS BEEN ESTABLISHED IN ACCORDANCE WITH THE PERMIT.
THE TIMING OF THE INSTALLATION OF SEDIMENT CONTROL PRACTICES MAY BE ADJUSTED TO ACCOMMODATE SHORT-TERM ACTIVITIES SUCH AS CLEARING OR GRUBBING, OR PASSAGE OF VEHICLES. ANY SHORT-TERM ACTIVITY MUST BE COMPLETED AS QUICKLY AS POSSIBLE AND THE SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED IMMEDIATELY AFTER THE ACTIVITY IS COMPLETED. HOWEVER, SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE ACTIVITY IS NOT COMPLETE.
3. CONTROL STORM WATER FLOWING ONTO AND THROUGH THE PROJECT.
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, SHALL 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 SHALL BE COMPLETED WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER.
STABILIZATION OF THE REMAINING PORTIONS OF ANY TEMPORARY OR PERMANENT DITCHES OR SWALES SHALL BE COMPLETED 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 DICES ETC.) DO NOT NEED TO BE STABILIZED. THESE AREAS SHALL BE STABILIZED WITHIN 24 HOURS AFTER NO LONGER BEING USED AS A SEDIMENT CONTAINMENT SYSTEM.
4. STABILIZE SOILS
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. TEMPORARY STOCKPILES WITHIN SIGNIFICANT SILT, CLAY OR ORGANIC COMPONENTS (E.G. CLEAN AGGREGATE STOCKPILES, DEMOLITION CONCRETE STOCKPILES, SAND STOCKPILES) AND THE CONSTRUCTED BASE COMPONENTS OF ROADS, PARKING LOTS AND SIMILAR SURFACES ARE EXEMPT FROM THIS REQUIREMENT.
TEMPORARY SOIL STOCKPILES SHALL HAVE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS, AND SHOULD BE PLACED IN SURFACE WATERS INCLUDING STORM WATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS, OR CONDUITS AND DITCHES UNLESS THERE IS A BYPASS IN PLACE FOR THE STORM WATER.
WHEN THE SITE HAS A DISCHARGE POINT WITHIN ONE MILE OF, AND FLOWS TO, A SPECIAL OR IMPAIRED WATERS, ALL EXPOSED SOIL AREAS SHALL BE STABILIZED AS SOON AS POSSIBLE TO LIMIT SOIL EROSION BUT IN NO CASE LATER THAN SEVEN (7) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
5. PROTECT SLOPES
SLOPES WITH A GRADE OF 3:1 OR STEEPER WITH A SLOPE LENGTH OF GREATER THAN 75 FEET REQUIRE SLOPE BREAKS (E.G. CHECK DAMS) TO MAINTAIN SHEET FLOW AND MINIMIZE RILLS AND/OR GULLES.
6. PROTECT STORM DRAIN INLETS
ALL STORM DRAIN INLETS SHALL BE PROTECTED BY APPROPRIATE BMPs DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED. INLET PROTECTION MAY BE REMOVED IF A SPECIFIC SAFETY CONCERN HAS BEEN IDENTIFIED AND DOCUMENTATION HAS BEEN PROVIDED MEETING THE PERMIT REQUIREMENTS.
7. ESTABLISH PERIMETER CONTROLS AND SEDIMENT BARRIERS
8. RETAIN SEDIMENT ON-SITE AND CONTROL DEWATERING PRACTICES
DEWATERING OR BASIN DRAINING OF TURBID OR SEDIMENT LADEN WATER RELATED TO CONSTRUCTION ACTIVITIES SHALL BE DISCHARGED TO A TEMPORARY OR PERMANENT SEDIMENTATION BASIN OR TREATED WITH THE APPROPRIATE BMP PRIOR TO ENTERING THE SURFACE WATER.
DISCHARGE SHALL NOT CAUSE NUISANCE CONDITIONS, EROSION IN RECEIVING CHANNELS, ADVERSELY AFFECT RECEIVING WATER OR IMPACT WETLANDS, OR DOWNSTREAM PROPERTIES. DISCHARGE POINTS SHALL BE ADEQUATELY PROTECTED FROM EROSION AND SCOUR BY ACCEPTED ENERGY DISSIPATION MEASURES.
A TEMPORARY (OR PERMANENT) SEDIMENT BASIN SHALL BE PROVIDED PRIOR TO THE RUNOFF LEAVING THE CONSTRUCTION SITE OR ENTERING SURFACE WATERS WHERE TEN (10) OR MORE ACRES OF DISTURBED SOIL DRAIN TO A COMMON LOCATION.
WHEN THE SITE HAS A DISCHARGE POINT WITHIN ONE MILE OF, AND FLOWS TO, A SPECIAL OR IMPAIRED WATERS, TEMPORARY SEDIMENT BASIN REQUIREMENTS MUST BE USED FOR COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH FIVE (5) OR MORE ACRES DISTURBED AT ONE TIME.
TEMPORARY BASINS SHALL PROVIDE STORAGE BELOW THE OUTLET PIPE FOR A CALCULATED VOLUME OF RUNOFF FROM A TWO (2) YEAR, 24 HOUR STORM FROM EACH ACRE DRAINED TO THE BASIN AND IN NO CASE SHALL THE BASIN PROVIDE LESS THAN 1800 CUBIC FEET OF STORAGE BELOW THE OUTLET PIPE FROM EACH ACRE DRAINED TO THE BASIN.
WHERE NO SUCH CALCULATION HAS BEEN PERFORMED, A TEMPORARY (OR PERMANENT) SEDIMENT BASIN PROVIDING 3600 CUBIC FEET OF STORAGE BELOW THE OUTLET PIPE PER ACRE DRAINED TO THE BASIN SHALL BE PROVIDED WHERE ATTAINABLE UNTIL PERMANENT COVER IS ESTABLISHED FOR THE ENTIRE DRAINAGE AREA OF THE TEMPORARY BASIN.
THE BASINS SHALL BE DESIGNED AND CONSTRUCTED ACCORDING TO THE FOLLOWING REQUIREMENTS:
- TEMPORARY BASIN OUTLETS SHALL BE DESIGNED TO PREVENT SHORT-CIRCUITING AND THE DISCHARGE OF FLOATING DEBRIS. THE BASIN SHALL BE DESIGNED WITH THE ABILITY TO ALLOW COMPLETE BASIN DRAWDOWN (E.G., PERFORATED RISER PIPE WRAPPED WITH FILTER FABRIC AND COVERED WITH CRUSHED GRAVEL, PIPES OR OTHER MEANS), PROVIDE A STABILIZED ENERGY OVERFLOW TO PREVENT FAILURE OF POND INTEGRITY, ENERGY DISSIPATION SHALL BE PROVIDED FOR THE BASIN OUTLET WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER.
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- 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 DRAINING APPROPRIATE AS DICTATED BY INDIVIDUAL SITE CONDITIONS. IN DETERMINING WHETHER INSTALLING A SEDIMENT BASIN IS ATTAINABLE, THE OWNER/OPERATOR MUST CONSIDER PUBLIC SAFETY AND MAY CONSIDER FACTORS SUCH AS SITE SOILS, SLOPE, AND AVAILABLE AREA ON SITE. THIS DETERMINATION MUST BE DOCUMENTED IN THE SWPPP.
9. ESTABLISH STABILIZED CONSTRUCTION EXITS
VEHICLE TRACKING OF SEDIMENT FROM THE CONSTRUCTION SITE (OR ONTO STREETS WITHIN THE SITE) SHALL BE MINIMIZED BY BMPs SUCH AS STONE PADS, CONCRETE OR STEEL WASH RACKS, OR EQUIVALENT SYSTEMS. STREET SWEEPING SHALL BE USED IF SUCH BMPs ARE NOT ADEQUATE TO PREVENT SEDIMENT FROM BEING TRACKED ONTO THE STREET.

EROSION PREVENTION AND SEDIMENT CONTROL

- 1. SEE EROSION PREVENTION AND SEDIMENT CONTROL SHEET FOR THE LOCATION AND TYPE OF TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL BMPs. SEE GRADING AND DRAINAGE, UTILITY, PLANTING, AND SEEDING LAYOUT SHEETS FOR THE LOCATION AND TYPE OF PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL BMPs.
2. MINIMIZE DISTURBED AREAS AND PROTECT NATURAL FEATURES AND SOIL.
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- 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 DRAINING APPROPRIATE AS DICTATED BY INDIVIDUAL SITE CONDITIONS. IN DETERMINING WHETHER INSTALLING A SEDIMENT BASIN IS ATTAINABLE, THE OWNER/OPERATOR MUST CONSIDER PUBLIC SAFETY AND MAY CONSIDER FACTORS SUCH AS SITE SOILS, SLOPE, AND AVAILABLE AREA ON SITE. THIS DETERMINATION MUST BE DOCUMENTED IN THE SWPPP.
9. ESTABLISH STABILIZED CONSTRUCTION EXITS
VEHICLE TRACKING OF SEDIMENT FROM THE CONSTRUCTION SITE (OR ONTO STREETS WITHIN THE SITE) SHALL BE MINIMIZED BY BMPs SUCH AS STONE PADS, CONCRETE OR STEEL WASH RACKS, OR EQUIVALENT SYSTEMS. STREET SWEEPING SHALL BE USED IF SUCH BMPs ARE NOT ADEQUATE TO PREVENT SEDIMENT FROM BEING TRACKED ONTO THE STREET.

INSPECTIONS AND MAINTENANCE

- 1. INSPECTIONS OF THE CONSTRUCTION SITE SHALL BE CONDUCTED ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS, AND WITHIN SEVEN (7) DAYS AFTER THAT.
2. INSPECTIONS SHALL INCLUDE STABILIZED AREAS, EROSION PREVENTION AND SEDIMENT CONTROL BMPs, AND INFILTRATION AREAS.
3. STABILIZED AREAS WITH PERMANENT COVER SHALL BE INSPECTED ONCE PER MONTH, WHERE CONSTRUCTION SITES HAVE PERMANENT COVER ON ALL EXPOSED SOIL AREAS AND NO CONSTRUCTION ACTIVITY IS OCCURRING ANYWHERE ON THE SITE, THE SITE SHALL BE INSPECTED FOR A PERIOD OF TWELVE (12) MONTHS (THE INSPECTIONS MAY BE CEASED DURING FROZEN GROUND CONDITIONS). FOLLOWING THE TWELFTH MONTH OF PERMANENT COVER AND NO CONSTRUCTION ACTIVITY, INSPECTIONS MAY BE TERMINATED UNTIL CONSTRUCTION ACTIVITY IS ONCE AGAIN INITIATED OR SOONER IF NOTIFIED IN WRITING BY THE MPCA, WHERE WORK HAS BEEN SUSPENDED DUE TO FROZEN GROUND CONDITIONS, THE REQUIRED INSPECTIONS AND MAINTENANCE SCHEDULE MUST BEGIN WITHIN 24 HOURS AFTER RUNOFF OCCURS AT THE SITE OR PRIOR TO RESUMING CONSTRUCTION, WHICHEVER COMES FIRST.
4. ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPs MUST BE INSPECTED TO ENSURE INTEGRITY AND EFFECTIVENESS. ALL NONFUNCTIONAL BMPs MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WITH FUNCTIONAL BMPs WITHIN 24 HOURS AFTER DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS UNLESS ANOTHER TIME FRAME IS SPECIFIED WITHIN THE EROSION PREVENTION AND SEDIMENT CONTROL BMPs SECTION.
5. ALL INFILTRATION AREAS MUST BE INSPECTED TO ENSURE THAT NO SEDIMENT FROM ONGOING CONSTRUCTION ACTIVITY IS REACHING THE INFILTRATION AREA AND THESE AREAS ARE PROTECTED FROM COMPACTION DUE TO CONSTRUCTION EQUIPMENT DRIVING ACROSS THE INFILTRATION AREA.
6. ALL SILT FENCES MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/3 OF THE HEIGHT OF THE FENCE. THESE REPAIRS MUST BE MADE WITHIN 24 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS.
7. TEMPORARY AND PERMANENT SEDIMENTATION BASINS MUST BE DRAINED AND THE SEDIMENT REMOVED WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME. DRAINAGE AND REMOVAL MUST BE COMPLETED WITHIN 72 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS.
8. CONSTRUCTION SITE VEHICLE EXIT LOCATIONS MUST BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING ONTO PAVED SURFACES. TRACKED SEDIMENT MUST BE REMOVED FROM ALL PAVED SURFACES, WITHIN 24 HOURS OF DISCOVERY, OR IF APPLICABLE, WITHIN A SHORTER TIME.
9. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED IN A TIMELY AND AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS (E.G. FUGITIVE SEDIMENT IN STREETS COULD BE WASHED INTO STORM SEWERS BY THE NEXT RAIN AND/OR POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS).
10. BMP MAINTENANCE:
- FOLLOW THE DESIGNERS OR MANUFACTURERS RECOMMENDED MAINTENANCE PROCEDURES FOR ALL BMPs.
- REMOVE SEDIMENT FROM BMPs AS APPROPRIATE AND PROPERLY DISPOSE OF SEDIMENT INTO CONTROLLED AREAS TO PREVENT SOIL FROM RETURNING TO THE BMP DURING SUBSEQUENT RAIN EVENTS.
- REMOVE SEDIMENT FROM PAVED ROADWAYS AND FROM AROUND BMPs PROTECTING STORM DRAIN INLETS.
- ENSURE THAT CONSTRUCTION SUPPORT ACTIVITIES, INCLUDING BORROW AREAS, WASTE AREAS, CONTRACTOR WORK AREAS, AND MATERIAL STORAGE AREAS AND DEDICATED CONCRETE AND ASPHALT BATCH PLANTS ARE CLEANED AND MAINTAINED.
- REPLACE DAMAGED BMPs, SUCH AS SILT FENCES, THAT NO LONGER OPERATE EFFECTIVELY.

RECORDKEEPING/RECORD RETENTION

- 1. THE SWPPP (ORIGINAL OR COPIES) INCLUDING, ALL CHANGES TO IT, AND INSPECTIONS AND MAINTENANCE RECORDS SHALL BE KEPT AT THE SITE DURING CONSTRUCTION BY THE OWNER/OPERATOR WHO HAS OPERATIONAL CONTROL OF THAT PORTION OF THE SITE. THE SWPPP CAN BE KEPT IN EITHER THE FIELD OFFICE OR IN AN ON-SITE VEHICLE DURING NORMAL WORKING HOURS.
2. ALL OWNER(S) MUST KEEP THE SWPPP, ALONG WITH THE FOLLOWING ADDITIONAL RECORDS, ON FILE FOR THREE (3) YEARS AFTER SUBMITTAL OF THE NOTICE OF TERMINATION (NOT). THIS DOES NOT INCLUDE ANY RECORDS AFTER SUBMITTAL OF THE NOT.
3. THE FOLLOWING IS A LIST OF RECORDS THAT SHALL BE KEPT AT THE PROJECT SITE AVAILABLE FOR INSPECTORS TO REVIEW:
- COPY OF THE SWPPP, WITH ANY MODIFICATIONS
- INSPECTION AND MAINTENANCE RECORDS
- PERMANENT OPERATION AND MAINTENANCE AGREEMENTS
- CALCULATIONS FOR THE DESIGN OF TEMPORARY AND PERMANENT STORM WATER MANAGEMENT SYSTEMS
- ANY OTHER PERMITS REQUIRED FOR THE PROJECT
- RECORDS OF ALL INSPECTION AND MAINTENANCE CONDUCTED DURING CONSTRUCTION
- ALL PERMANENT OPERATION AND MAINTENANCE AGREEMENTS THAT HAVE BEEN IMPLEMENTED, INCLUDING ALL RIGHT OF WAY, CONTRACTS, COVENANTS AND OTHER BINDING REQUIREMENTS REGARDING PERPETUAL MAINTENANCE; AND
- ALL REQUIRED CALCULATIONS FOR DESIGN OF THE TEMPORARY AND PERMANENT STORM WATER MANAGEMENT SYSTEMS.

LOG OF CHANGES TO THE SWPPP/AMENDMENTS

- 1. THE OWNER/OPERATOR(S) MUST AMEND THE SWPPP AS NECESSARY TO INCLUDE ADDITIONAL REQUIREMENTS, SUCH AS ADDITIONAL OR MODIFIED BMPs, DESIGNED TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER:
- THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE, WEATHER OR SEASONAL CONDITIONS THAT HAS A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR UNDERGROUND WATERS;
- INSPECTIONS OR INVESTIGATIONS BY SITE OPERATORS, LOCAL, STATE OR FEDERAL OFFICIALS INDICATE THE SWPPP IS NOT EFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR UNDERGROUND WATERS OR THAT THE DISCHARGES ARE CAUSING WATER QUALITY STANDARD EXCEEDANCES; OR
- THE SWPPP IS NOT ACHIEVING THE GENERAL OBJECTIVES OF MINIMIZING POLLUTANTS IN STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY, OR THE SWPPP IS NOT CONSISTENT WITH THE TERMS AND CONDITIONS OF THE PERMIT.
- AT ANY TIME AFTER PERMIT COVERAGE IS EFFECTIVE, THE MPCA MAY DETERMINE THAT THE PROJECT'S STORM WATER DISCHARGES MAY CAUSE, HAVE REASONABLE POTENTIAL TO CAUSE, OR CONTRIBUTE TO NON-ATTAINMENT OF ANY APPLICABLE WATER QUALITY STANDARD, OR THAT THE SWPPP DOES NOT INCORPORATE THE APPLICABLE REQUIREMENTS IN THE PERMIT FOR DISCHARGES TO IMPAIRED WATERS AND TRIGGERS, IF MPCA MAKES SUCH DETERMINATION(S) OR ANY OF THE DETERMINATIONS NOTED ABOVE, MPCA WILL NOTIFY THE OWNER/OPERATOR(S) IN WRITING. IN RESPONSE, THE OWNER/OPERATOR(S) MUST DEVELOP A SUPPLEMENTAL BMP ACTION PLAN OR APPROPRIATE SWPPP AMENDMENTS DESCRIBING SWPPP MODIFICATIONS TO ADDRESS THE IDENTIFIED CONCERNS AND SUBMIT INFORMATION REQUESTED BY MPCA, WHICH MAY INCLUDE AN INDIVIDUAL PERMIT APPLICATION. IF MPCA'S WRITTEN NOTIFICATION REQUIRES A RESPONSE, FAILURE TO RESPOND WITHIN THE SPECIFIED TIMEFRAME CONSTITUTES A PERMIT VIOLATION.

