

CITY OF SHOREWOOD

CONSTRUCTION PLANS FOR

SMITHTOWN POND

MARCH 2021



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LANDSCAPE PLANS	
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L2.05	LANDSCAPE DETAILS

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ANDREW L. BUDDÉ
LIC. NO. 46585 DATE 03/19/2021



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CITY OF SHOREWOOD
SMITHTOWN POND
TITLE SHEET

SHEET
G0.01

EXISTING TOPOGRAPHIC SYMBOLS

	ACCESS GRATE		REGULATION STATION GAS
	AIR CONDITION UNIT		SATELLITE DISH
	ANTENNA		SIGN NON TRAFFIC
	AUTO SPRINKLER CONNECTION		SIGN TRAFFIC
	BARRICADE PERMANENT		SIGNAL CONTROL CABINET
	BASKETBALL POST		SOIL BORING
	BENCH		SIREN
	BIRD FEEDER		TELEPHONE BOOTH
	BOLLARD		TILE INLET
	BUSH		TILE OUTLET
	CATCH BASIN RECTANGULAR CASTING		TILE RISER
	CATCH BASIN CIRCULAR CASTING		TRANSFORMER-ELECTRIC
	CURB STOP		TREE-CONIFEROUS
	CLEAN OUT		TREE-DEAD
	CULVERT END		TREE-DECIDUOUS
	DRINKING FOUNTAIN		TREE STUMP
	DOWN SPOUT		TRAFFIC ARM BARRIER
	FILL PIPE		TRAFFIC SIGNAL
	FIRE HYDRANT		TRASH CAN
	FLAG POLE		UTILITY MARKER
	FLARED END / APRON		VALVE
	FUEL PUMP		VALVE POST INDICATOR
	GRILL		VALVE VAULT
	GUY WIRE ANCHOR		VAULT
	HANDHOLE		VENT PIPE
	HANDICAP SPACE		WATER SPIGOT
	IRRIGATION SPRINKLER HEAD		WELL
	IRRIGATION VALVE BOX		WETLAND DELINEATED MARKER
	LIFT STATION CONTROL PANEL		WETLAND
	LIFT STATION		WET WELL
	LIGHT ON POLE		YARD HYDRANT
	LIGHT-GROUND		
	MAILBOX		

PROPOSED TOPOGRAPHIC SYMBOLS

	CLEANOUT
	MANHOLE
	LIFT STATION
	STORM SEWER CIRCULAR CASTING
	STORM SEWER RECTANGULAR CASTING
	STORM SEWER FLARED END / APRON
	STORM SEWER OUTLET STRUCTURE
	STORM SEWER OVERFLOW STRUCTURE
	CURB BOX
	FIRE HYDRANT
	WATER VALVE
	WATER REDUCER
	WATER BEND
	WATER TEE
	WATER CROSS
	WATER SLEEVE
	WATER CAP / PLUG
	RIP RAP
	DRAINAGE FLOW
	TRAFFIC SIGNS

SURVEY SYMBOLS

	BENCHMARK LOCATION
	CONTROL POINT
	MONUMENT FOUND
	CAST IRON MONUMENT
	STONE MONUMENT

EXISTING TOPOGRAPHIC LINES

	RETAINING WALL
	FENCE
	FENCE-DECORATIVE
	GUARD RAIL
	TREE LINE
	BUSH LINE

SURVEY LINES

	CONTROLLED ACCESS BOUNDARY
	CENTERLINE
	EXISTING EASEMENT LINE
	PROPOSED EASEMENT LINE
	EXISTING LOT LINE
	PROPOSED LOT LINE
	EXISTING RIGHT-OF-WAY
	PROPOSED RIGHT-OF-WAY
	SETBACK LINE
	SECTION LINE
	QUARTER LINE
	SIXTEENTH LINE
	TEMPORARY EASEMENT

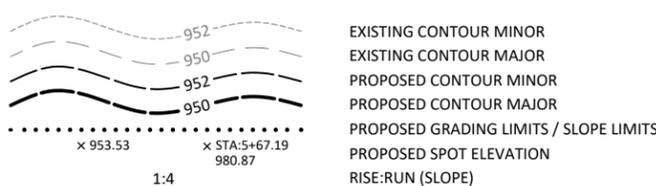
EXISTING UTILITY LINES

	FORCEMAIN
	SANITARY SEWER
	SANITARY SERVICE
	STORM SEWER
	STORM SEWER DRAIN TILE
	WATERMAIN
	WATER SERVICE

PROPOSED UTILITY LINES

	FORCEMAIN
	SANITARY SEWER
	SANITARY SERVICE
	STORM SEWER
	STORM SEWER DRAIN TILE
	WATERMAIN
	WATER SERVICE
	PIPE CASINGS

GRADING INFORMATION



HATCH PATTERNS

	BITUMINOUS		GRAVEL
	CONCRETE		

EXISTING PRIVATE UTILITY LINES

NOTE:
EXISTING UTILITY INFORMATION SHOWN ON THIS PLAN HAS BEEN PROVIDED BY THE UTILITY OWNER. THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS PRIOR TO COMMENCING CONSTRUCTION AS REQUIRED BY STATE LAW. NOTIFY GOPHER STATE ONE CALL, 1-800-252-1166 OR 651-454-0002.

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D UNLESS OTHERWISE NOTED. THIS UTILITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA"

	UNDERGROUND FIBER OPTIC
	UNDERGROUND ELECTRIC
	UNDERGROUND GAS
	UNDERGROUND COMMUNICATION
	OVERHEAD ELECTRIC
	OVERHEAD COMMUNICATION
	OVERHEAD UTILITY

UTILITIES IDENTIFIED WITH A QUALITY LEVEL:

LINE TYPES FOLLOW THE FORMAT: UTILITY TYPE - QUALITY LEVEL
EXAMPLE: G-A UNDERGROUND GAS, QUALITY LEVEL A
UTILITY QUALITY LEVEL (A,B,C,D) DEFINITIONS CAN BE FOUND IN CI/ASCE 38-02.

UTILITY QUALITY LEVELS:

QUALITY LEVEL D: PROVIDES THE MOST BASIC LEVEL OF INFORMATION. IT INVOLVES COLLECTING DATA FROM EXISTING UTILITY RECORDS. RECORDS MAY INCLUDE AS-BUILT DRAWINGS, DISTRIBUTION AND SERVICES MAPS, EXISTING GEOGRAPHIC INFORMATION SYSTEM DATABASES, CONSTRUCTION PLANS, ETC.

QUALITY LEVEL C: INVOLVES SURVEYING VISIBLE SUBSURFACE UTILITY STRUCTURES SUCH AS MANHOLES, HAND-HOLES, UTILITY VALVES AND METERS, FIRE HYDRANTS, PEDESTALS AND UTILITY MARKERS, AND THEN CORRELATING THE INFORMATION WITH EXISTING UTILITY RECORDS TO CREATE COMPOSITE DRAWINGS. INCLUDES QUALITY LEVEL D ACTIVITIES.

QUALITY LEVEL B: INVOLVES DESIGNATING THE HORIZONTAL POSITION OF SUBSURFACE UTILITIES THROUGH SURFACE DETECTION METHODS AND COLLECTING THE INFORMATION THROUGH A SURVEY METHOD. INCLUDES QUALITY LEVEL C AND D TASKS.

QUALITY LEVEL A: PROVIDES THE HIGHEST LEVEL OF ACCURACY. IT INVOLVES LOCATING OR POTHOLING UTILITIES AS WELL AS ACTIVITIES IN QUALITY LEVELS B, C, AND D. THE LOCATED FACILITY INFORMATION IS SURVEYED AND MAPPED AND THE DATA PROVIDES PRECISE PLAN AND PROFILE INFORMATION.

ABBREVIATIONS

A	ALGEBRAIC DIFFERENCE	GRAV	GRAVEL	RSC	RIGID STEEL CONDUIT
ADJ	ADJUST	GU	GUTTER	RT	RIGHT
ALT	ALTERNATE	GV	GATE VALVE	SAN	SANITARY SEWER
B-B	BACK TO BACK	HDPE	HIGH DENSITY POLYETHYLENE	SCH	SCHEDULE
BIT	BITUMINOUS	HH	HANDHOLE	SERV	SERVICE
BLDG	BUILDING	HP	HIGH POINT	SHLD	SHOULDER
BMP	BEST MANAGEMENT PRACTICE	HWL	HIGH WATER LEVEL	STA	STATION
BR	BEGIN RADIUS	HYD	HYDRANT	STD	STANDARD
BV	BUTTERFLY VALVE	I	INVERT	STM	STORM SEWER
CB	CATCH BASIN	K	CURVE COEFFICIENT	TC	TOP OF CURB
C&G	CURB AND GUTTER	L	LENGTH	TE	TEMPORARY EASEMENT
CIP	CAST IRON PIPE	LO	LOWEST OPENING	TEMP	TEMPORARY
CIPP	CURED-IN-PLACE PIPE	LP	LOW POINT	TNH	TOP NUT HYDRANT
CL	CENTER LINE	LT	LEFT	TP	TOP OF PIPE
CL	CLASS	MAX	MAXIMUM	TYP	TYPICAL
CLVT	CULVERT	MH	MANHOLE	VCP	VITRIFIED CLAY PIPE
CMP	CORRUGATED METAL PIPE	MIN	MINIMUM	VERT	VERTICAL
C.O.	CHANGE ORDER	MR	MID RADIUS	VPC	VERTICAL POINT OF CURVE
COMM	COMMUNICATION	NIC	NOT IN CONTRACT	VPI	VERTICAL POINT OF INTERSECTION
CON	CONCRETE	NMC	NON-METALLIC CONDUIT	VPT	VERTICAL POINT OF TANGENT
CSP	CORRUGATED STEEL PIPE	NTS	NOT TO SCALE	WM	WATERMAIN
DIA	DIAMETER	NWL	NORMAL WATER LEVEL		
DIP	DUCTILE IRON PIPE	OHW	ORDINARY HIGH WATER LEVEL		
DWY	DRIVEWAY	PC	POINT OF CURVE	AC	ACRES
E	EXTERNAL CURVE DISTANCE	PCC	POINT OF COMPOUND CURVE	CF	CUBIC FEET
ELEC	ELECTRIC	PE	PERMANENT EASEMENT	CV	COMPACTED VOLUME
ELEV	ELEVATION	PED	PEDESTRIAN, PEDESTAL	CY	CUBIC YARD
EOF	EMERGENCY OVERFLOW	PERF	PERFORATED PIPE	EA	EACH
ER	END RADIUS	PERM	PERMANENT	EV	EXCAVATED VOLUME
ESMT	EASEMENT	PI	POINT OF INTERSECTION	LB	POUND
EX	EXISTING	PL	PROPERTY LINE	LF	LINEAR FEET
FES	FLARED END SECTION	PRC	POINT OF REVERSE CURVE	LS	LUMP SUM
F-F	FACE TO FACE	PT	POINT OF TANGENT	LV	LOOSE VOLUME
FF	FINISHED FLOOR	PVC	POLYVINYL CHLORIDE PIPE	SF	SQUARE FEET
F&I	FURNISH AND INSTALL	PVMT	PAVEMENT	SV	STOCKPILE VOLUME
FM	FORCEMAIN	R	RADIUS	SY	SQUARE YARD
FO	FIBER OPTIC	R/W	RIGHT-OF-WAY		
F.O.	FIELD ORDER	RCP	REINFORCED CONCRETE PIPE		
GRAN	GRANULAR	RET	RETAINING		

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CITY OF SHOREWOOD

SMITHTOWN POND

LEGEND

SHEET

G0.02

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CONSTRUCTION / SOILS NOTES

GRADING, BASE AND SURFACE:

- 1) SUITABLE GRADING MATERIAL ON THIS PROJECT SHALL CONSIST OF ALL SOILS ENCOUNTERED WITH THE EXCEPTION OF TOPSOIL, DEBRIS, ORGANIC MATERIAL AND OTHER UNSTABLE MATERIAL. NO ORGANIC SOIL SHALL BE ALLOWED IN THE TOP 3 FEET BELOW THE GRADING GRADE OF THE TRAIL. FOR FIELD PURPOSES, ORGANIC SOIL WILL BE IDENTIFIED AS BEING BLACK IN COLOR.
- 2) OBTAIN COMPACTION ON THE GRADING PORTIONS OF PERMANENT CONSTRUCTION IN ACCORDANCE WITH THE "QUALITY COMPACTION METHOD" REQUIREMENTS. (SEE GEOTECHNICAL REPORT FOR DETAILS)
- 3) THE BOTTOM OF ALL SUBCUTS SHALL BE SHAPED AND COMPACTED BY THE "QUALITY COMPACTION METHOD."
- 4) DITCH BOTTOMS, TOE OF FILL, CUT RUNOUTS AND THE TOP EDGE OF THE BACK SLOPES SHALL BE ROUNDED REGARDLESS OF THE SECTION USED ON THE CROSS SECTION SHEETS.
- 5) FOR EXCESS MATERIAL UNSUITABLE FOR CITY'S NEEDS, CONTRACTOR SHALL COORDINATE OFF-SITE LOCATION FOR DISPOSAL AND SUBMIT ANY PLACEMENT PLANS AND/OR PERMITTING NECESSARY TO CITY/COUNTY PRIOR TO EXPORTING MATERIAL FROM SITE (INCIDENTAL).

REMOVALS:

- 6) EXISTING BUILDING TO BE BURNED DOWN BY THE FIRE DEPARTMENT PRIOR TO THIS CONTRACT WORK. ALL REMAINING BUILDING DEBRIS SHALL BE DISPOSED OF BY CONTRACTOR.
- 7) CONTRACTOR SHALL PROVIDE FOR THE REMOVAL AND DISPOSAL OF ALL INPLACE SURFACING, CONCRETE CURB, OTHER STRUCTURES OR DEBRIS. ALL SUCH MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL EITHER BE RECYCLED TO THE EXTENT ALLOWED OR DISPOSED OF OFF SITE (INCIDENTAL).
- 8) TREE REMOVAL AREA WILL BE MARKED BY THE ENGINEER. TREE PROTECTION AREAS SHOWN ON THE PLANS SHALL BE PROTECTED WITH SILT FENCE OR SAFETY FENCE.

TURF ESTABLISHMENT:

- 9) PLACE A MINIMUM OF 6 INCHES OF TOPSOIL ON ALL AREAS SCHEDULED FOR PERMANENT TURF ESTABLISHMENT.
- 10) SEED MIXES AND FERTILIZERS SHALL BE PLACED AT RATES SHOWN IN THE TURF ESTABLISHMENT PLAN.
- 11) ANY ONSITE STOCKPILES MUST BE STABILIZED AS SHOWN IN THE EROSION CONTROL AND TURF ESTABLISHMENT PLANS.

MISCELLANEOUS:

- 12) WHERE SEDIMENT DEPOSITS IN WATERS OF THE STATE THE MATERIAL MUST BE REMOVED IN 7 DAYS.
- 13) ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MOST CURRENT MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.
- 14) THE CONTRACTOR IS HEREBY REMINDED OF ITS RESPONSIBILITY UNDER STATE LAW TO CONTACT ALL UTILITIES THAT MAY HAVE FACILITIES IN THE AREA. CONTACT MUST BE MADE THROUGH GOPHER STATE ONE-CALL.
- 15) ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MINNESOTA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.
- 16) WHENEVER THE WORD "INCIDENTAL" IS USED IN THIS PLAN, IT SHALL MEAN THIS WORK WILL BE INCIDENTAL TO THE CONTRACT, FOR WHICH NO DIRECT COMPENSATION WILL BE MADE.

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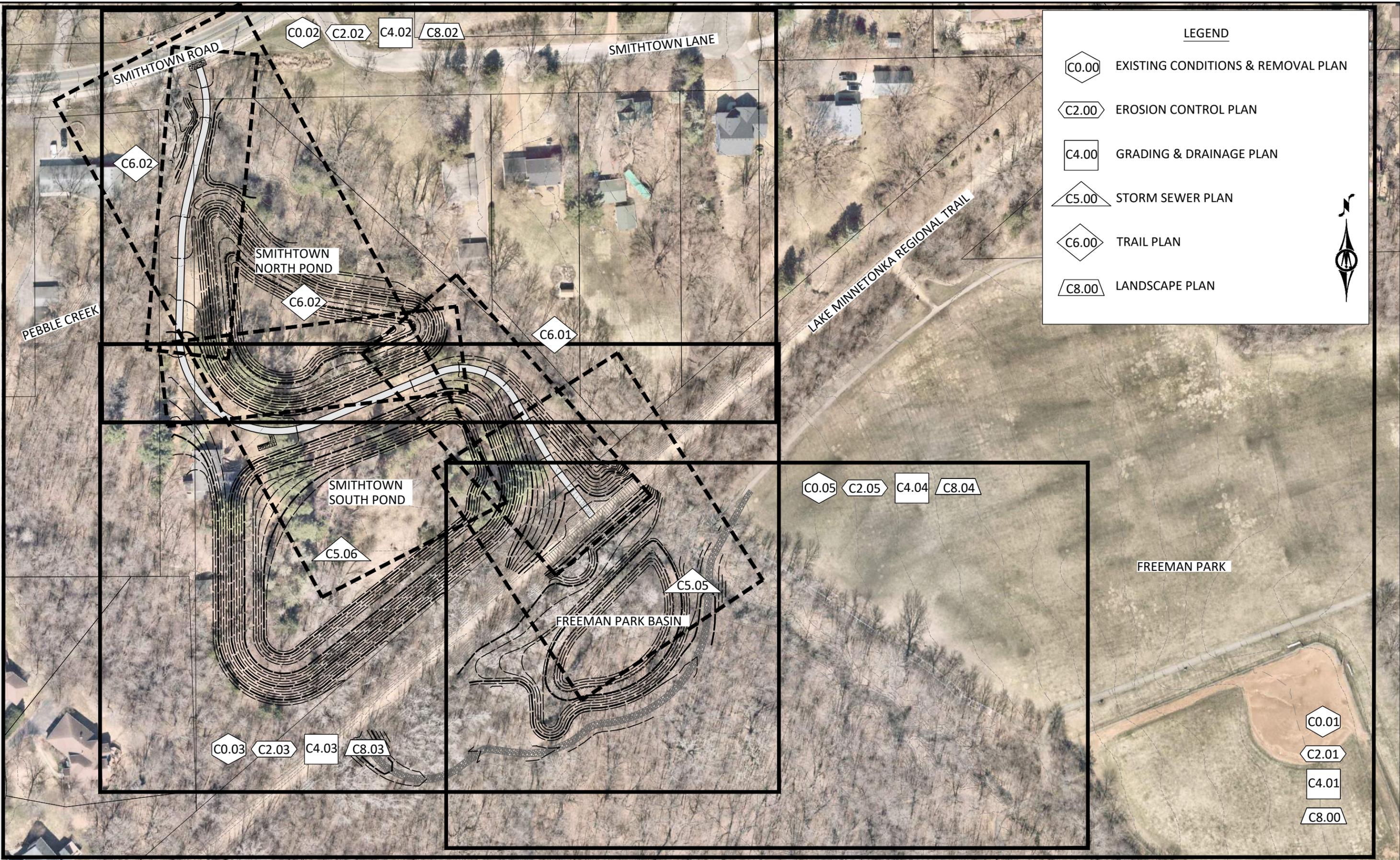
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CITY OF SHOREWOOD	SHEET G0.03
SMITHTOWN POND	
CONSTRUCTION NOTES	



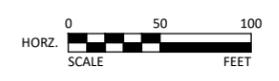
LEGEND

- C0.00 EXISTING CONDITIONS & REMOVAL PLAN
- C2.00 EROSION CONTROL PLAN
- C4.00 GRADING & DRAINAGE PLAN
- C5.00 STORM SEWER PLAN
- C6.00 TRAIL PLAN
- C8.00 LANDSCAPE PLAN



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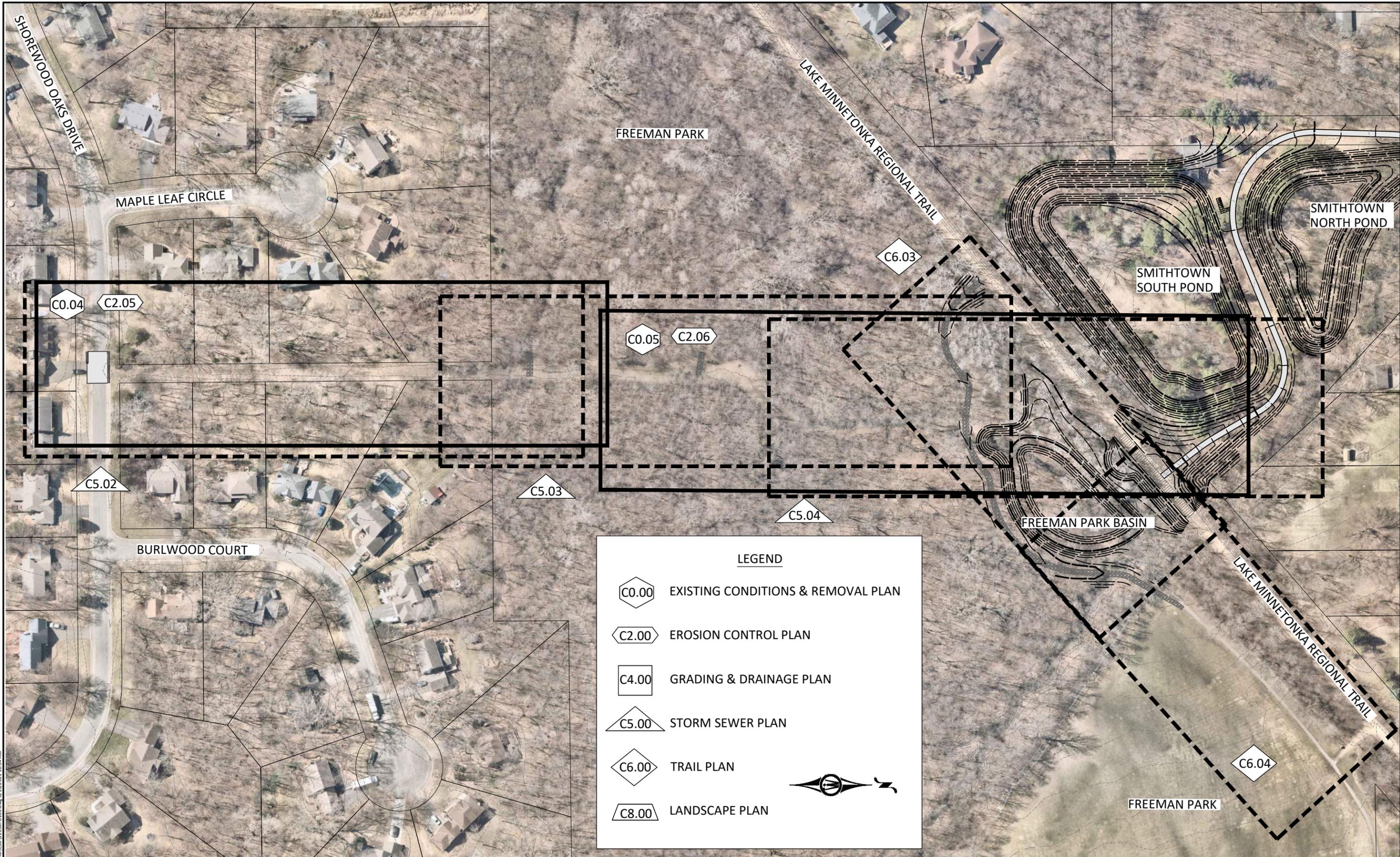
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CITY OF SHOREWOOD
SMITHTOWN POND
GENERAL PLAN LAYOUT

- C0.01
- C2.01
- C4.01
- C8.00

SHEET
G1.01

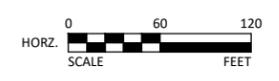


LEGEND

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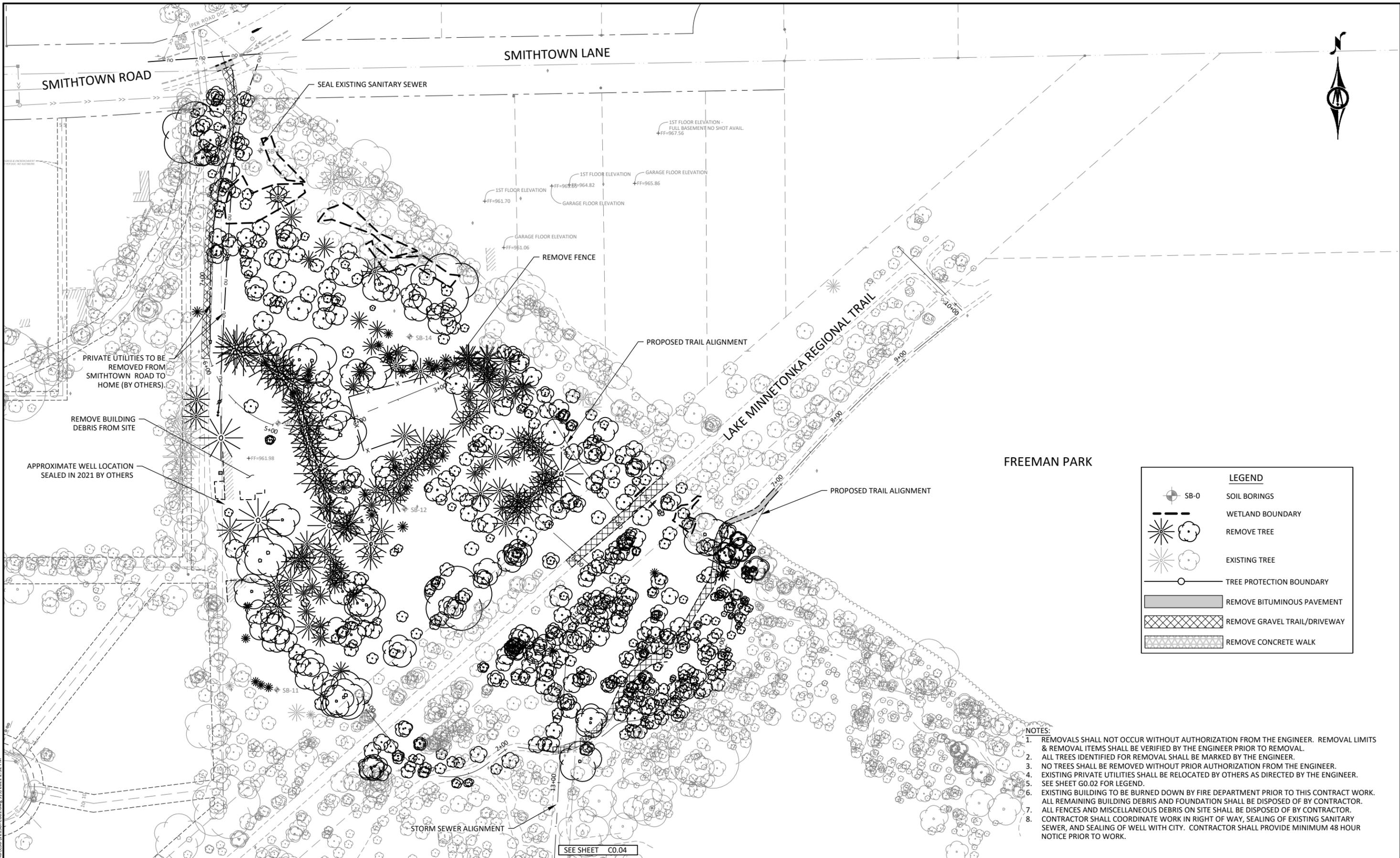


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CITY OF SHOREWOOD
 SMITHTOWN POND
 GENERAL PLAN LAYOUT

SHEET
G1.02



LEGEND	
	SB-0 SOIL BORINGS
	WETLAND BOUNDARY
	REMOVE TREE
	EXISTING TREE
	TREE PROTECTION BOUNDARY
	REMOVE BITUMINOUS PAVEMENT
	REMOVE GRAVEL TRAIL/DRIVEWAY
	REMOVE CONCRETE WALK

- NOTES:
1. REMOVALS SHALL NOT OCCUR WITHOUT AUTHORIZATION FROM THE ENGINEER. REMOVAL LIMITS & REMOVAL ITEMS SHALL BE VERIFIED BY THE ENGINEER PRIOR TO REMOVAL.
 2. ALL TREES IDENTIFIED FOR REMOVAL SHALL BE MARKED BY THE ENGINEER.
 3. NO TREES SHALL BE REMOVED WITHOUT PRIOR AUTHORIZATION FROM THE ENGINEER.
 4. EXISTING PRIVATE UTILITIES SHALL BE RELOCATED BY OTHERS AS DIRECTED BY THE ENGINEER.
 5. SEE SHEET G0.02 FOR LEGEND.
 6. EXISTING BUILDING TO BE BURNED DOWN BY FIRE DEPARTMENT PRIOR TO THIS CONTRACT WORK. ALL REMAINING BUILDING DEBRIS AND FOUNDATION SHALL BE DISPOSED OF BY CONTRACTOR.
 7. ALL FENCES AND MISCELLANEOUS DEBRIS ON SITE SHALL BE DISPOSED OF BY CONTRACTOR.
 8. CONTRACTOR SHALL COORDINATE WORK IN RIGHT OF WAY, SEALING OF EXISTING SANITARY SEWER, AND SEALING OF WELL WITH CITY. CONTRACTOR SHALL PROVIDE MINIMUM 48 HOUR NOTICE PRIOR TO WORK.