FINAL STABILIZATION

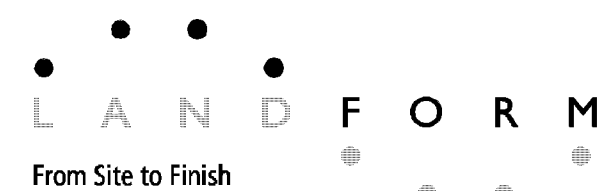
- 1. THE OWNER/OPERATOR(S) MUST ENSURE FINAL STABILIZATION OF THE SITE. FINAL STABILIZATION REQUIRES ALL OF THE FOLLOWING:
- FINAL STABILIZATION REQUIRES THAT ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND ALL SOILS MUST BE STABILIZED BY A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70% OVER THE ENTIRE PVIOUS SURFACE AREA, OR OTHER EQUIVALENT MEANS NECESSARY TO PREVENT SOIL FAILURE UNDER EROSION CONDITIONS.
- THE OWNER/OPERATOR(S) MUST ENSURE THAT THE PERMANENT STORM WATER TREATMENT SYSTEM MEETS ALL REQUIREMENTS OF THE PERMIT. THIS INCLUDES BUT IS NOT LIMITED TO, A FINAL CLEAN OUT OF TEMPORARY OR PERMANENT SEDIMENTATION BASINS THAT ARE TO BE USED AS PERMANENT WATER QUALITY MANAGEMENT BASINS AND FINAL CONSTRUCTION OR MAINTENANCE OF INFILTRATION BASINS. ALL SEDIMENT MUST BE REMOVED FROM CONVEYANCE SYSTEMS AND DITCHES MUST BE STABILIZED WITH PERMANENT COVER.
- PRIOR TO SUBMISSION OF THE NOT, ALL TEMPORARY SYNTHETIC AND STRUCTURAL EROSION PREVENTION AND SEDIMENT CONTROL BMPs (SUCH AS SILT FENCE) MUST BE REMOVED ON THE PORTIONS OF THE SITE FOR WHICH THE OWNER/OPERATOR IS RESPONSIBLE. BMPs DESIGNED TO DECOMPOSE ON SITE (SUCH AS SOPE COMPOST LOGS) MAY BE LEFT IN PLACE.
- FOR RESIDENTIAL CONSTRUCTION ONLY, INDIVIDUAL LOTS ARE CONSIDERED FINALLY STABILIZED IF THE STRUCTURE(S) ARE FINISHED & TEMPORARY EROSION PROTECTION AND DOWNGRADMENT PERIMETER CONTROL HAS BEEN COMPLETED AND THE RESIDENCE HAS BEEN SOLD TO THE HOMEOWNER. ADDITIONALLY, THE OWNER/OPERATOR MUST DISTRIBUTE THE MPCA'S 'HOMEOWNER FACT SHEET' TO THE HOMEOWNER TO INFORM THE HOMEOWNER OF THE NEED FOR, AND BENEFITS OF, PERMANENT COVER.
- FOR CONSTRUCTION PROJECTS ON LAND USED FOR AGRICULTURAL PURPOSES (E.G., PIPELINES ACROSS CROP OR RANGE LAND) FINAL STABILIZATION MAY BE ACCOMPLISHED BY RETURNING THE DISTURBED LAND TO ITS PRECONSTRUCTION AGRICULTURAL USE.
OR
- OWNER/OPERATOR MAY TERMINATE PERMIT COVERAGE PRIOR TO COMPLETION OF ALL CONSTRUCTION ACTIVITY IF ALL OF THE FOLLOWING CONDITIONS ARE MET:
- THE OWNER/OPERATOR(S) MUST ENSURE THAT THE PERMANENT STORM WATER TREATMENT SYSTEM MEETS ALL REQUIREMENTS OF THE PERMIT. THIS INCLUDES BUT IS NOT LIMITED TO, A FINAL CLEAN OUT OF TEMPORARY OR PERMANENT SEDIMENTATION BASINS THAT ARE TO BE USED AS PERMANENT WATER QUALITY MANAGEMENT BASINS AND FINAL CONSTRUCTION OR MAINTENANCE OF INFILTRATION BASINS. ALL SEDIMENT MUST BE REMOVED FROM CONVEYANCE SYSTEMS AND DITCHES MUST BE STABILIZED WITH PERMANENT COVER.
- PRIOR TO SUBMISSION OF THE NOT, ALL TEMPORARY SYNTHETIC AND STRUCTURAL EROSION PREVENTION AND SEDIMENT CONTROL BMPs (SUCH AS SILT FENCE) MUST BE REMOVED ON THE PORTIONS OF THE SITE FOR WHICH THE OWNER/OPERATOR IS RESPONSIBLE. BMPs DESIGNED TO DECOMPOSE ON SITE (SUCH AS SOPE COMPOST LOGS) MAY BE LEFT IN PLACE.
- CONSTRUCTION ACTIVITY HAS CEASED FOR AT LEAST 90 DAYS.
- AT LEAST 90% (BY AREA) OF ALL ORIGINALLY PROPOSED CONSTRUCTION ACTIVITY HAS BEEN COMPLETED AND PERMANENT COVER ESTABLISHED ON THOSE AREAS.
- ON AREAS WHERE CONSTRUCTION ACTIVITY IS NOT COMPLETE, PERMANENT COVER HAS BEEN ESTABLISHED.
AND WHERE APPLICABLE:
- FOR RESIDENTIAL CONSTRUCTION ONLY, INDIVIDUAL LOTS ARE CONSIDERED FINALLY STABILIZED IF THE STRUCTURE(S) ARE FINISHED & TEMPORARY EROSION PROTECTION AND DOWNGRADMENT PERIMETER CONTROL HAS BEEN COMPLETED AND THE RESIDENCE HAS BEEN SOLD TO THE HOMEOWNER. ADDITIONALLY, THE OWNER/OPERATOR MUST DISTRIBUTE THE MPCA'S 'HOMEOWNER FACT SHEET' TO THE HOMEOWNER TO INFORM THE HOMEOWNER OF THE NEED FOR, AND BENEFITS OF, PERMANENT COVER.
- FOR CONSTRUCTION PROJECTS ON LAND USED FOR AGRICULTURAL PURPOSES (E.G., PIPELINES ACROSS CROP OR RANGE LAND) FINAL STABILIZATION MAY BE ACCOMPLISHED BY RETURNING THE DISTURBED LAND TO ITS PRECONSTRUCTION AGRICULTURAL USE.

TERMINATION OF COVERAGE

- 1. OWNER/OPERATOR(S) WISHING TO TERMINATE COVERAGE UNDER THIS PERMIT MUST SUBMIT A NOTICE OF TERMINATION (NOT) TO THE MPCA. COVERAGE WITH THIS PERMIT IS REQUIRED UNTIL A NOT IS SUBMITTED. THE OWNER/OPERATOR(S) COVERAGE UNDER THIS PERMIT TERMINATES AT MIDNIGHT ON THE POSTMARK DATE OF THE NOT, OR ON THE DATE AN ONLINE NOT IS SUBMITTED TO THE MPCA.
2. TERMINATION OF COVERAGE FOR THE ENTIRE PROJECT
ALL OWNER/OPERATOR(S) MUST SUBMIT A NOT WITHIN 30 DAYS AFTER FINAL STABILIZATION HAS BEEN COMPLETED ON ALL PORTIONS OF THE SITE FOR WHICH THE OWNER/OPERATOR IS RESPONSIBLE AND ALL CONSTRUCTION ACTIVITY HAS BEEN COMPLETED. IF THE SITE INCLUDES PERMANENT STORM WATER MANAGEMENT SYSTEMS, THE REQUIREMENTS FOR FINAL CLEANOUT/MAINTENANCE MUST BE PERFORMED AS REQUIRED IN FINAL STABILIZATION.
OWNER/OPERATOR(S) MUST SUBMIT A NOT WITHIN 30 DAYS AFTER SELLING THE ENTIRE SITE INCLUDING ROADS AND STORM WATER INFRASTRUCTURE, AND COVERAGE IS TRANSFERRED TO ANOTHER OWNER AS DESCRIBED IN CHANGE OF COVERAGE.
3. TERMINATION OF COVERAGE FOR A PORTION OF THE ENTIRE PROJECT
ALL OWNER/OPERATOR(S) MUST SUBMIT A NOT WITHIN SEVEN (7) DAYS AFTER SELLING OR OTHERWISE LEGALLY TRANSFERRING PORTIONS OF THE SITE TO ANOTHER PARTY AND THEY ARE NO LONGER THE OWNER OR OPERATOR. THE PORTIONS OF THE SITE BEING SOLD TO ANOTHER PARTY MUST BE IN COMPLIANCE WITH THE PERMIT (E.G. ALL TEMPORARY EROSION PROTECTION AND SEDIMENT CONTROL MEASURES MUST BE IN PLACE). THE FORM MUST INCLUDE SIGNATURES FROM THE ORIGINAL OWNER/OPERATOR(S) AND CONTACT INFORMATION FOR THE NEW OWNER OF THE PROPERTY.
4. TERMINATION OF COVERAGE OBTAINED USING A SUBDIVISION REGISTRATION
IF PERMIT COVERAGE WAS OBTAINED USING THE SUBDIVISION REGISTRATION PROCESS, OWNER/OPERATOR(S) ARE REQUIRED TO SUBMIT A NOT WITHIN 30 DAYS AFTER ACHIEVING FINAL STABILIZATION.
5. ALTERNATIVE METHODS-PERMANENT STORM WATER MANAGEMENT
OWNER/OPERATOR(S) THAT USE AN ALTERNATIVE METHOD FOR THE PERMANENT STORM WATER MANAGEMENT SYSTEM AS DESCRIBED IN THE PERMIT ARE PROHIBITED FROM TERMINATING THIS PERMIT UNTIL FINAL STABILIZATION HAS BEEN ACHIEVED ON SITE AND EITHER:
- THE TWO YEARS OF MONITORING DATA REQUIRED IN THE PERMIT HAS BEEN SUBMITTED TO THE MPCA AND THE MPCA HAS DETERMINED THAT THE REQUIRED TREATMENT HAS BEEN ACHIEVED. THE OWNER/OPERATOR WILL BE NOTIFIED IN WRITING WITHIN 30 DAYS AFTER THE MONITORING DATA HAS BEEN SUBMITTED. IF THE OWNER/OPERATOR HAS NOT HEARD FROM THE MPCA WITHIN 30 DAYS AFTER SUBMITTING THE REQUIRED DATA, THE OWNER/OPERATOR CAN SUBMIT A NOT.
OR:
- THE OWNER/OPERATOR CAN SUBMIT A NOT, EVEN IF THE TIMEFRAME IS LESS THAN TWO YEARS, IF THE MPCA DETERMINES THAT THE ALTERNATIVE METHOD IS ACHIEVING THE REQUIRED TREATMENT.
DURING THE MONITORING AND EVALUATION OF THE ALTERNATIVE METHOD, THE OWNER/OPERATOR IS NOT RESPONSIBLE FOR OTHER PERMIT REQUIREMENTS THAT HAVE BEEN TRANSFERRED AS DESCRIBED IN CHANGE OF COVERAGE.

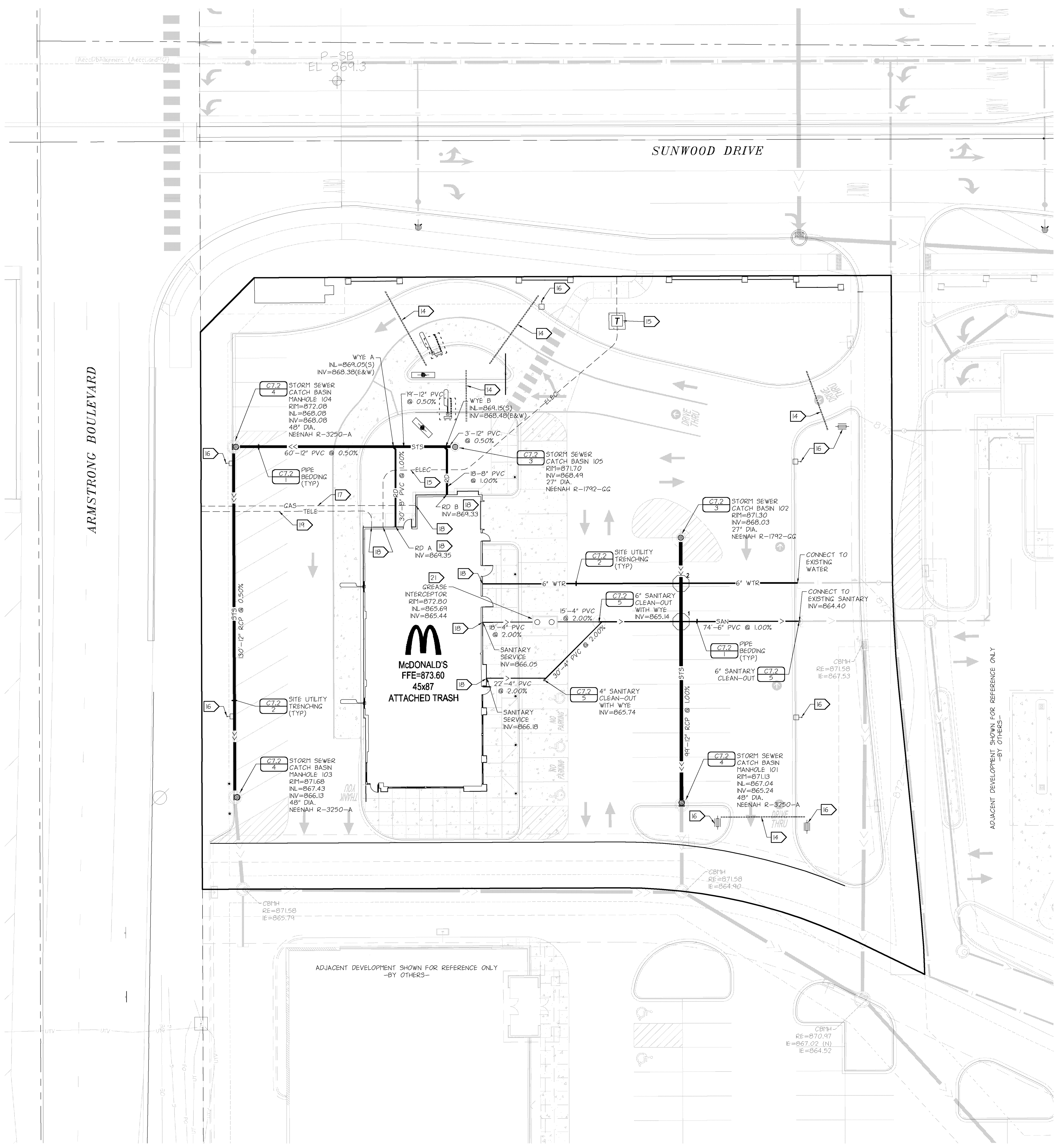


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Table with columns: SHEET NO., CITY, STATE, COUNTY, SHEET NAME, NATIONAL NUMBER, DRAWN BY, DATE ISSUED, REVISION HISTORY, CERTIFICATION, LICENSE NUMBER, DATE, CITY, SUBMITTAL. Includes signature of Christopher A. Larson and project details for McDonald's USA, LLC.



UTILITY NOTES

- PIPE MATERIALS
 WATERMAIN DP CLASS 52
 SANITARY SEWER PVC SCHEDULE 40
 GREASE TRAP SERVICE PVC SCHEDULE 40
 STORM SEWER PVC SCHEDULE 40
 RCP CLASS 5
- CONTACT UTILITY SERVICE PROVIDERS FOR FIELD LOCATION OF SERVICES 72 HOURS PRIOR TO BEGINNING.
- COORDINATE WITH PRIVATE UTILITIES TO PROVIDE ELECTRIC, NATURAL GAS, AND COMMUNICATIONS SERVICES TO BUILDING.
- PROVIDE MEANS AND MEASURES TO PROTECT ADJACENT PROPERTY FROM DAMAGE DURING UTILITY INSTALLATION.
- PIPE LENGTHS SHOWN ARE FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE OR END OF END SECTION.
- ADJUST STRUCTURES TO FINAL GRADE WHERE DISTURBED. COMPLY WITH REQUIREMENTS OF UTILITY. MEET REQUIREMENTS FOR TRAFFIC LOADING IN PAVED AREAS.
- INSTALL TRACER WIRE WITH UTILITIES WITHIN THE PUBLIC RIGHT-OF-WAY OR EASEMENTS.
- CONTACT CITY OF RAMSEY PUBLIC WORKS DEPARTMENT FOR INSPECTION OF ALL UTILITY WORK AND STANDARDS.
- MAINTAIN 7.5 FEET OF COVER ON WATER.
- DEFLECT WATER TO MAINTAIN 18-INCH MINIMUM OUTSIDE SEPARATION AT SEWER CROSSINGS AS NECESSARY. CENTER PIPE LENGTHS TO PROVIDE GREATEST SEPARATION BETWEEN JOINTS.
- CONTACT CITY OF RAMSEY PUBLIC WORKS DEPARTMENT FOR FLUSHING AND PRESSURE TEST INSPECTIONS.
- BRING WATER AND SEWER SERVICES INTO BUILDING PER MECHANICAL DRAWINGS. JOIN AND ROUTE BUILDING STORM DRAINS AND CONNECT TO STORM SEWER MAN-HOLE.
- CONNECT TO DOWNSPOUT WITH TRANSITION TO 8-INCH PVC AND ROUTE TO STORM SEWER.
- IRRIGATION SLEEVE TO BE 4" SCHEDULE 80 PVC IN DRIVE ANGLES BURIED 24" BELOW GRADE. EXTEND SLEEVES 3 BEYOND THE EDGE OF PAVEMENT. (COORDINATE WITH IRRIGATION CONTRACTOR.)
- THE PRIMARY ELECTRIC FEED, TRANSFORMER, AND METER ARE PROVIDED AND INSTALLED BY CONNEXUS ENERGY. THE TRANSFORMER PAD DESIGN IS PROVIDED BY THE UTILITY AND CONSTRUCTION IS BY THE CONTRACTOR. CONTACT UTILITY FOR PAD DETAIL. THE SECONDARY ELECTRIC AND CONDUITS SHALL BE INSTALLED BY THE ELECTRICAL CONTRACTOR.
- COORDINATE WITH ELECTRIC CONTRACTOR TO PROVIDE CONDUITS AS NECESSARY FOR SITE LIGHTING. PROVIDE 3/4" PVC CONDUIT FOR ALL PARKING LOT LIGHTS AND 1-1/2" PVC CONDUIT FOR ROAD SIGN SEE ELECTRICAL SITE PLAN FOR ADDITIONAL INFORMATION.
- CENTERPOINT ENERGY WILL FURNISH AND INSTALL GAS SERVICE PIPING FROM THE MAINLINE TO THE METER. GAS SERVICE FROM THE METER SHALL BE INSTALLED BY THE MECHANICAL CONTRACTOR.
- COORDINATE WITH MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATIONS OF SERVICE CONNECTIONS AND CONTINUATION OF SERVICES WITHIN BUILDING.
- COORDINATE TELEPHONE WITH CENTURY LINK TO PROVIDE TELEPHONE SERVICE. CONTRACTOR TO PROVIDE AND INSTALL A 4" PVC CONDUIT WITH PULL STRING. SWEEPING BENDS ONLY (NO 90 DEGREE BENDS), FROM PROPERTY LINE TO THE BUILDING.
- PROVIDE CONDUITS FOR CABLE TELEVISION AND OTHER ELECTRONIC COMMUNICATION.
- REFER TO PLUMBING PLANS FOR EXTERIOR GREASE INTERCEPTOR DETAIL. IT IS ASSUMED THE TANK AND TOP SLAB ARE DESIGNED TO HANDLE ALL LOADINGS INCLUDING TRAFFIC AND SOL THAT MAY LEAD TO STRUCTURAL COLLAPSE. THE TANK MUST BE PROTECTED FROM FREEZING AND MUST COMPLY WITH ALL LOCAL AND STATE CODES.
- ALL JOINTS AND CONNECTIONS IN THE STORM SEWER SYSTEM SHALL BE GASTIGHT OR WATER TIGHT. APPROVED RESILIENT RUBBER JOINTS MUST BE USED TO MAKE WATERTIGHT CONNECTIONS TO MANHOLES, CATCH BASINS, AND OTHER STRUCTURES.
- ALL PORTIONS OF THE STORM SEWER SYSTEM, LOCATED WITHIN 10 FEET OF THE BUILDING OR WATER SERVICE LINE MUST BE TESTED IN ACCORDANCE WITH MINNESOTA RULES, PART 4715.2820.
- THE CONTRACTOR IS REQUIRED TO OBTAIN THE APPROPRIATE PERMIT FROM THE MINNESOTA DNR IF Dewatering IS REQUIRED TO COMPLETE ANY WORK. THE CITY NEEDS TO REVIEW EACH PERMIT PRIOR TO IMPLEMENTATION.

UTILITY CROSSINGS

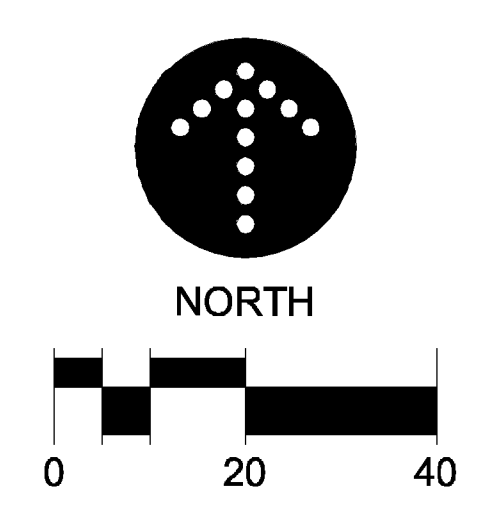
- STORM SEWER SERVICE - BOTTOM OF PIPE = 867.4
 SANITARY SEWER SERVICE - TOP OF PIPE = 865.4
 CLEARANCE = 2.0 FT.
- STORM SEWER SERVICE - BOTTOM OF PIPE = 867.6
 WATER SERVICE - TOP OF PIPE = 864.0
 CLEARANCE = 3.5 FT.

REV	DATE	DESCRIPTION
1	11-26-2012	CITY SUBMITTAL

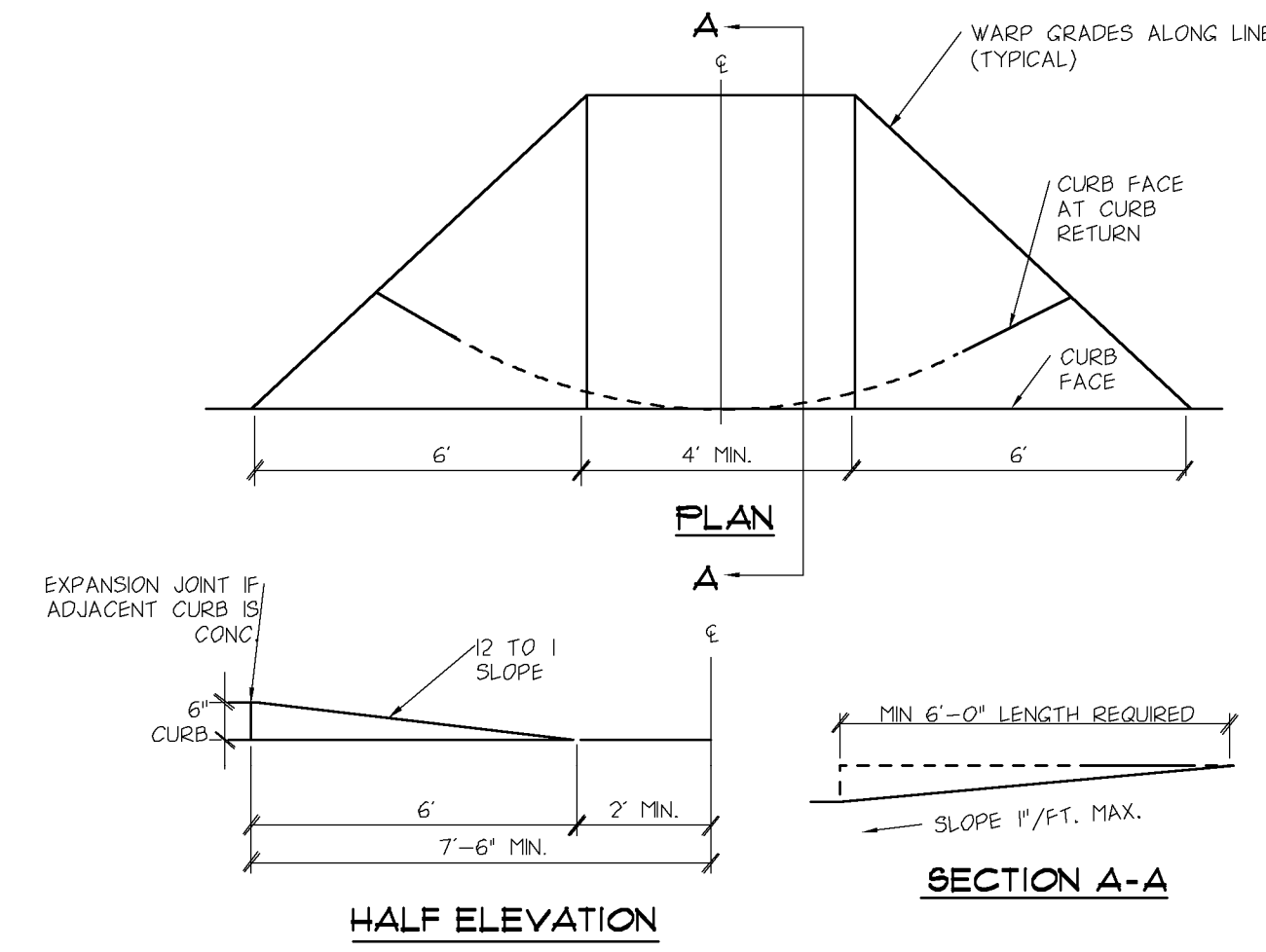
CERTIFICATION
 I hereby certify that the engineering documents were prepared by me or under my direct personal supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
CHRISTOPHER A. FORN
 License number 46244
 Date 3 DEC. 2012

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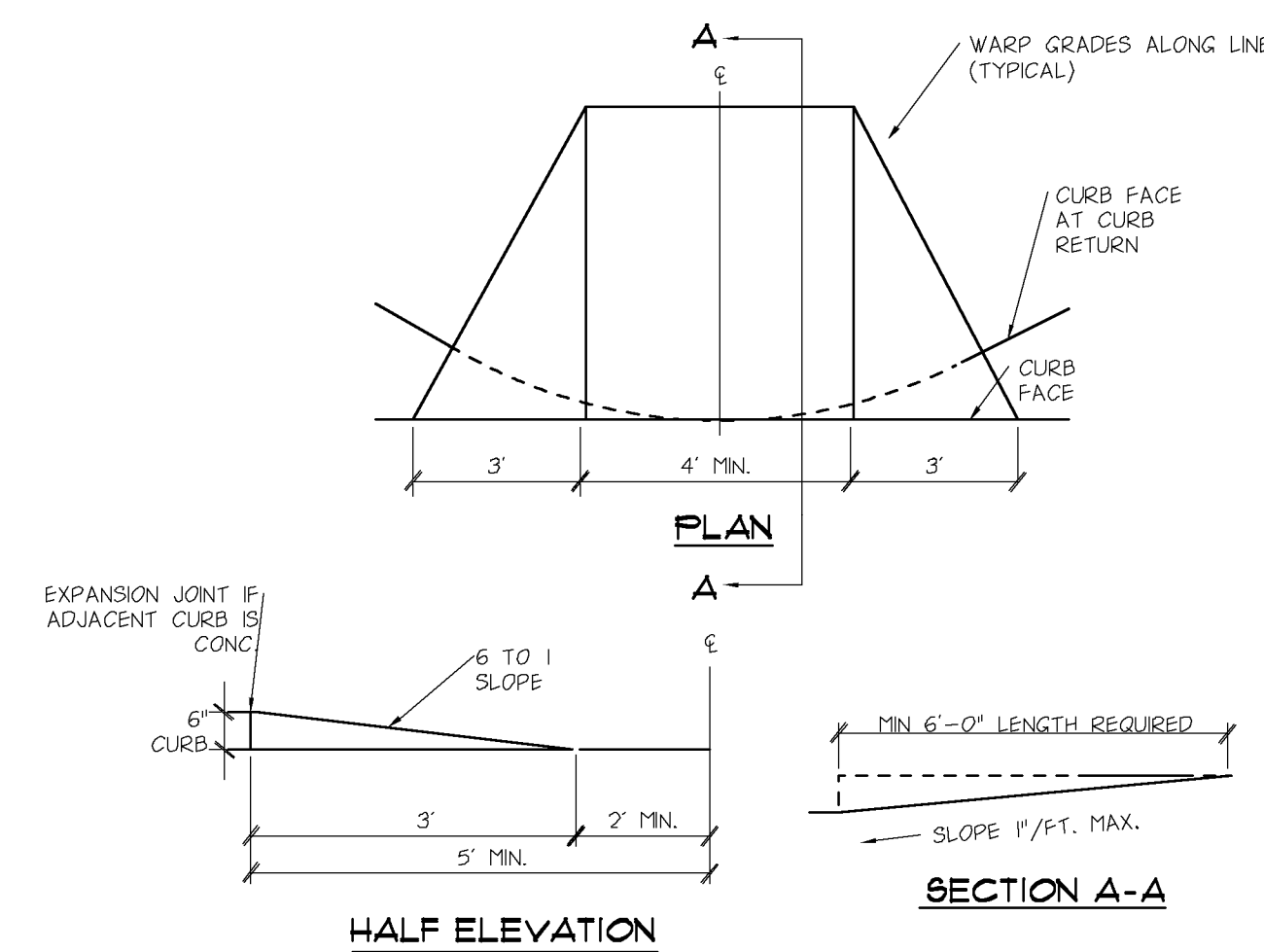
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PROTO. ISSUED	COUNTY ANOKA
REVIEWED BY EMK/CNC	CITY RAMSEY
DATE REVIEWED 11-22-2012	STREET NAME ARMSTRONG & SUNWOOD
DATE ISSUED 11-26-2012	SHEET NAME UTILITY PLAN
	NATIONAL NUMBER
	STATE NUMBER
SHEET NO. C4.1	
FILE NAME C401MC100.DWG	
PROJECT NO MCD11100	



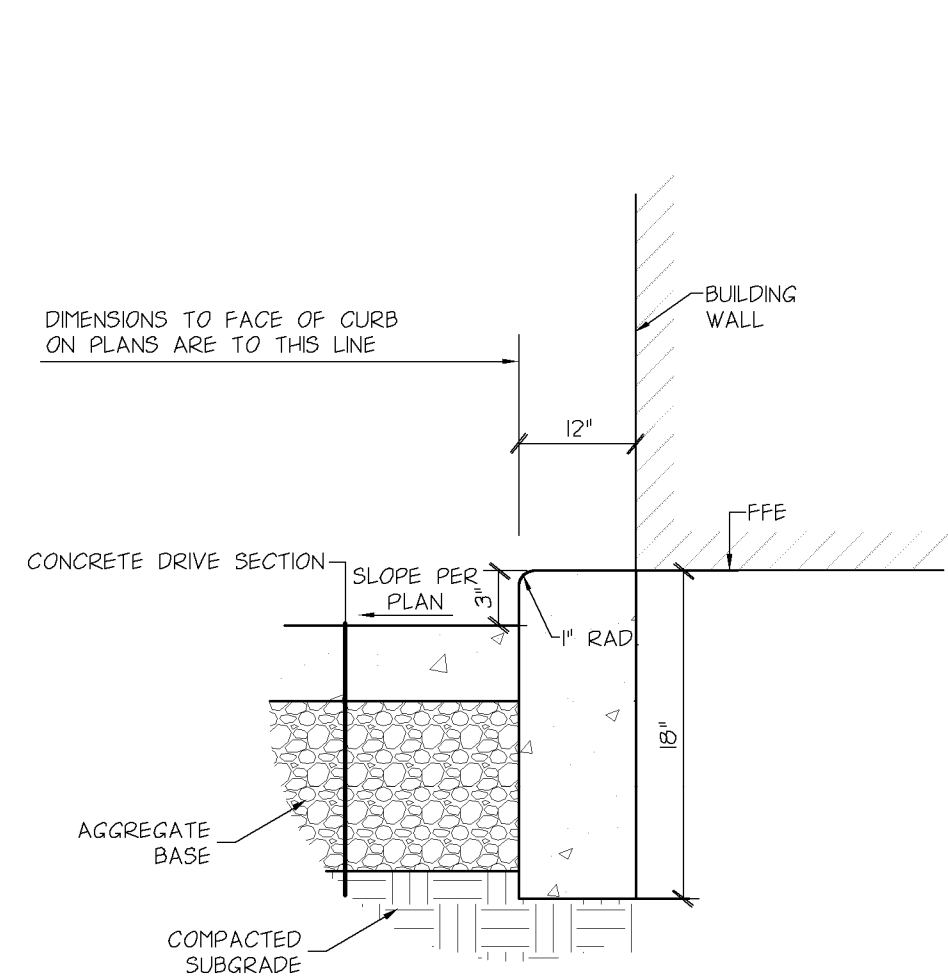
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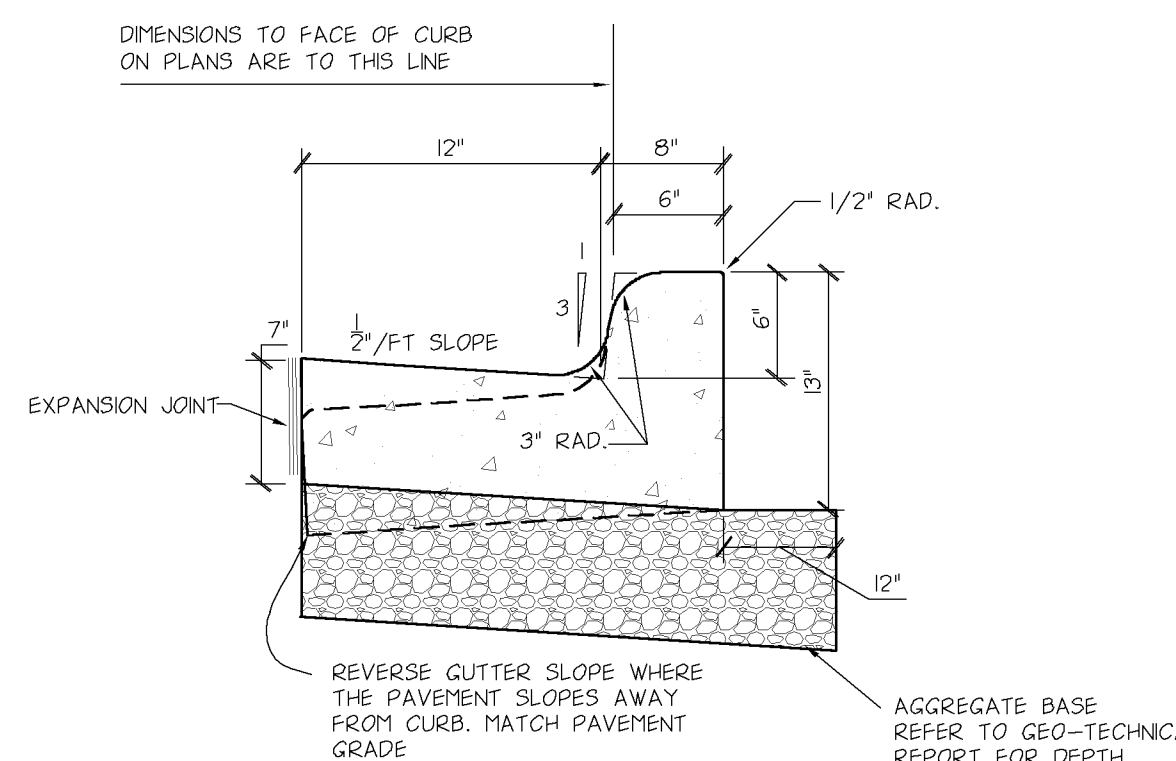
12 **ACCESSIBLE CURB RAMP - TYPE 1** NO SCALE



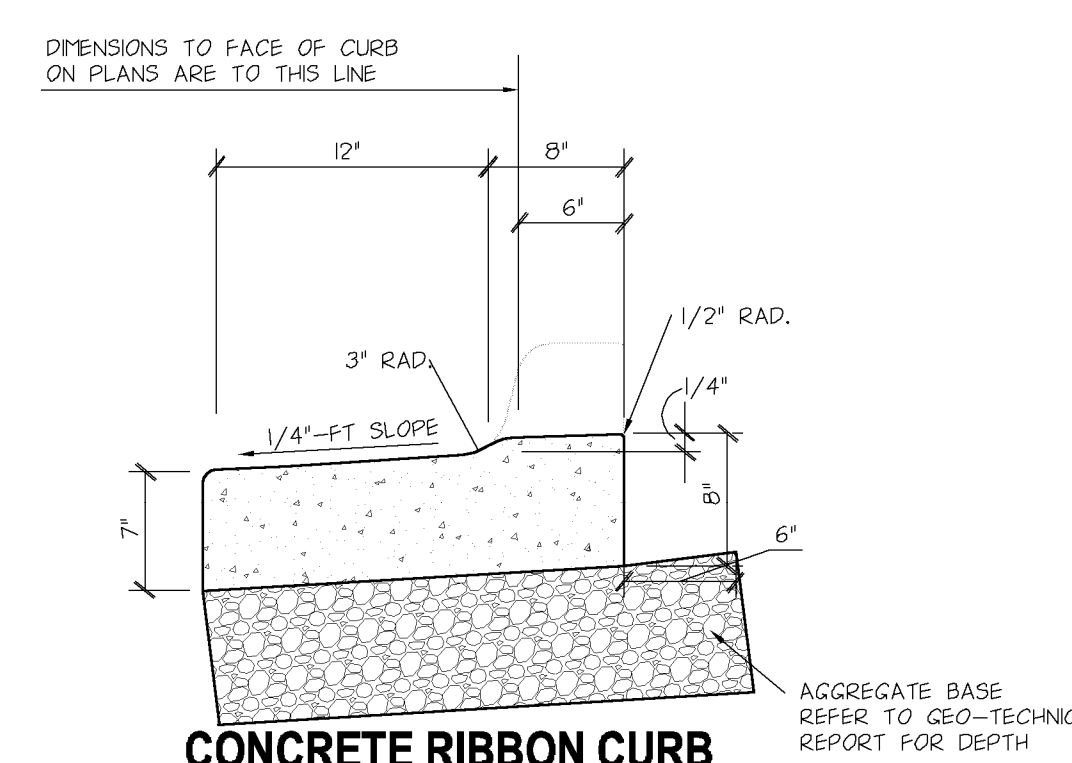
13 **ACCESSIBLE CURB RAMP - TYPE 2** NO SCALE