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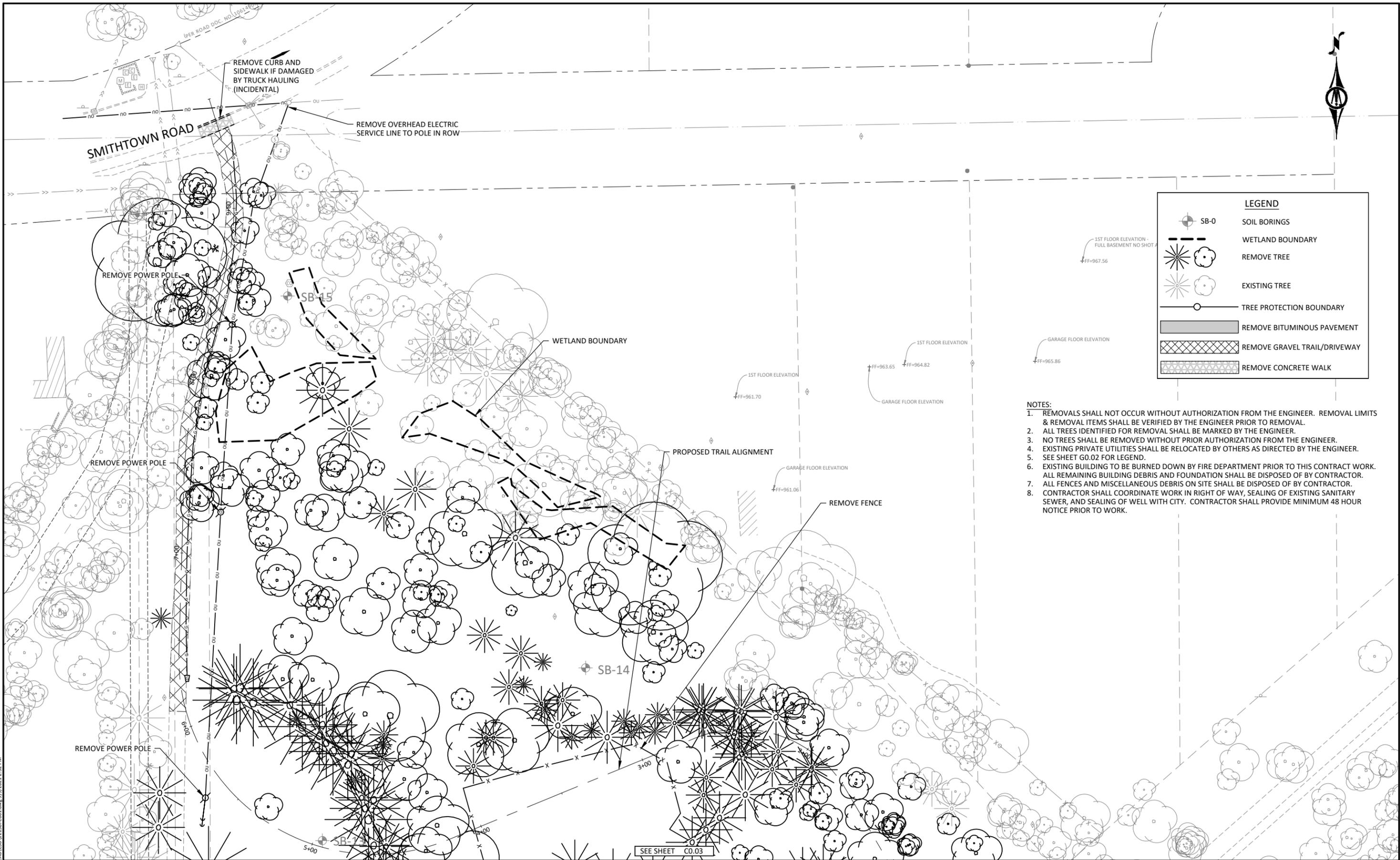


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CITY OF SHOREWOOD
SMITHTOWN POND
EXISTING CONDITIONS & REMOVAL PLAN OVERVIEW

SHEET
C0.01



LEGEND

- SB-0 SOIL BORINGS
- WETLAND BOUNDARY
- REMOVE TREE
- EXISTING TREE
- TREE PROTECTION BOUNDARY
- REMOVE BITUMINOUS PAVEMENT
- REMOVE GRAVEL TRAIL/DRIVEWAY
- REMOVE CONCRETE WALK

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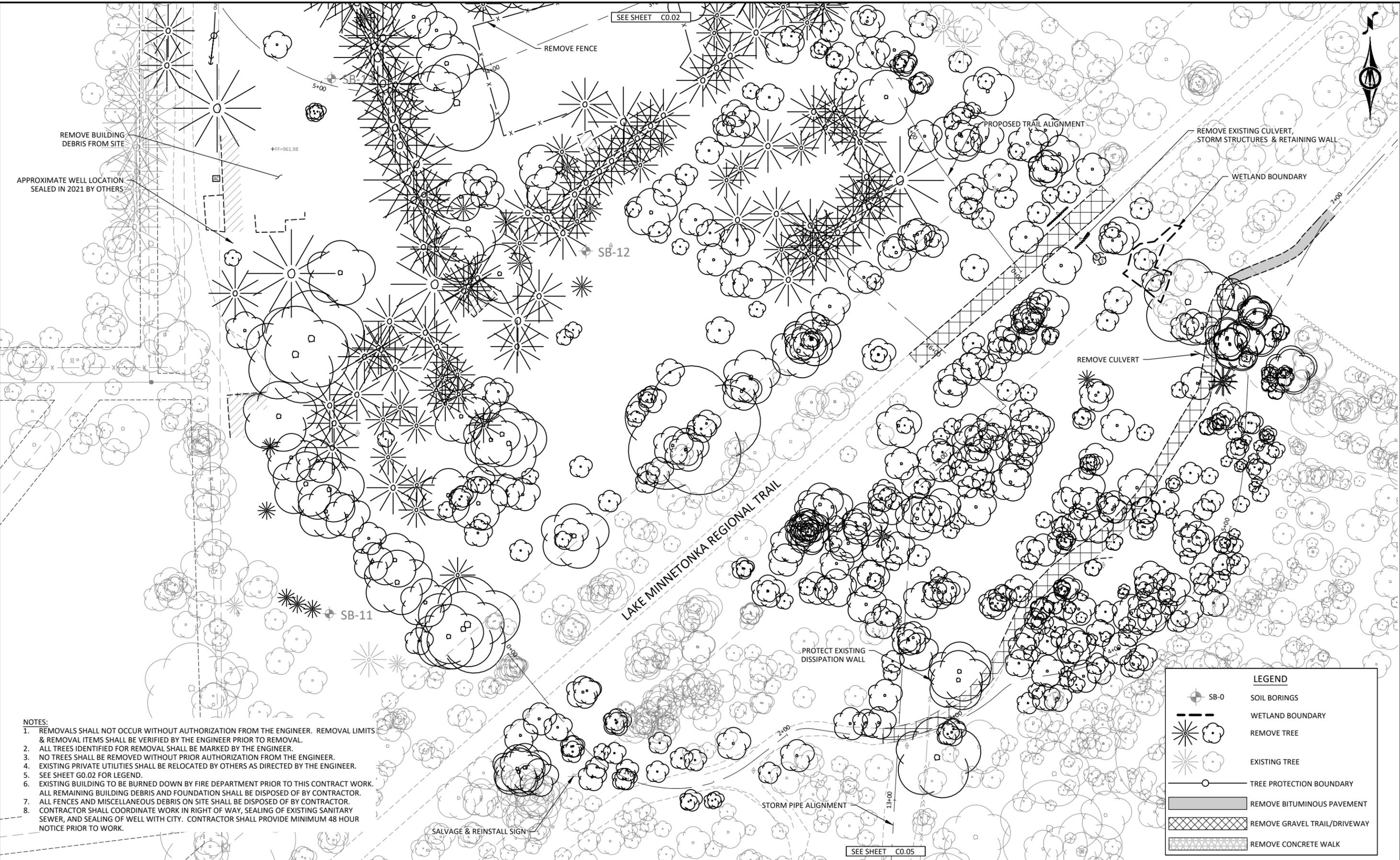


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CITY OF SHOREWOOD
SMITHTOWN POND
EXISTING CONDITIONS & REMOVAL PLAN

SHEET
C0.02



SEE SHEET C0.02

SEE SHEET C0.05

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LEGEND	
	SB-0 SOIL BORINGS
	WETLAND BOUNDARY
	REMOVE TREE
	EXISTING TREE
	TREE PROTECTION BOUNDARY
	REMOVE BITUMINOUS PAVEMENT
	REMOVE GRAVEL TRAIL/DRIVEWAY
	REMOVE CONCRETE WALK

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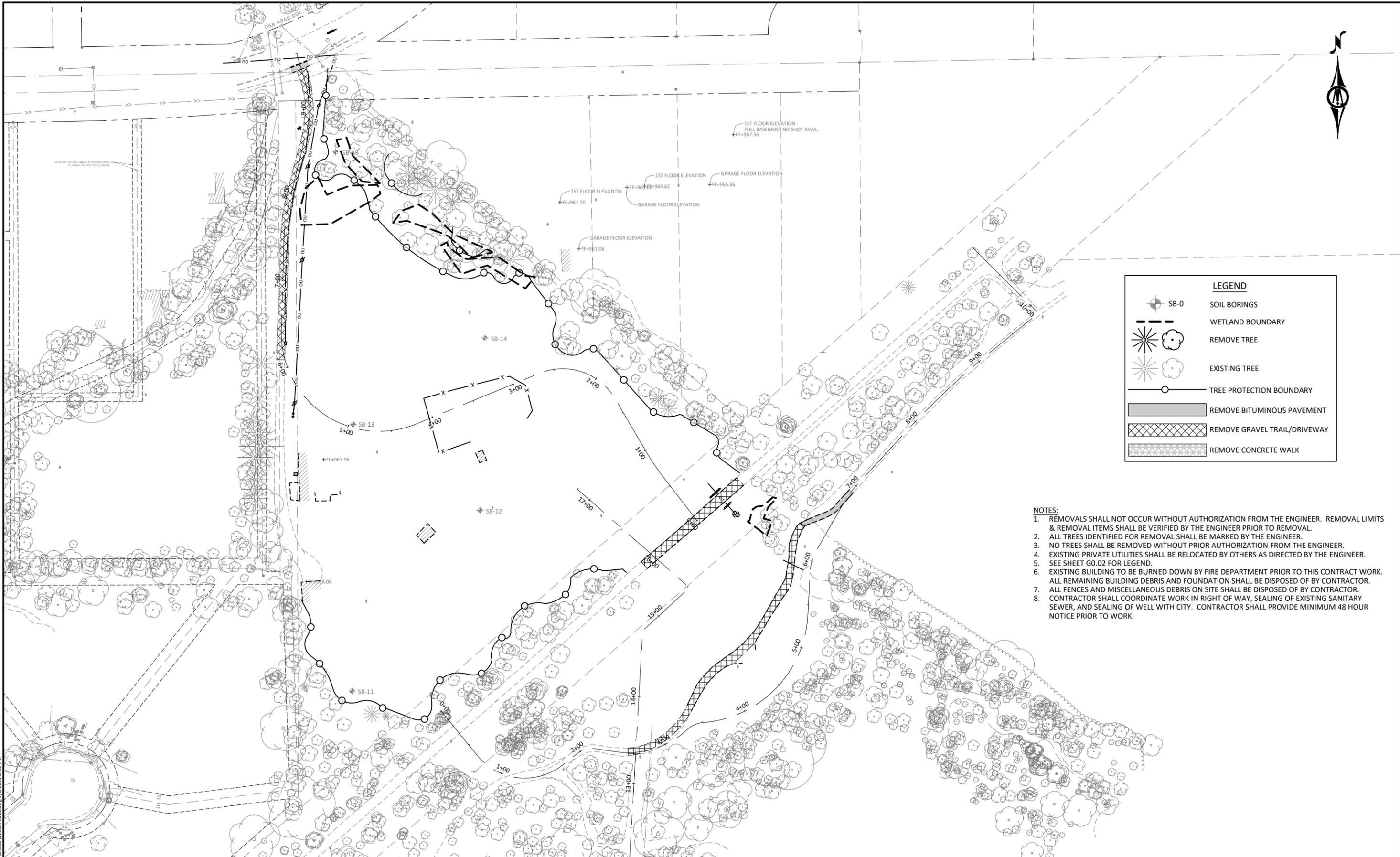
ANDREW L. BUDDÉ
LIC. NO. 46585 DATE 03/19/2021



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Phone: (952) 448-8838
Email: Chaska@bolton-menk.com
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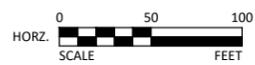
LEGEND

- SB-0 SOIL BORINGS
- WETLAND BOUNDARY
- REMOVE TREE
- EXISTING TREE
- TREE PROTECTION BOUNDARY
- REMOVE BITUMINOUS PAVEMENT
- REMOVE GRAVEL TRAIL/DRIVEWAY
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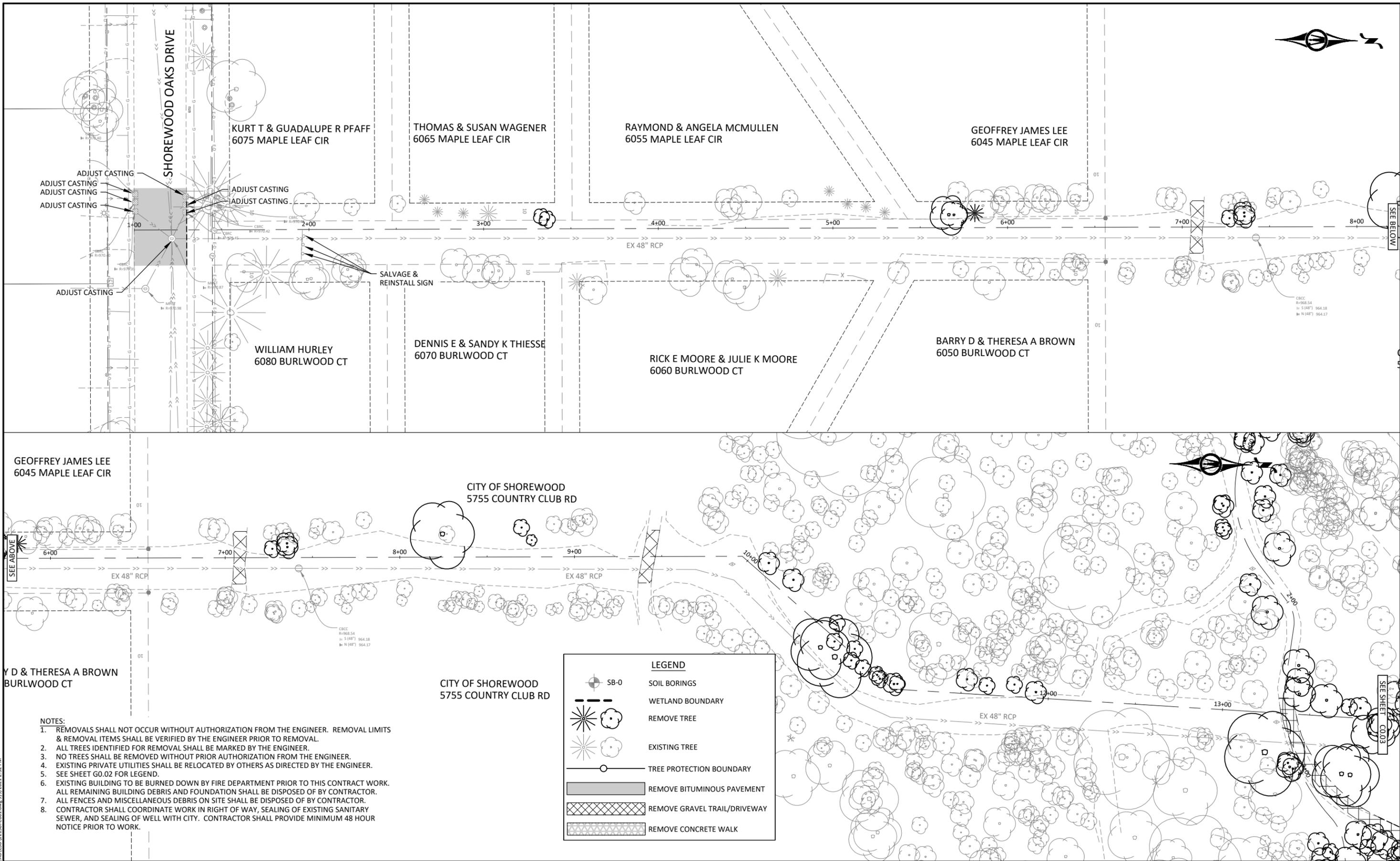


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CITY OF SHOREWOOD
SMITHTOWN POND
TREE PROTECTION PLAN

SHEET
C0.04



GEOFFREY JAMES LEE
6045 MAPLE LEAF CIR

KURT T & GUADALUPE R PFAFF
6075 MAPLE LEAF CIR

THOMAS & SUSAN WAGENER
6065 MAPLE LEAF CIR

RAYMOND & ANGELA MCMULLEN
6055 MAPLE LEAF CIR

GEOFFREY JAMES LEE
6045 MAPLE LEAF CIR

ADJUST CASTING
ADJUST CASTING
ADJUST CASTING

ADJUST CASTING
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ADJUST CASTING

SALVAGE &
REINSTALL SIGN

WILLIAM HURLEY
6080 BURLWOOD CT

DENNIS E & SANDY K THIESSE
6070 BURLWOOD CT

RICK E MOORE & JULIE K MOORE
6060 BURLWOOD CT

BARRY D & THERESA A BROWN
6050 BURLWOOD CT

Y D & THERESA A BROWN
BURLWOOD CT

CITY OF SHOREWOOD
5755 COUNTRY CLUB RD

CITY OF SHOREWOOD
5755 COUNTRY CLUB RD

LEGEND

- SB-0 SOIL BORINGS
- WETLAND BOUNDARY
- REMOVE TREE
- EXISTING TREE
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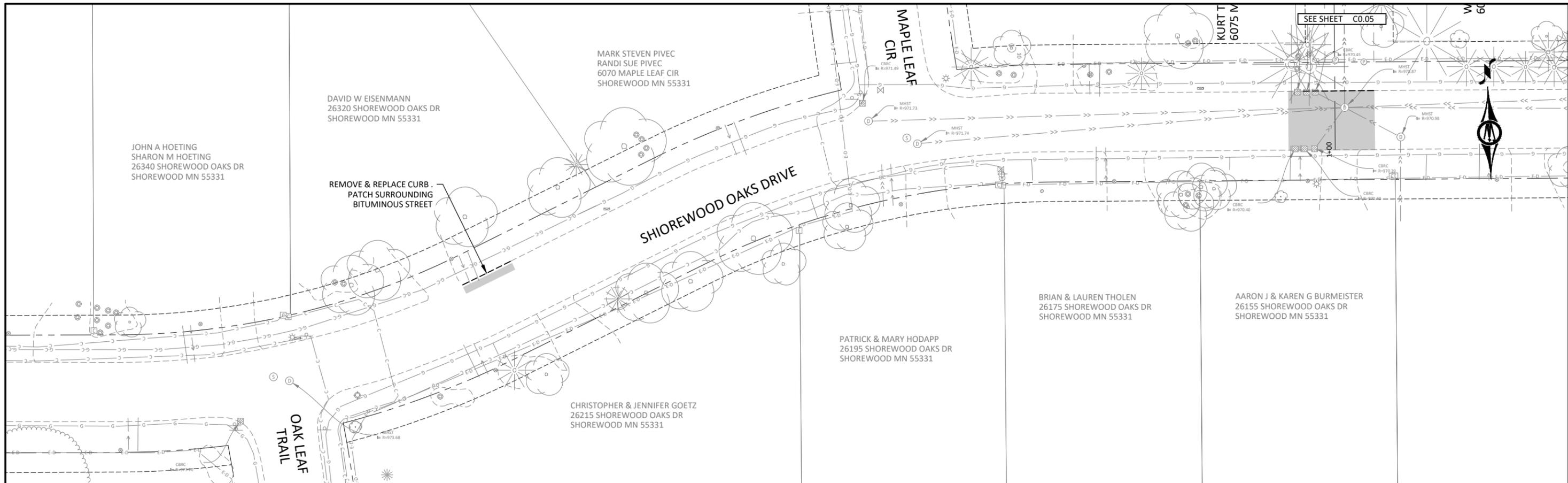


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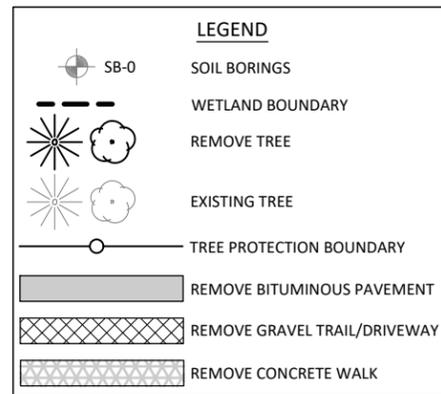
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CITY OF SHOREWOOD
SMITHTOWN POND
EXISTING CONDITIONS & REMOVAL PLAN

SHEET
C0.05



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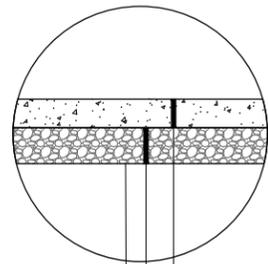
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CITY OF SHOREWOOD
SMITHTOWN POND
EXISTING CONDITIONS & REMOVAL PLAN

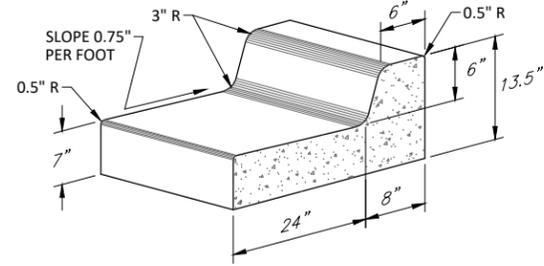
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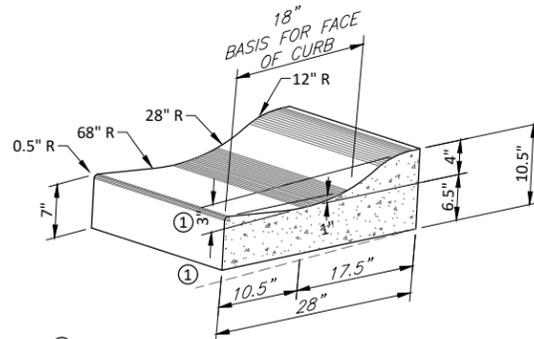
4" CONCRETE SIDEWALK
NOT TO SCALE



- 4" CONCRETE DRIVEWAY PAVEMENT (2531)
- 6" AGGREGATE BASE, CL 5 (100% CRUSHED) (2211) (INCIDENTAL)
- SUBGRADE PREPARATION (2111) (INCIDENTAL)

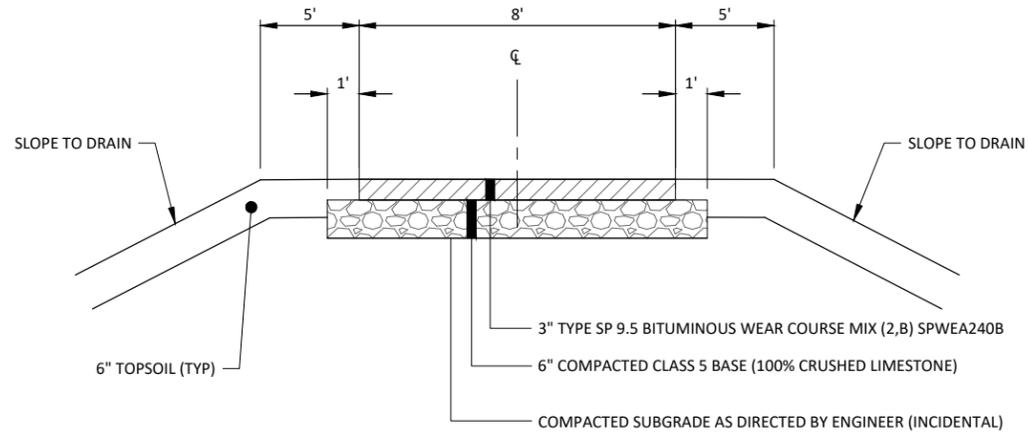


CONCRETE CURB & GUTTER
DESIGN B624
NOT TO SCALE

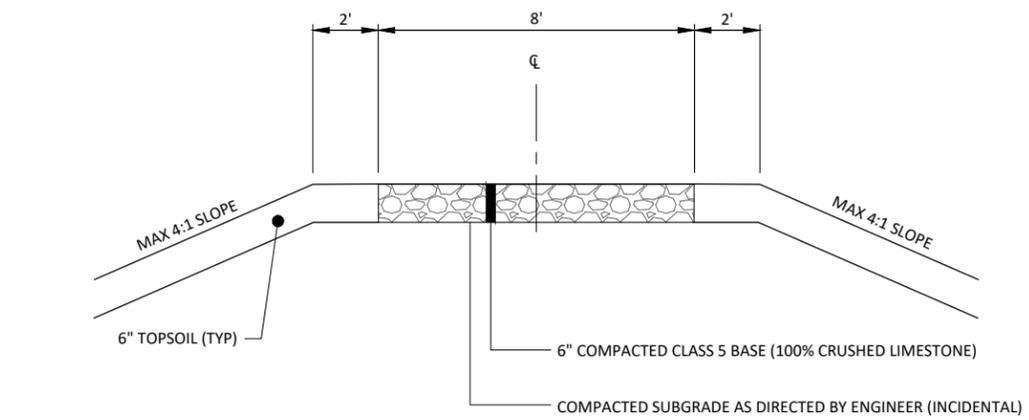


① NOTE:
CURB SHALL BE PLACED IN A TILTED POSITION AS SUCH TO PROVIDE A 3" DEPTH FROM THE TOP OF CURB TO THE FLOWLINE WHEN MEASURED ON A LEVEL PLANE.

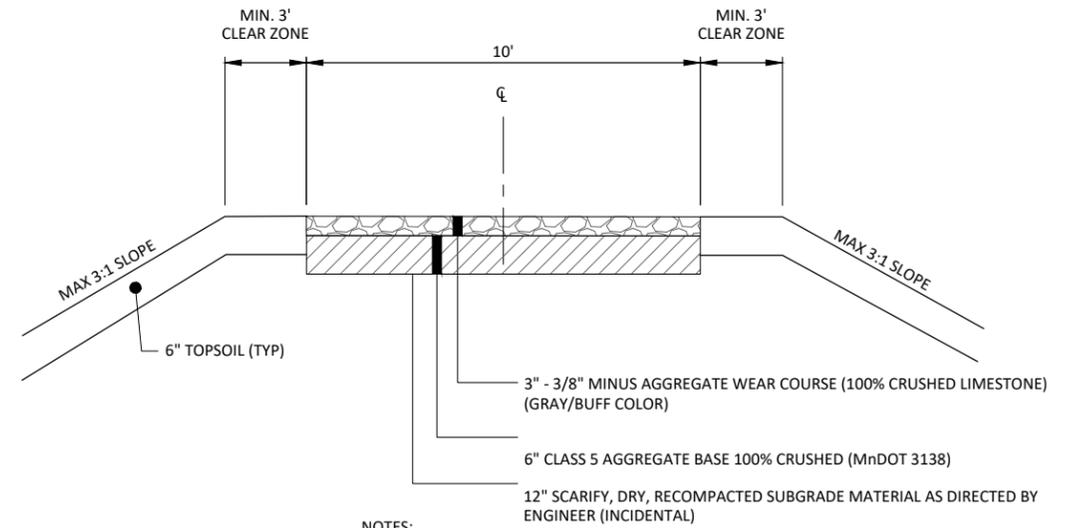
MOUNTABLE
CONCRETE CURB & GUTTER
NOT TO SCALE



BITUMINOUS TRAIL SECTION
NOT TO SCALE



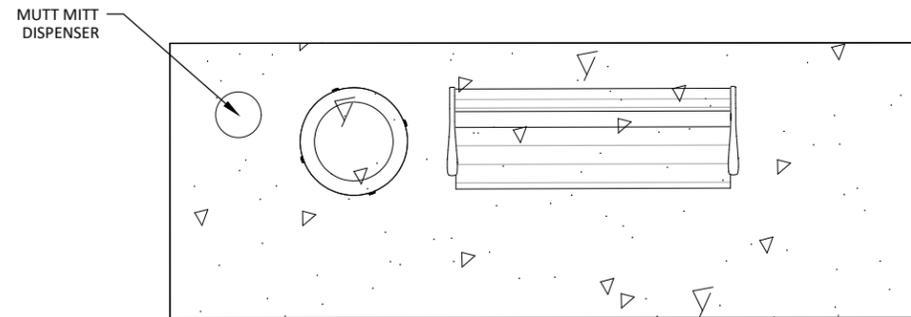
LRT GRAVEL TRAIL DETOUR SECTION
NOT TO SCALE



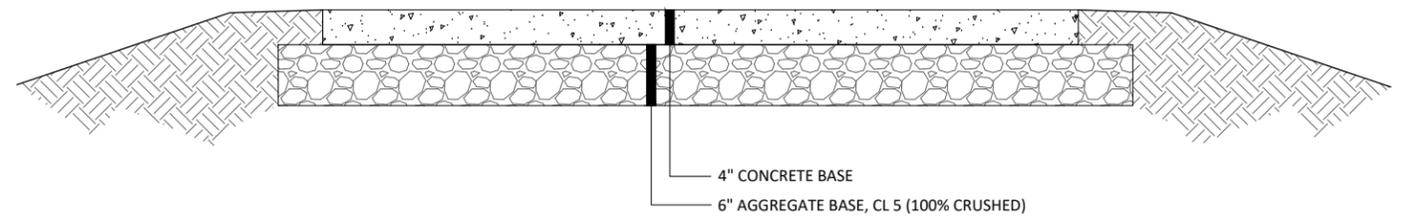
- NOTES:
1. 2' MAX SHOULDER WIDTH. 2% SLOPE ON SHOULDER.
 2. 3:1 MAX OUTSIDE OF SHOULDER
 3. MAINTAIN 10' CLEAR ZONE ABOVE TRAIL. TRIM TREE BRANCHES ACCORDINGLY.
 4. SUBGRADE SHALL BE TEST ROLLED PRIOR TO AGGREGATE BASE INSTALLATION AND CONFORM TO MnDOT SPEC 2111.
 5. LIMESTONE SHALL BE OBTAINED FROM KRAEMER MINING & MATERIALS.