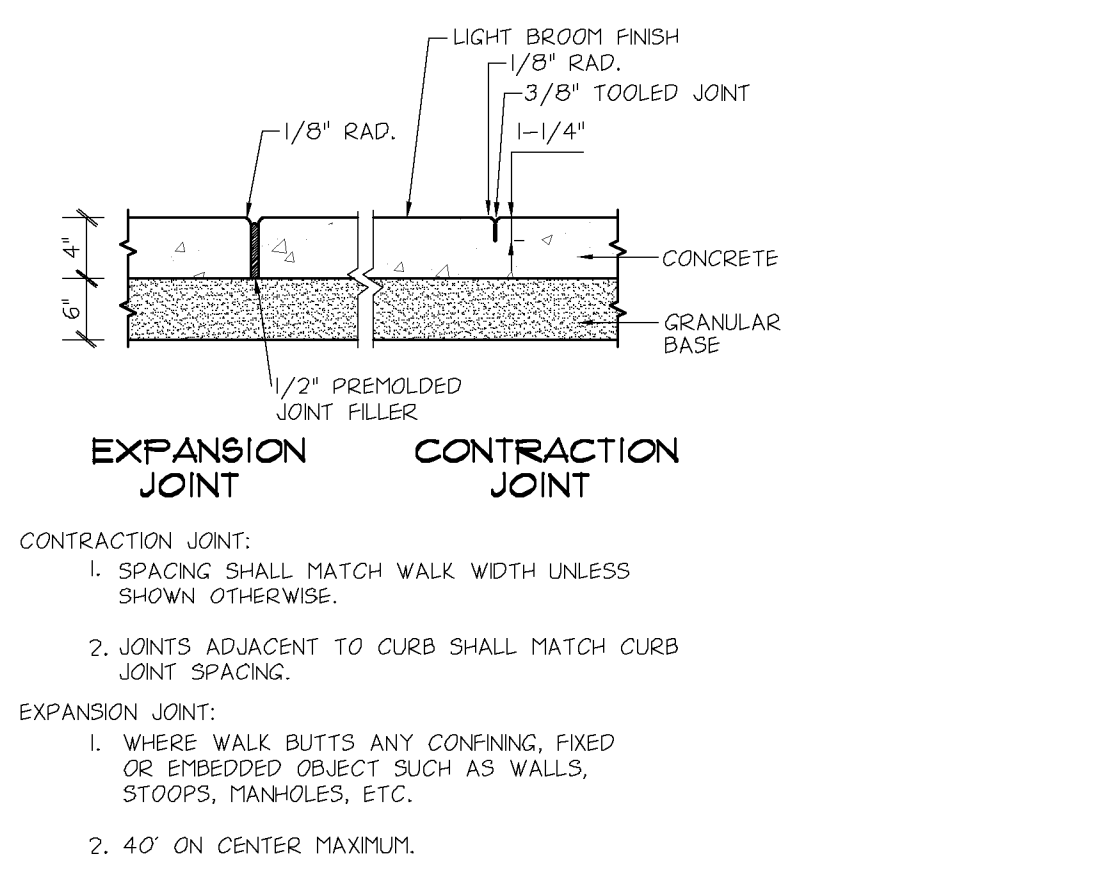
8 **3" HIGH CURB CURB AT DRIVE-THRU** NO SCALE



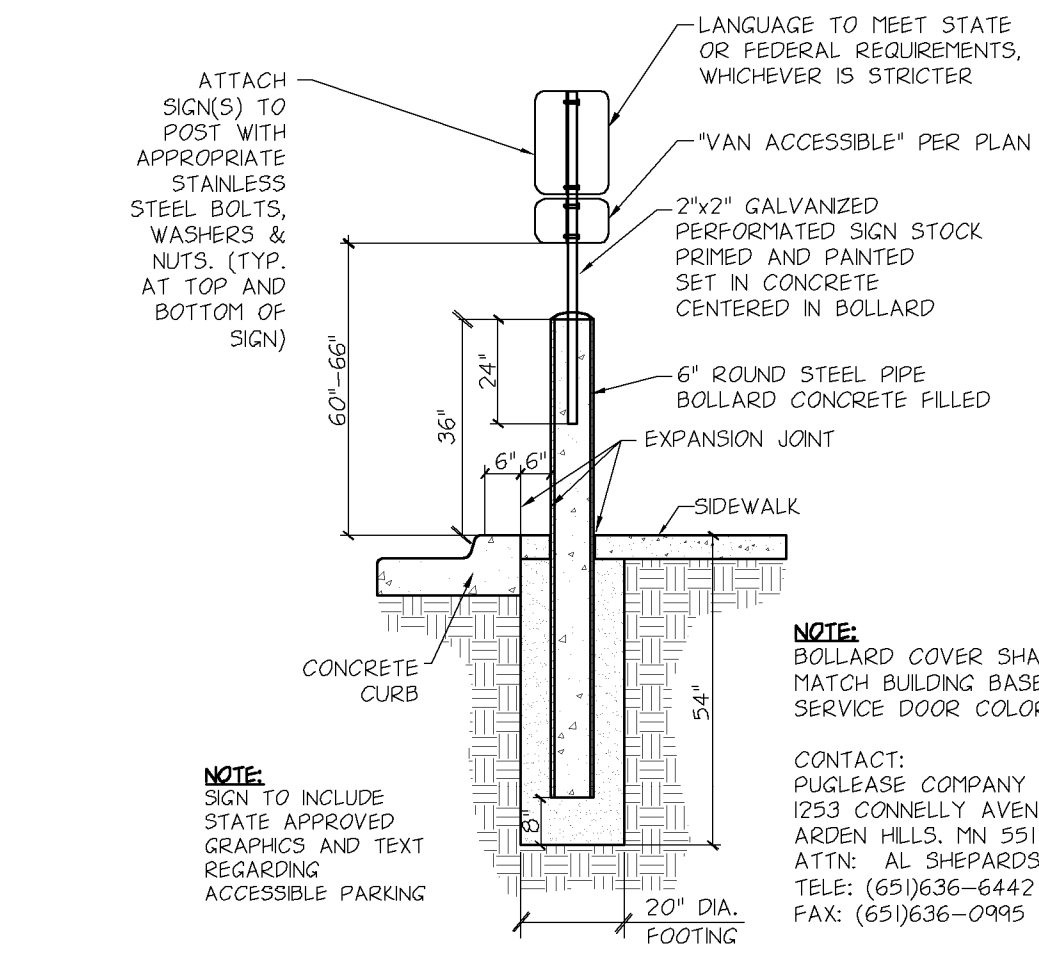
9 **6" CONCRETE CURB AND GUTTER** NO SCALE



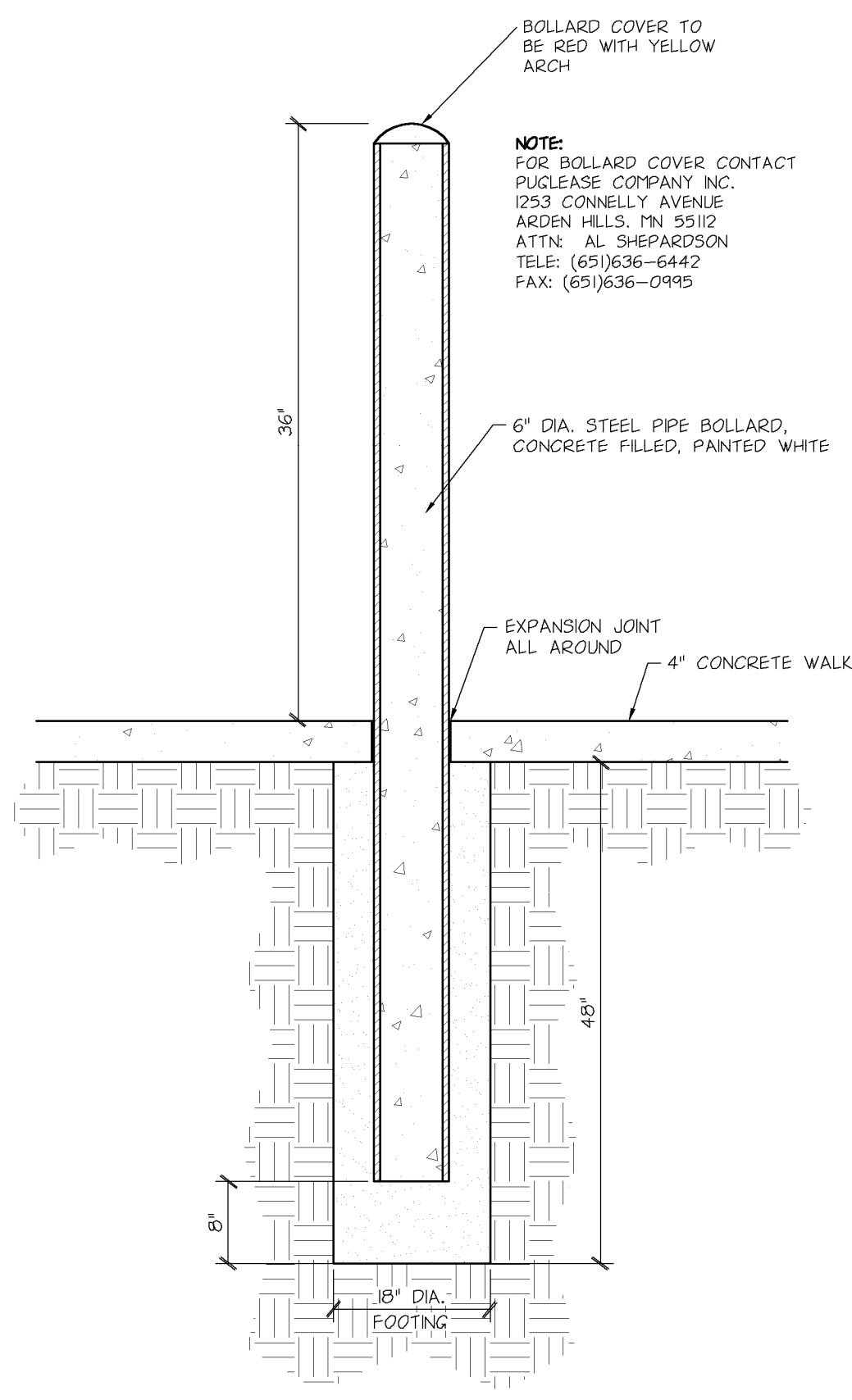
10 **CONCRETE RIBBON CURB** NO SCALE



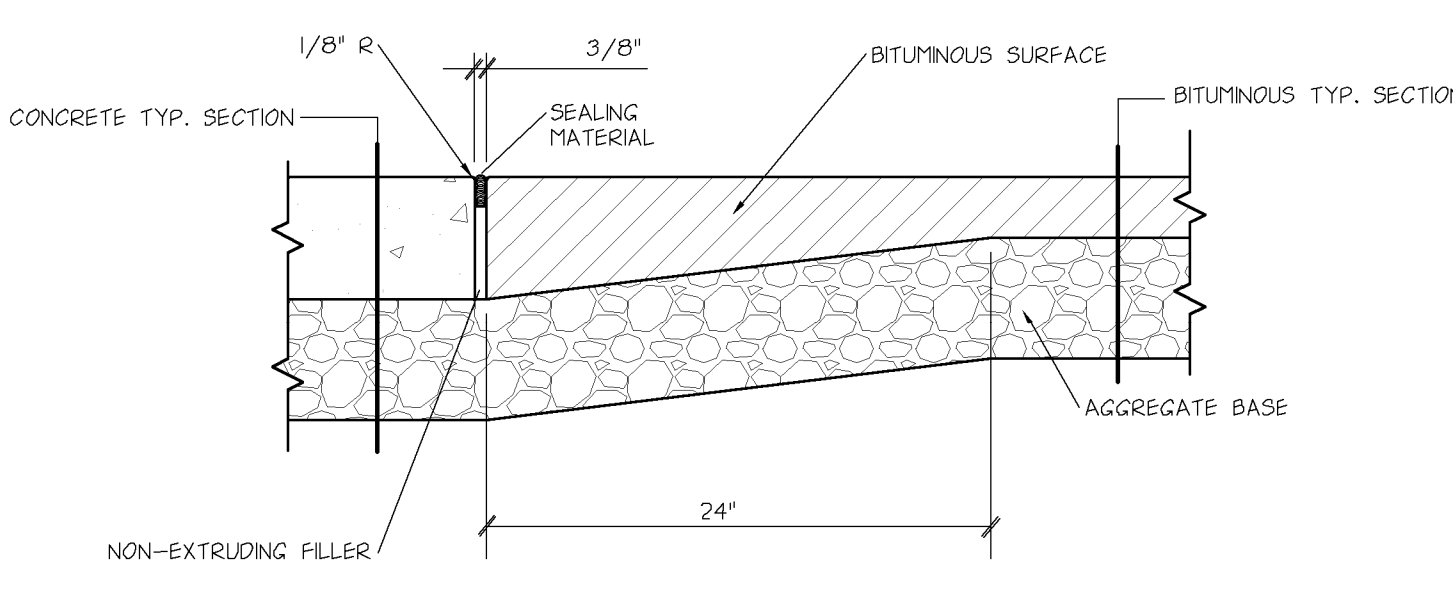
11 **CONCRETE SIDEWALK AND SIDEWALK JOINTING** NO SCALE



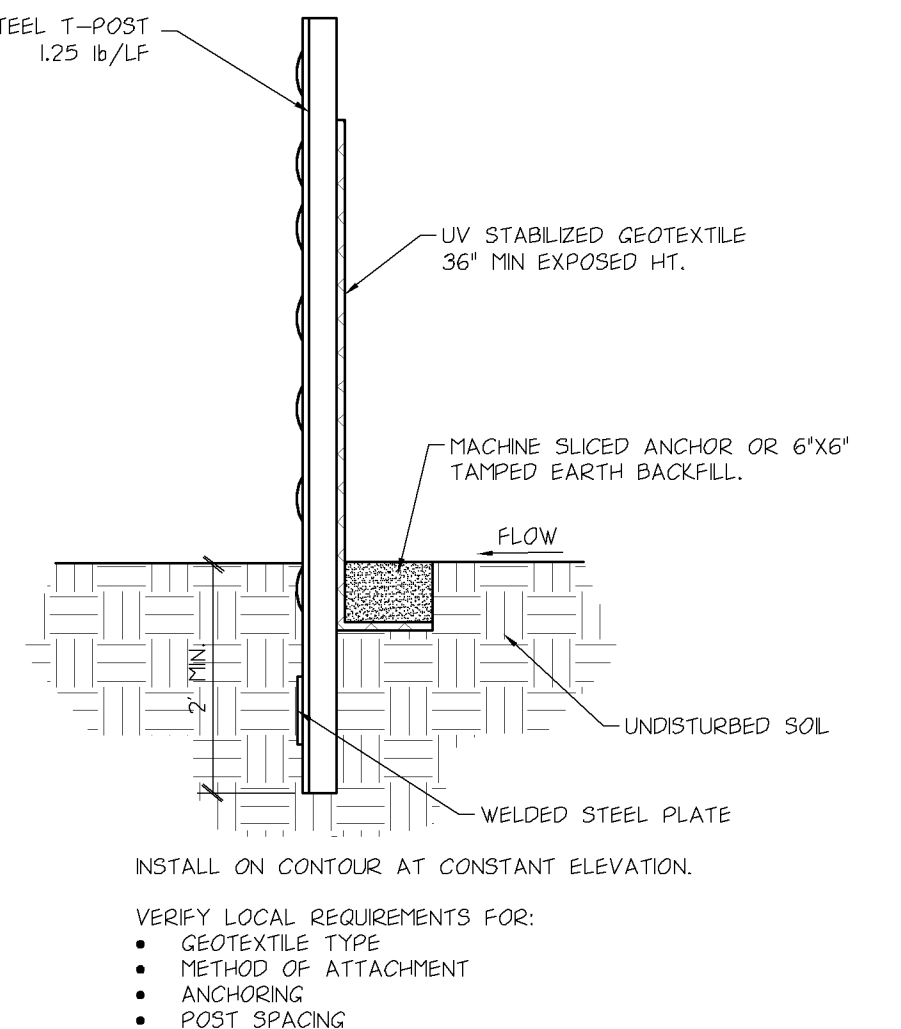
5 **ROUND BOLLARD W/ ACCESSIBLE SIGNAGE** NO SCALE



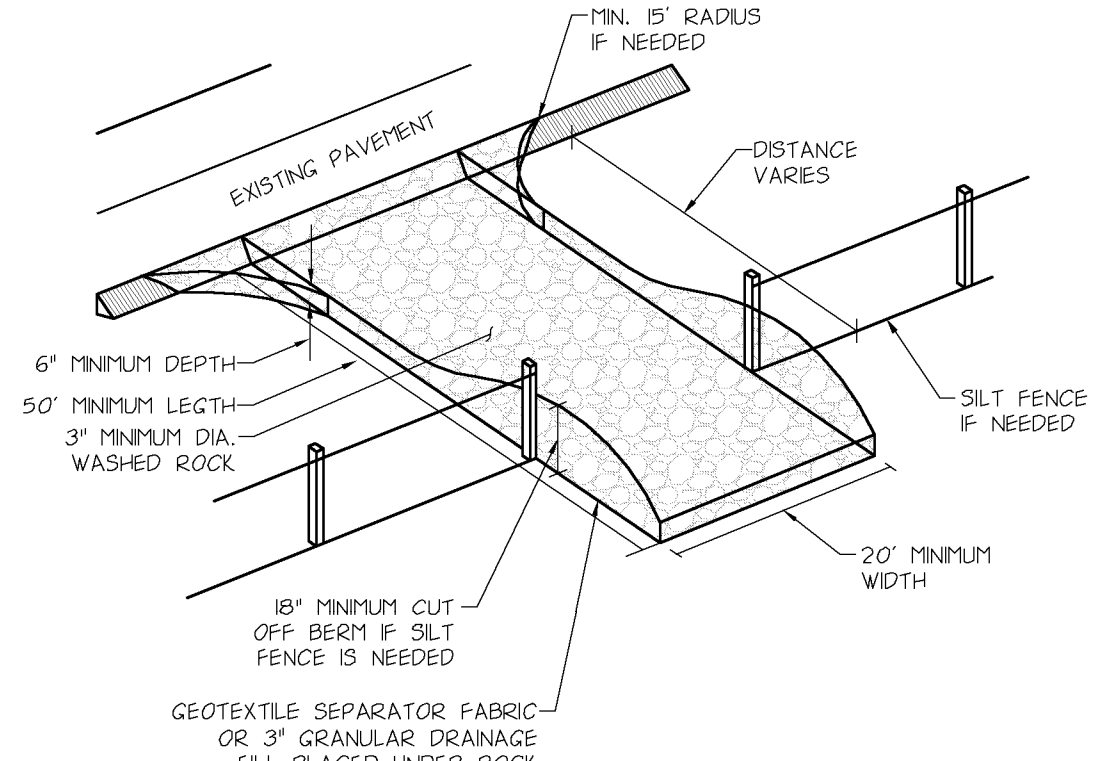
6 **ROUND PIPE BOLLARD AND COVER** NO SCALE



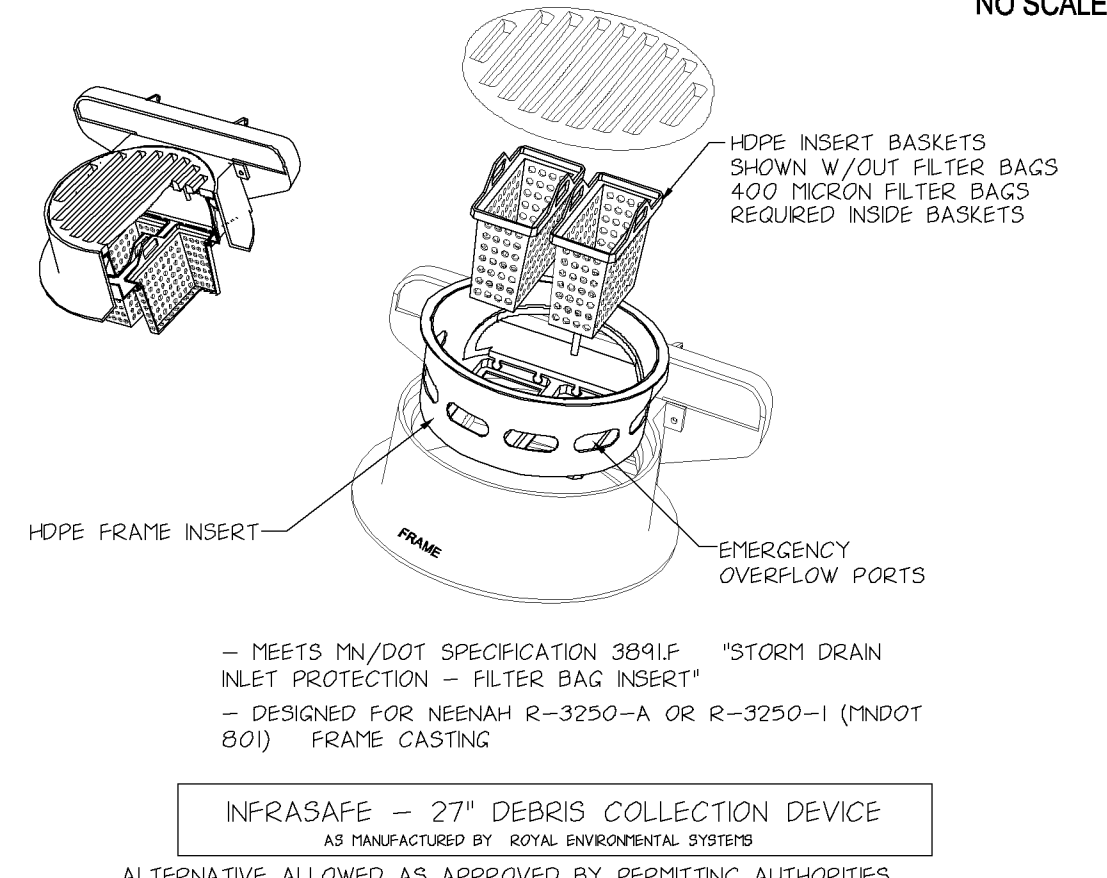
7 **THICKENED BITUMINOUS EDGE AND CONCRETE SURFACE** NO SCALE