3/8" MINUS GRADATION	
SIEVE SIZE	PERCENT PASING
3/8"	100
#4	70-100
#40	20-50
#200	10-30

LRT GRAVEL TRAIL SECTION
NOT TO SCALE



4" CONCRETE SLAB BASE FOR TRAIL REST AREAS-PLAN VIEW
NOT TO SCALE



4" CONCRETE SLAB BASE FOR TRAIL REST AREAS-SECTION VIEW
NOT TO SCALE

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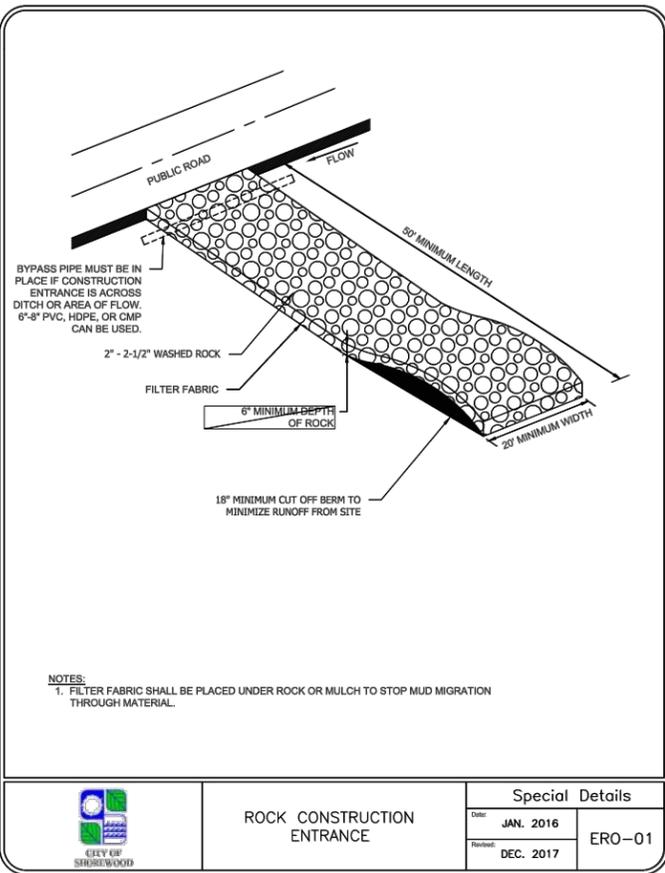


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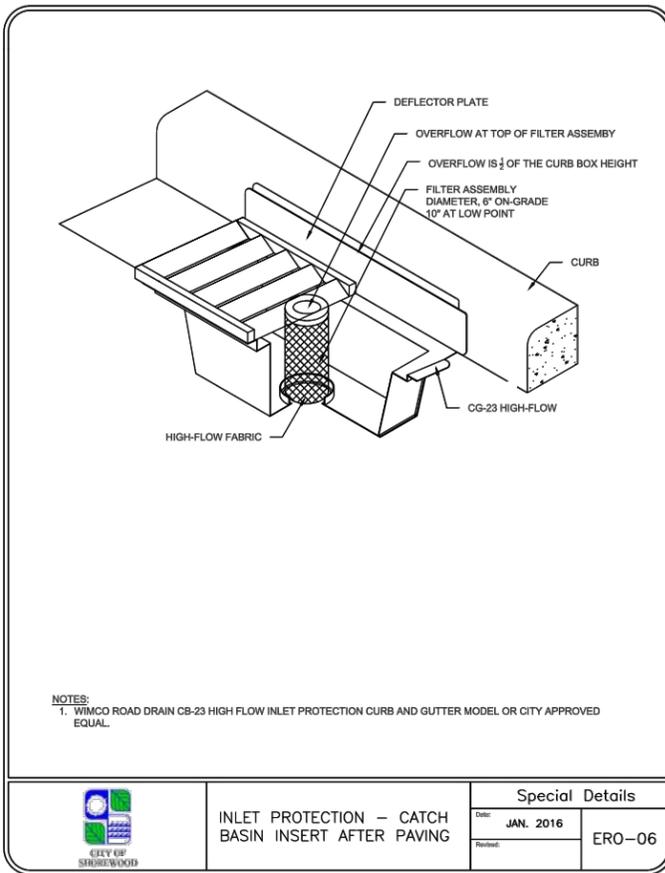
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CITY OF SHOREWOOD
SMITHTOWN POND
CONSTRUCTION DETAILS

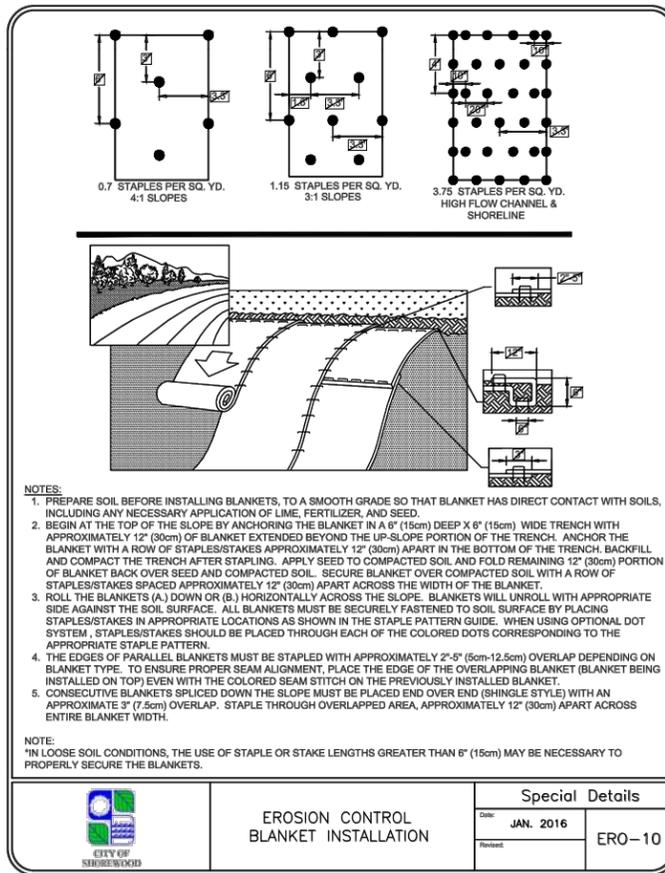
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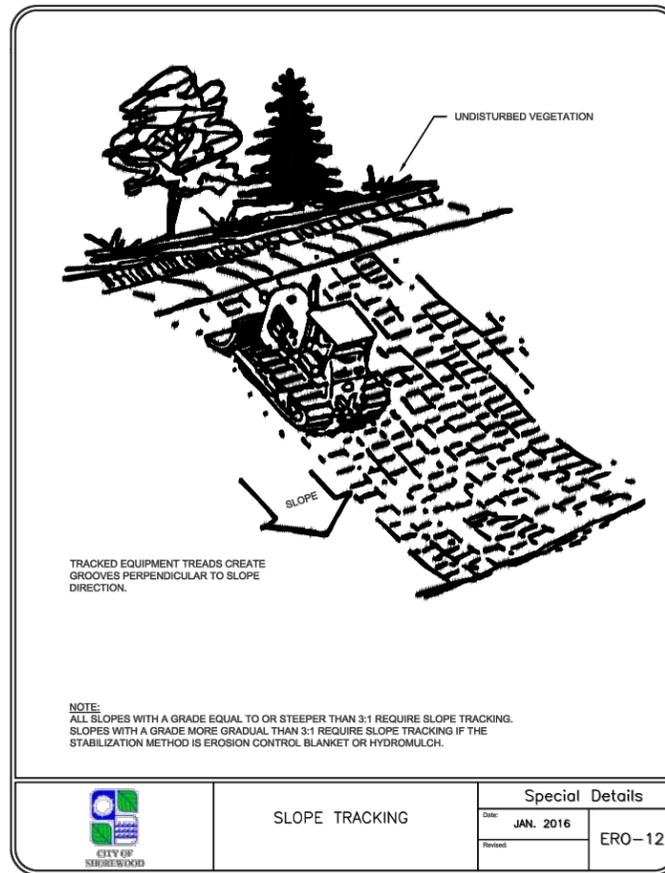
	ROCK CONSTRUCTION ENTRANCE	Special Details	
		Date: JAN. 2016	ERO-01
		Revised: DEC. 2017	



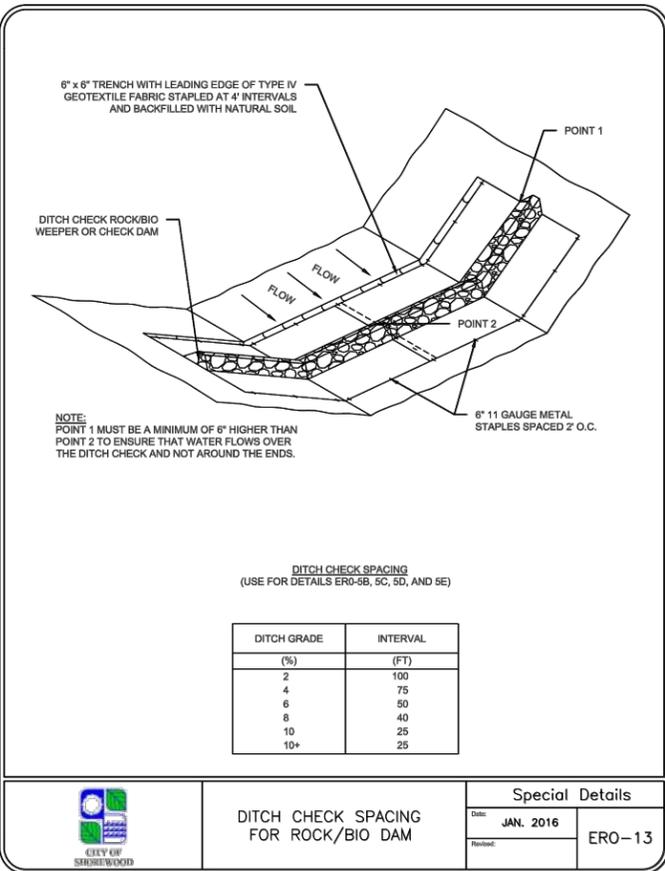
	INLET PROTECTION - CATCH BASIN INSERT AFTER PAVING	Special Details	
		Date: JAN. 2016	ERO-06
		Revised: DEC. 2017	



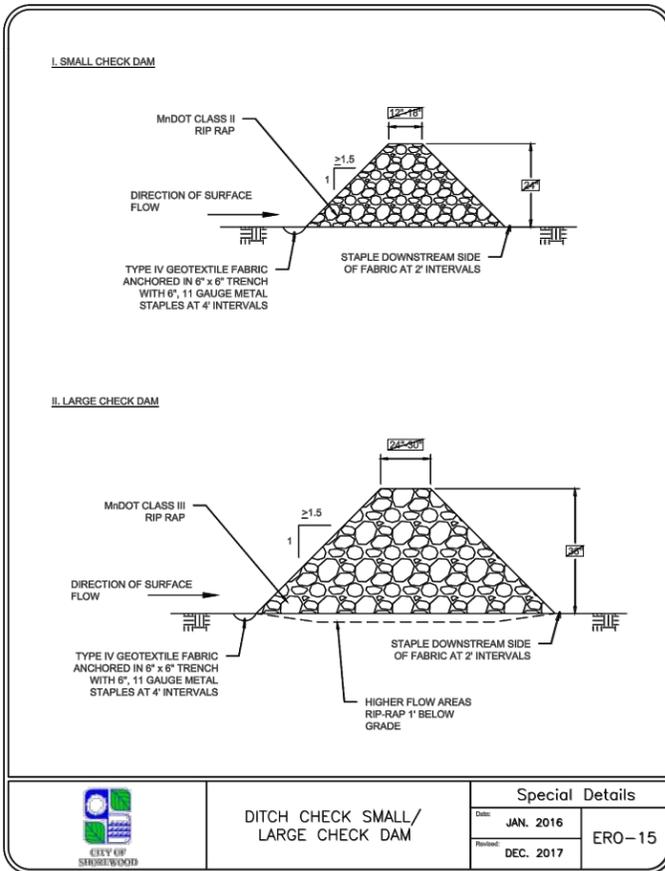
	EROSION CONTROL BLANKET INSTALLATION	Special Details	
		Date: JAN. 2016	ERO-10
		Revised: DEC. 2017	



	SLOPE TRACKING	Special Details	
		Date: JAN. 2016	ERO-12
		Revised: DEC. 2017	



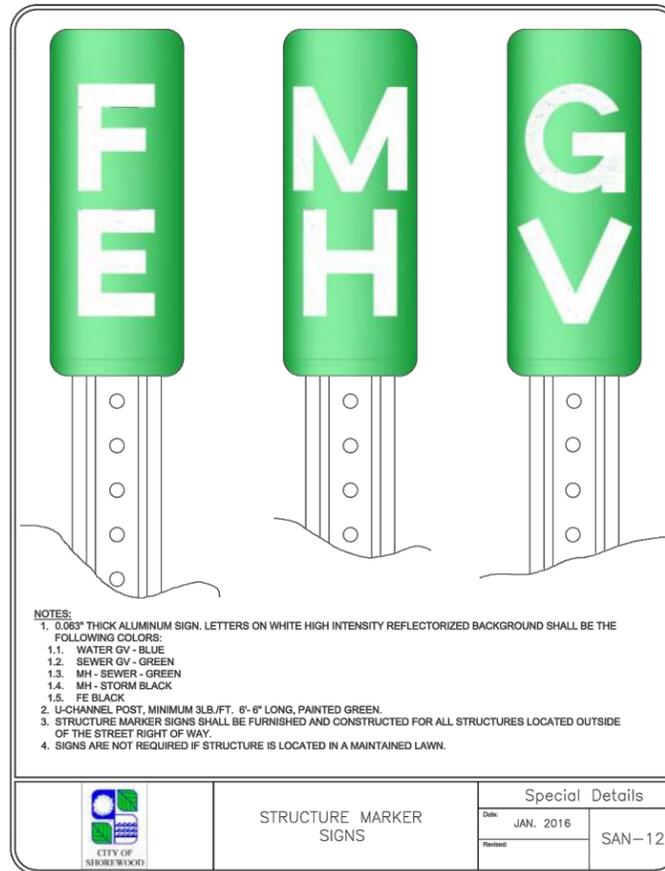
	DITCH CHECK SPACING FOR ROCK/BIO DAM	Special Details	
		Date: JAN. 2016	ERO-13
		Revised: DEC. 2017	



	DITCH CHECK SMALL/LARGE CHECK DAM	Special Details	
		Date: JAN. 2016	ERO-15
		Revised: DEC. 2017	

TABLE 2575-3 RAPID STABILIZATION	
METHOD	MATERIALS
1	TYPE 1 MULCH PLACED AT A RATE OF 2 TONS PER ACRE (4.5 TONNE PER ha) WITH DISC ANCHORING
2	TYPE 3 MULCH PLACED AT A RATE OF 1.5 TON PER ACRE (3.4 TONNE PER ha). 3884, TYPE HYDRAULIC MULCH, PLACED AT A RATE OF 750 LB/ACRE (835 kg/ha)
3	3884, TYPE HYDRAULIC MULCH, PLACED AT 350 LB PER 1000 GALLONS OF SLURRY MIXTURE (159 kg PER 3.8 CU. METERS) OF SLURRY MIXTURE. SEED MIXTURE 22-111 PLACED AT A RATE OF 10 LB PER 1,000 GALLONS (4.5 kg PER 3.8 CU. METERS) OF SLURRY MIX. TYPE 3 SLOW RELEASE FERTILIZER 10-10-10 PLACED AT A RATE OF 50 LB PER 1000 GALLONS (22.7 kg PER 3.8 CU. METERS) OF SLURRY MIX. WATER PLACED AT A RATE OF 875 GALLONS PER 1,000 GALLONS (3.3 CU. METERS PER 3.8 CU. METERS) OF SLURRY MIX. APPLY MIXTURE AT A RATE OF 6,000 GALLONS PER ACRE (56 CU. METERS PER ha).
4	CATEGORY 3 EROSION CONTROL BLANKET. SEED MIXTURE 22-111 PLACED AT A RATE OF 2 LB PER 100 SQ. YD. (1.1 kg PER 100 CU. METERS). TYPE 3 SLOW RELEASE FERTILIZER 10-10-10 PLACED AT A RATE OF 8 LB PER 100 SQ. YD. (3.6 kg PER 84 SQ. METERS).
5	RIIP RAP CLASS II, GEOTEXTILE TYPE III.

	RAPID STABILIZATION METHODS 1-5	Special Details	
		Date: DEC. 2017	ERO-18
		Revised: DEC. 2017	



	STRUCTURE MARKER SIGNS	Special Details	
		Date: JAN. 2016	SAN-12
		Revised: DEC. 2017	

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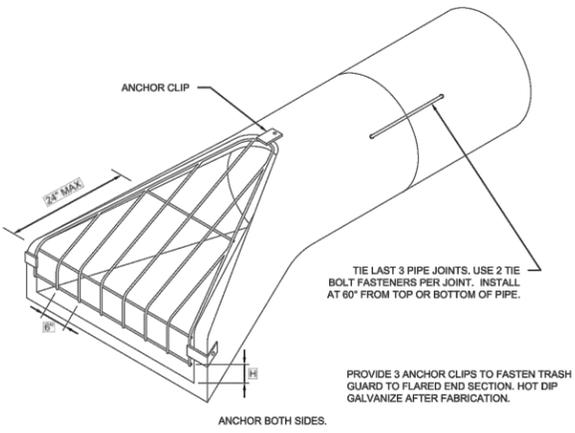
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CITY OF SHOREWOOD
SMITHTOWN POND
CONSTRUCTION DETAILS

SHEET
C1.02

SEE STANDARD PLATE NO. STO-12 FOR RIPRAP PLACEMENT.



TIE LAST 3 PIPE JOINTS. USE 2 TIE BOLT FASTENERS PER JOINT. INSTALL AT 60" FROM TOP OR BOTTOM OF PIPE.

PROVIDE 3 ANCHOR CLIPS TO FASTEN TRASH GUARD TO FLARED END SECTION. HOT DIP GALVANIZE AFTER FABRICATION.

ANCHOR BOTH SIDES.

PIPE SIZE	BAR	1" O.D.	BOLTS
12" - 18"	NO TRASH GUARD FOR 12" - 18"	8"	3/4"
21" - 42"	1"	8"	3/4"
48" - 72"	1-1/4" O.D.	12"	1"

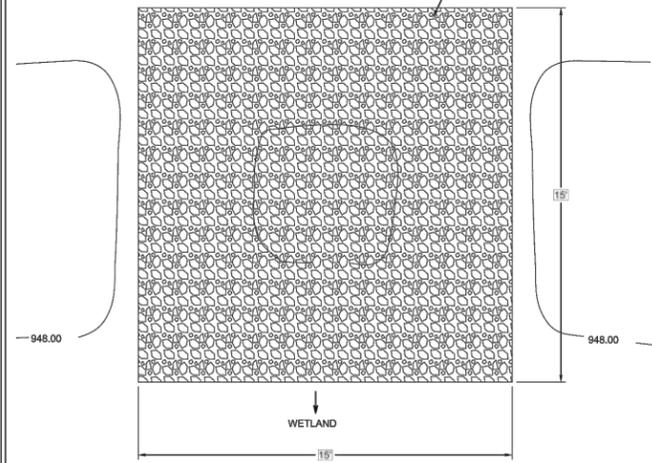


FLARED END SECTION AND TRASH GUARD

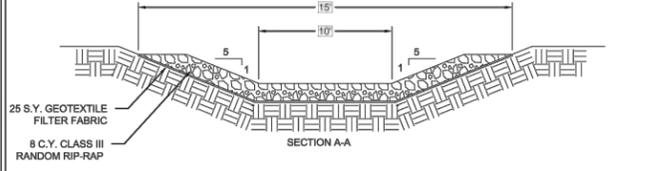
Special Details

Date: JAN. 2016
Revised: STO-08

POND



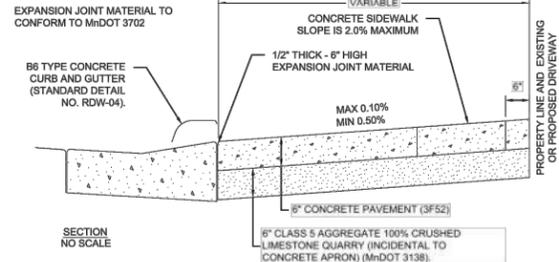
WETLAND



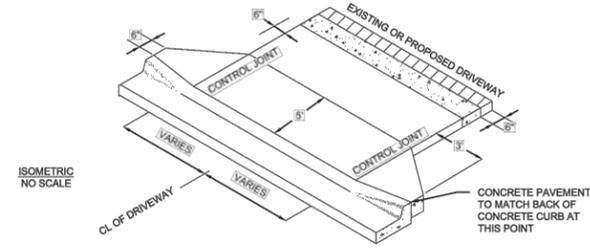
OVERFLOW DETAIL

Special Details

Date: JAN. 2016
Revised: JAN. 2017
STO-20



SECTION NO SCALE



ISOMETRIC NO SCALE

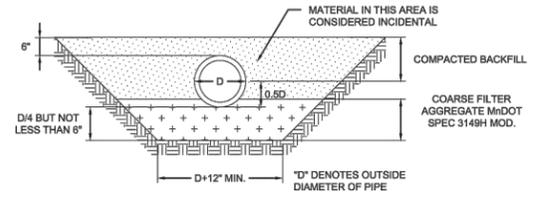
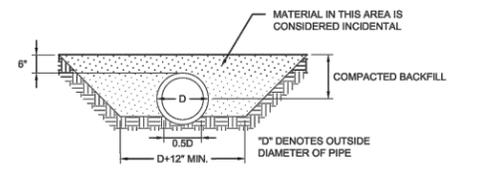
- NOTE:
- CONTROL JOINTS IN CONCRETE CURB NOT TO EXCEED 10' SPACING THROUGH DRIVEWAY SECTION.
 - CONCRETE MUST BE CONSTRUCTED BETWEEN SIDEWALK AND DRIVEWAY APRON.
 - CONCRETE SIDEWALK THROUGH DRIVEWAY IS 6" THICK.
 - DRIVEWAY WINGS ARE REQUIRED WITH THE B6 STYLE CURBING. THE MAXIMUM DRIVEWAY WIDTH AT THE CURB IS 24" PLUS THE 3" WINGS. MAXIMUM WIDTH OF DRIVEWAY AT THE PROPERTY LINE IS ALSO 24". THE MINIMUM WIDTH OF DRIVEWAY IS 12".



RESIDENTIAL CONCRETE DRIVEWAY APRON WITH SIDEWALK (B6 TYPE CURB)

Special Details

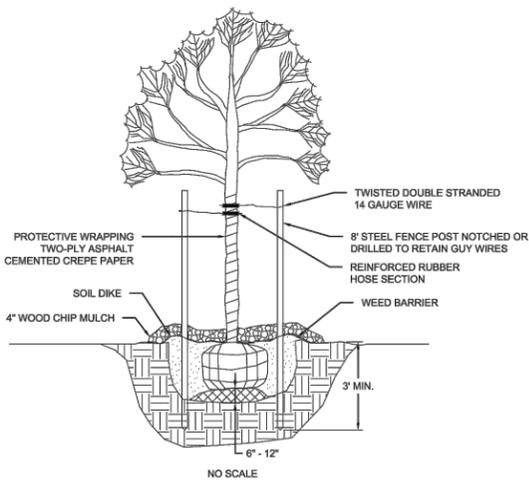
Date: JAN. 2016
Revised: DEC. 2017
RDW-11



BEDDING METHODS FOR RCP AND DIP

Special Details

Date: JAN. 2016
Revised: DEC. 2017
BED-02



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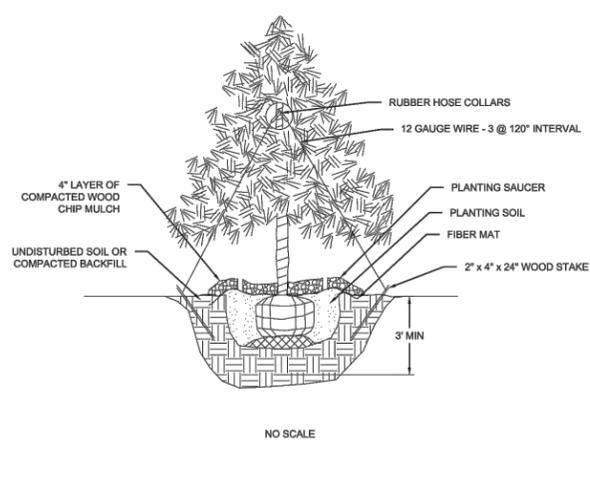
- NOTES:
- PROVIDE AND INSTALL PLANT MATERIALS THAT MEET SPECIFICATIONS AND ARE OF THE SIZE TYPE AND SPECIES GIVEN IN PLANT SCHEDULE OR SHOWN ON THE PLANS.
 - REMOVE DEAD OR DAMAGED BRANCHES. RETAIN THE NATURAL FORM OF THE SHRUB.
 - PLACE WEED BARRIER.
 - PLACE 4" LAYER (AFTER SETTLEMENT) OF SHREDDED HARDWOOD BARK MULCH OR AS SPECIFIED OTHERWISE.
 - PLACE MULCH TO FORM SAUCER TO HOLD WATER.
 - REMOVE TOP 1/3 OF BURLAP FROM ROOTBALL.
 - DIG PLANT HOLE 1'-0" MIN. LARGER THAN BALL, ALL SIDES.
 - BACKFILL WITH PLANTING SOIL.
 - SCARIFY BOTTOM OF PLANTING HOLE.



DECIDUOUS TREE PLANTING

Special Details

Date: JAN. 2016
Revised: MISC-01



NO SCALE

- NOTES:
- PROVIDE AND INSTALL PLANT MATERIALS THAT MEET SPECIFICATIONS AND ARE OF THE SIZE TYPE AND SPECIES GIVEN IN PLANT SCHEDULE OR SHOWN ON THE PLANS.
 - REMOVE DEAD OR DAMAGED BRANCHES. RETAIN THE NATURAL FORM OF THE SHRUB.
 - PLACE WEED BARRIER.
 - PLACE 4" LAYER (AFTER SETTLEMENT) OF SHREDDED HARDWOOD BARK MULCH OR AS SPECIFIED OTHERWISE.
 - PLACE MULCH TO FORM SAUCER TO HOLD WATER.
 - REMOVE TOP 1/3 OF BURLAP FROM ROOTBALL.
 - DIG PLANT HOLE 1'-0" MIN. LARGER THAN BALL, ALL SIDES.
 - BACKFILL WITH PLANTING SOIL.
 - SCARIFY BOTTOM OF PLANTING HOLE.

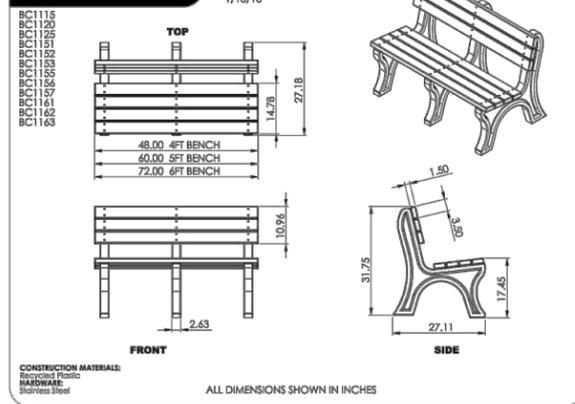


CONIFEROUS TREE PLANTING

Special Details

Date: JAN. 2016
Revised: MISC-02

BENCH SPECIFICATIONS



CONSTRUCTION MATERIALS:
Benchtop: Plastic
Hardware: Stainless Steel

ALL DIMENSIONS SHOWN IN INCHES



VICTORY PARK BENCH 4'-5'-6" LENGTH

Special Details

Date: MARCH 2021
Revised: MISC-03

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ANDREW L. BUDDÉ
LIC. NO. 46585 DATE 03/19/2021



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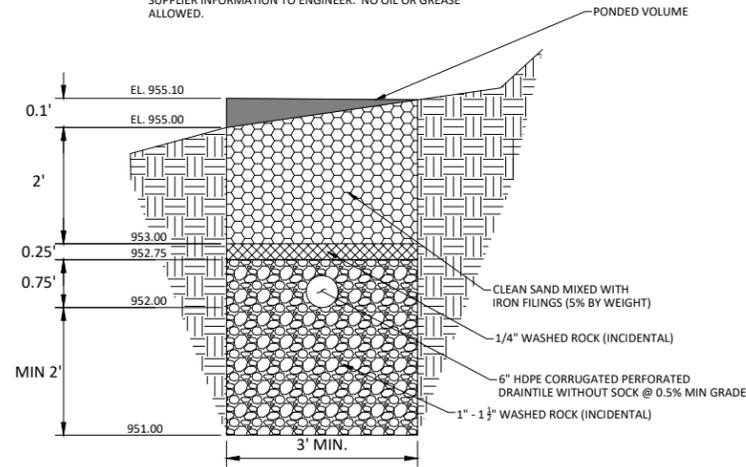
CITY OF SHOREWOOD
SMITHTOWN POND
CONSTRUCTION DETAILS

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CONSTRUCTION SEQUENCING - IESF TRENCH

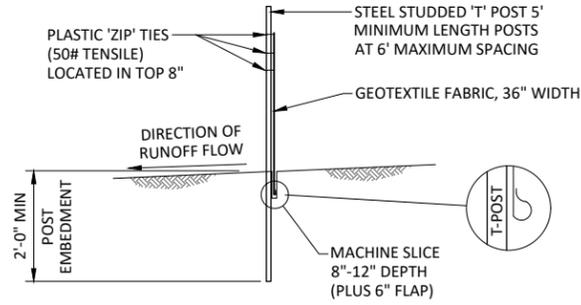
1. COMPLETE POND DREDGING AND RE-GRADING PER PLAN.
2. INSTALL OUTLET CONTROL STRUCTURE AND PIPING PER PLAN.
3. COMPLETE SITE STABILIZATION AND TURF RESTORATION UPSTREAM OF THE BASIN.
4. PUMP DOWN POND AND REMOVE CONSTRUCTION SEDIMENT.
5. ROLL BACK EROSION CONTROL BLANKET AS NECESSARY TO INSTALL IRON ENHANCED SAND FILTER. CONTRACTOR SHALL EXERCISE CARE REMOVING EROSION CONTROL BLANKET TO PRESERVE FOR RE-INSTALLATION. INSTALL NEW BLANKET AS NECESSARY TO REPLACE MATERIAL DAMAGED DURING FILTER INSTALLATION.
6. EXCAVATE 4' WIDE X 3' DEEP TRENCH IN LOCATION SHOWN ON PLAN AND DISPOSE MATERIAL OFF-SITE.
7. PLACE 45 MIL EPDM RUBBER LINER IN TRENCH TO COVER BOTTOM AND SIDE SLOPES. ALLOW FOR 12" OVERLAP OF LINER ON ADJACENT SUBGRADE AND STAKE EDGES DOWN EVERY 2'.
8. PLACE TOPSOIL TO EDGE OF TRENCH.
9. INSTALL 6" PERFORATED HDPE DRAINTILE PIPE IN TRENCH AND CONNECT TO OUTLET CONTROL STRUCTURE. CONTRACTOR SHALL EXERCISE CARE WHEN ROUTING PIPE THROUGH LINER TO CONNECT FILTER TRENCH TO OCS AND MINIMIZE OPENING IN LINER.
10. PLACE 9" OF 1"-1 1/2" WASHED ROCK IN TRENCH TO COVER DRAINTILE.
11. PLACE 3" OF 1/4" WASHED ROCK TO COVER PREVIOUS LAYER.
12. MIX IRON FILINGS WITH CLEAN SAND IN STAGING AREA OR UTILIZE PRE-CERTIFIED AND ENGINEER APPROVED IRON ENHANCED SAND. IF MIXED ON SITE, IRON FILINGS SHALL BE MIXED BY TURNING WITH LOADER BUCKET UNTIL FILINGS ARE UNIFORMLY DISTRIBUTED.
13. PLACE IRON ENHANCED SAND TO TOP OF TRENCH.
14. RE-INSTALL SALVAGED EROSION CONTROL BLANKET PER SPECIFICATIONS. RE-SEED ENTIRE DISTURBED AREA PER SEED MIX INDICATED ON TURF RESTORATION PLAN.

- NOTE:
1. SAND IRON NEEDS TO BE PRE-MIXED PRIOR TO INSTALLATION. CAN OCCUR OFF SITE. COORDINATE WITH ENGINEER PRIOR TO MIXING.
 2. IRON FILINGS MUST BE CLEANED AND WASHED. PROVIDE SUPPLIER INFORMATION TO ENGINEER. NO OIL OR GREASE ALLOWED.