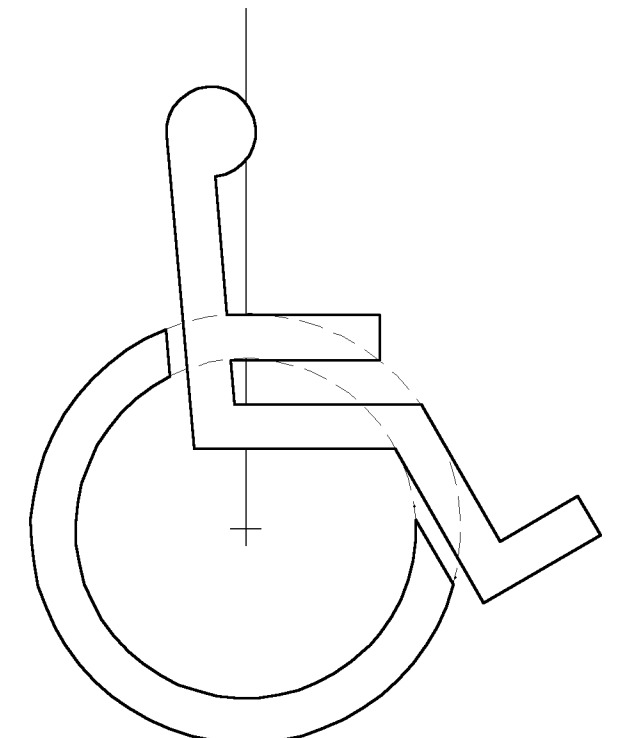
1 **SILT FENCE** NO SCALE



2 **VEHICLE TRACKING PAD** NO SCALE



3 **INLET PROTECTION** NO SCALE



4 **INTERNATIONAL SYMBOL OF ACCESSIBILITY** NO SCALE

REV	DATE	DESCRIPTION
1	11-26-2012	CITY SUBMITTAL

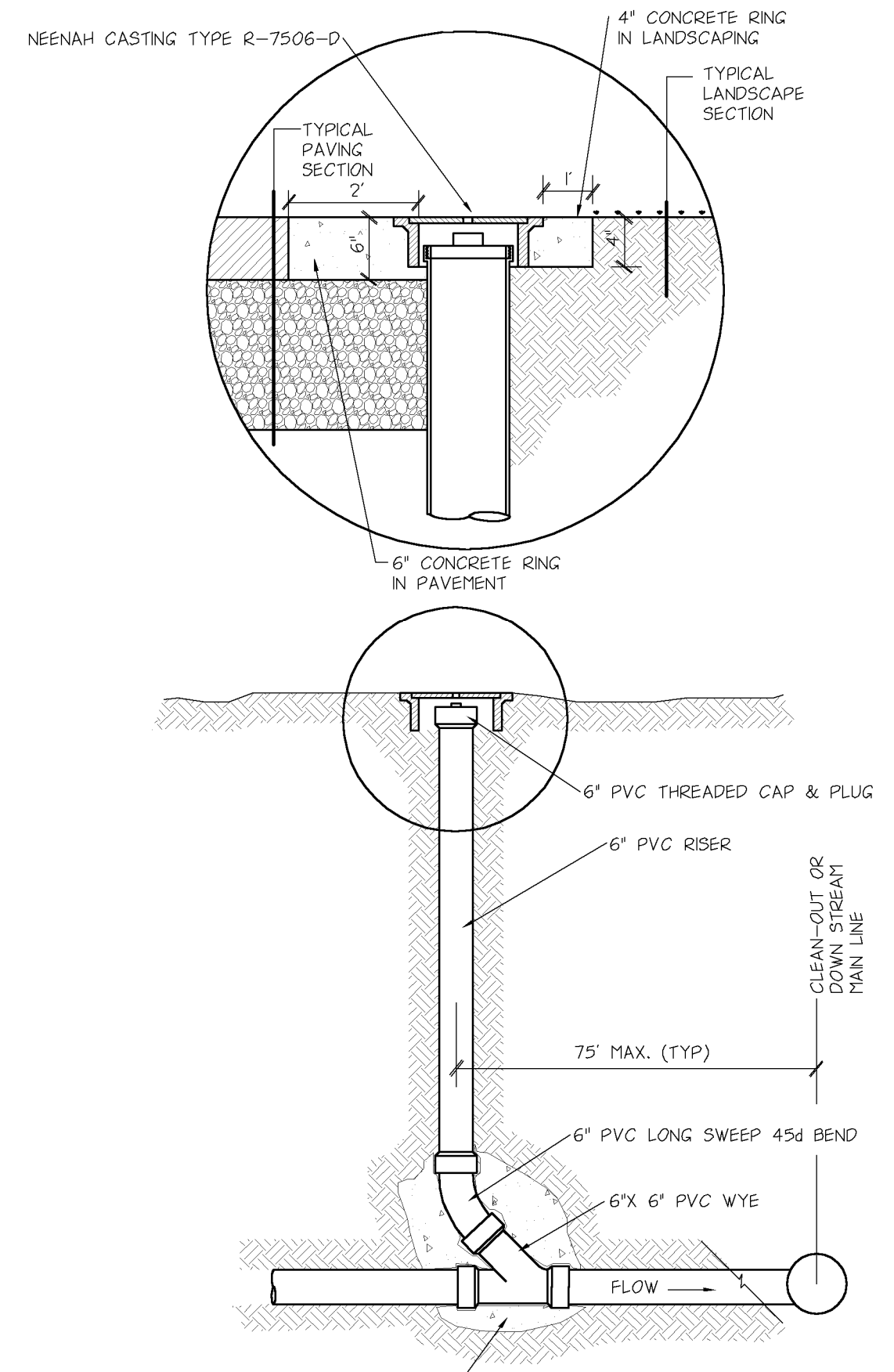
CITY	RAMSEY
STATE	MN
COUNTY	ANOKA
STREET ADDRESS	ARMSTRONG & SUNWOOD
SHEET NAME	CIVIL CONSTRUCTION DETAILS
NATIONAL NUMBER	
DATE ISSUED	11-26-2012
DATE REVIEWED	11-22-2012
REVIEWED BY	EMK/CNC
PROTO. ISSUED	
DRAWN BY	MJK/CNC

REVISION HISTORY	
DATE	
DESCRIPTION	

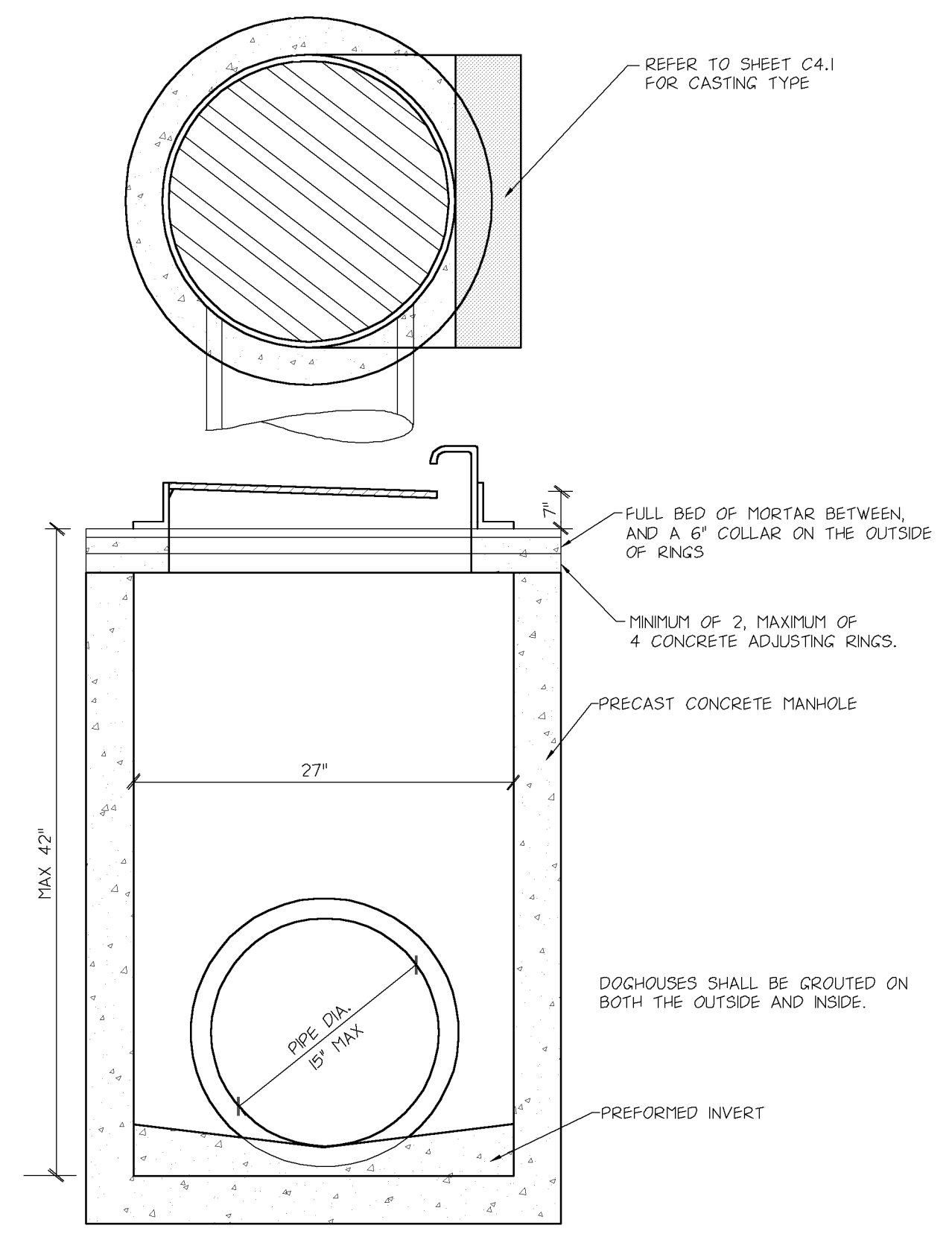
CERTIFICATION	
PROJECT NO.	C7.1
FILE NAME	C701MCD100.DWG
PROJECT NO.	MCD11100

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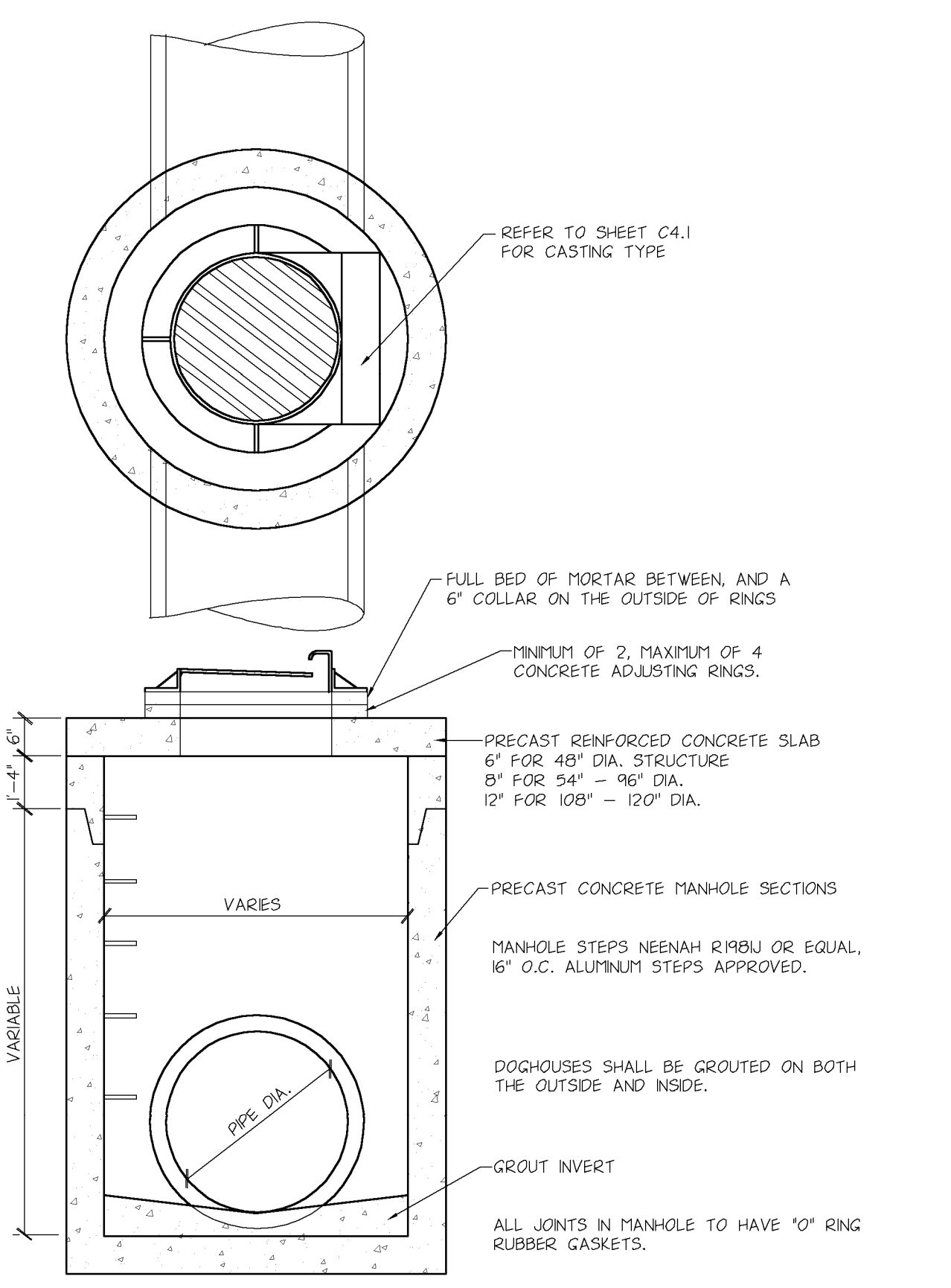
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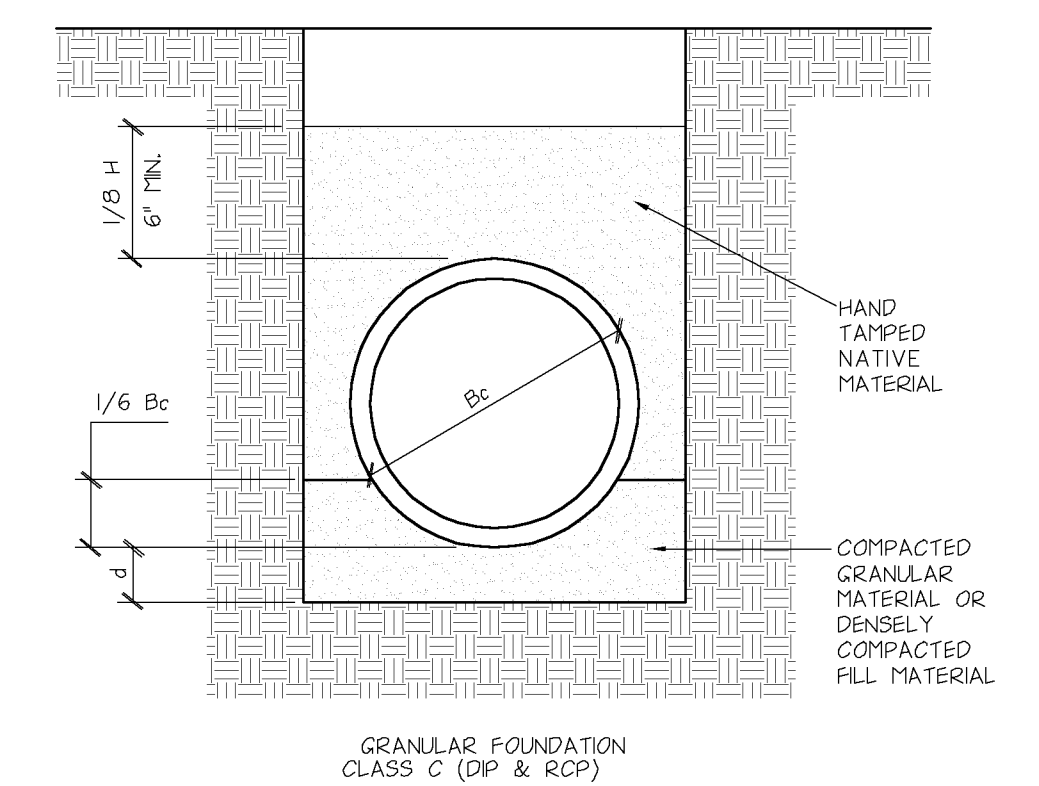
5 **CLEAN-OUT STRUCTURE** NO SCALE