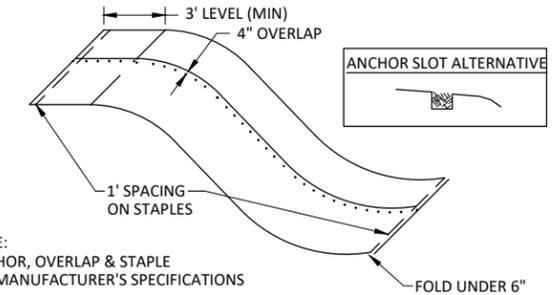
IRON ENHANCED SAND FILTER

NOT TO SCALE



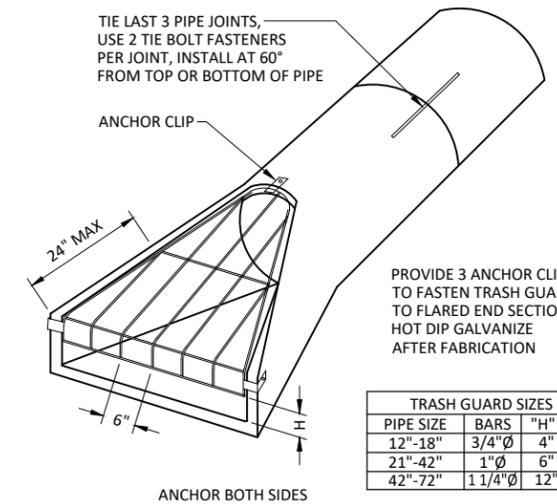
SILT FENCE - MACHINE SLICED

NOT TO SCALE



EROSION CONTROL BLANKET INSTALLATION

NOT TO SCALE



RC APRON TRASH RACK (STEEL BARS)

NOT TO SCALE

TRASH GUARD SIZES			
PIPE SIZE	BAR	"H"	BOLTS
12"-18"	3/4"Ø	4"	5/8"
21"-42"	1"Ø	6"	3/4"
42"-72"	1 1/4"Ø	12"	1"

MNDOT STANDARD PLATES FOR WORK IN HENNEPIN COUNTY RIGHT OF WAY	
THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT	
PLATE NO	DESCRIPTION
3000M	REINFORCED CONCRETE PIPE (6 SHEETS)
3006H	GASKET JOINT FOR R.C. PIPE (2 SHEETS)
3014k	REINFORCED CONCRETE PIPE ARCH
3100G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3110G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE-ARCH
3133D	RIPRAP AT RCP OUTLETS
3145G	CONCRETE PIPE OR PRECAST BOX CULVERT TIES

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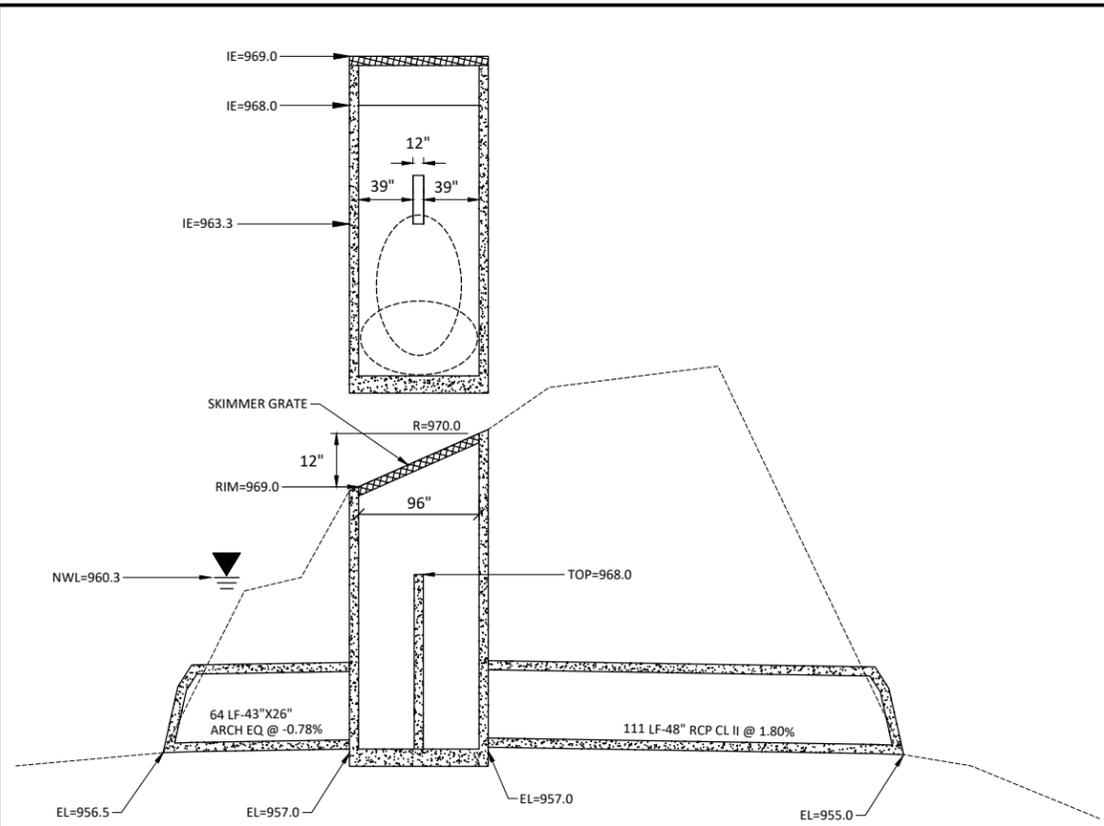
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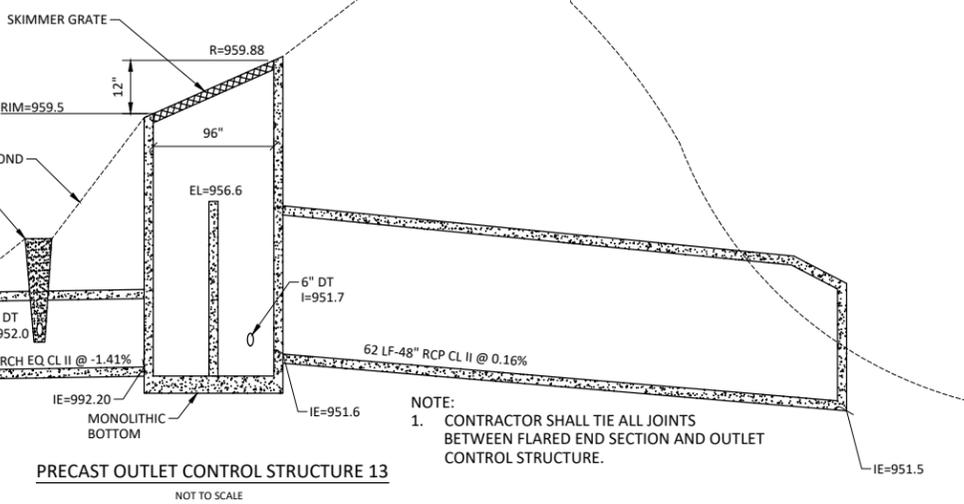
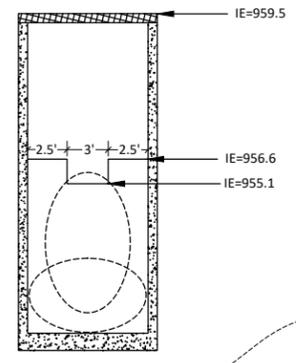
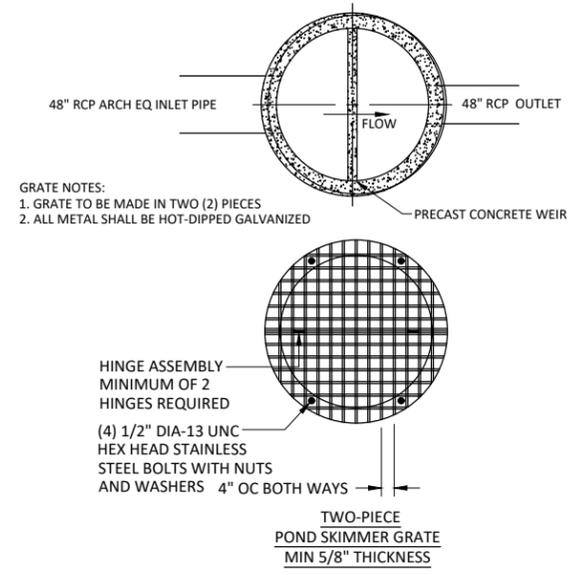
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CONSTRUCTION DETAILS

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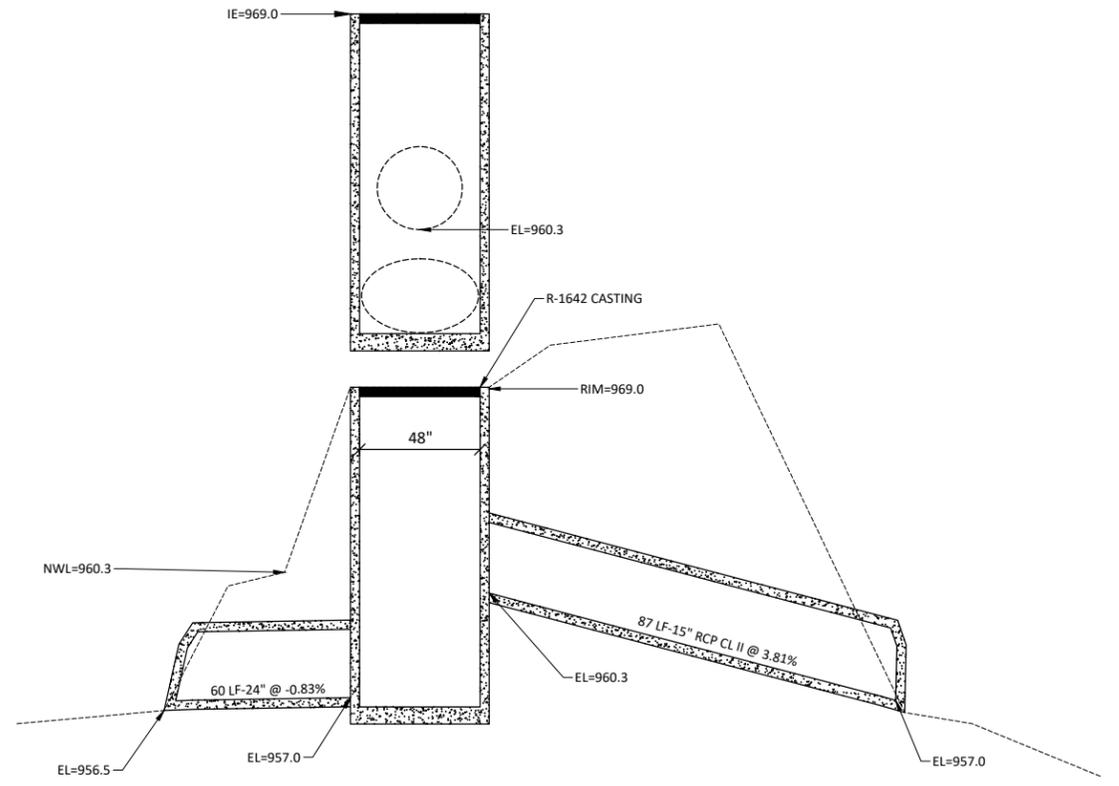


PRECAST OUTLET CONTROL STRUCTURE 10
NOT TO SCALE



PRECAST OUTLET CONTROL STRUCTURE 13
NOT TO SCALE

NOTE:
1. CONTRACTOR SHALL TIE ALL JOINTS BETWEEN FLARED END SECTION AND OUTLET CONTROL STRUCTURE.



PRECAST OUTLET CONTROL STRUCTURE 24
NOT TO SCALE

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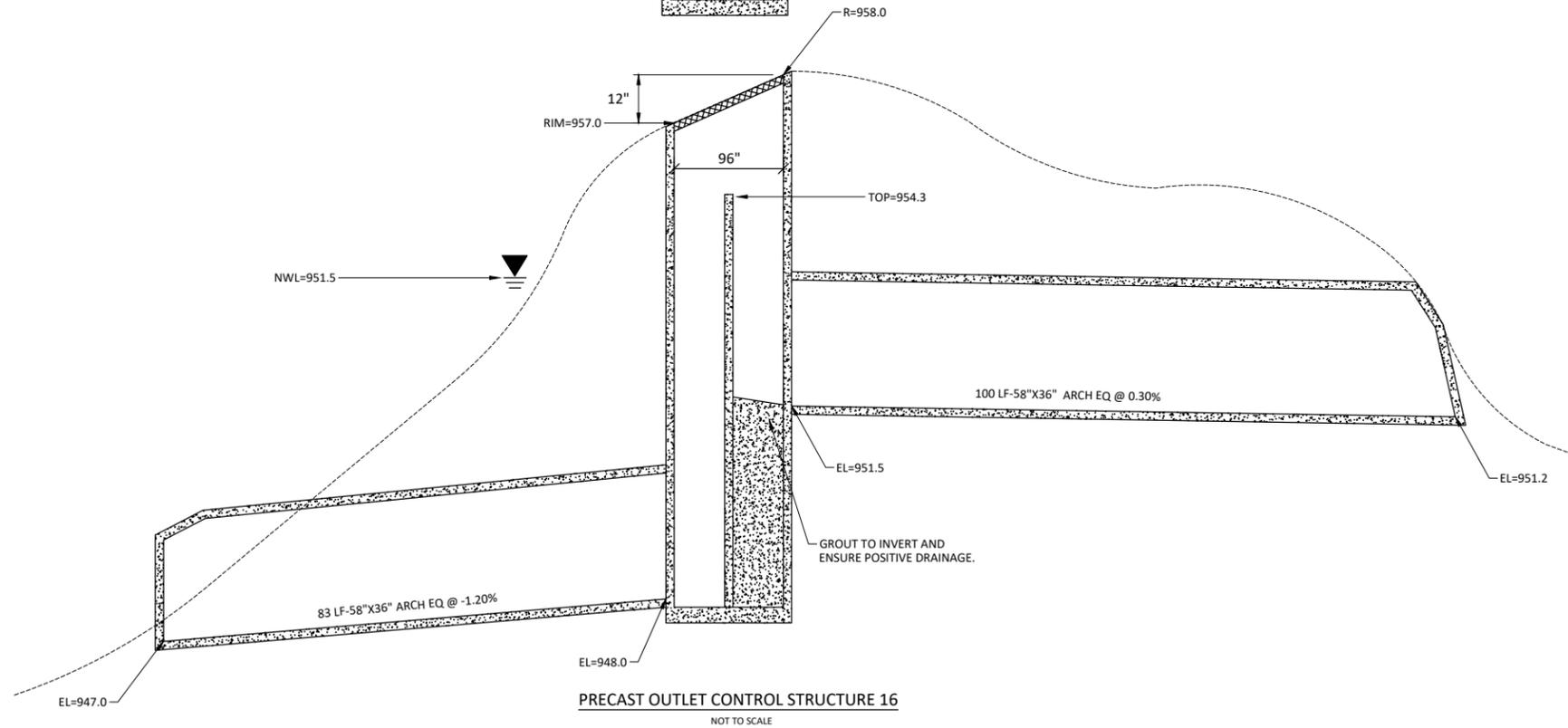
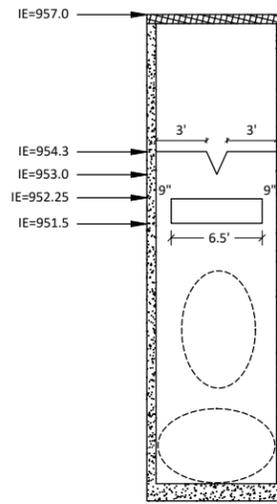


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PRECAST OUTLET CONTROL STRUCTURE 16

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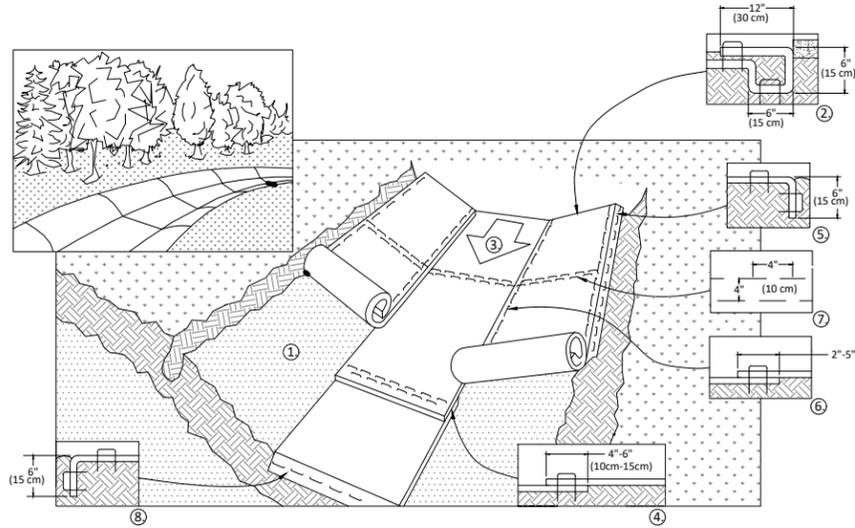


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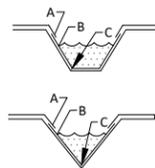
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CITY OF SHOREWOOD
 SMITHTOWN POND
 CONSTRUCTION DETAILS

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1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF SEED (TYPE AS SHOWN ON PLANS)
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4"-6" (10cm-15cm) OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10cm) APART AND 4" (10cm) ON CENTER TO SECURE BLANKETS.
5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 2"-5" (5cm-12.5cm) (DEPENDING ON BLANKET TYPE) AND STAPLED. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE BLANKET BEING OVERLAPPED.
7. A STAPLE CHECK SLOT IS REQUIRED AT 30 TO 40 FOOT (9m-12m) INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10cm) APART AND 4" (10cm) ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.



- CRITICAL POINTS**
- A. OVERLAPS AND SEAMS
 - B. PROJECTED WATER LINE
 - C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

NOTE:
* HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.

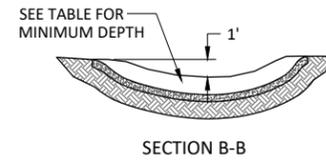
** IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.

*** STAPLES TO BE MIN. 8" STEEL.

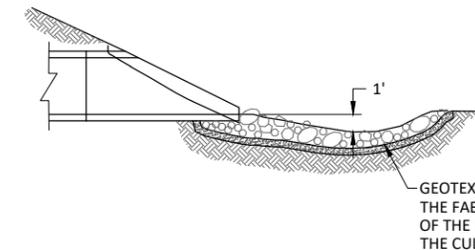
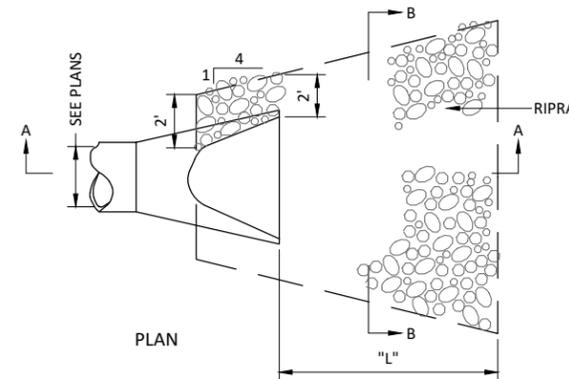
NOTES:

1. MUST BE VMAX SC-250 OR APPROVED EQUAL.
2. EXTEND TRM ON SIDE SLOPES OF RAVINE 1.0' UP FROM CHANNEL BOTTOM. COORDINATE FINAL EXTENT OF TRM IN FIELD WITH ENGINEER.

TURF REINFORCEMENT MAT (TRM)



DIA OF ROUND PIPE (IN)	L (FT)	CLASS II	CLASS III	CLASS IV
		d50=6"	d50=9"	d50=12"
		12" DEPTH RIPRAP (CU YD)	18" DEPTH RIPRAP (CU YD)	24" DEPTH RIPRAP (CU YD)
12	8	2.8	4.1	5.5
15	8	2.9	4.4	5.8
18	10	3.9	5.9	7.8
21	10	4.2	6.3	8.4
24	12	5.5	8.3	11.0
27	12	5.8	8.7	11.6
30	14	7.3	10.9	14.5
36	16	9.2	13.8	18.3
42	18	10.9	16.3	21.7
48	20	12.9	19.4	25.8



SECTION A-A

RIPRAP AT RCP CULVERT END
NOT TO SCALE

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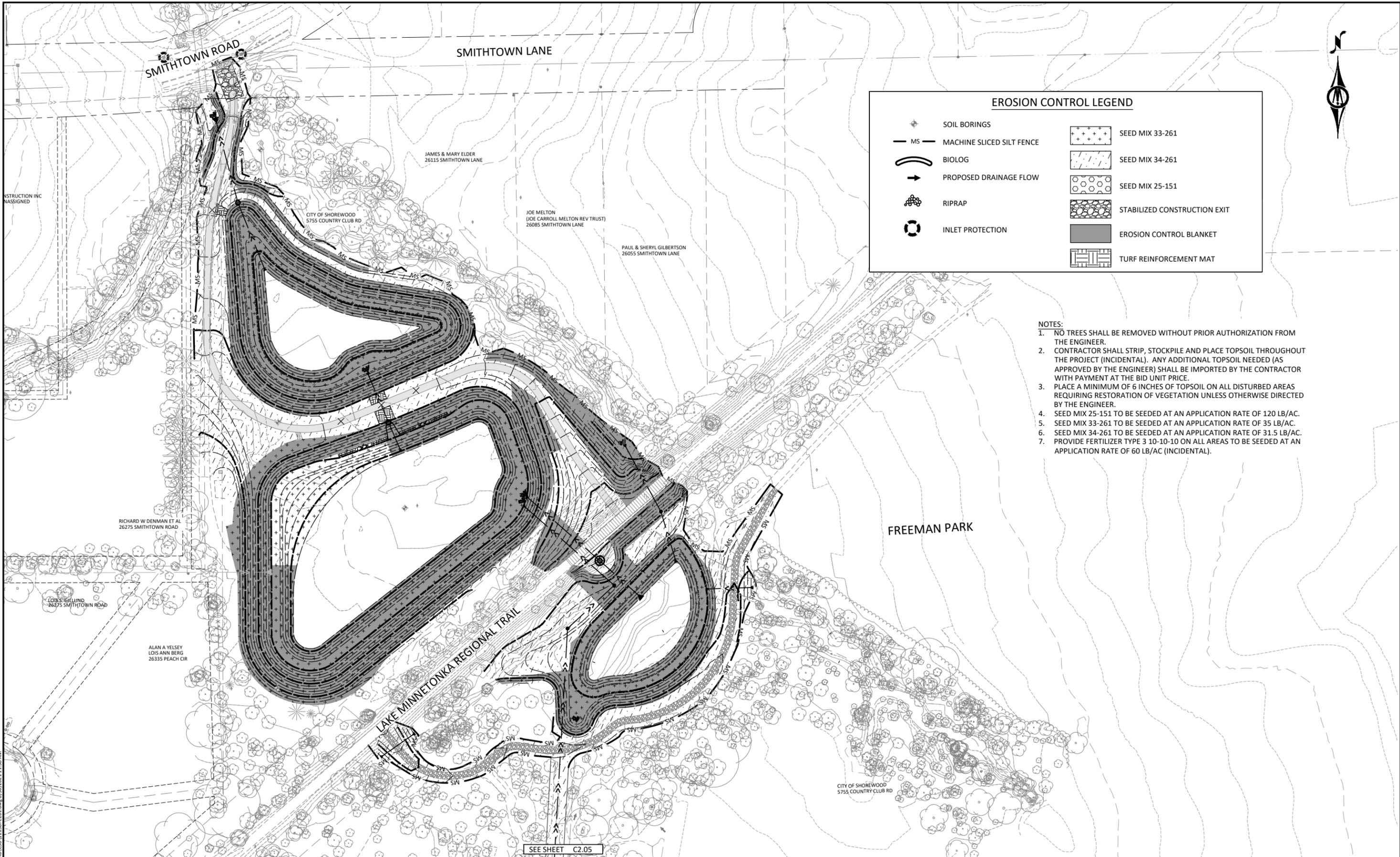


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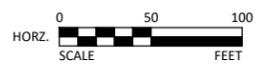
EROSION CONTROL LEGEND

<ul style="list-style-type: none"> SOIL BORINGS MACHINE SLICED SILT FENCE BILOG PROPOSED DRAINAGE FLOW RIPRAP INLET PROTECTION 	<ul style="list-style-type: none"> SEED MIX 33-261 SEED MIX 34-261 SEED MIX 25-151 STABILIZED CONSTRUCTION EXIT EROSION CONTROL BLANKET TURF REINFORCEMENT MAT
--	--

- NOTES:**
1. NO TREES SHALL BE REMOVED WITHOUT PRIOR AUTHORIZATION FROM THE ENGINEER.
 2. CONTRACTOR SHALL STRIP, STOCKPILE AND PLACE TOPSOIL THROUGHOUT THE PROJECT (INCIDENTAL). ANY ADDITIONAL TOPSOIL NEEDED (AS APPROVED BY THE ENGINEER) SHALL BE IMPORTED BY THE CONTRACTOR WITH PAYMENT AT THE BID UNIT PRICE.
 3. PLACE A MINIMUM OF 6 INCHES OF TOPSOIL ON ALL DISTURBED AREAS REQUIRING RESTORATION OF VEGETATION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
 4. SEED MIX 25-151 TO BE SEEDED AT AN APPLICATION RATE OF 120 LB/AC.
 5. SEED MIX 33-261 TO BE SEEDED AT AN APPLICATION RATE OF 35 LB/AC.
 6. SEED MIX 34-261 TO BE SEEDED AT AN APPLICATION RATE OF 31.5 LB/AC.
 7. PROVIDE FERTILIZER TYPE 3 10-10-10 ON ALL AREAS TO BE SEEDED AT AN APPLICATION RATE OF 60 LB/AC (INCIDENTAL).

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CITY OF SHOREWOOD
SMITHTOWN POND

EROSION CONTROL & TURF ESTABLISHMENT PLAN OVERVIEW

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C2.01



SMITHTOWN ROAD

SMITHTOWN LANE

JAMES & MARY ELDER
26115 SMITHTOWN LANE

CITY OF SHOREWOOD
5755 COUNTRY CLUB RD

JOE MELTON
(JOE CARROLL MELTON REV TRUST)
26085 SMITHTOWN LANE

PAUL & SHERYL GILBERTSON
26055 SMITHTOWN LANE

SMITHTOWN NORTH POND

EROSION CONTROL LEGEND

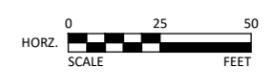
	SOIL BORINGS		SEED MIX 33-261
	MACHINE SLICED SILT FENCE		SEED MIX 34-261
	BIOLOG		SEED MIX 25-151
	PROPOSED DRAINAGE FLOW		STABILIZED CONSTRUCTION EXIT
	RIPRAP		EROSION CONTROL BLANKET
	INLET PROTECTION		TURF REINFORCEMENT MAT

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3. PLACE A MINIMUM OF 6 INCHES OF TOPSOIL ON ALL DISTURBED AREAS REQUIRING RESTORATION OF VEGETATION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
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5. SEED MIX 33-261 TO BE SEEDED AT AN APPLICATION RATE OF 35 LB/AC.
6. SEED MIX 34-261 TO BE SEEDED AT AN APPLICATION RATE OF 31.5 LB/AC.
7. PROVIDE FERTILIZER TYPE 3 10-10-10 ON ALL AREAS TO BE SEEDED AT AN APPLICATION RATE OF 60 LB/AC (INCIDENTAL).

SEE SHEET C2.03

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CITY OF SHOREWOOD
SMITHTOWN POND
EROSION CONTROL & TURF ESTABLISHMENT PLAN

SHEET C2.02

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SEE SHEET C2.02



SMITHTOWN SOUTH POND

RICHARD W DENMAN ET AL
26275 SMITHTOWN ROAD

FUTURE STORM SEWER
(BY OTHERS)

ALAN A YELSEY
LOIS ANN BERG
26335 PEACH CIR

FREEMAN PARK BASIN

LAKE MINNETONKA REGIONAL TRAIL

SEE SHEET C2.04

NOTES:

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EROSION CONTROL LEGEND

	SOIL BORINGS		SEED MIX 33-261
	MACHINE SLICED SILT FENCE		SEED MIX 34-261
	BIOLOG		SEED MIX 25-151
	PROPOSED DRAINAGE FLOW		STABILIZED CONSTRUCTION EXIT
	RIPRAP		EROSION CONTROL BLANKET
	INLET PROTECTION		TURF REINFORCEMENT MAT



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ANDREW L. BUDDÉ
LIC. NO. 46585 DATE 03/19/2021

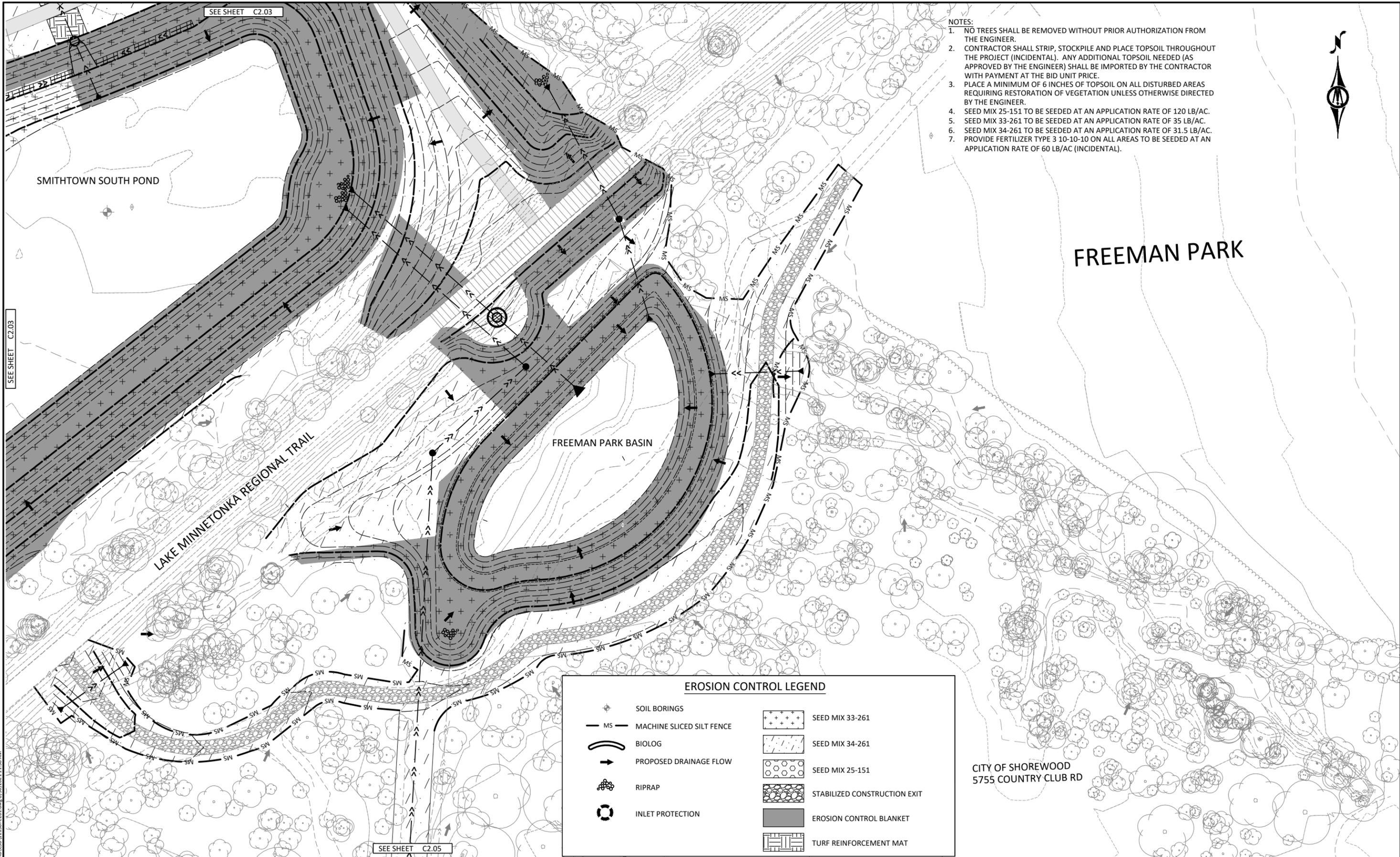


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CHASKA, MINNESOTA 55318
Phone: (952) 448-8838
Email: Chaska@bolton-menk.com
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DESIGNED	NO.	ISSUED FOR	DATE
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DRAWN	SCD		
CHECKED	ALB		
CLIENT PROJ. NO.	C16.121587		

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- NOTES:**
1. NO TREES SHALL BE REMOVED WITHOUT PRIOR AUTHORIZATION FROM THE ENGINEER.
 2. CONTRACTOR SHALL STRIP, STOCKPILE AND PLACE TOPSOIL THROUGHOUT THE PROJECT (INCIDENTAL). ANY ADDITIONAL TOPSOIL NEEDED (AS APPROVED BY THE ENGINEER) SHALL BE IMPORTED BY THE CONTRACTOR WITH PAYMENT AT THE BID UNIT PRICE.
 3. PLACE A MINIMUM OF 6 INCHES OF TOPSOIL ON ALL DISTURBED AREAS REQUIRING RESTORATION OF VEGETATION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
 4. SEED MIX 25-151 TO BE SEEDED AT AN APPLICATION RATE OF 120 LB/AC.
 5. SEED MIX 33-261 TO BE SEEDED AT AN APPLICATION RATE OF 35 LB/AC.
 6. SEED MIX 34-261 TO BE SEEDED AT AN APPLICATION RATE OF 31.5 LB/AC.
 7. PROVIDE FERTILIZER TYPE 3 10-10-10 ON ALL AREAS TO BE SEEDED AT AN APPLICATION RATE OF 60 LB/AC (INCIDENTAL).