3 **27" STORM SEWER CATCH BASIN** NO SCALE

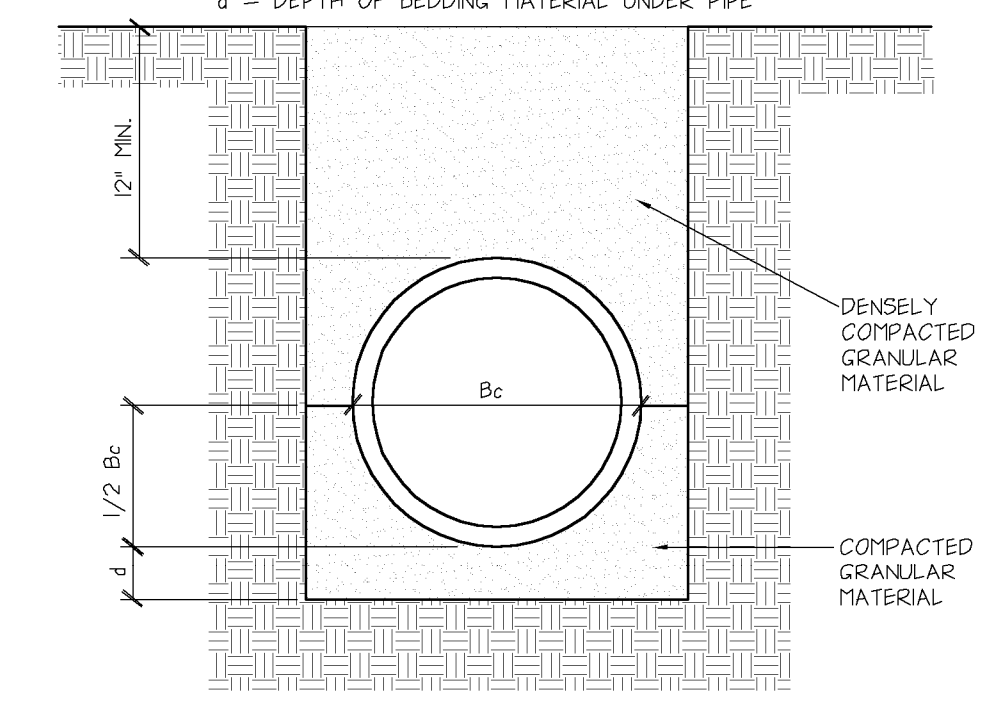


4 **STORM SEWER CATCH BASIN MANHOLE** NO SCALE



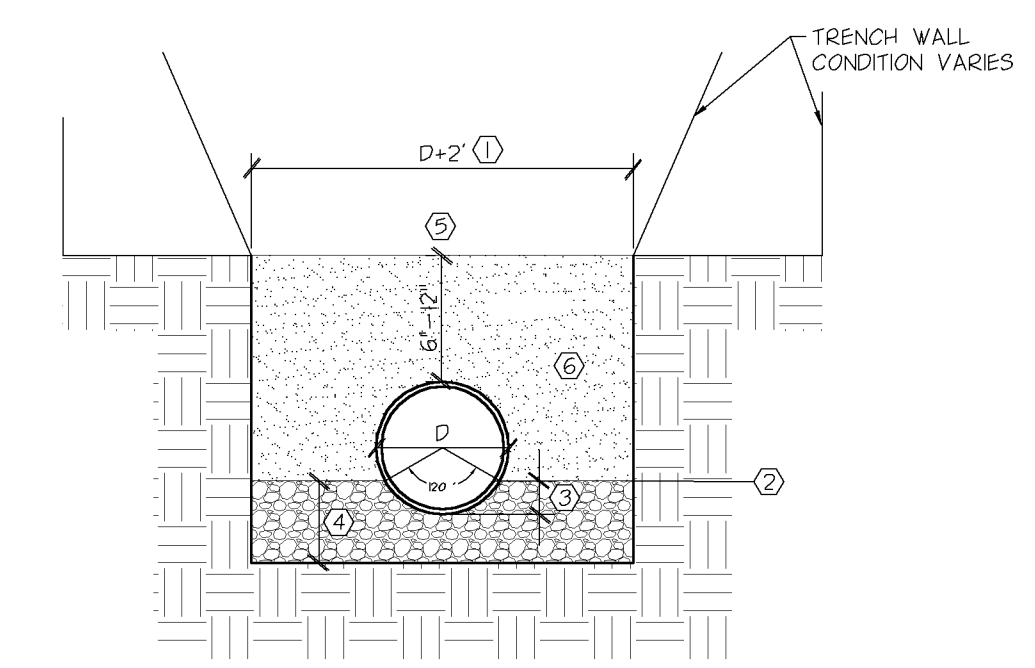
CLASS C BEDDING THE PIPE IS BEDDED IN COMPACTED GRANULAR MATERIAL, OR DENSELY COMPACTED FILL MATERIAL UP TO A HEIGHT EQUAL TO ONE-SIXTH THE OUTSIDE DIAMETER OF THE PIPE. THE DEPTH OF THE BEDDING MATERIAL BELOW THE PIPE IS A MINIMUM OF 3" FOR 27" AND SMALLER PIPE, 6" FOR 66" DIAMETER AND LARGER PIPE, AND 4" FOR INTERMEDIATE SIZES. THE REMAINING SIDEFILL AND BACKFILL MATERIAL IS COMPACTED NATIVE SOILS.

Bc = OUTSIDE DIAMETER
H = BACKFILL COVER ABOVE PIPE
d = DEPTH OF BEDDING MATERIAL UNDER PIPE



CLASS B BEDDING THE PIPE IS BEDDED IN COMPACTED GRANULAR MATERIAL PLACED UP TO A HEIGHT EQUAL TO ONE-HALF THE OUTSIDE DIAMETER OF THE PIPE. THE DEPTH OF THE GRANULAR BEDDING BELOW THE PIPE IS A MINIMUM OF 3" FOR 27" DIAMETER AND SMALLER PIPE, 6" FOR 66" DIAMETER AND LARGER PIPE, AND 4" FOR INTERMEDIATE SIZES. THE INITIAL FILL MATERIAL SHALL BE DENSELY COMPACTED GRANULAR UP TO A HEIGHT OF 12" OVER THE TOP OF THE PIPE.

1 **PIPE BEDDING** NO SCALE



- ① 2' FOR PIPE 4" OR LESS.
- ② MACHINE EXCAVATION LIMIT FOR RIGID PIPE.
- ③ HAND SHAPE BOTTOM FOR SUPPORT OF RIGID PIPE.
- ④ MACHINE EXCAVATION LIMIT FOR FLEXIBLE PIPE, GRANULAR FOUNDATION (IF REQUIRED), OR BEDDING REQUIRED FOR LOCAL CONDITIONS. DEPTH VARIES.
- ⑤ PROVIDE LOCATING/MARKING TAPE MEETING LOCAL REQUIREMENTS
- ⑥ SEE SPECIFICATIONS FOR BEDDING AND ENCASEMENT

2 **SITE UTILITY TRENCHING** NO SCALE

REV	DATE	REVISION HISTORY
	11-26-2012	CITY SUBMITTAL

CERTIFICATION
I hereby certify that the engineering document was prepared by me or under my direct personal supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
CHRISTOPHER J. ARMSTRONG
License number 46244
Date 3 DEC. 2012

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CITY	STATE	DRAWN BY	DATE ISSUED
RAMSEY	MN	MJK/CNC	11-26-2012
STREET ADDRESS	COUNTY	PROTO. ISSUED	REVIEWED BY
ARMSTRONG & GUNWOOD	ANOKA		EMK/CNC
SHEET NAME	NATIONAL NUMBER	DATE REVIEWED	DATE ISSUED
CIVIL CONSTRUCTION DETAILS	STATE NUMBER	11-22-2012	11-26-2012

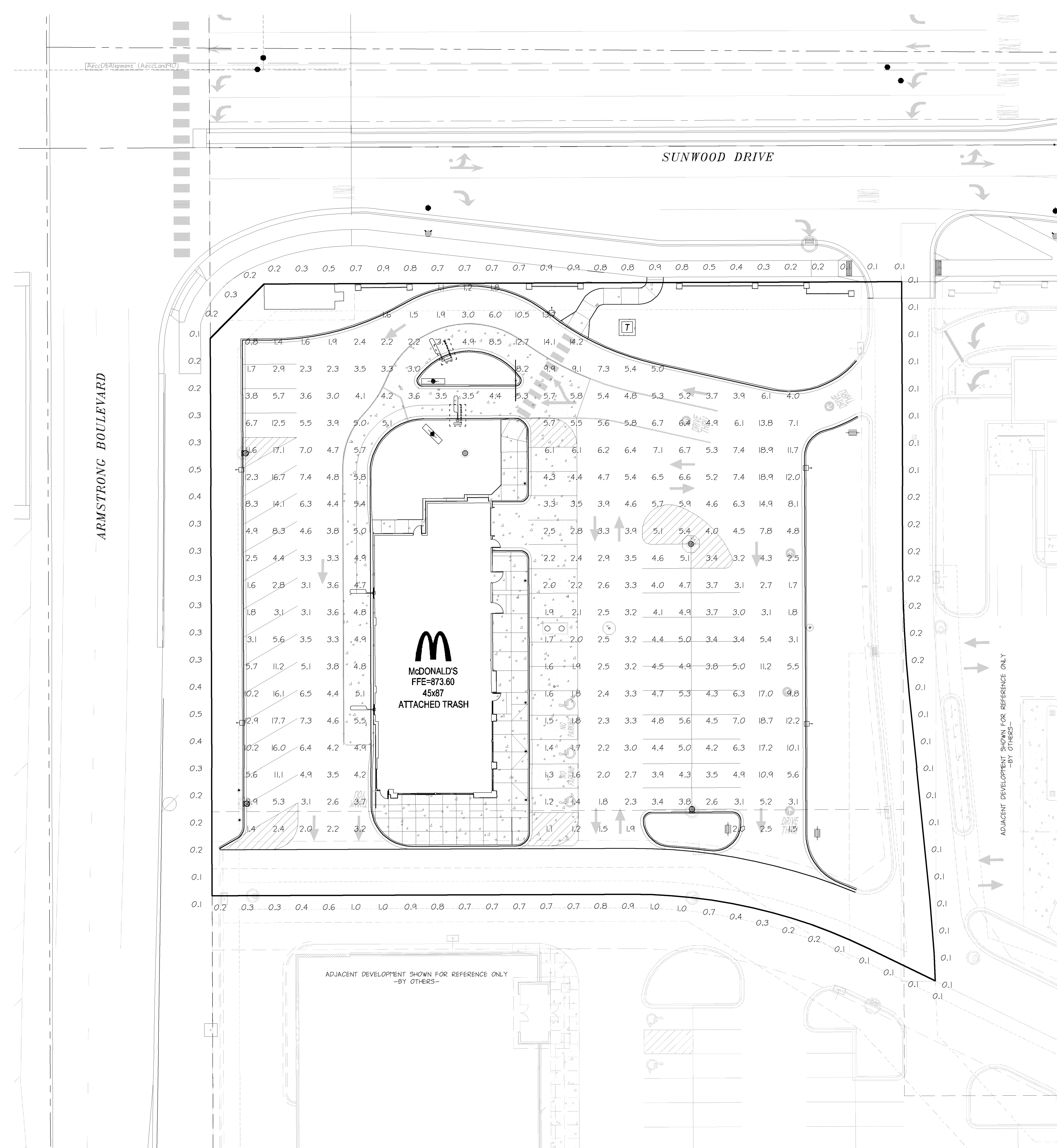
SHEET NO. **C7.2**
FILE NAME: C702MCD088.DWG
PROJECT NO: MCD11100

FIXTURE QUANTITY	CONFIG	QUANTITY	TENSION TOP BRACKETS	QUANTITY	EPA	MOUNTING HEIGHT	POLE TYPE:	QUANTITY	WIND LOAD*	ALLOWED EPA
5	SGL	5	N/A	N/A	2.54	25'	SSP-5722-GL-**-TT (5')	5	90mph	22.4

* PROJECT WIND LOAD CRITERIA BASED ON:
ASCE 7-10 WIND SPEEDS (3-SEC PEAK GUST MPH)
50 YEAR MEAN RECURRENCE INTERVAL

NOTE: ALL ASB FIXTURES TO BE INSTALLED TILTED AT A 30 DEGREE ANGLE UNLESS OTHERWISE SPECIFIED.

THIS LIGHTING PATTERN REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRES MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS.



PAVED SURFACE READINGS

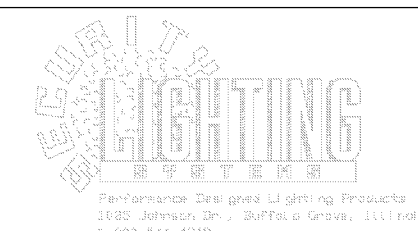
Average	5.1
Maximum	18.9
Minimum	0.8
Avg:Min	6.42
Max:Min	23.63

PROPERTY LINE READINGS

Average	0.4
Maximum	1.0
Minimum	0.1
Avg:Min	3.70
Max:Min	10.00

- NOTES:
1. THE FOOTCANDLE LEVELS AS SHOWN ARE BASED ON THE FOLLOWING CRITERIA. ANY SUBSTITUTIONS IN SPECIFIED FIXTURES OR CHANGES TO LAYOUT WILL AFFECT LIGHTING LEVELS SHOWN AND WILL NOT BE THE RESPONSIBILITY OF SECURITY LIGHTING.
 2. THE CONTRIBUTION OF THE SOFFIT / BUILDING LIGHTING IS NOT REFLECTED ON THE DRAWING UNLESS SOFFIT / BUILDING LIGHTING IS SPECIFIED IN THE FIXTURE SCHEDULE BELOW.
 3. DISTANCE BETWEEN READINGS 10'
 4. FINAL ADJUSTMENTS TO AIMING ANGLE/DIRECTION OF FIXTURES MAY BE REQUIRED TO ELIMINATE LIGHT TRESPASS OR GLARE INTO ADJACENT PROPERTIES OR ROADWAYS.
 5. FOOTCANDLE LEVELS SHOWN ARE MAINTAINED. MAINTENANCE FACTOR USED ON THIS DRAWING IS 0.75

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES			
SCALE	1" = 20' 0"	DATE	11/20/12
DRAWN BY	MW	NEXT ASSEMBLY	REF. DRWG.
CHECKED BY			
APPROVED BY		FINISH	
APPROVED BY			
SHEP ORDER		MATERIAL	
PROJECT NO.			



POINT-BY-POINT FOOTCANDLE PLOT FOR
McDONALD'S
ARMSTRONG & SUNWOOD
RAMSEY, MN

DRAWING NUMBER
1PCP26752

REV	DATE	DESCRIPTION
	11-26-2012	CITY SUBMITTAL

CERTIFICATION

McDONALD'S USA, LLC.

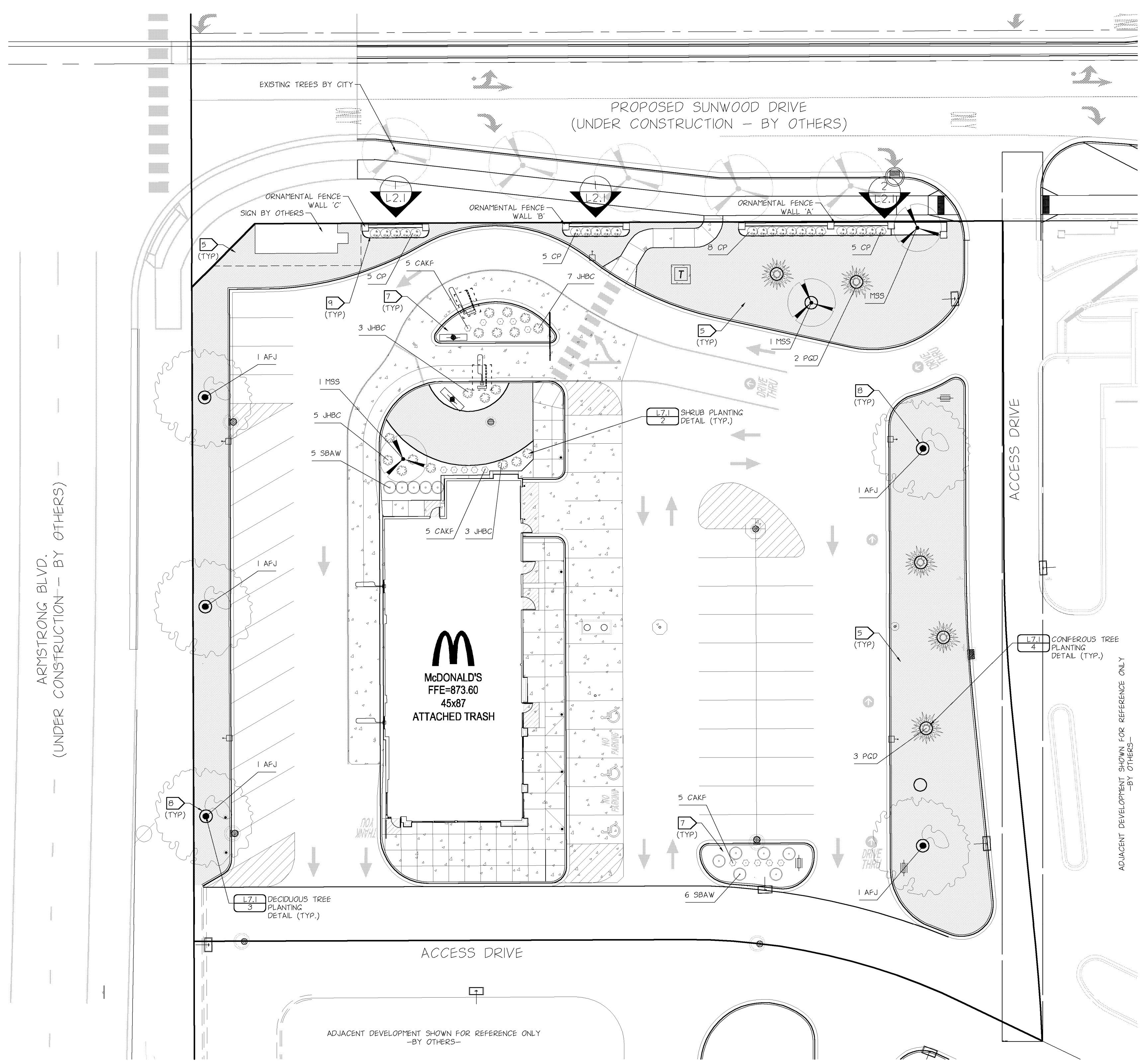
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1620 W. 52ND STREET

DRAWN BY	MW/CNC	STATE	MN
PHOTO ISSUED		COUNTY	ANOKA
REVIEWED BY	EMK/CNC	CITY	RAMSEY
DATE REVIEWED	11-22-2012	STREET NAME	ARMSTRONG & SUNWOOD
DATE ISSUED	11-26-2012	SITE PHOTO METRICS	
		NATIONAL NUMBER	
		STATE NUMBER	

SHEET NO. EP2.1

FILE NAME: EP201MC100.DWG
PROJECT NO: MCD11100



- ### IRRIGATION NOTES
- REVIEW AND COORDINATE WITH EXISTING SUNWOOD IRRIGATION SYSTEM. PRIMARY SYSTEM IMPROVEMENTS INCLUDE 2" IRRIGATION MANLINE AND ZONE WIRES ALONG NORTH SIDE OF SUNWOOD DRIVE. SYSTEM HAS TWO WATER CONNECTIONS THAT SUPPLY THE IRRIGATION MANLINE AND ARE INTERCONNECTED. TWO CONTROLLERS ON EACH END CONTROL THE WEST AND EAST HALF, RESPECTIVELY. THE CONTROLLER ON THE WEST END IS TO BE RELOCATED TO THE LOCATION SHOWN ON THE PLAN. WIRES ALONG MANLINE ARE 48 ZONE AND 2 COMMON. THEY ARE TO BE CUT AT THE LOCATIONS SHOWN ON THE PLAN AND RECONNECTED TO THE RELOCATED CONTROLLER OR THE NEW CONTROLLER AS INDICATED ON THE PLAN.
 - RCT REMOTE CONTROL TO BE REMOTE CONTROL TECHNOLOGY. PROVIDE 1-TRC COMMANDER TRANSMITTER (WITH CASE), MODEL #0035 (0591 CASE). PROVIDE 2-PERMANENT RECEIVER CARDS FOR RAN BRD ESP MC (FOR 40 STATION), MODEL #0100. INSTALL PERMANENT RECEIVER CARDS INTO EXISTING RAN BRD ESP-MC CONTROLLERS.
 - RAN BRD ROOT WATERING SYSTEM IS TO BE INSTALLED NEAR THE ROOTBALL OF THE TREE. THE ROOT WATERING SYSTEM IS TO INCLUDE THE BASIC ROOT WATERING SYSTEM WITH 12" SWING ARM, GRATE, SAND SOCK, AND MODIFICATION OF THE BUBBLER TO DRIP. MODIFICATION OF BUBBLER INCLUDES: REMOVING BUBBLER, RETROFIT A DRIP CONVERSION, MICRO VALVES (CONTROL WATER), MICRO TUBING, AND DRIP EMITTERS. DRIP EMITTERS TO WATER ROOTBALL OF TREE. PLACE THREE DRIP EMITTERS IN TRIANGULAR SPACING. DRIP EMITTER FLOW TO BE GREATER THAN DRIPLINE AND IDENTIFIED AND APPROVED IN THE FIELD. INTENT OF SYSTEM IS TO PROVIDE WATER CONTROL OF THE TREE SEPARATE FROM THE DRIPLINE, WITH THE ABILITY TO SHUT OFF TREE EMITTERS WITHOUT IMPACTING DRIPLINE OPERATION. THE BASIC ROOT WATERING SYSTEM AND GRATE IS TO SERVE AS AN AIR RELIEF PIPE, THAT WILL ALLOW OBSERVATION OF THE WATER TABLE WITHIN THE PLANTING BED.
 - PROVIDE AND INSTALL OPERATION INDICATOR AT END OF ZONE, TO ILLUSTRATE IF ZONE IS OPERATIONAL. DEVICE TO BE A POP-UP MODEL FOR DRP ZONES, APPROVED BY IRRIGATION DESIGNER, AND SHALL NOT EJECT WATER. LOCATE WITHIN PLANTING BEDS TO MINIMIZE VISIBILITY.
 - IRRIGATION SYSTEM IS DIAGRAMMATIC. CONTRACTOR TO VERIFY AND DESIGN PER ACTUAL PRESSURE, PER LOCAL CODES, AND PER SITE REQUIREMENTS. FIELD VERIFY LOCATION OF COMPONENTS WITH ACTUAL CONDITIONS PRIOR TO INSTALLATION. ADJUST AS NEEDED FOR COMPLETE COVERAGE. SYSTEM TO INCLUDE ALL PLUMBING AND ELECTRICAL, INCLUDING CONDUIT, SLEEVING, AND WEATHER-PROOF ENCLOSURES. SYSTEM SHALL BE COMPLETE. CONTRACTOR TO PROVIDE SHOP DRAWINGS, DESIGN PRESSURE DESIGN CALCULATIONS, AND RELATED PRODUCT SHEETS FOR OWNER OR LANDSCAPE ARCHITECT APPROVAL. CONTRACTOR TO PROVIDE TWO "AS-BUILT" DRAWINGS OF IRRIGATION SYSTEM AT THE COMPLETION OF THE PROJECT. IRRIGATION PER PLANS ARE PART OF A LARGER SYSTEM. SEE PLANS FOR FURTHER INFORMATION. COORDINATE AND MOOIFY IRRIGATION AS NEEDED TO INTEGRATE INTO PRIMARY SYSTEM.
 - ALL PIPE 1.5" OR GREATER SHALL BE SDR 26 CLASS 200 FOR MANLINE AND CLASS 160 FOR LATERAL LINE PVC PIPE (DO NOT EXCEED 35 GPM FOR 1.5" AND 50 GPM FOR 2"). ALL PIPE 1.25" OR 1" SHALL BE 100 POLY PIPE AS INDICATED (DO NOT EXCEED 13 GPM FOR 1" AND 22 GPM FOR 1.25"). PIPE SIZE TO BE IDENTIFIED BY CONTRACTOR PER ZONE REQUIREMENTS. LOCATE IRRIGATION AWAY FROM PLANT MATERIAL.
 - ALL WIRING, BACKFLOW PREVENTOR, AND PLUMBING AS PER LOCAL CODE. WATER CONNECTION BY MECHANICAL AND UTILITY CONTRACTOR. VERIFY AND ADD BOOSTER PUMP AS REQUIRED.
 - ALL VALVES AND QUICK COUPLERS SHALL BE LOCATED IN VALVE BOXES SIZED FOR NORMAL MAINTENANCE, FLUSH WITH FINAL GRADE. PROVIDE (2) QUICK COUPLER KEYS AND HOSE SWIVELS.
 - THE IRRIGATION SYSTEM SHALL BE INSTALLED AS PER MANUFACTURER'S SPECIFICATION.
 - FIRST YEAR WINTERIZATION AND SPRING START UP OF SYSTEM SHALL BE PERFORMED BY IRRIGATION CONTRACTOR.
 - MINIMUM 4" PVC SCHEDULE 40 SLEEVING SHALL BE REQUIRED UNDER ALL WALKS AND ROADWAYS. PROVIDE 12" LENGTH OF #3 REBAR AT EACH TEMPORARILY SEALED END FOR FUTURE LOCATION. EXTEND SLEEVING AT LEAST 2 FEET BEYOND EDGE OF PAVEMENT. PROVIDE PVC STAND PIPE FOR LOCATING ENDS OF SLEEVING. PROVIDE TWO SIZES LARGER THAN PIPE SIZE. PROVIDE ADDITIONAL SLEEVING FOR WIRING, AS NEEDED.
 - BIDDING CONTRACTORS SHOULD BECOME THOROUGHLY FAMILIAR WITH ALL FACETS OF THE PROPOSED IRRIGATION SYSTEM. FAILURE TO CLARIFY MISUNDERSTANDINGS, OR INTENT OF THESE DRAWINGS AND SPECIFICATIONS BEFORE SUBMITTAL OF BID SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
 - THE IRRIGATION CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES AND SHALL TAKE PROPER PRECAUTIONS NOT TO DAMAGE OR DISTURB UTILITIES OR EXISTING CONDITIONS. CONTRACTOR SHALL REPAIR/RESTORE ANY DAMAGE INVOLVING IRRIGATION INSTALLATION.

- ### IRRIGATION NOTES
- INSTALL RAN SENSOR(S) ON EXTERIOR WEATHER EXPOSED VERTICAL SURFACE(S). COORDINATE WITH OWNER'S AUTHORIZED REPRESENTATIVE AS TO FINAL LOCATION.
 - ALL LANDSCAPED AREAS SHALL BE IRRIGATED AND THE IRRIGATION SYSTEM SHALL INCLUDE RAN SENSORS AND A BACKFLOW PREVENTER DEVICE.
 - CONTROL WIRE WILL BE SOLID COPPER WIRE U.L. APPROVED FOR DIRECT BURIAL IN GROUND. MINIMUM GAUGE: MINIMUM #14 U.P. COMMON GROUND WIRE SHALL BE MINIMUM #12 GAUGE WHITE. PROVIDE TWO EXTRA CIRCUIT WIRES AND ONE EXTRA COMMON GROUND WIRE FOR ENTIRE MANLINE LENGTH, MARK AS APPROPRIATE. PROVIDE ONE YELLOW #16 GAUGE TRACER WIRE FOR ALL LATERAL LINES. WIRE IS TO BE CONTINUOUS AND SPLICED ONLY IN VALVE BOXES.
 - 24 VAC WIRE SPLICING MATERIAL WILL BE DIRECT BURIAL SPLICE KIT AS MANUFACTURED BY 3M.
 - SOME AREAS MAY REQUIRE RISER EXTENSIONS FOR SPRINKLERS OR A FIXED RISER WITH A SHRUB HEAD OR SHRUB ADAPTOR TO OBTAIN PROPER COVERAGE. LARGE ROTOR NOZZLES = #4-FULL, #3-3/4, #2-1/2, #1-1/4. SMALL ROTOR NOZZLES = #3-FULL, #2-3/4, #1-1/2, #0.75-1/4. ADJUST AS NEEDED. SPRAY HEADS IN TURF AREAS TO BE 6" POP-UPS AND IN LANDSCAPE BEDS TO BE 12" POP-UPS.
 - FINAL LOCATION OF WATER SOURCE SET UP TO BE APPROVED BY OWNERS REPRESENTATIVE.
 - COORDINATE INSTALLATION OF IRRIGATION SYSTEM WITH OTHER IMPROVEMENTS.
 - ALL DRIP VALVES, FILTERS, AND PRESSURE REGULATORS SHALL BE IN A VALVE BOX. DRIP LINE SHALL BE LOOPED WITH CROSS CONNECTORS (25" MAXIMUM SPACING), NO DEAD ENDS. LOCATE PER PLANT MATERIAL. PLACE EMITTERS AT EACH PLANT AND ON EACH SIDE IN SLOPED CONDITIONS. USE BLANK TUBING IN SLEEVES OR IN AREAS WHERE THERE IS NO PLANT MATERIAL. PLACE AIR RELIEF VALVES AT HIGH POINT AND FLUSH VALVES AT ENDS OF ZONE. PROVIDE 3/4" VALVE FOR DRIP ZONES OF 13 GPM OR LESS, USE 1" VALVE FOR DRIP ZONES GREATER THAN 13 GPM. EACH DRIP ZONE SHALL HAVE AN OPERATION INDICATOR, LOCATED WITHIN THE PLANT MATERIAL FOR FILTERED VISIBILITY. VERIFY LOCATION WITH OWNER.
 - PROVIDE 1" VALVES FOR SPRAY AND ROTAR ZONES FOR 25 GPM OR LESS, AND 1.5" VALVE FOR ZONES GREATER THAN 26 GPM.
 - CONTRACTOR TO SCHEDULE AND PROGRAM CONTROLLER AND VALVES FOR APPROPRIATE LANDSCAPE WATER REQUIREMENTS. VERIFY WITH OWNER AS TO TIME AND SPECIFIC REQUIREMENTS.

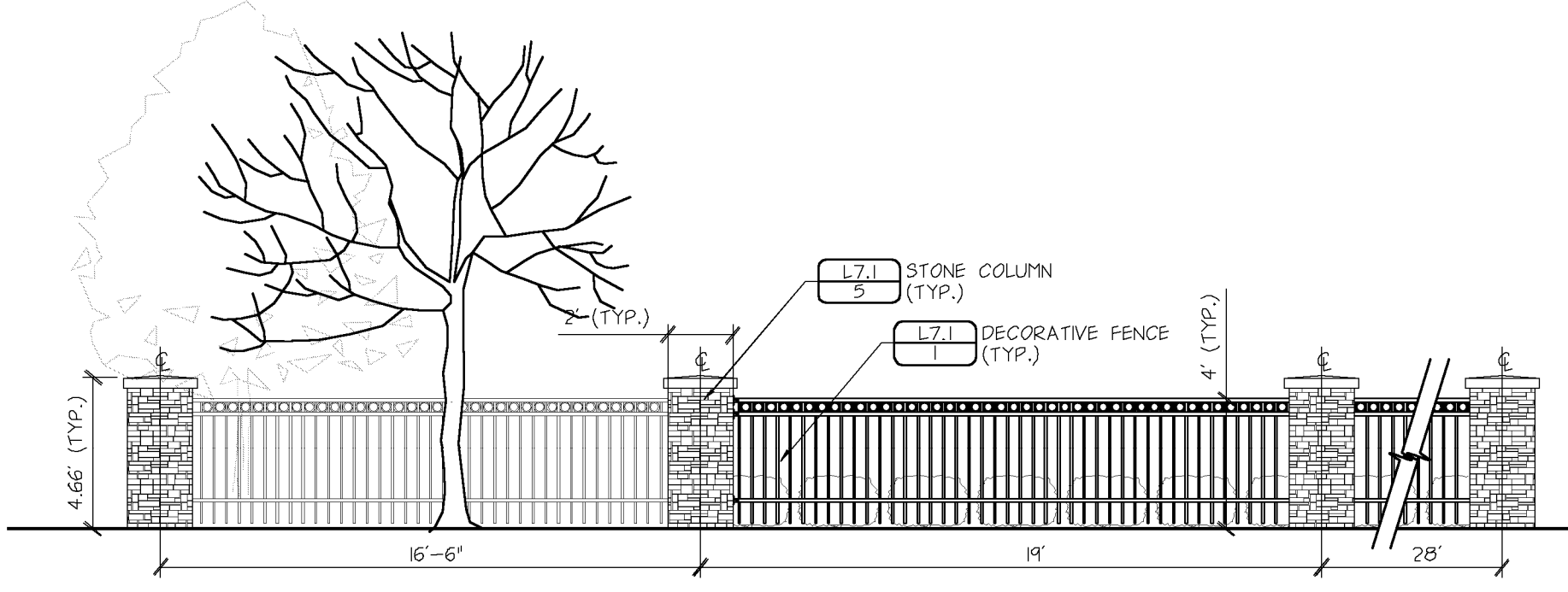
STREETSCAPE SCREENING

REQUIRED SCREENING: 40% OF TOTAL STREET FRONTAGE
TOTAL STREET FRONTAGE AT SUNWOOD BLVD. = 255.5 LF

REQUIRED SCREENING:
TOTAL FRONTAGE AT SUNWOOD * 40% (255.50*40) = 102.2 LF.

PROVIDED SCREENING LOT 5:

SCREEN WALL 'A'	65.5 LF.
SCREEN WALL 'B'	21.0 LF.
SCREEN WALL 'C'	15.7 LF.
TOTAL SCREENING PROVIDED	102.2 LF.
TOTAL PERCENTAGE OF SCREENING PROVIDED	42.1%

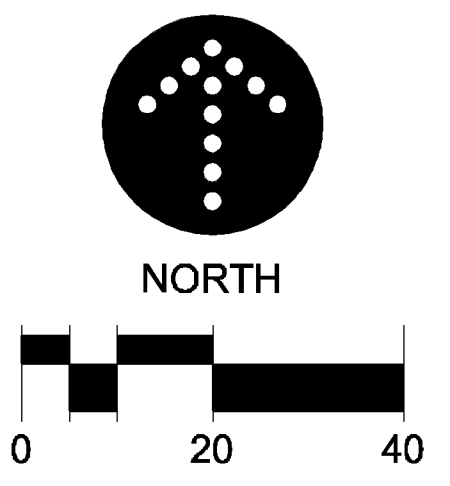


- ### LANDSCAPE NOTES
- CONTACT UTILITY SERVICE PROVIDERS FOR FIELD LOCATION OF SERVICES 72 HOURS PRIOR TO BEGINNING.
 - COORDINATE INSTALLATION WITH CONTRACTORS PERFORMING RELATED WORK.
 - PLANT MATERIAL SHALL CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS AND BE OF HARDY STOCK, FREE FROM DISEASE, INFESTATION, DAMAGE, AND DISQUALIFICATION. FOR DISCREPANCY BETWEEN THE NUMBER OF PLANTS ON THE SCHEDULE AND THE NUMBER SHOWN ON THE DRAWING, THE DRAWING SHALL GOVERN.
 - SPREAD A MINIMUM OF 4 INCHES OF TOPSOIL AND SOD ALL TURF AREAS DISTURBED BY CONSTRUCTION. TOP SOIL, WHETHER IMPORTED OR AMENDING THE EXISTING TOPSOIL, MUST MEET OR EXCEED FN/DOT PREMIUM TOPSOIL SPECIFICATIONS (3877.3). THE CITY HAS A LIST OF PRE-CERTIFIED SUPPLIERS THAT HAVE SUBMITTED TEST RESULTS VERIFYING THE MATERIAL MEETS THIS SPECIFICATION. IF YOU OPT TO USE AN ALTERNATIVE SUPPLIER, OR IF AMENDING ON-SITE TOPSOIL, DOCUMENTATION MUST BE SUPPLIED TO THE CITY VERIFYING THAT THE MATERIAL MEETS FN/DOT'S PREMIUM TOPSOIL BORROW SPECIFICATION. A COPY OF THE LOAD TICKETS WILL ALSO BE REQUIRED TO PASS THE TOPSOIL INSPECTION.
 - SPREAD A MINIMUM OF 4 INCHES OF TOPSOIL AND SOD ALL TURF AREAS DISTURBED BY CONSTRUCTION.
 - PLACE PLANTS ACCORDING TO LAYOUT WITH PROPER NOMINAL SPACING.
 - INSTALL 3-4 INCH WOOD MULCH IN SHRUB BED AREAS.
 - INSTALL A 4-FOOT DIAMETER SHREDDED HARDWOOD BARK MULCH DISH AROUND TREES NOT PLACED WITHIN A SHRUB OR PERENNIAL PLANTING BED.
 - ALL SHRUB BEDS SHALL BE EDGED WITH 6-INCH BLACK VINYL EDGING (BLACK DIAMOND OR APPROVED EQUAL).
 - AUTOMATIC IRRIGATION SYSTEM TO BE USED TO IRRIGATE ENTIRE MCDONALD'S PROPERTY. IRRIGATION CONTRACTOR TO SUBMIT SHOP DRAWING TO LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

LANDSCAPE NOTES

COUNT	NAME	KEY	COMMON NAME	SCIENTIFIC NAME	PLANTING SIZE
5	DECIDUOUS TREES	AFJ	AUTUMN BLAZE MAPLE	ACER X FREEMANI 'JEFFERSREE'	2.5' CAL.
15	GRASSES	CAKF	FEATHER REED GRASS	CALAMAGROSTIS ACUTIFOLIA 'KARL FOERSTER'	1 GAL.
23	DECIDUOUS SHRUBS	CP	DWARF RED TIPPED DOGWOOD	CORNUS PUMILA	5 GAL.
15	CONIFEROUS SHRUBS	JHC	BLUE CHIP JUNIPER	JUNIPERUS HORIZONTALIS 'BLUE CHIP'	5 GAL.
3	DECIDUOUS TREES	MSS	SPRING SNOW CRABAPPLE	MALUS 'SPRING SNOW'	1.5' CAL.
5	CONIFEROUS TREES	PGD	BLACK HILLS WHITE SPRUCE	PICEA GLAUCA DENSATA	6' HT.
11	DECIDUOUS SHRUBS	SBAW	ANTHONY WATERER SPIREA	SPIRAEA X BUMALDA 'ANTHONY WATERER'	5 CAL.