SEE SHEET C2.03

SEE SHEET C2.03

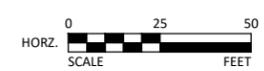
SEE SHEET C2.05

EROSION CONTROL LEGEND

	SOIL BORINGS		SEED MIX 33-261
	MACHINE SLICED SILT FENCE		SEED MIX 34-261
	BIOLOG		SEED MIX 25-151
	PROPOSED DRAINAGE FLOW		STABILIZED CONSTRUCTION EXIT
	RIPRAP		EROSION CONTROL BLANKET
	INLET PROTECTION		TURF REINFORCEMENT MAT

CITY OF SHOREWOOD
5755 COUNTRY CLUB RD

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LIC. NO. 46585 DATE 03/19/2021



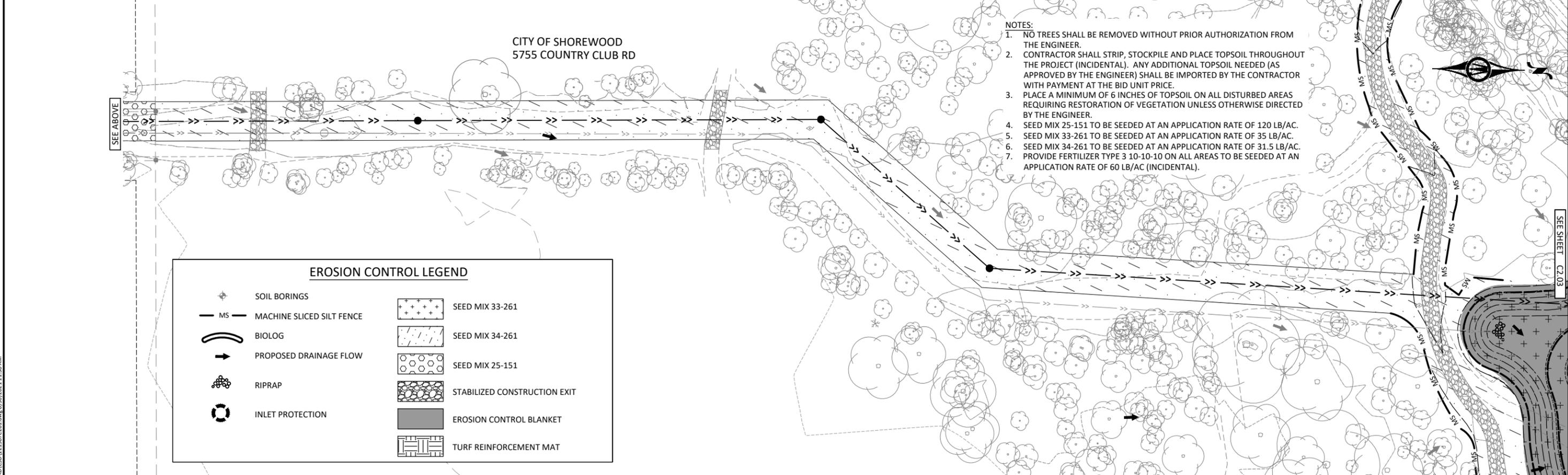
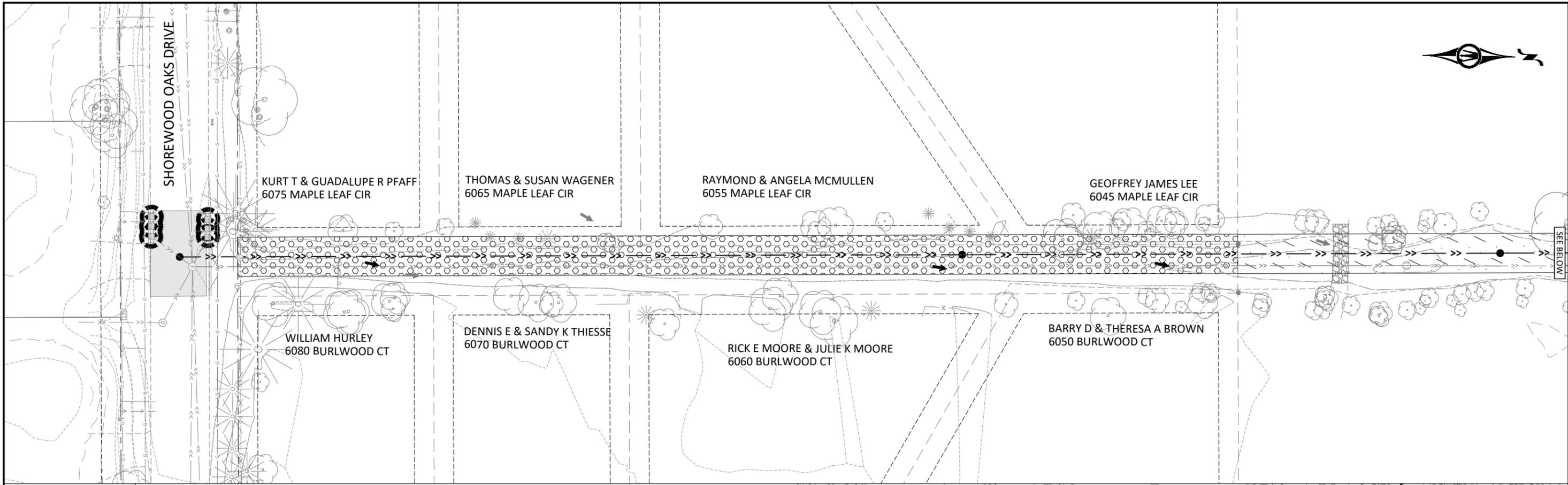
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CITY OF SHOREWOOD
SMITHTOWN POND
EROSION CONTROL & TURF ESTABLISHMENT PLAN

SHEET
C2.04

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- NOTES:**
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EROSION CONTROL LEGEND	
	SOIL BORINGS
	MACHINE SLICED SILT FENCE
	BIOLOG
	PROPOSED DRAINAGE FLOW
	RIPRAP
	INLET PROTECTION
	SEED MIX 33-261
	SEED MIX 34-261
	SEED MIX 25-151
	STABILIZED CONSTRUCTION EXIT
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	TURF REINFORCEMENT MAT



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CITY OF SHOREWOOD
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EROSION CONTROL & TURF ESTABLISHMENT PLAN

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Information contained in this SWPPP narrative sheet summarizes requirements of the GENERAL PERMIT AUTHORIZATION TO DISCHARGE STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM/STATE DISPOSAL SYSTEM PROGRAM - Permit No: MN RI00001 (Permit) as they apply to this project. All provisions of the Permit including those not specifically cited herein shall apply to this project. The Contractor is responsible to be familiar with and comply with all conditions of the permit. The full text of the Permit is available at: <https://www.pca.state.mn.us/sites/default/files/wq-strm2-80a.pdf>

SWPPP AMENDMENTS AND SUBMITTALS

Contractor must prepare and submit to the Engineer a SWPPP amendment as necessary to include additional Best Management Practices (BMPs) to correct problems identified or address the following situations.

1. Contact information and training documentation for Construction SWPPP Manager and BMP Installer,
2. There is a change in construction method of phasing, operation, maintenance, weather or seasonal conditions not anticipated during the design of the SWPPP including but not limited to:
 - a. Types and/or Locations of BMPs
 - b. Material Storage and Spill Response
 - c. Fueling Plans
 - d. Locations for Stockpiles, Concrete Washout, and Sanitation Facilities and
 - e. Project Phasing
3. It is determined that the SWPPP is not achieving objectives of minimizing pollutants in stormwater discharges associated with construction activity, or
4. The SWPPP is not consistent with the terms and conditions of the permit.

The Contractor may implement SWPPP amendments immediately and is not required to wait for Engineer review of the submittal. The responsibility for completeness of SWPPP amendments and compliance with the Permit lies with the Contractor. Review, comment, or lack of comment by the Engineer on a SWPPP amendment shall not absolve the responsibilities of the Contractor in any way.

If a change order is issued for a design change the SWPPP amendment will be prepared by the Engineer and included in the change order.

In addition to SWPPP amendments, the Contractor shall submit to the Engineer Weekly Erosion and Sediment Control Schedule meeting the requirements of MnDOT 1717.

The Contractor shall keep copies of all SWPPP amendments, Weekly Erosion and Sediment Control Schedules, inspection logs, and maintenance logs with the field copy of the SWPPP. A PDF copy of these documents will be provided along with a copy of the final Field Copy of the SWPPP to the Engineer along with the signed Notice of Termination when final stabilization is complete.

EROSION PREVENTION PRACTICES

Stormwater conveyance channels shall be routed around unstabilized areas. Erosion controls and velocity dissipation devices shall be used at outlets within and along the length of any constructed conveyance channel.

The normal wetted perimeter of all ditches or swales, including storm water management pond slopes, that drain waters from the site must be stabilized within 200' of any property edge or discharge point, including storm sewer inlets, within 24 hours of connection.

Temporary or permanent ditches or swales used as sediment containment during construction do not need to be stabilized during temporary period of use and shall be stabilized within 24 hours after no longer used as sediment containment.

Mulch, hydromulch, tackifier, or similar practice shall not be used in any portion of the wetted perimeter of a temporary or permanent drainage ditch or swale section with a continuous slope of greater than 2 percent.

Energy dissipation shall be installed at all temporary or permanent pipe outlets within 24 hours of connection to a surface water or permanent stormwater treatment system.

The Contractor shall phase construction and use construction methods to the extent practical to minimize exposed soils. The project phasing shall be documented in the Weekly Erosion and Sediment Control Schedule.

SEDIMENT CONTROL PRACTICES

Down gradient BMPs including perimeter BMPs must be in place before up gradient land- disturbing activities begin and shall remain in place until final stabilization.

All BMPs that have been adjusted or removed to accommodate short-term activities shall be re-installed or replaced the earlier of the end of the work day or before the next precipitation event even if the activity is not complete.

Inlet BMPs may be removed for specific safety concerns. The BMPs shall be replaced as soon as the safety concern is resolved. The removal shall be documented in the SWPPP as a SWPPP amendment.

Temporary stockpiles must have sediment control BMPs. The Contractor shall prepare and submit to the Engineer a SWPPP amendment showing the location of temporary stockpiles and the BMPs for each stockpile. The SWPPP amendment must meet the minimum requirements of Section 9 of the Permit.

Soil compaction shall be minimized and topsoil shall be preserved, unless infeasible or if construction activities dictate soil compaction or topsoil stripping.

The use of polymers, flocculants, or other sedimentation treatment chemicals are not proposed as part of this SWPPP as designed by the Engineer. If methods or phasing of construction require the use of any of these chemicals, the Contractor shall prepare and submit to the Engineer a SWPPP amendment that meets the minimum requirements of Section 9 of the Permit.

TEMPORARY SEDIMENTATION BASINS

A temporary sedimentation basin has not been included in this SWPPP as designed by the Engineer. If a basin is later determined to be desirable or necessary the Contractor shall prepare and submit to the Engineer a SWPPP amendment. Temporary sedimentation basins shall meet or exceed the minimum requirements of Section 14 of the Permit and shall include a basin draining plan meeting or exceeding the minimum requirements of Section 10 of the Permit. Where the site discharges to Special and/or Impaired Waters the SWPPP amendment shall also meet or exceed the minimum requirements of Section 23 of the permit.

DEWATERING

A dewatering plan has not been included in this SWPPP as designed by the Engineer. If dewatering is required for this project, the Contractor shall prepare and submit to the Engineer a SWPPP amendment. All dewatering shall meet or exceed the minimum requirements of Section 10 of the Permit.

POLLUTION PREVENTION

Products and materials that have the potential to leach pollutants that are stored on the site must be stored in a manner designed to minimize contact with stormwater. Materials that are not a source of potential contamination to stormwater or that are designed for exposure to stormwater are not required to be covered.

Hazardous materials including but not limited to pesticides, fertilizer, petroleum products, curing compounds and toxic waste must be properly stored and protected from stormwater exposure as recommended by the manufacturer in an access restricted area.

Solid waste must be stored, collected and disposed of in compliance with Minnesota Administrative Rules Chapter 7035.

Portable toilets must be positioned so that they are secure and will not be tipped or knocked over. Sanitary waste must be disposed of properly in accordance with Minn. R. CH 7041.

Exterior vehicle or equipment washing on the project site shall be limited to a defined area of the site. No engine degreasing is allowed on site. A sign must be installed adjacent to each washout facility that requires site personnel to utilize the proper facilities for disposal of concrete and other washout wastes.

The Contractor shall prepare and submit a SWPPP amendment detailing the location and BMPs proposed for storage of materials, solid waste, portable toilets, and exterior vehicle or equipment washing on the site. The SWPPP amendment shall include a spill prevention and response plan that is appropriate for the materials proposed to be on the site. The SWPPP amendment shall meet or exceed the minimum requirements of Section 12 of the Permit.

INSPECTION & MAINTENANCE

A trained person shall routinely inspect the entire construction site at the time interval indicated on this sheet of the SWPPP during active construction and within 24-hours after a rainfall event greater than 0.5 inches in 24 hours. Following an inspection that occurs within 24-hours after a rainfall event, the next inspection must be conducted at the time interval indicated in the Receiving Waters Table found on the SITE PLAN AND INFORMATION SHEET of the SWPPP.

All inspections and maintenance conducted during construction must be recorded on the day it is completed and must be retained with the SWPPP. Inspection report forms are available in the Project Specifications. Inspection report forms other than those provided shall be approved by the engineer.

The Contractor may request a change in inspection schedule for the following conditions:

- a. Inspections of areas with permanent cover to be reduced to once per month,
- b. Inspections of areas that have permanent cover and have had no construction activity for 12 months to be suspended until construction resumes,
- c. Inspections of areas where construction is suspended due to frozen ground conditions, inspections to be suspended until the earlier of within 24 hours of runoff occurring, or upon resuming construction.

No change in inspection schedule shall occur until authorized by the Engineer.

Inspections must include:

1. All erosion prevention and sediment control BMPs and Pollution Prevention Management Measures to ensure integrity and effectiveness.
2. Surface waters, including drainage ditches and conveyance systems for evidence of erosion and sediment deposition.
3. Construction site vehicle exit locations, streets and curb and gutter systems within and adjacent to the project for sedimentation from erosion or tracked sediment from vehicles.
4. Infiltration areas to ensure that no sediment from ongoing construction activity is reaching the infiltration area and that equipment is not being driven across the infiltration area.

All non-functioning BMPs and those BMPs where sediment reaches one-half (1/2) of the depth of the BMP, or in the case of sediment basins one-half (1/2) of the storage volume, must be repaired, replaced, or supplemented by the end of the next business day after discovery, or as soon as field conditions allow.

Permittees must repair, replace or supplement all nonfunctional BMPs with functional BMPs by the end of the next business day after discovery, or as soon as field conditions allow.

Any sediment that escapes the site must be removed and the area stabilized within 7 calendar days of discovery unless precluded by legal, regulatory, or physical access in which case the work shall be completed within 7 calendar days of authorization. Paved surfaces such as streets shall have any escaped or tracked sediment removed by the end of the day that it is discovered. Sediment release, other than paved surfaces that can be cleaned up with street sweeping shall be reported immediately upon discovery to the Engineer.

PUBLIC WATER RESTRICTIONS:

For public waters that have been promulgated "work in water restrictions" during fish spawning time frames, all exposed soil areas that are within 200 feet of the water's edge, and drain to these waters must complete stabilization within 24-hours during the time period. MN DNR permits are not valid for work in waters that are designated as infested waters unless accompanied by an Infested Waters Permit or written notification has been obtained from MN DNR stating that such permit is not required. There is no exception for pre-existing permits. If a MN DNR Permit has been issued for the project and the water is later designated as infested, the Contractor shall halt all work covered by the MN DNR Permit until an Infested Waters Permit is obtained or that written notification is obtained stating that such permit is not required.

FINAL STABILIZATION

Final Stabilization is not complete until all the following requirements have been met:

1. Substantial Completion has been reached and no ground disturbing activities are anticipated.
2. Permanent cover has been installed with an established minimum uniform perennial vegetation density of 70 percent of its expected final growth. Vegetation is not required in areas where no vegetation is proposed by this project such as impervious surfaces or the base of a sand filter.

3. Accumulated sediment has been removed from all permanent stormwater treatment systems as necessary to ensure the system is operating as designed.
4. All sediment has been removed from conveyance systems
5. All temporary synthetic erosion prevention and sediment control BMPs have been removed. BMPs designated on the SWPPP to remain to decompose on-site may remain.
6. For residential construction only, permit coverage terminates on individual lots if the structures are finished and temporary erosion prevention and downgradient perimeter control is complete, the residence sells to the homeowner, and the permittee distributes the MPCA's "Homeowner Fact Sheet" to the homeowner.
7. For agricultural land only (e.g., pipelines across cropland), the disturbed land must be returned to its preconstruction agricultural use prior to submitting the NOT.

SITE STABILIZATION COMPLETION:

Stabilization of exposed soils shall begin immediately and shall be completed after the construction activity has temporarily or permanently ceased no later than:	14 calendar days
--	------------------

SITE INSPECTION INTERVAL:

A trained person shall routinely inspect the entire construction site during active construction at an interval of no less than:	7 calendar days
--	-----------------

SPECIAL ENVIRONMENTAL CONSIDERATIONS AND PERMITS:

1) Was an environmental review required for this project or any part of a common plan of development or sale that includes all or any portion of this project?	NO
2) Does any portion of the site have the potential to affect threatened or endangered species or their critical habitat?	NO
3) Does any portion of this site discharge to a Calcareous fen.	NO
4) Will any portion of the site potentially affect properties listed on the National Register of Historic Places or a known or discovered archeological site?	NO
5) Have any Karst features been identified in the project vicinity?	NO
6) Is compliance with temporary or permanent stormwater management design requirements infeasible for this project?	NO
7) Has the MN DNR promulgated "work in water restrictions" for any Public Water this site discharges to during fish spawning?	NO

TYPE OF PERMIT	PERMITTING AGENCY	PERMIT STATUS AND CONDITIONS
Construction Stormwater NPDES	MPCA	
Watershed Construction Permits	MCWD	

SWPPP DESIGNER TRAINING DOCUMENTATION:

UNIVERSITY OF MINNESOTA

Robert E. Bean, Jr.

Construction Installer (May 31 2022)
Design of Construction SWPPP (May 31 2022)
Stormwater O & M (May 31 2022)

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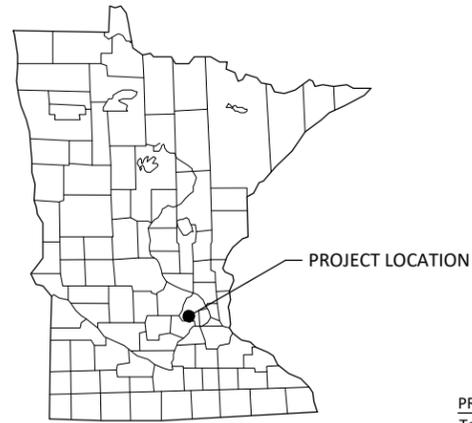
CITY OF SHOREWOOD
SMITHTOWN POND
SWPPP NARRATIVE

SHEET
C2.06

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

SMITHTOWN POND

CITY OF SHOREWOOD
HENNEPIN COUNTY, MINNESOTA



LEGEND

- 1-MILE BOUNDARY
- PROJECT BOUNDARY
- OR IMPAIRED, SPECIAL OR PROTECTED WATERS
- NATIONAL WETLANDS INVENTORY

PROJECT AREAS:

Total Project Size (disturbed area) =	6.5	ACRES
Existing area of impervious surface =	.36	ACRES
Post construction area of impervious surface =	.33	ACRES
Total new impervious surface area created =	-.03	ACRES

Planned Construction Start Date: 12/1/2021
Estimated Construction Completion Date: 06/30/2022

PERMANENT STORMWATER MANAGEMENT SYSTEM:
Type of storm water management used if more than 1 acre of new impervious surface is created:

<input type="checkbox"/>	Wet Sedimentation Basin
<input type="checkbox"/>	Infiltration/Filtration
<input checked="" type="checkbox"/>	Regional Pond
<input type="checkbox"/>	Permanent Stormwater Management Not Required

THIS IS A STORM POND PROJECT. Impervious surface is being decreased.

PROJECT LOCATION:

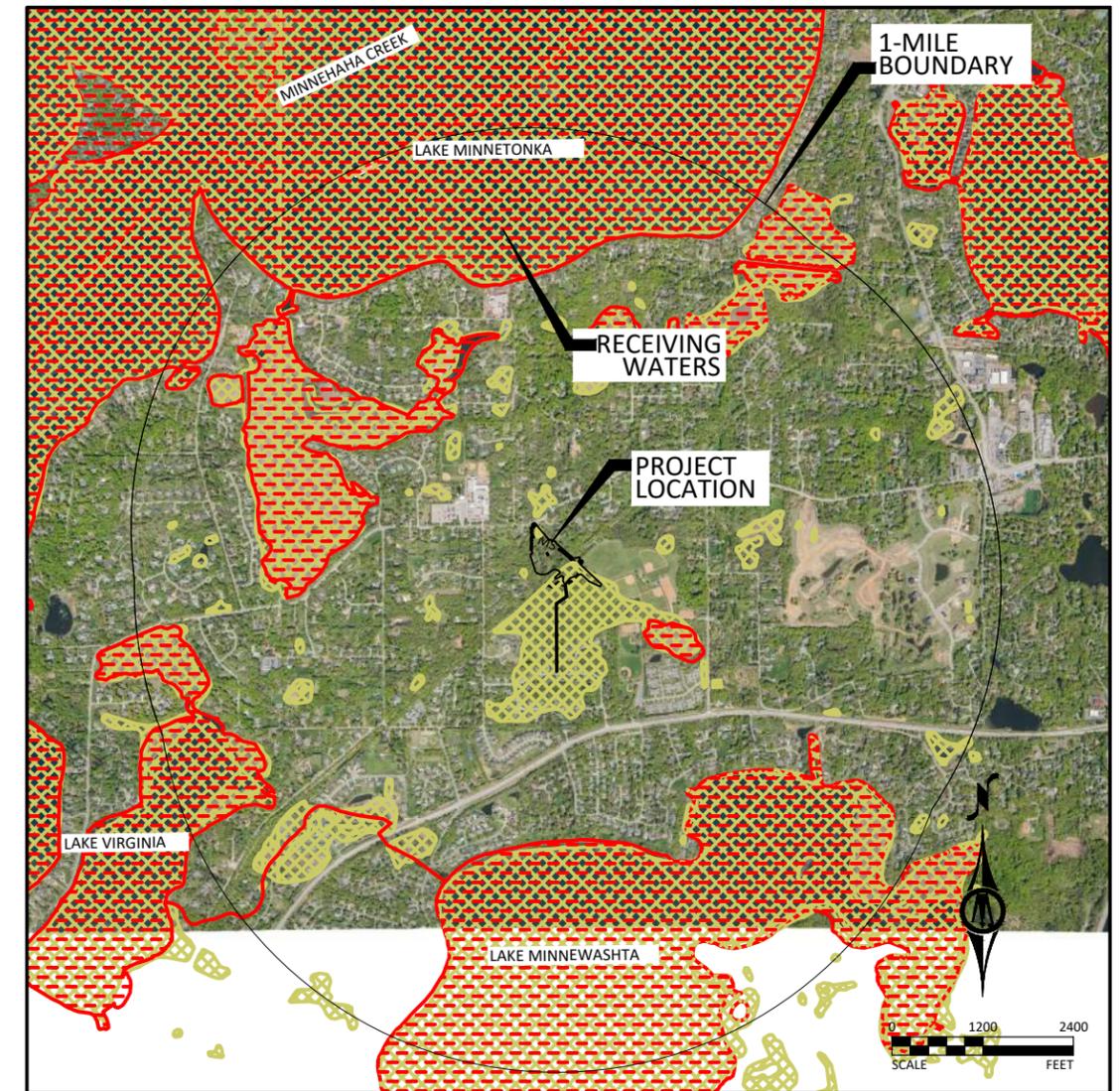
COUNTY	TOWNSHIP	RANGE	SECTION	LATITUDE	LONGITUDE
Hennepin	T117N	R23W	32	44.8979	-93.6114

BMP SUMMARY	QUANTITY	UNIT
CONSTRUCTION EXIT	2	Ea
INLET PROTECTION	8	Ea
SILT FENCE, MACHINE SLICED	2381	LF
BIOLOG	200	LF
RIPRAP	86	CY
SEED MIX 33-261	12,254	SY
SEED MIX 25-151	1,170	SY
SEED MIX 34-261	9810	SY

DESCRIPTION OF CONSTRUCTION ACTIVITIES AND STORMWATER MANAGEMENT:
Construction activities include: Site grading, storm sewer construction, storm pond construction, temporary erosion and sediment control, and permanent stabilization.

Stormwater currently flows northwest through the site and then north under Smithtown Road. Drainage will not be changed by this project.

This project is to construct a series of storm water treatment ponds to better treat storm water runoff from the surrounding residential neighborhoods, the regional trail and the community park.



RECEIVING WATERS:
Receiving waters, including surface water, wetlands, Public Waters, and stormwater ponds, within 1-mile of the project boundary are identified on the USGS 7.5 min quad map above. Receiving waters that are impaired, the impairment, and WLA are listed as follows. All specific BMPs relative to construction activities listed in the permit for special, prohibited, restricted, or impaired have been incorporated into this plan. All specific BMPs listed in approved TMDLs and those BMPs listed for construction related waste load allocations have also been incorporated.

NAME OF WATER BODY	TYPE (ditch, pond, wetland, lake, etc.)	Special, Prohibited, Restricted Water ¹	Flows to Impaired Water Within 1-Mile ²	USEPA Approved Construction Related TMDL ³
MINNETONKA	LAKE	NO	NO	NONE

¹ Special, prohibited, and restricted waters are listed in Section 23 of the MN Construction Stormwater General Permit (MNR100001).
² Identified as impaired under section 303 (d) of the federal Clean Water Act for phosphorus, turbidity, TSS, dissolved oxygen, and/or aquatic biota.
³ Construction Related TMDLs include those related to: phosphorus, turbidity, TSS, dissolved oxygen, and/or aquatic biota.

IMPLEMENTATION SCHEDULE AND PHASING: The Contractor is required to provide an updated schedule and site management plan meeting the minimum requirements of Section 1717 of the Minnesota Standard Specifications for Construction.

- 1) Submit SWPPP Updates to Engineer. Submittal shall include any requested changes to the SWPPP, including but not limited to: Trained Personnel, Locations for Stockpiles, Concrete Washout, Sanitation Facilities, Types and Locations of Erosion & Sediment Control. Failure to submit updates shall be considered acceptance of the SWPPP as designed with no changes.
- 2) Install perimeter sediment control, inlet protection, and construction exit.
- 3) Construct storm water ponds and associated storm sewer system.
- 4) Install permanent erosion control and restore vegetation cover.
- 5) Add additional temporary BMPs as necessary during construction based on inspection reports.
- 6) Ensure final stabilization measures are complete.
- 7) Provide digital copy of all Field SWPPP Documentation including Inspection Reports and SWPPP Revisions to the Owner.
- 8) Submit Notice of Termination (NOT) to MPCA. NOTE: The NOT must be submitted to MPCA before Final Stabilization is considered complete.

RESPONSIBLE PARTIES:

The Contractor and Owner will be joint applicants under the MPCA's General Stormwater Permit for Construction Activity as required by the National Pollutant Discharge Elimination System (NPDES) Phase II program.

The Contractor shall provide one or more trained Construction SWPPP Manager(s) knowledgeable and experienced in the application of erosion prevention and sediment control BMPs that will oversee the implementation of the SWPPP, and the installation, inspection and maintenance of the erosion prevention and sediment control BMPs.

A Construction SWPPP Manager must be available for an on-site inspection within 72 hours upon request by the MPCA.

	COMPANY	CONTACT PERSON	PHONE
OWNER:	City of Shorewood	Andrew Budde	952-448-8838
SWPPP DESIGNER:	Bolton & Menk, Inc.	Robert Bean	952-448-8838
CONTRACTOR:	TBD	TBD	TBD
CONSTRUCTION SWPPP MANAGER:	TBD	TBD	TBD
PARTY RESPONSIBLE FOR LONG TERM O&M:	City of Shorewood	Andrew Budde	952-448-8838

The SWPPP Designer, Construction SWPPP Manager, and BMP Installer must have appropriate training. Documentation showing training commensurate with the job duties and responsibilities is required to be included in the SWPPP prior to any work beginning on the site. Training documentation for the SWPPP Designer is included on the Narrative sheet. The Contractor shall attach training documentation to this SWPPP for the Construction SWPPP Manager and BMP Installer prior to the start of construction. This information shall be kept up to date until the project NOT is filed.

ADDITIONAL COMPENSATION

Payment for all work associated with Erosion and Sediment Control shall be as described in the Project Manual. Unless otherwise authorized by the Owner no additional payment shall be made for any work required to administer and maintain the site erosion and sediment control in compliance with the Minnesota Pollution Control Agency (MPCA) - General Stormwater Permit for Construction Activity (MN R100001) including but not limited to inspection, maintenance, and removal of BMPs or addition of BMPs to accommodate Contractor phasing.

DOCUMENT RETENTION

Permittees must make the SWPPP, including all inspection reports, maintenance records, training records and other information required by this permit, available to federal, state, and local officials within three (3) days upon request for the duration of the permit and for three (3) years following the NOT.

GENERAL STORMWATER DISCHARGE REQUIREMENTS

All requirements listed in Section 5.1 of the Permit for the design of the permanent stormwater management system and discharge have been included in the preparation of this SWPPP. These include but are not limited to:

1. The expected amount, frequency, intensity, and duration of precipitation.
2. The nature of stormwater runoff and run-on at the site
3. Peak flow rates and stormwater volumes to minimize erosion at outlets and downstream channel and stream bank erosion.
4. The range of soil particle sizes expected to be present on the site.

Permanent stormwater treatment systems for this project have been designed in accordance with the guidance in the MN Stormwater Manual in place at the time of bidding. Copies of the design information and calculations are part of this SWPPP and will be provided in digital format upon written request to the Engineer.

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CITY OF SHOREWOOD
SMITHTOWN POND
SWPPP PLAN

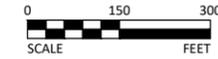
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LEGEND

- PROJECT BOUNDARY
- SOIL TYPE



SOIL TYPE SUMMARY

Map Unit Symbol	Soil Name	Hyd. Soil Group	Erodibility
MUSYM	MUNAME	HYDGRP	MUHELCL
L9A	Minnetonka silty clay loam, 0-2% slopes	C	NHEL
L23A	Cordova loam, 0-2% slopes	C/D	NHEL
L25A	Le Sueur loam, 1-3% slopes	C	NHEL
L35A	Lerdal loam, 1-3% slopes	C	NHEL
L36A	Hamel, overwash-Hamel complex, 0-3% slopes	C	NHEL

NHEL - Not Highly Erodible Land
 PHEL - Potentially Highly Erodible Land
 HEL - Highly Erodible Land

LOCATION OF SWPPP REQUIREMENTS IN PROJECT PLAN

DESCRIPTION	SHEET NO.
SITE MAP	G0.01 & C2.08
DIRECTION OF FLOW	C2.01-C2.04
FINAL STABILIZATION	C2.01-2.06
SOILS	C2.09
DRAINAGE STRUCTURES	C5.01-5.09
DRAINAGE TABULATION	SPECS
STORM SEWER PLAN & PROFILE SHEETS	C5.01 - C5.09
EROSION & SEDIMENT CONTROL DETAILS	C2.01-2.06
EROSION CONTROL TABULATION	C2.08
TURF ESTABLISHMENT TABULATION	C2.08
NARRATIVE & NOTES	C2.07 - C2.08

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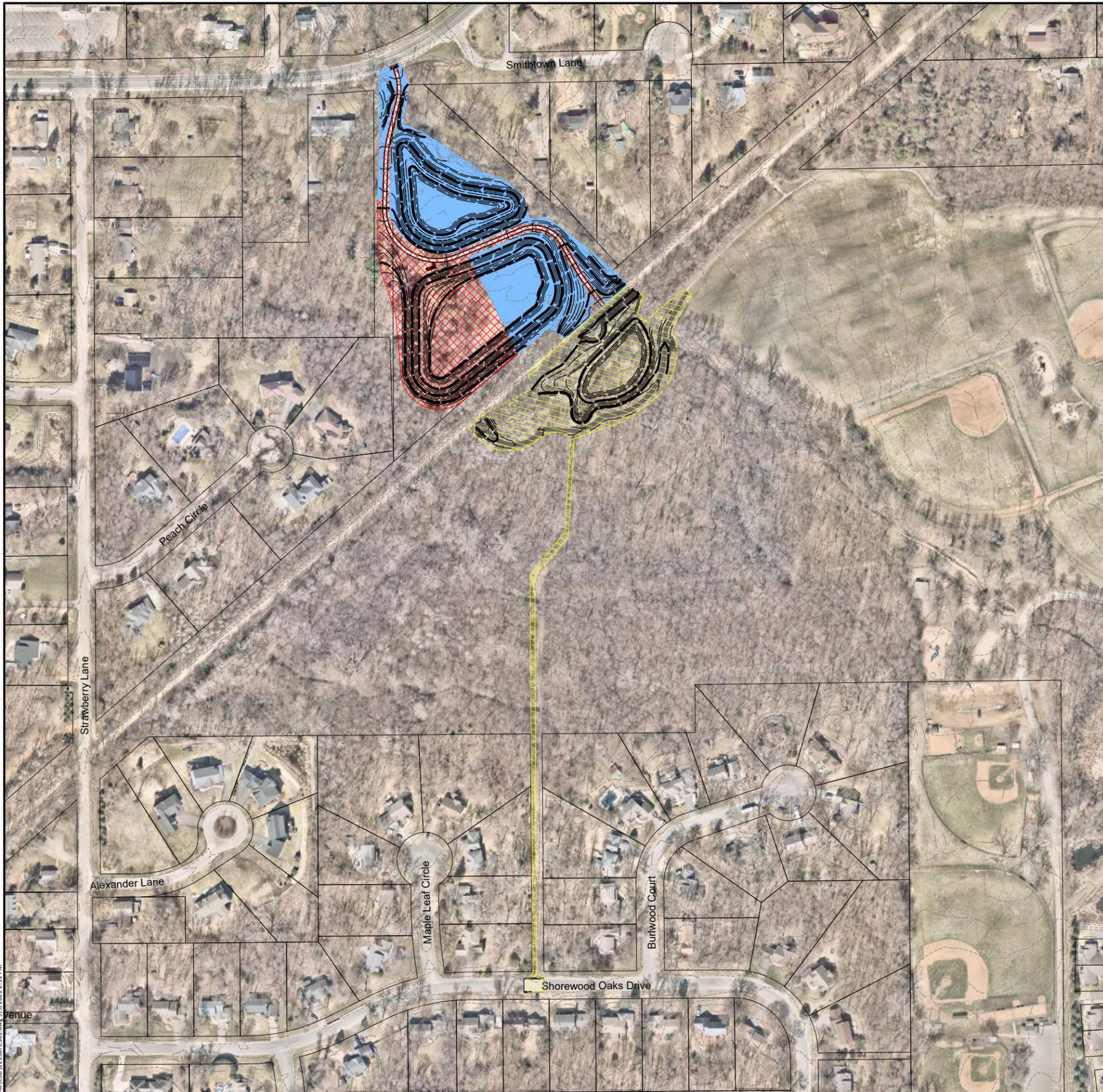


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CITY OF SHOREWOOD
 SMITHTOWN POND
 SWPPP SOILS

SHEET
C2.08

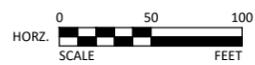


STAGING OVERVIEW LEGEND

	STAGE 1
	STAGE 2
	STAGE 3

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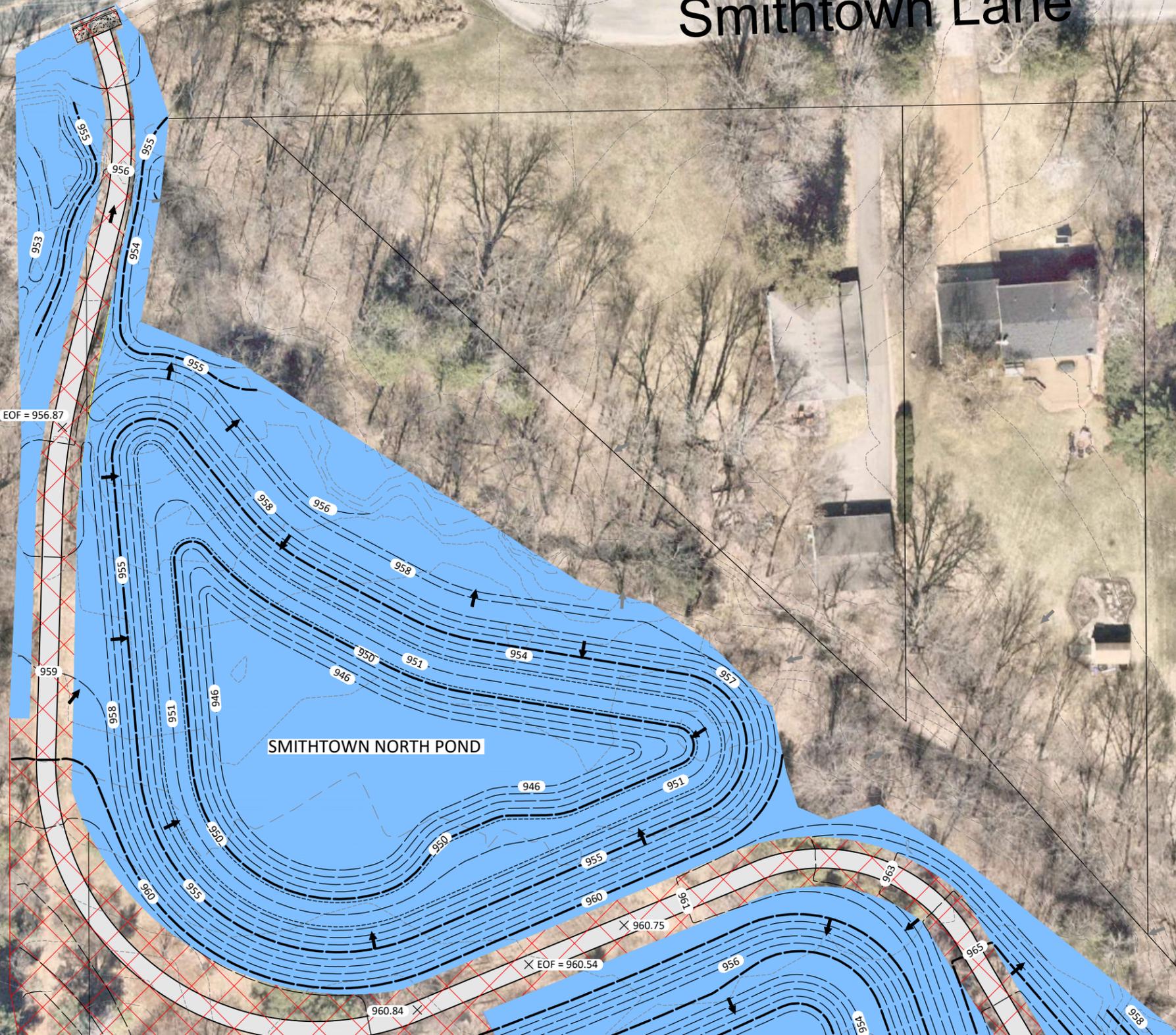
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CITY OF SHOREWOOD
SMITHTOWN POND
STAGING PLAN

SHEET
C3.01

Smithtown Lane



SMITHTOWN NORTH POND

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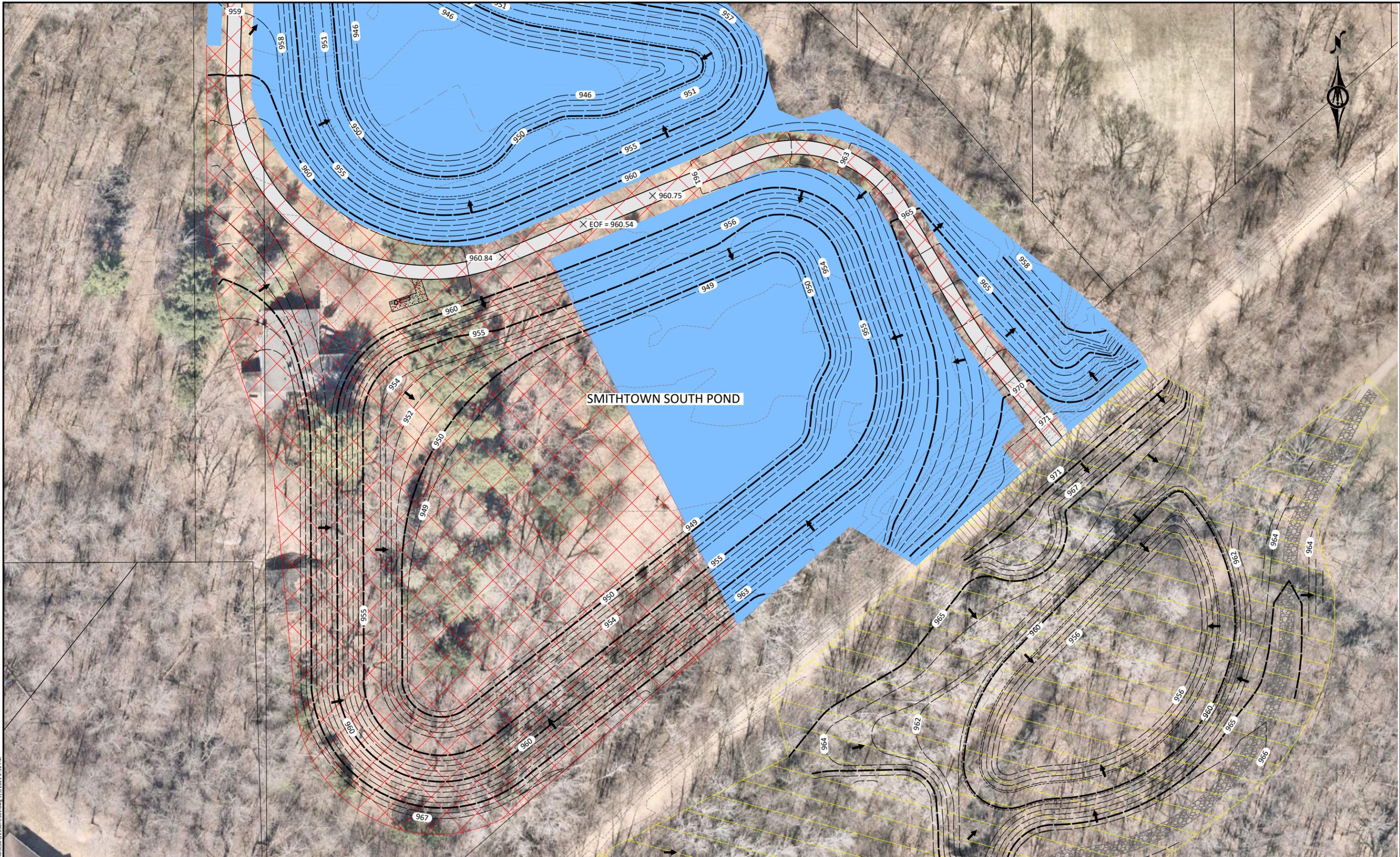
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CITY OF SHOREWOOD
SMITHTOWN POND
STAGING PLAN

SHEET
C3.02

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SMITHTOWN SOUTH POND

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CITY OF SHOREWOOD
SMITHTOWN POND
STAGING PLAN

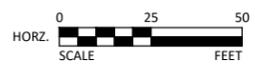
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FREEMAN PARK BASIN

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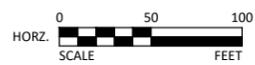
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SMITHTOWN POND	C3.04
STAGING PLAN	

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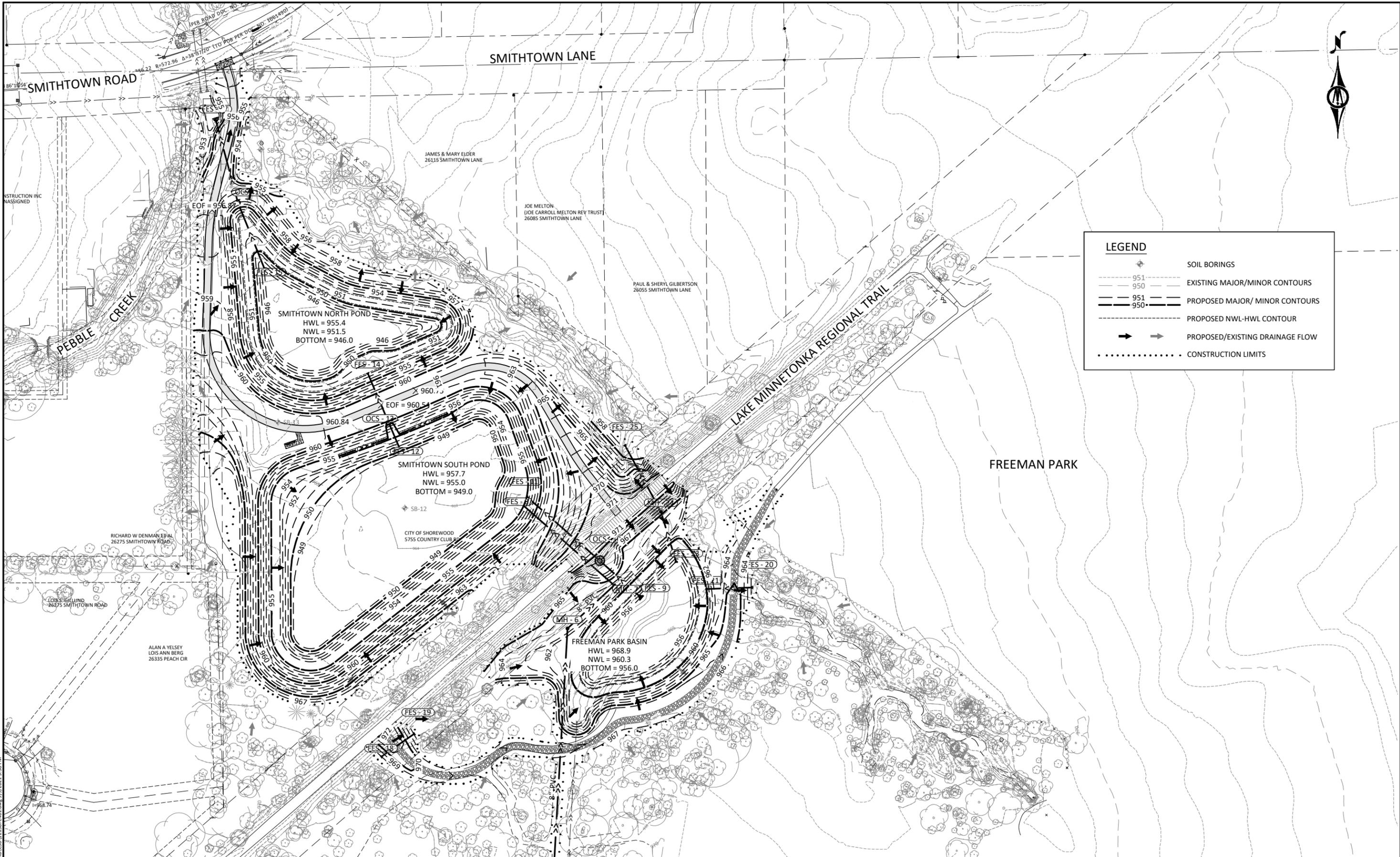
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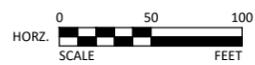
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SMITHTOWN POND	C3.05
TRAIL DETOUR	



LEGEND

- SOIL BORINGS
- EXISTING MAJOR/MINOR CONTOURS
- PROPOSED MAJOR/MINOR CONTOURS
- PROPOSED NWL-HWL CONTOUR
- PROPOSED/EXISTING DRAINAGE FLOW
- CONSTRUCTION LIMITS

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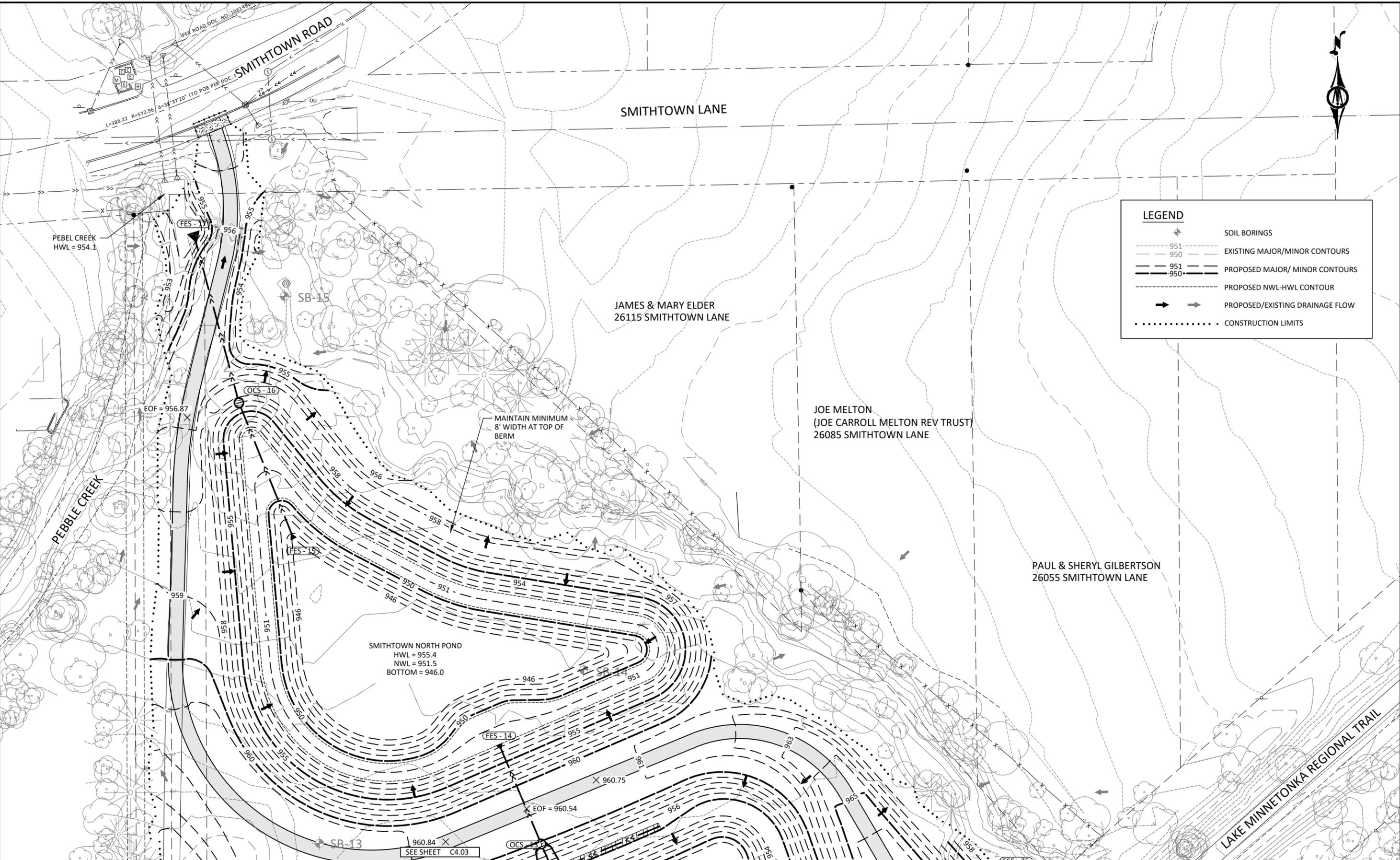
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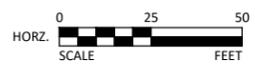
LEGEND

- SOIL BORINGS
- 951 - EXISTING MAJOR/MINOR CONTOURS
- 950 - PROPOSED MAJOR/ MINOR CONTOURS
- PROPOSED NWL-HWL CONTOUR
- PROPOSED/EXISTING DRAINAGE FLOW
- CONSTRUCTION LIMITS



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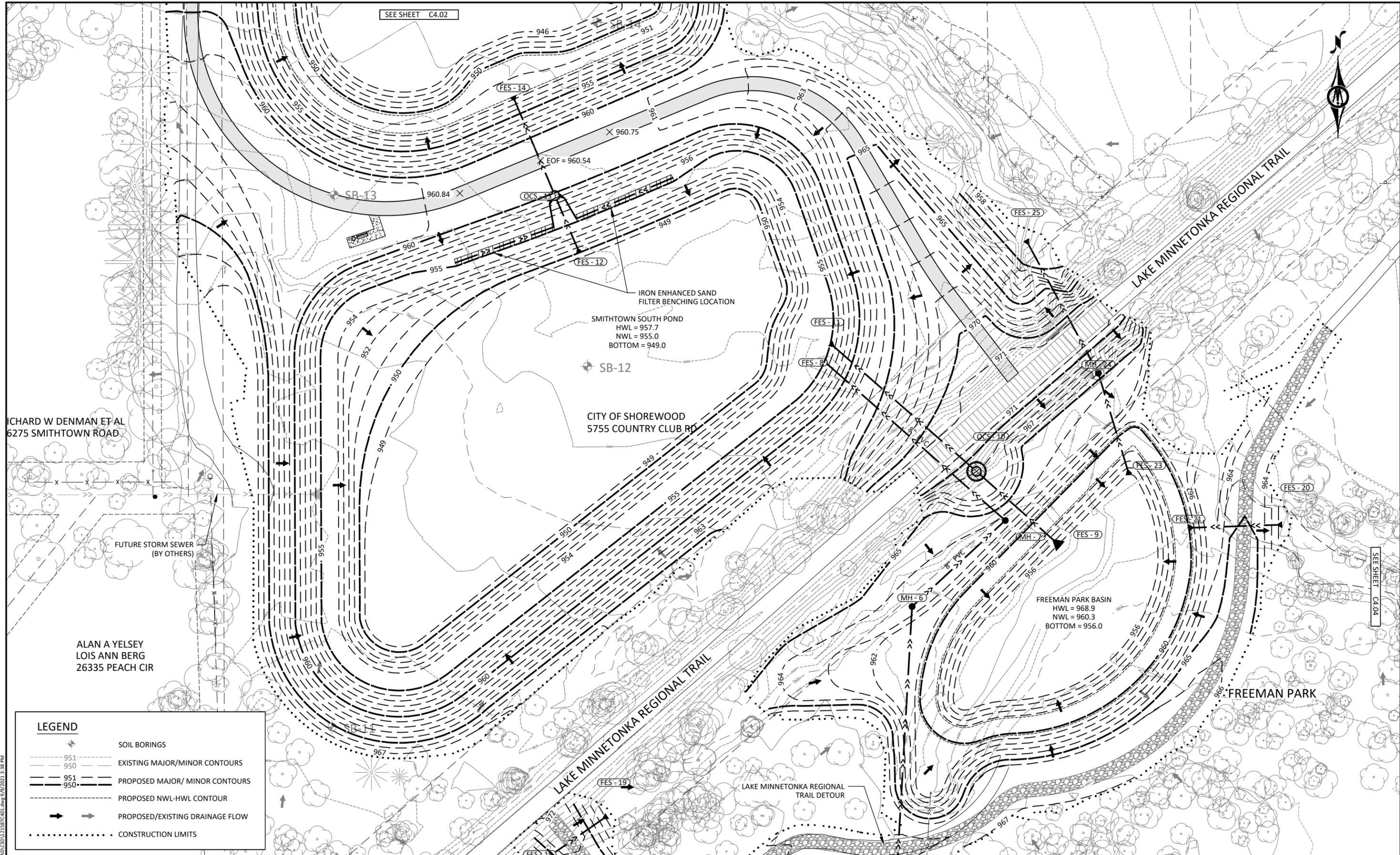
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CITY OF SHOREWOOD
SMITHTOWN POND
GRADING PLAN

SHEET
C4.02

SEE SHEET C4.02



RICHARD W DENMAN ET AL
6275 SMITHTOWN ROAD

CITY OF SHOREWOOD
5755 COUNTRY CLUB RD

ALAN A YELSEY
LOIS ANN BERG
26335 PEACH CIR

FUTURE STORM SEWER
(BY OTHERS)

IRON ENHANCED SAND
FILTER BENCHING LOCATION

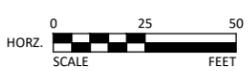
SMITHTOWN SOUTH POND
HWL = 957.7
NWL = 955.0
BOTTOM = 949.0

FREEMAN PARK BASIN
HWL = 968.9
NWL = 960.3
BOTTOM = 956.0

FREEMAN PARK

LEGEND

	SOIL BORINGS
	EXISTING MAJOR/ MINOR CONTOURS
	PROPOSED MAJOR/ MINOR CONTOURS
	PROPOSED NWL-HWL CONTOUR
	PROPOSED/EXISTING DRAINAGE FLOW
	CONSTRUCTION LIMITS



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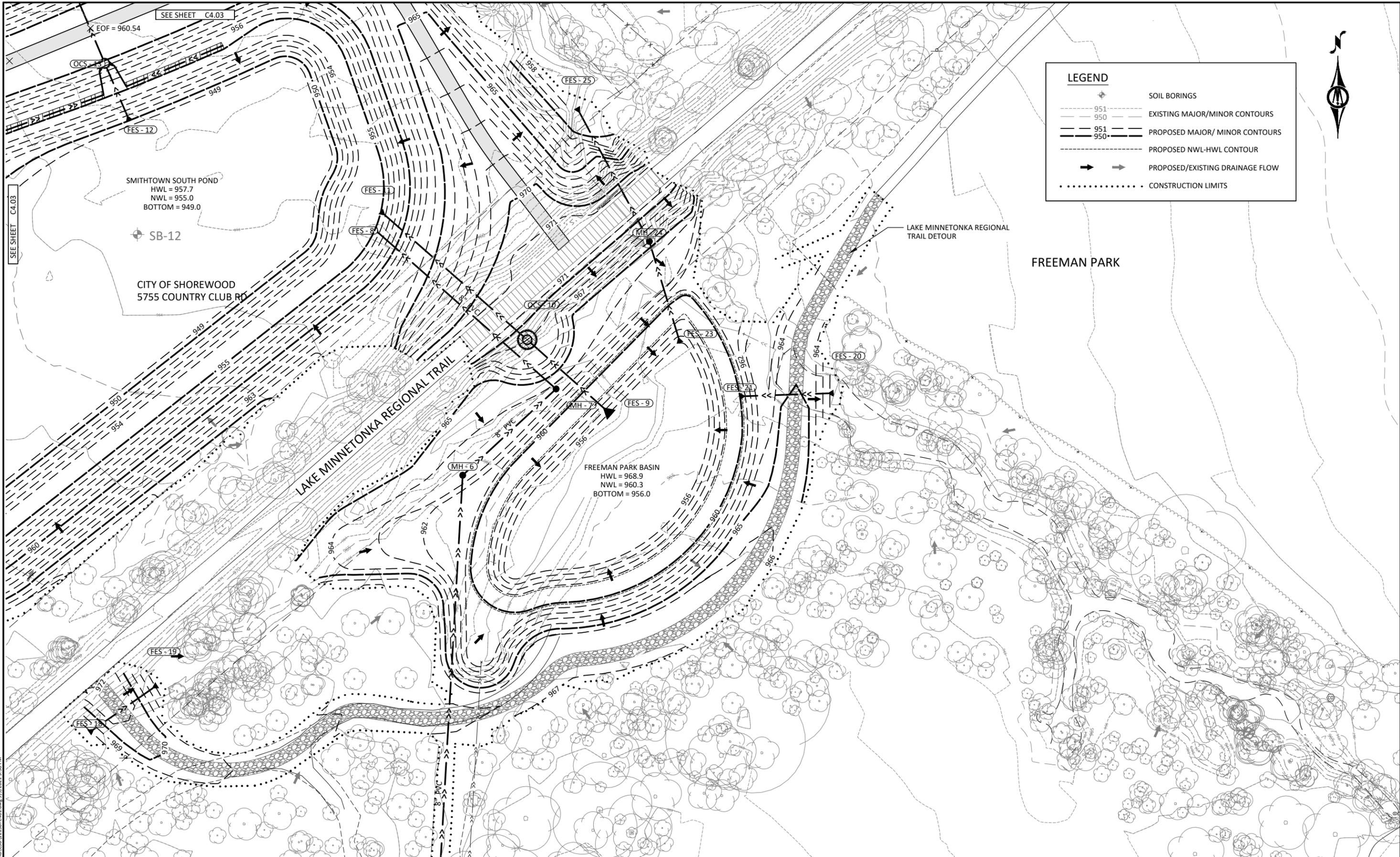
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CITY OF SHOREWOOD
SMITHTOWN POND
GRADING PLAN

SHEET
C4.03

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LEGEND

- SOIL BORINGS
- EXISTING MAJOR/MINOR CONTOURS
- PROPOSED MAJOR/MINOR CONTOURS
- PROPOSED NWL-HWL CONTOUR
- PROPOSED/EXISTING DRAINAGE FLOW
- CONSTRUCTION LIMITS

SMITHTOWN SOUTH POND
 HWL = 957.7
 NWL = 955.0
 BOTTOM = 949.0

CITY OF SHOREWOOD
 5755 COUNTRY CLUB RD

FREEMAN PARK BASIN
 HWL = 968.9
 NWL = 960.3
 BOTTOM = 956.0

LAKE MINNETONKA REGIONAL TRAIL DETOUR
 FREEMAN PARK

SEE SHEET C4.03

SEE SHEET C4.03

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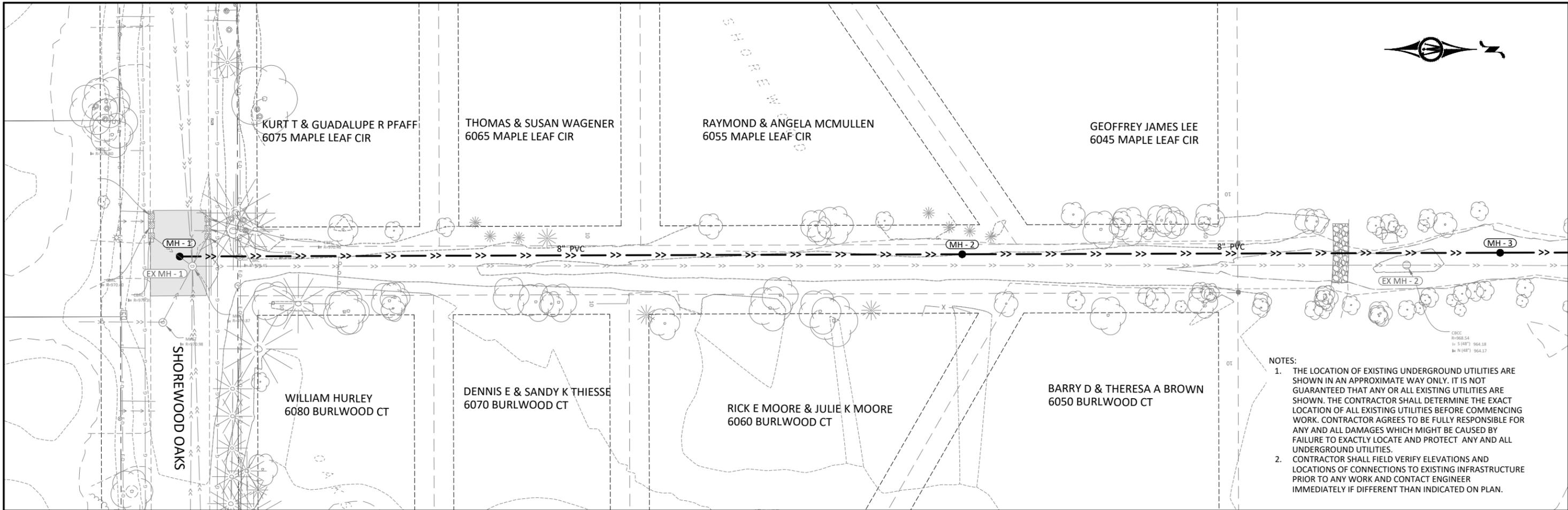
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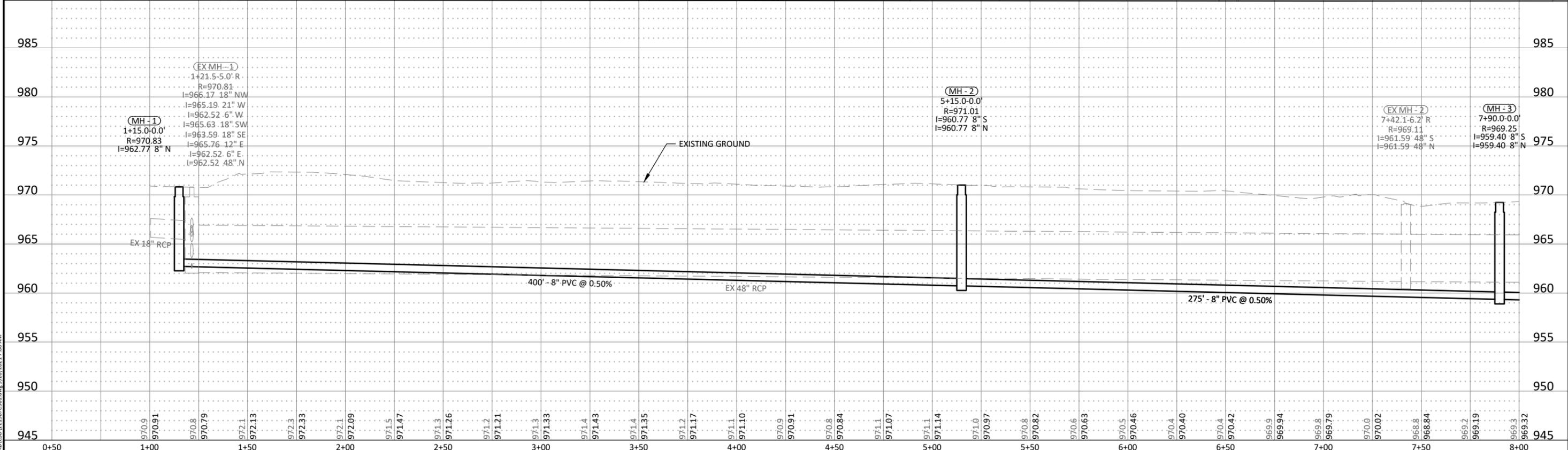
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C4.04

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- NOTES:
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 2. CONTRACTOR SHALL FIELD VERIFY ELEVATIONS AND LOCATIONS OF CONNECTIONS TO EXISTING INFRASTRUCTURE PRIOR TO ANY WORK AND CONTACT ENGINEER IMMEDIATELY IF DIFFERENT THAN INDICATED ON PLAN.