□ DENOTES AREA TO BE SODDED



LANDFORM
From Site to Finish
105 South Fifth Avenue
Suite 513
Minneapolis, MN 55401
Tel: 612-252-9070
Fax: 612-252-9077
Web: landform.net

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DATE REVIEWED	11-22-2012
REVIEWED BY	EMK/GNC
PROT. ISSUED	MJK/GNC
CITY	RAMSEY
STATE	MN
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STREET ADDRESS	ARMSTRONG & SUNWOOD
SHEET NAME	LANDSCAPE PLAN
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STATE NUMBER	

REVISION HISTORY

REV	DATE	DESCRIPTION
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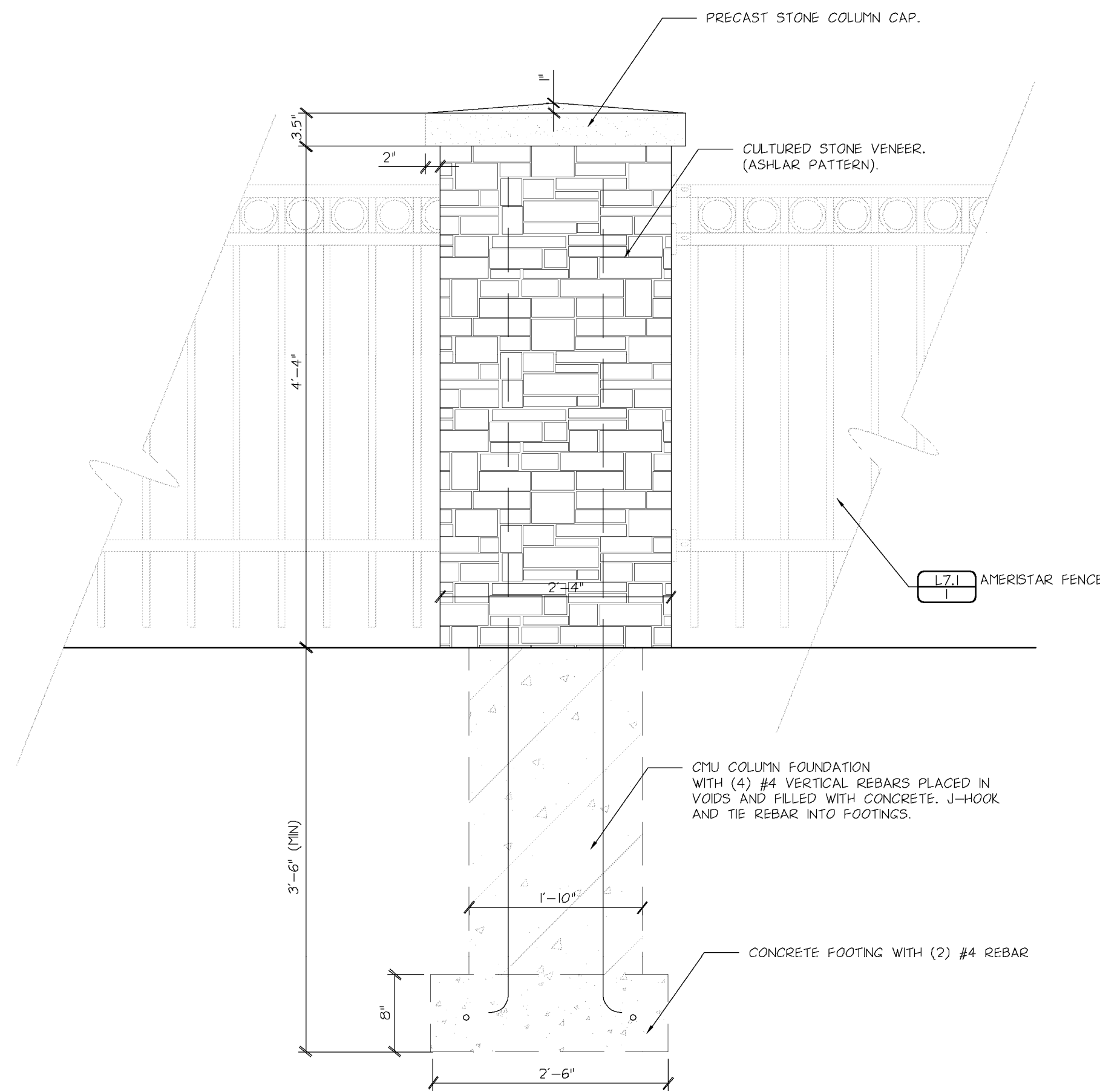
CERTIFICATION

I hereby certify that the landscape design was prepared by me or under my direct personal supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota.

License number: 42926
Date: 3 DEC. 2012

FILE NAME: L201MCD100.DWG
PROJECT NO: MCD11100

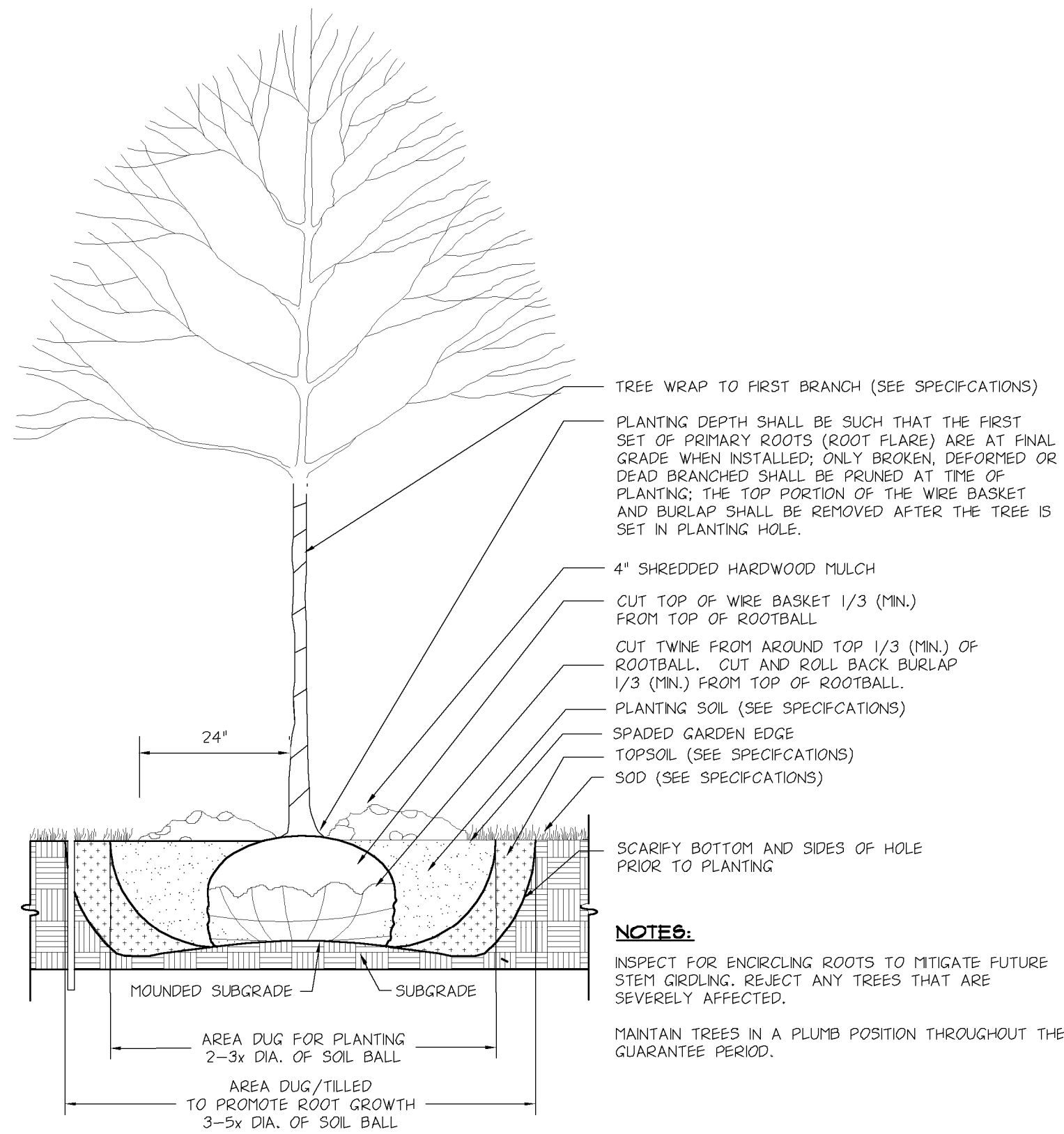
SHEET NO. L2.1



STONE COLUMN

5

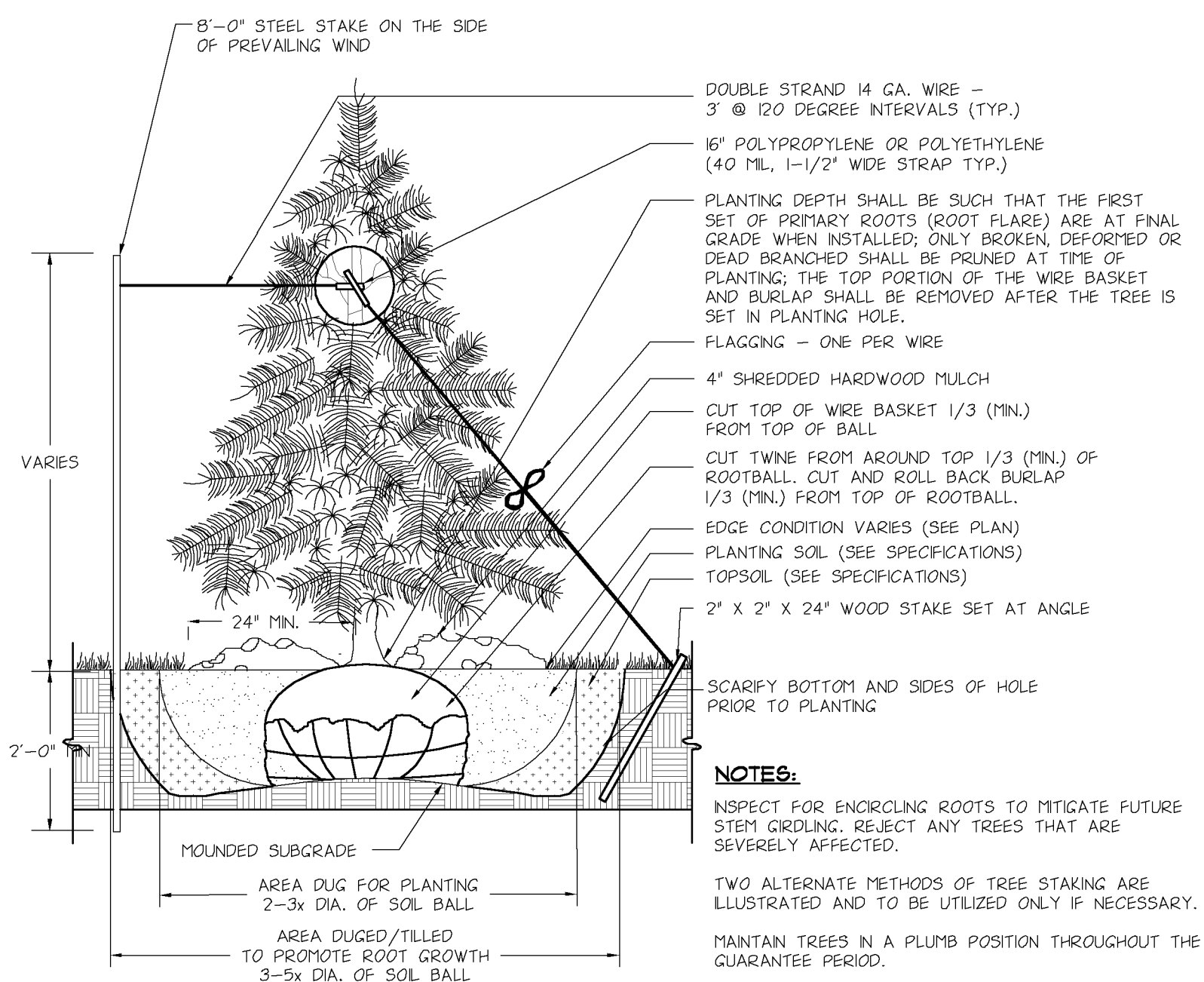
NO SCALE



DECIDUOUS TREE PLANTING

3

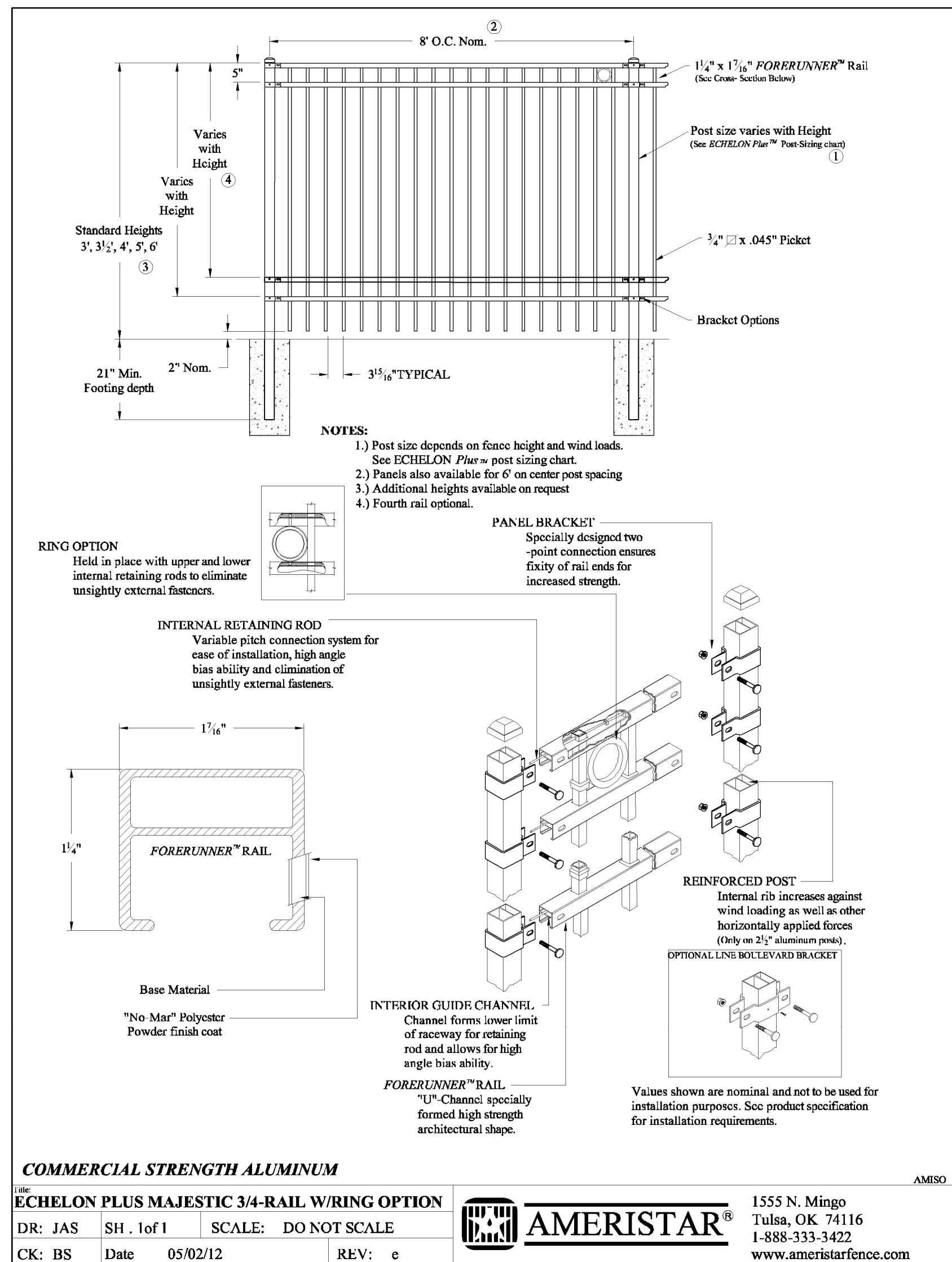
NO SCALE



CONIFEROUS TREE PLANTING

4

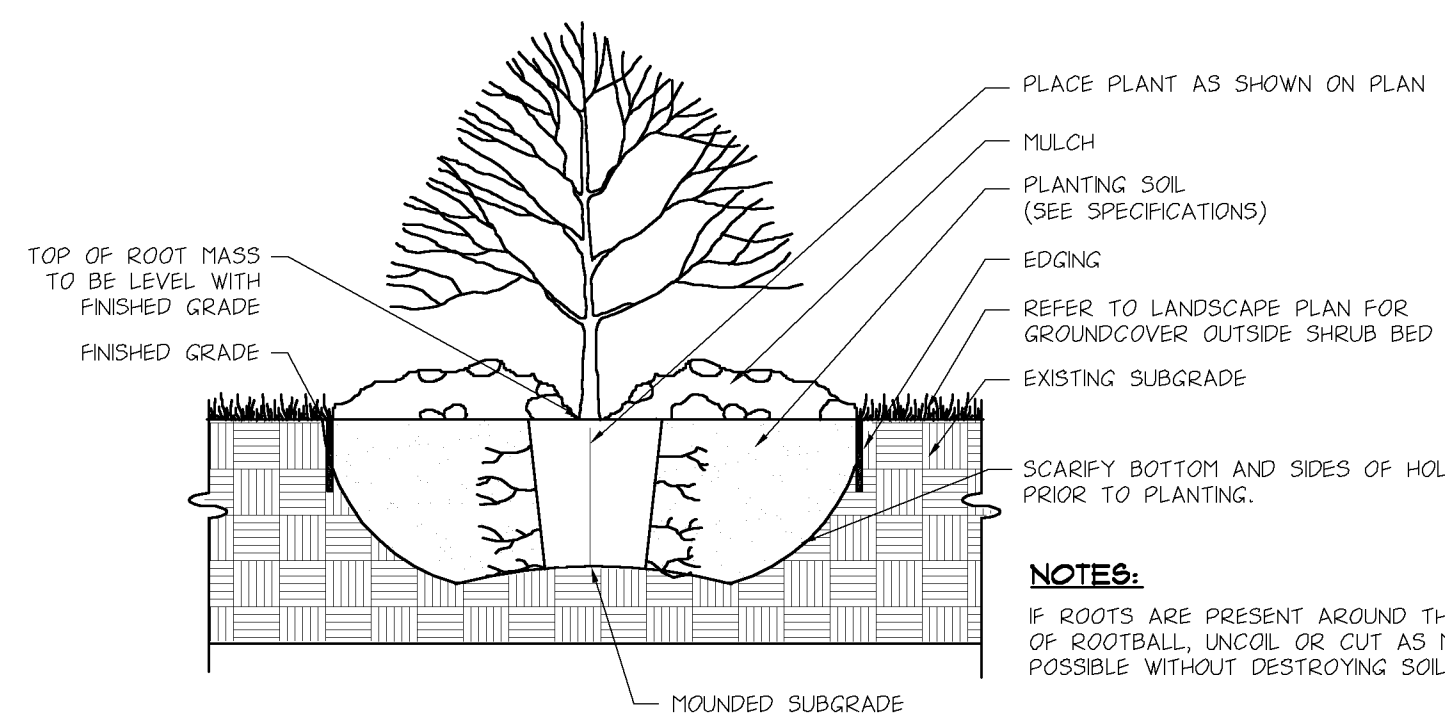
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LANDSCAPE FENCING

1

NO SCALE

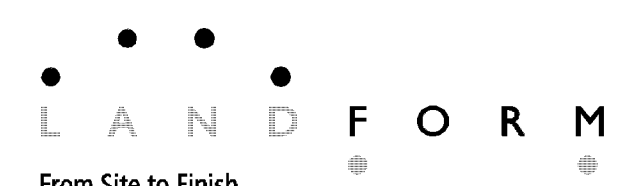


SHRUB PLANTING

2

NO SCALE

COMMERCIAL STRENGTH ALUMINUM
ECHELON PLUS MAJESTIC 3/4-RAIL W/RING OPTION
 DR: JAS SH: lof1 SCALE: DO NOT SCALE
 CK: BS Date: 05/02/12 REV: e
 1555 N. Mingo
 Tulsa, OK 74116
 1-888-333-3422
 www.ameristarfence.com



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 Suite 513
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 Tel: 612-252-9070
 Fax: 612-252-9077
 Web: landform.net

REVISION HISTORY		DATE	BY	DESCRIPTION
		11-26-2012	CITY	SUBMITTAL
CERTIFICATION				
I hereby certify that the landscape documents were prepared by me or under my direct personal supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota.				
License number 42926				
Date 3 DEC. 2012				
DRAWN BY		STATE	COUNTY	OFFICE ADDRESS
MJK/CAC		MN	ANOKA	1620 W. 52ND. STREET #100 BLOOMINGTON, MINNESOTA 55431-9888 (952)-884-4355
PROTO. ISSUED				
REVIEWED BY				
EMK/CAC				
DATE REVIEWED				
11-22-2012				
DATE ISSUED				
11-26-2012				
CITY	RAMSEY	STATE	MN	COUNTY
STREET ADDRESS	ARMSTRONG & GUNWOOD			ANOKA
SHEET NAME	LANDSCAPE DETAILS			
NATIONAL NUMBER		STATE NUMBER		
SHEET NO.	L7.1			
FILE NAME	L701MCD100.DWG			
PROJECT NO	MCD11100			