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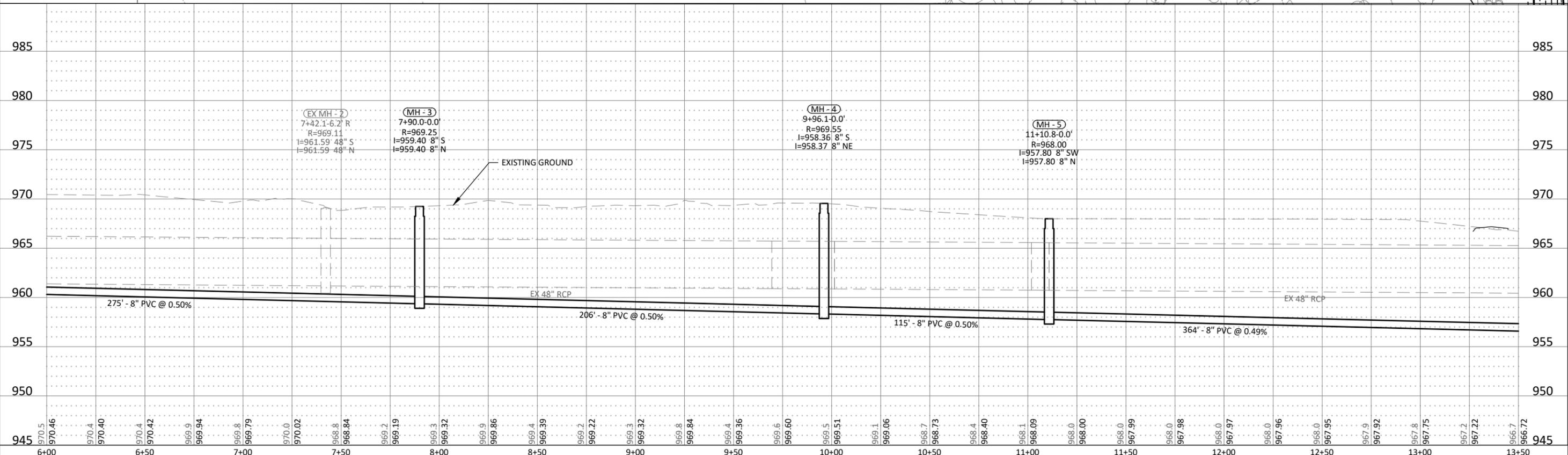
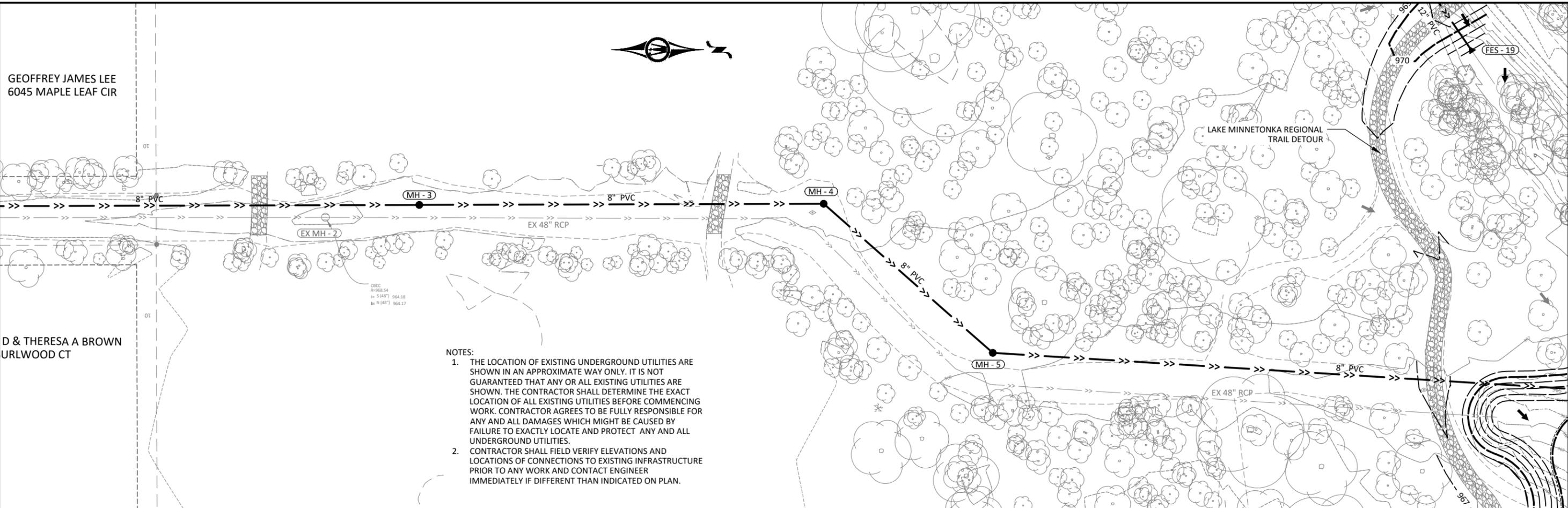


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CITY OF SHOREWOOD
SMITHTOWN POND
STORM SEWER PLAN & PROFILE

SHEET
C5.02



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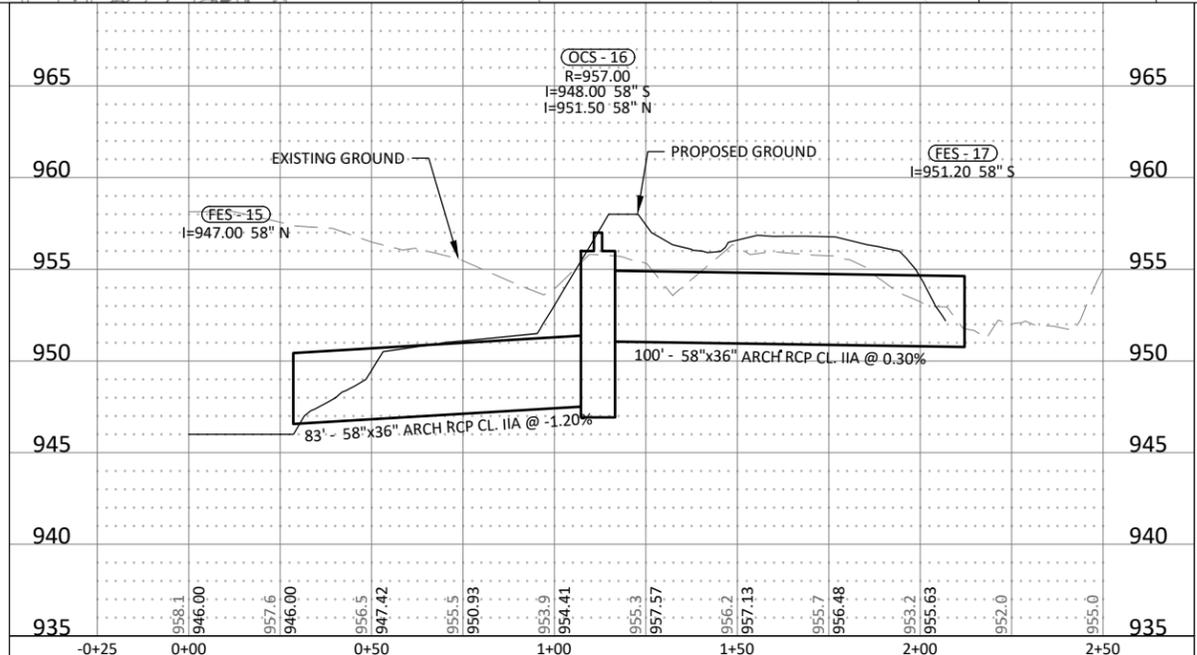
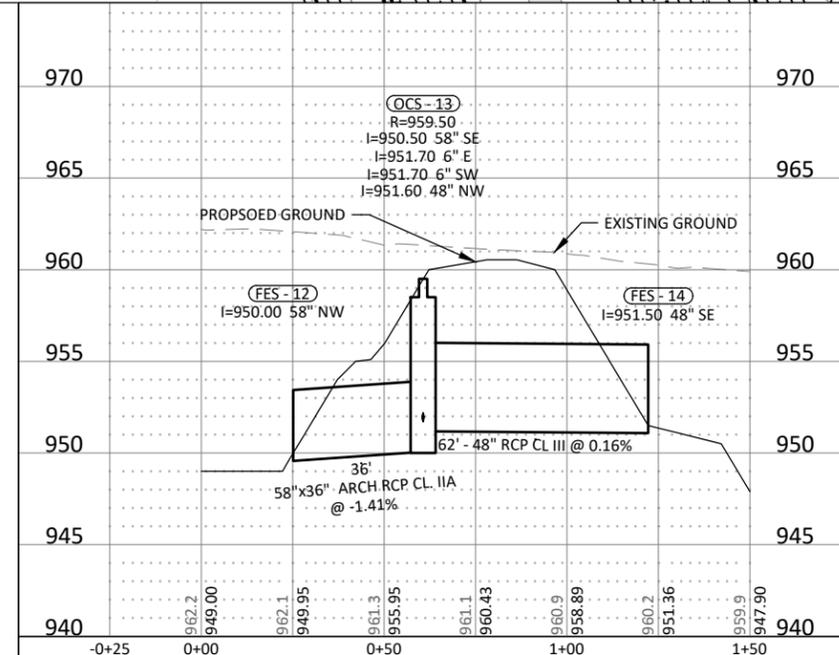
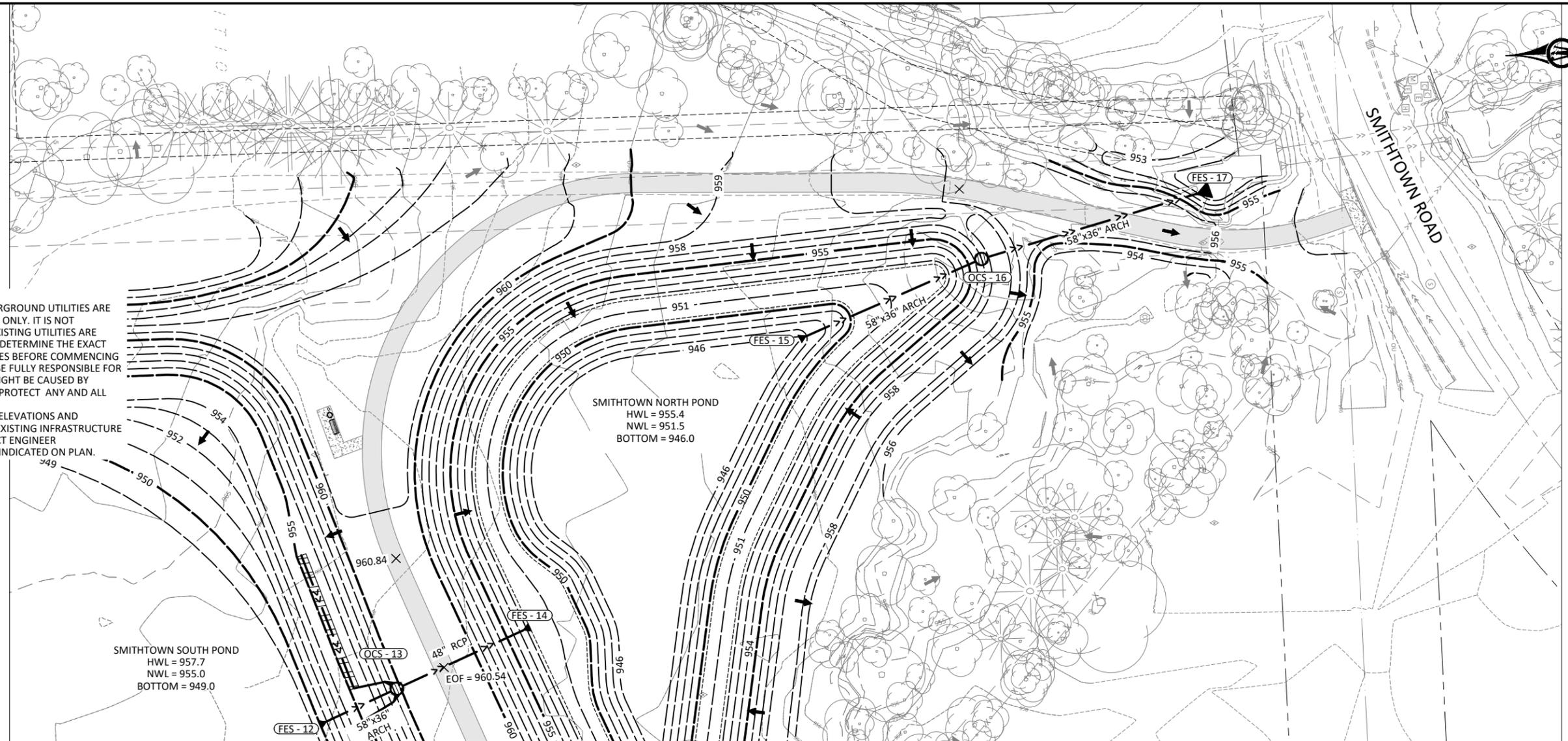
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CITY OF SHOREWOOD
 SMITHTOWN POND
 STORM SEWER PLAN & PROFILE

SHEET
C5.03

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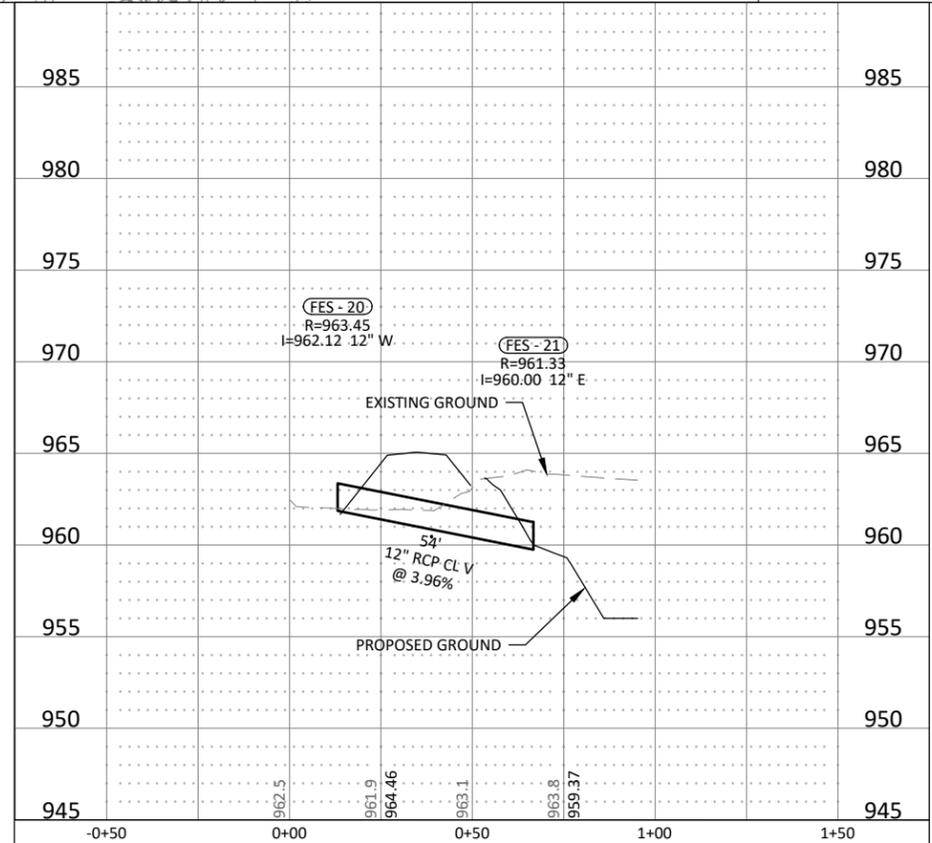
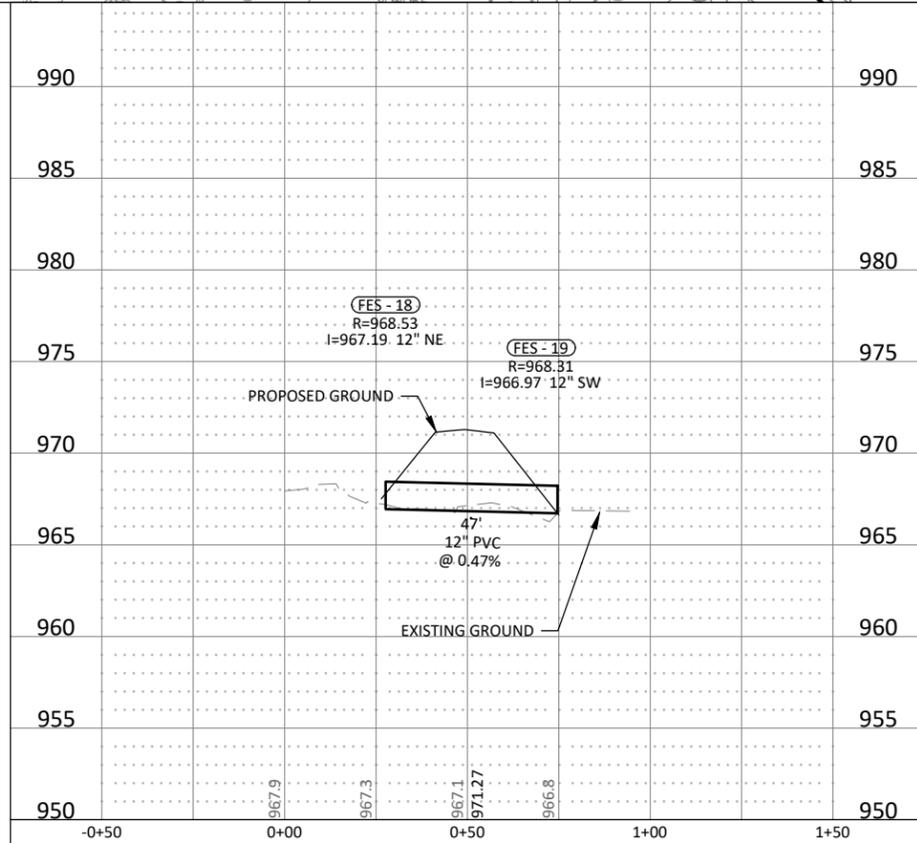
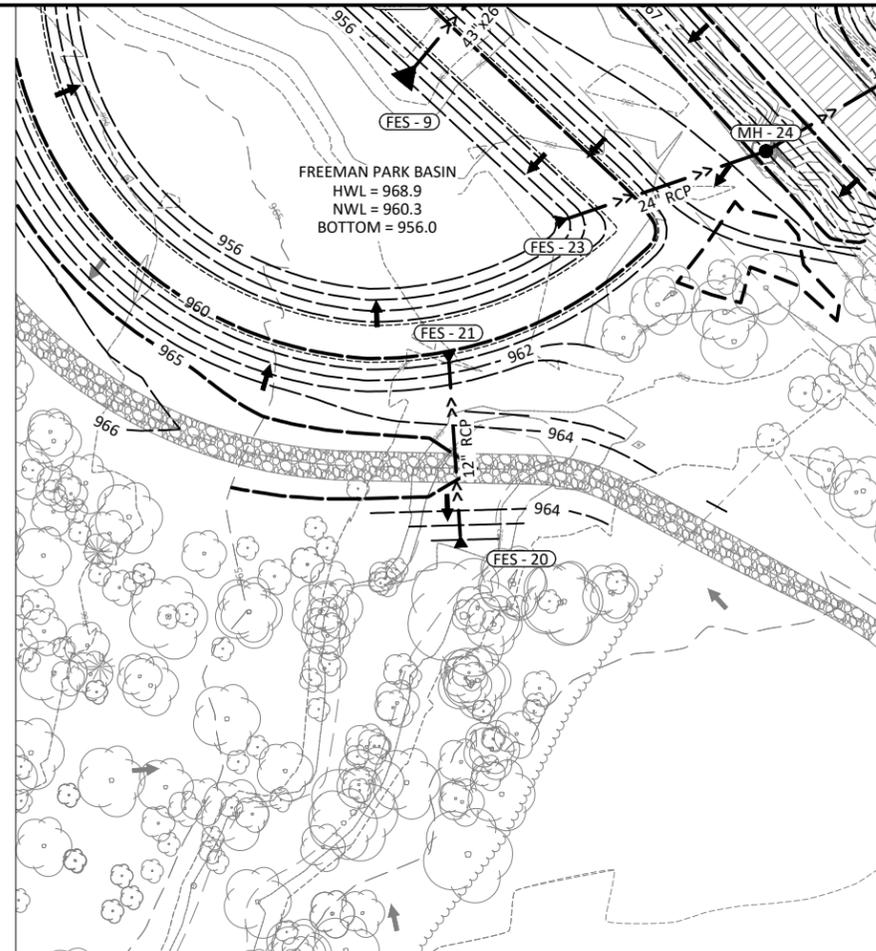
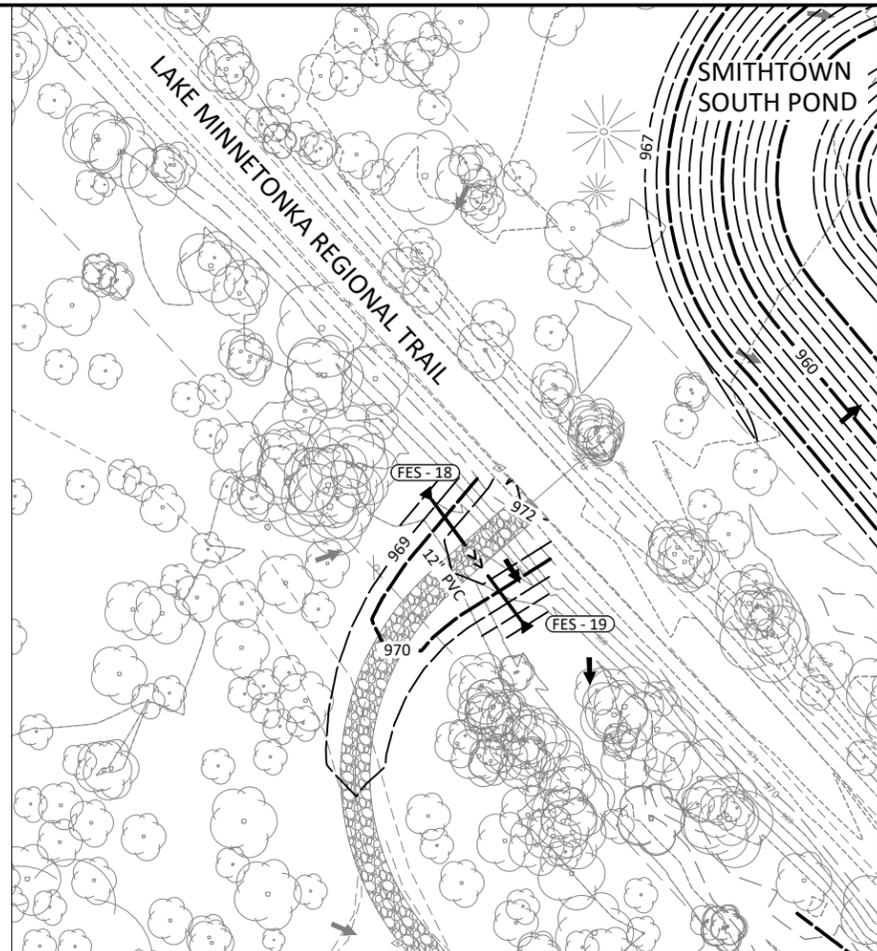
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CITY OF SHOREWOOD
SMITHTOWN POND
STORM SEWER PLAN & PROFILE

SHEET
C5.06

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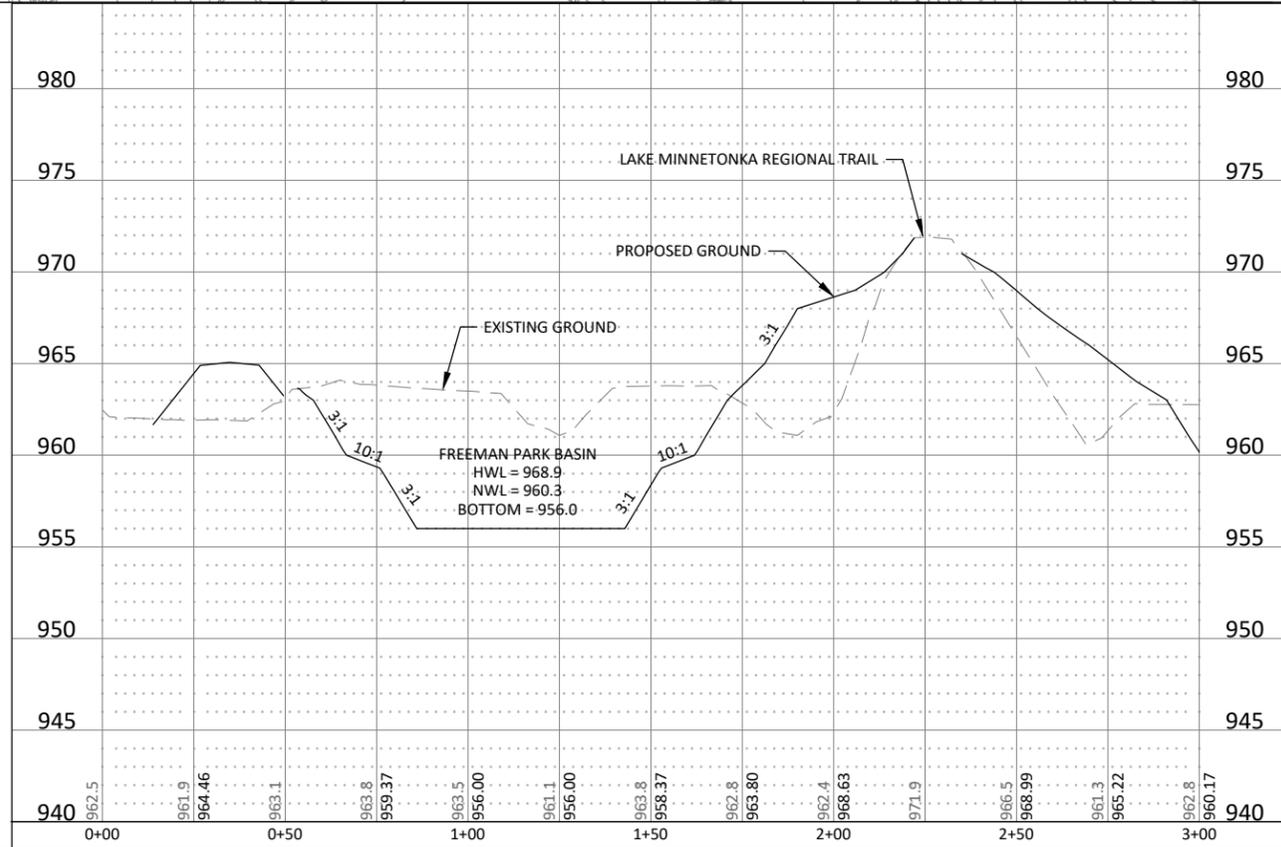
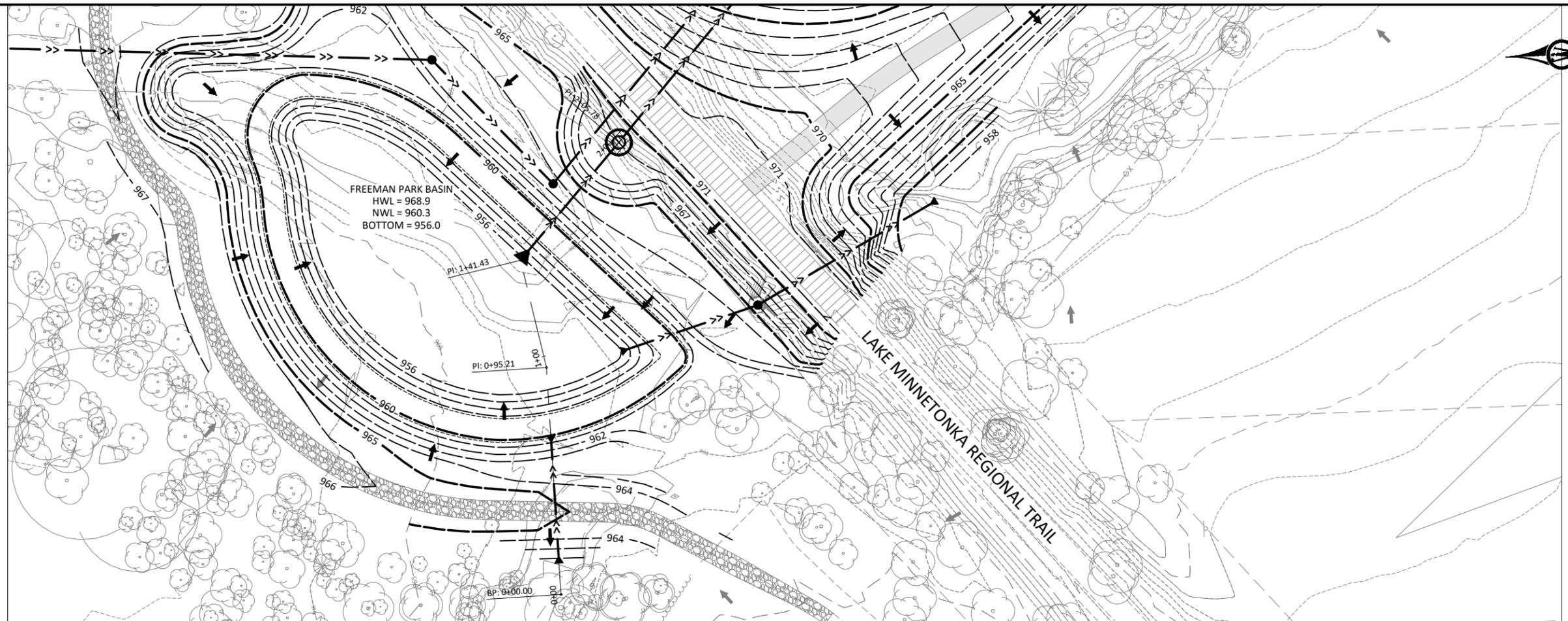


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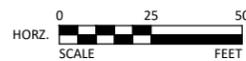
CITY OF SHOREWOOD
SMITHTOWN POND
STORM SEWER PLAN & PROFILE

SHEET
C5.07



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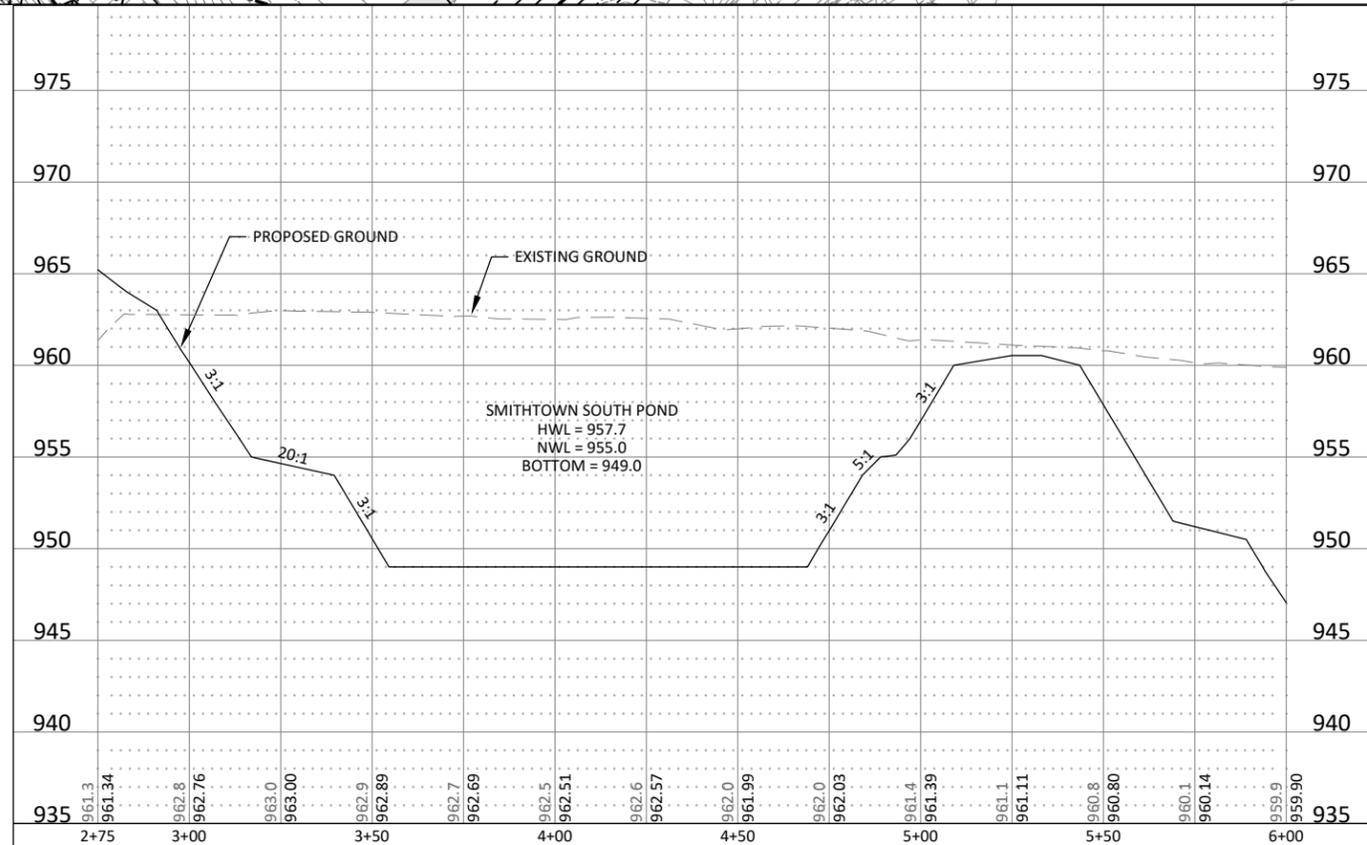
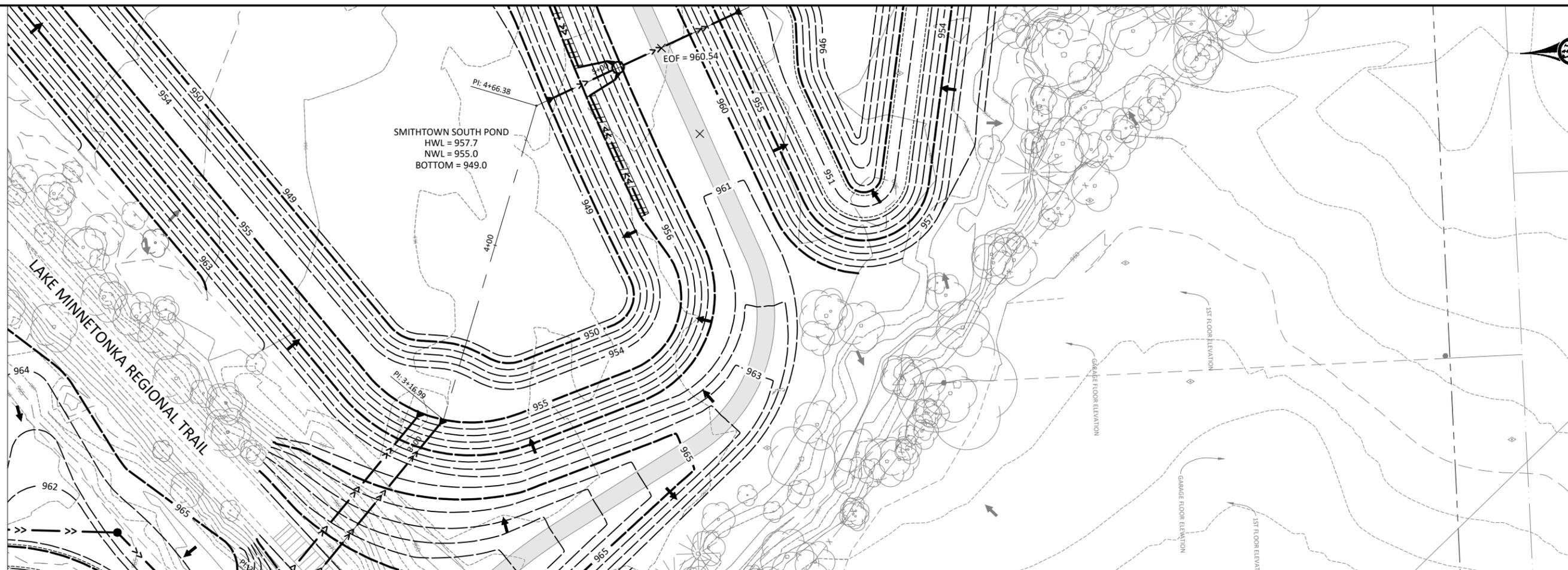


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CITY OF SHOREWOOD
SMITHTOWN POND
POND CROSS SECTION

SHEET
C5.08



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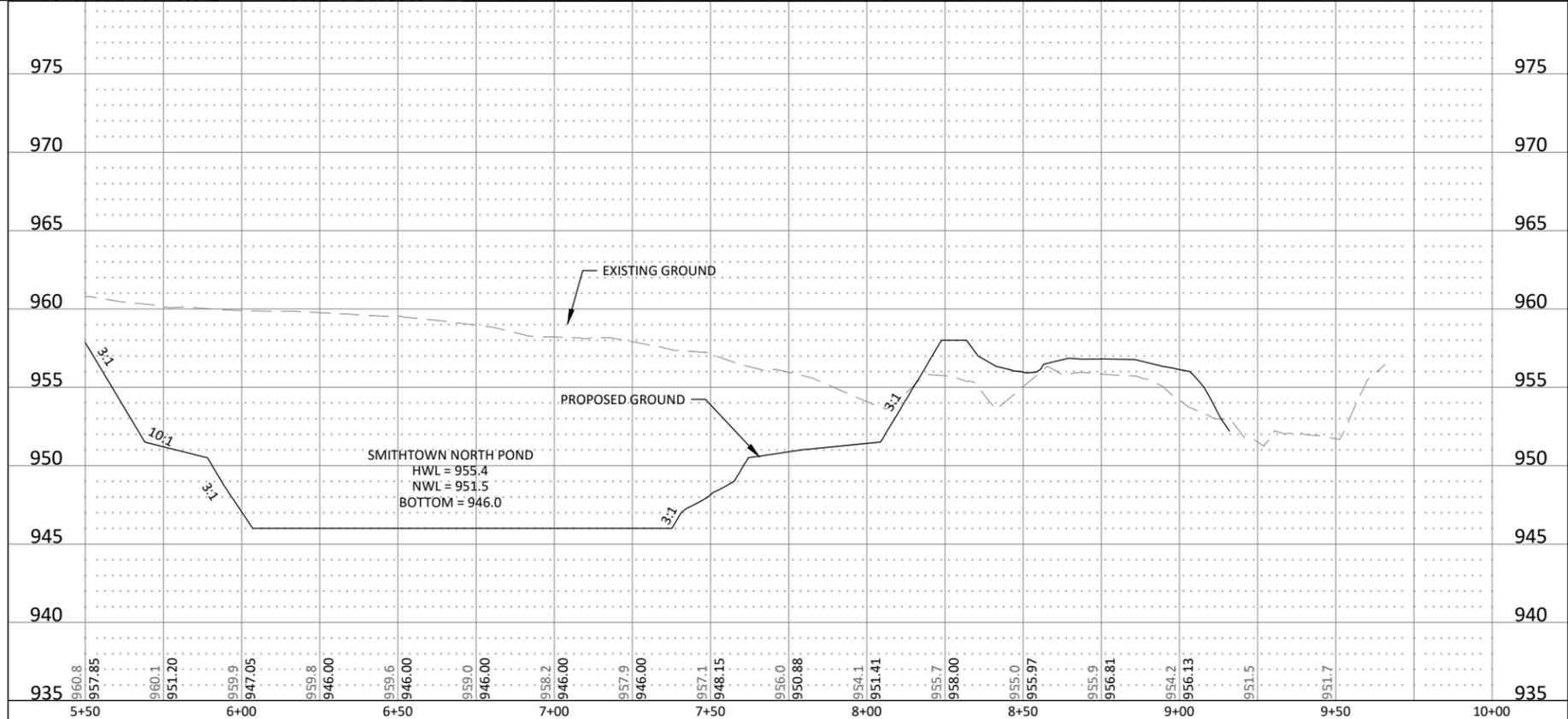
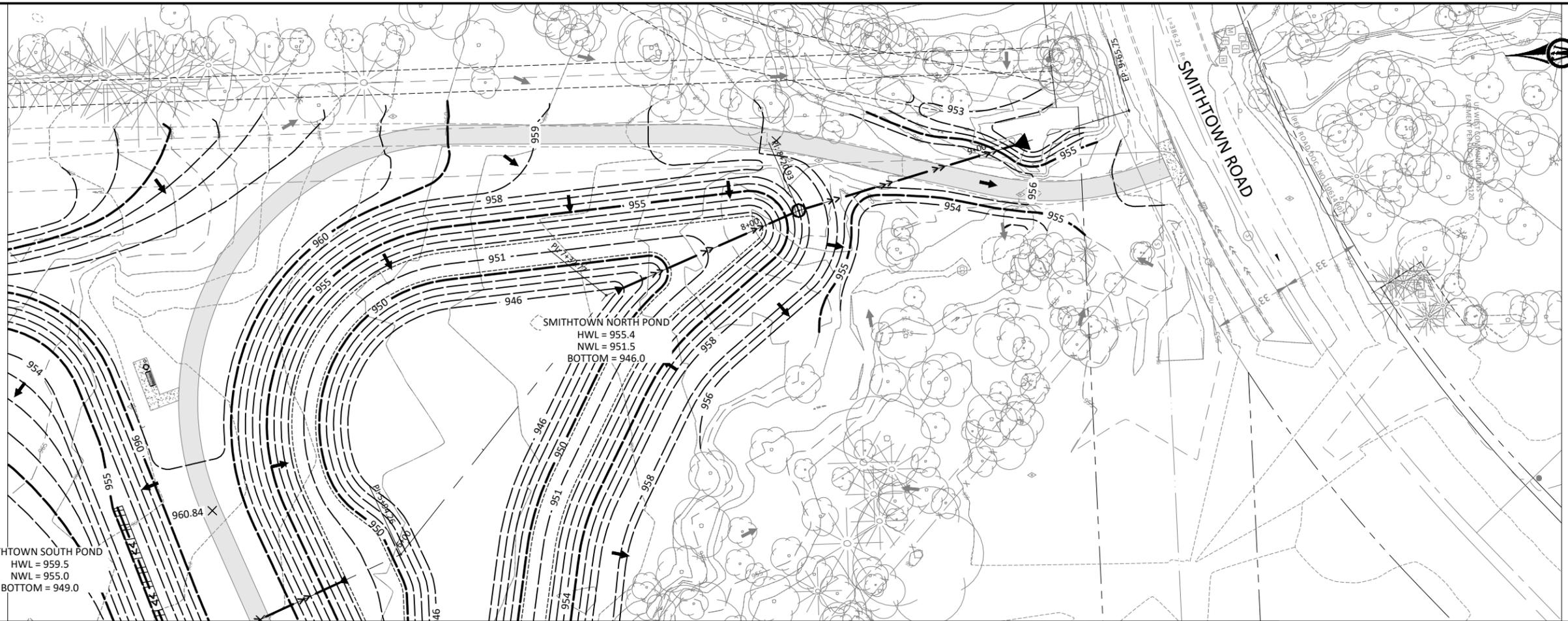
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CITY OF SHOREWOOD
 SMITHTOWN POND
 POND CROSS SECTION

SHEET
 C5.09

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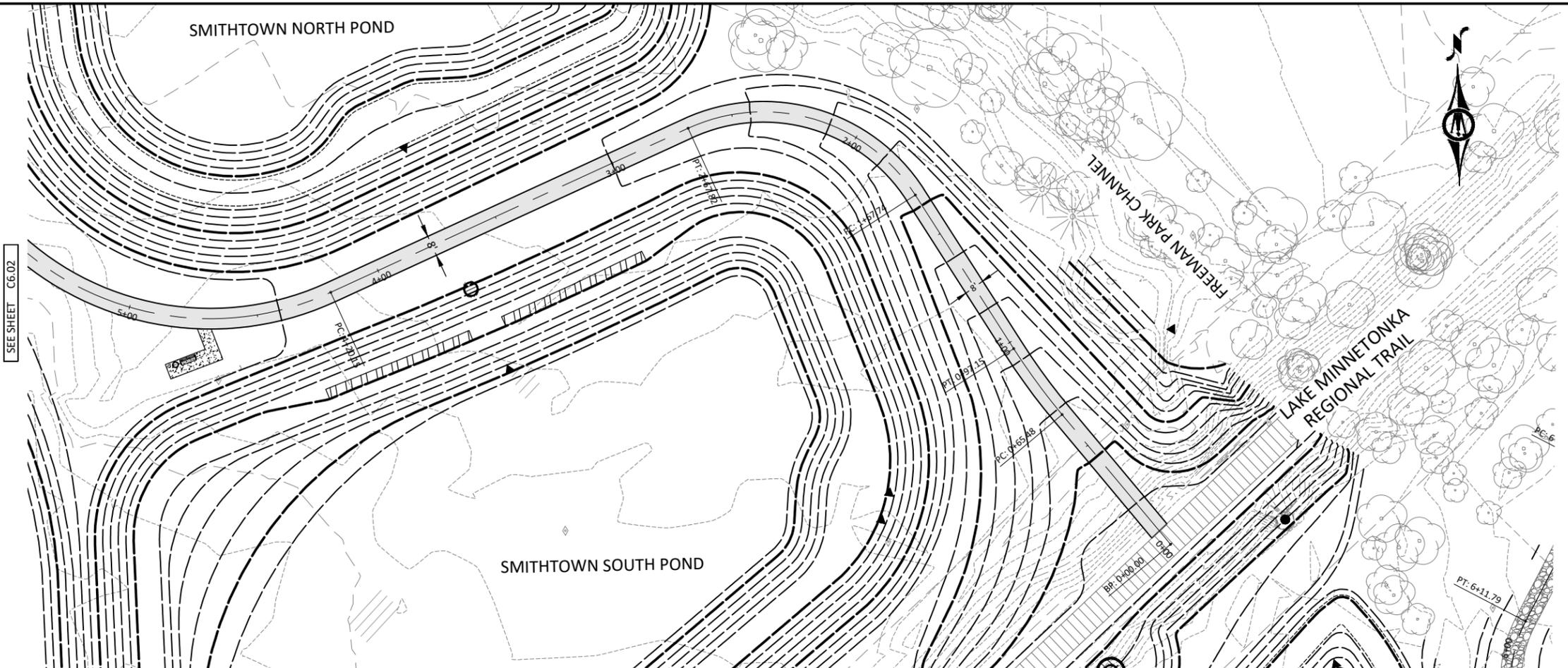
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CITY OF SHOREWOOD
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POND CROSS SECTION

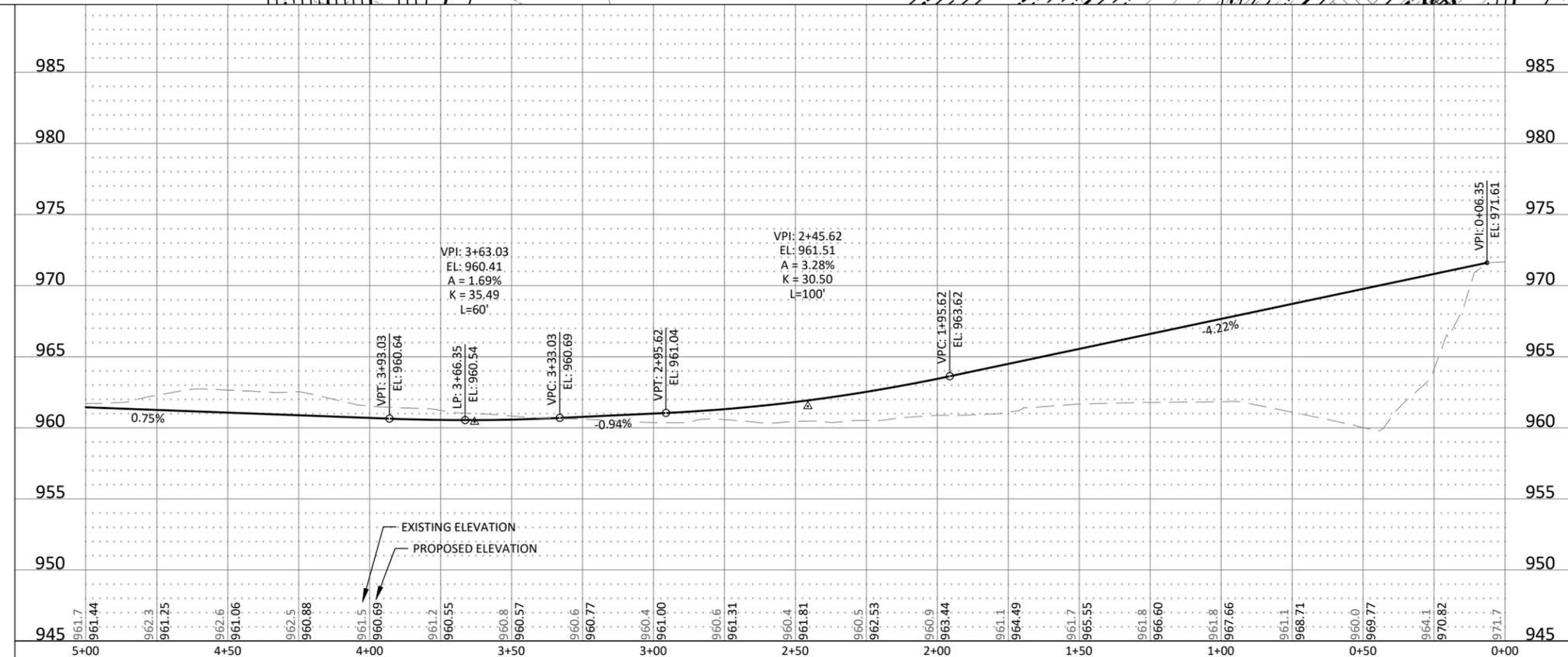
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LEGEND

	BITUMINOUS TRAIL
	AGGREGATE SURFACING (CLASS 5)
	AGGREGATE SURFACING (100% LIMESTONE)
	CONCRETE SIDEWALK



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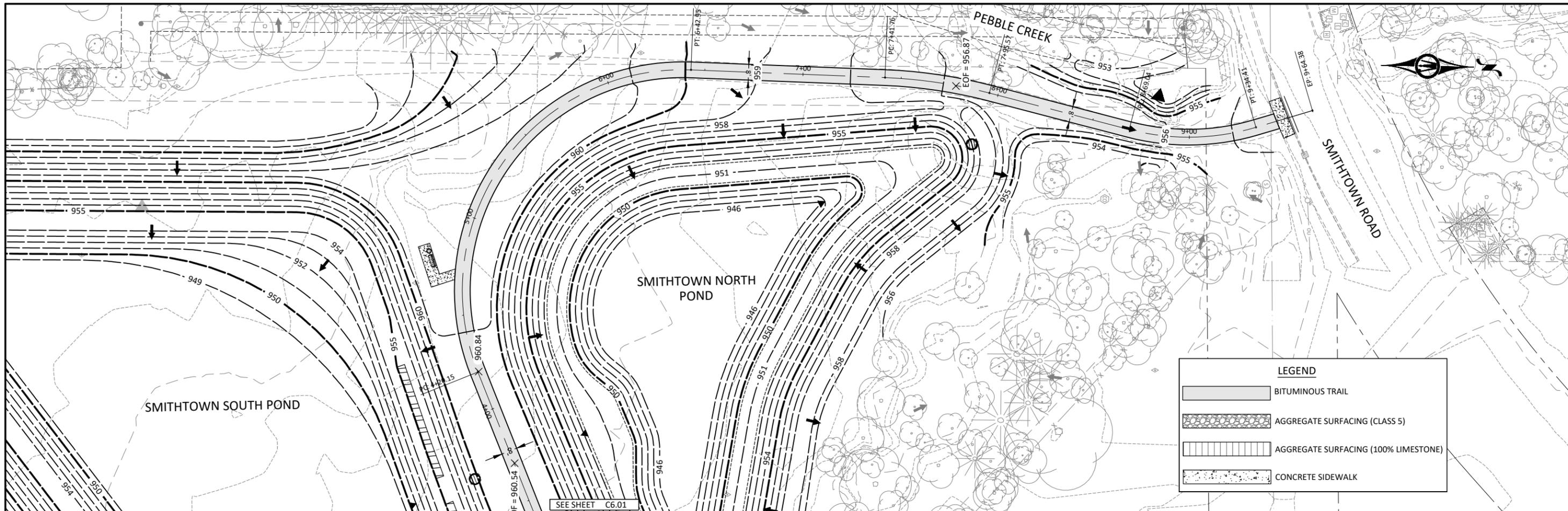


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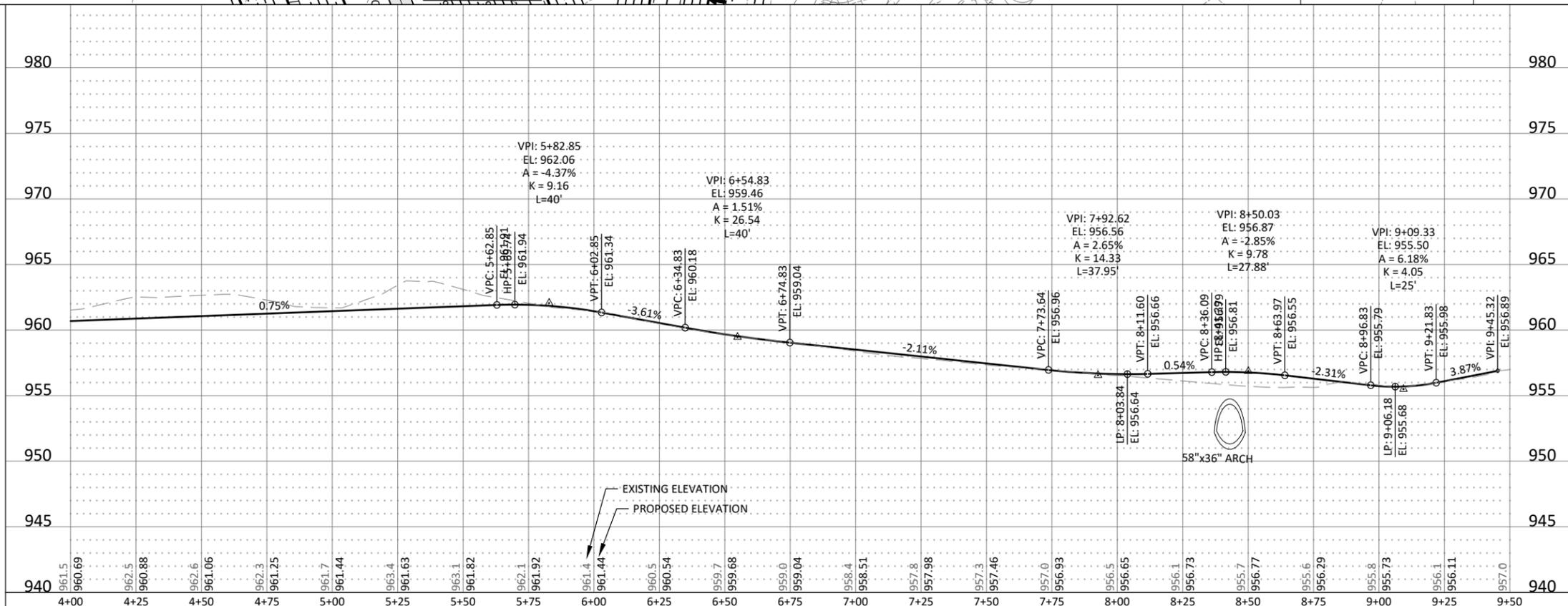
CITY OF SHOREWOOD
SMITHTOWN POND
TRAIL PLAN & PROFILE

SHEET
C6.01



LEGEND

- BITUMINOUS TRAIL
- AGGREGATE SURFACING (CLASS 5)
- AGGREGATE SURFACING (100% LIMESTONE)
- CONCRETE SIDEWALK



DRAFT

HORIZ. SCALE: 1" = 25 FEET

VERT. SCALE: 1" = 5 FEET

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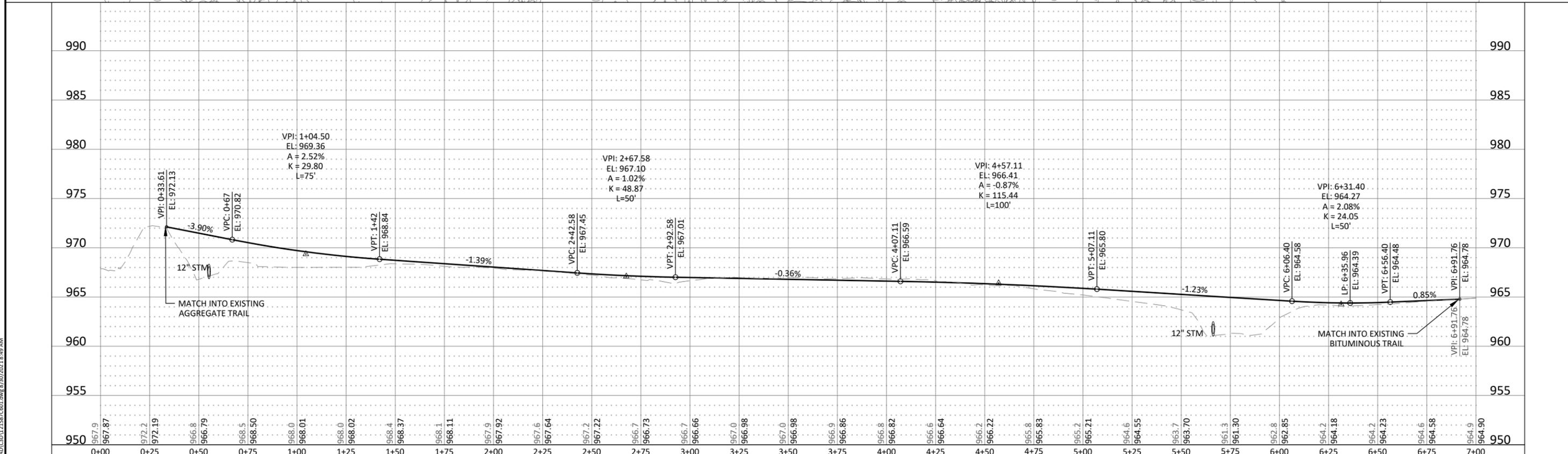
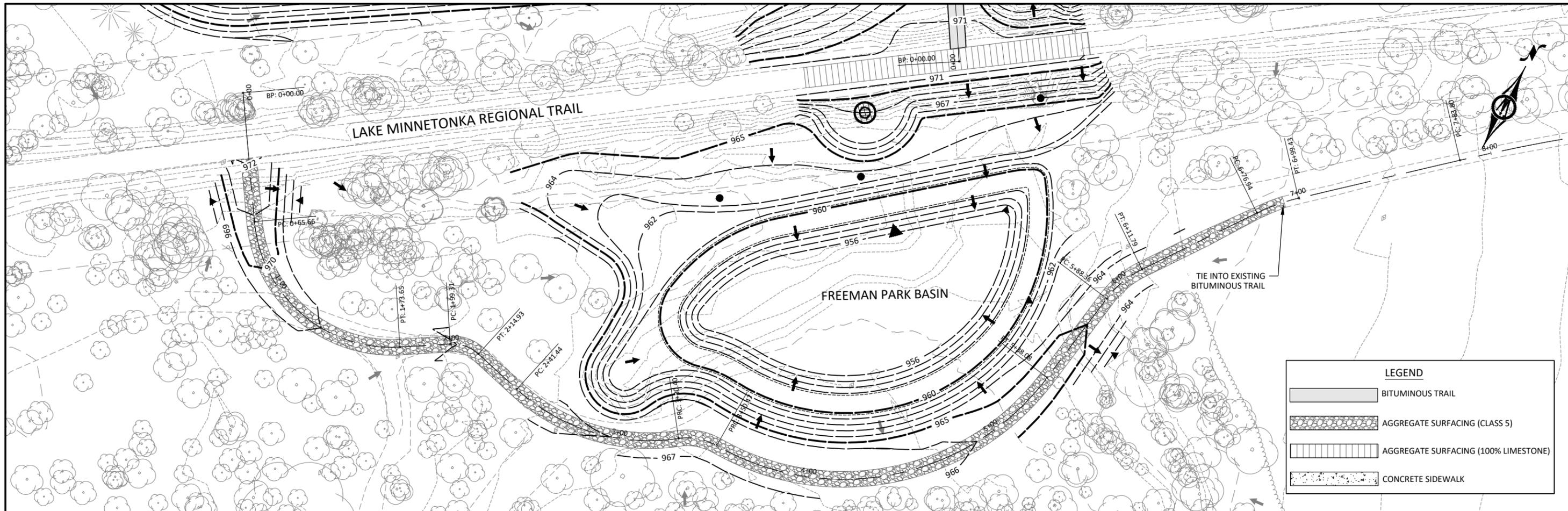
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CITY OF SHOREWOOD
SMITHTOWN POND
TRAIL PLAN & PROFILE

SHEET
C6.02

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DRAFT

HORZ. SCALE: 1" = 25 FEET

VERT. SCALE: 1" = 5 FEET

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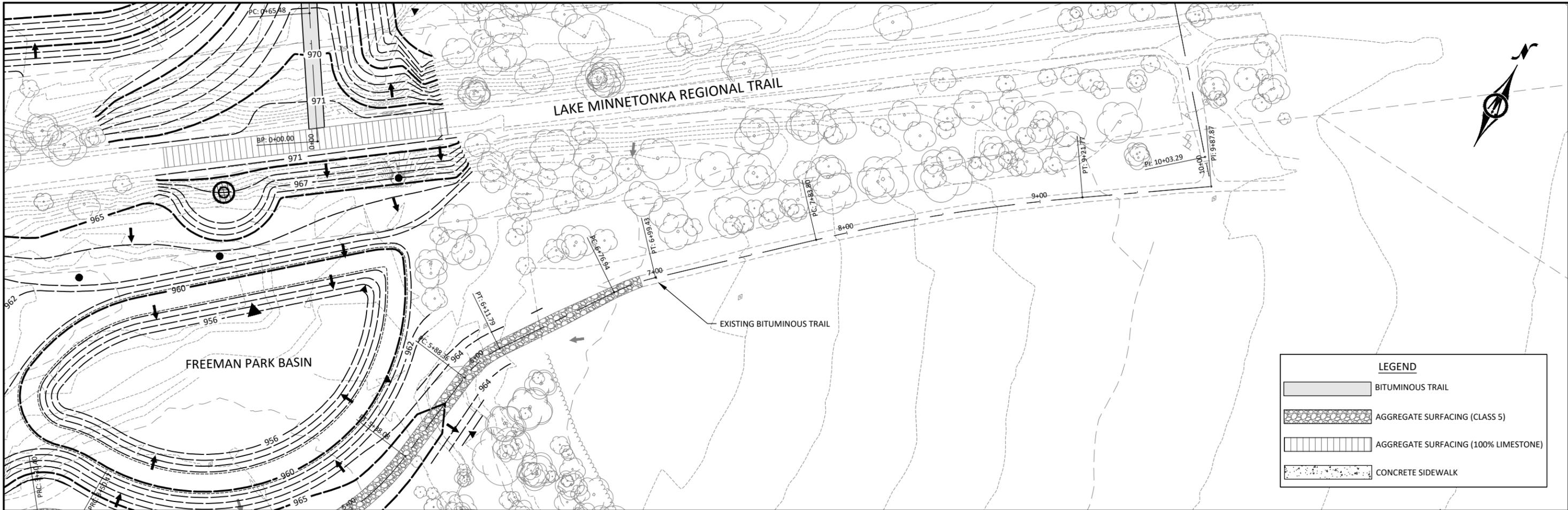


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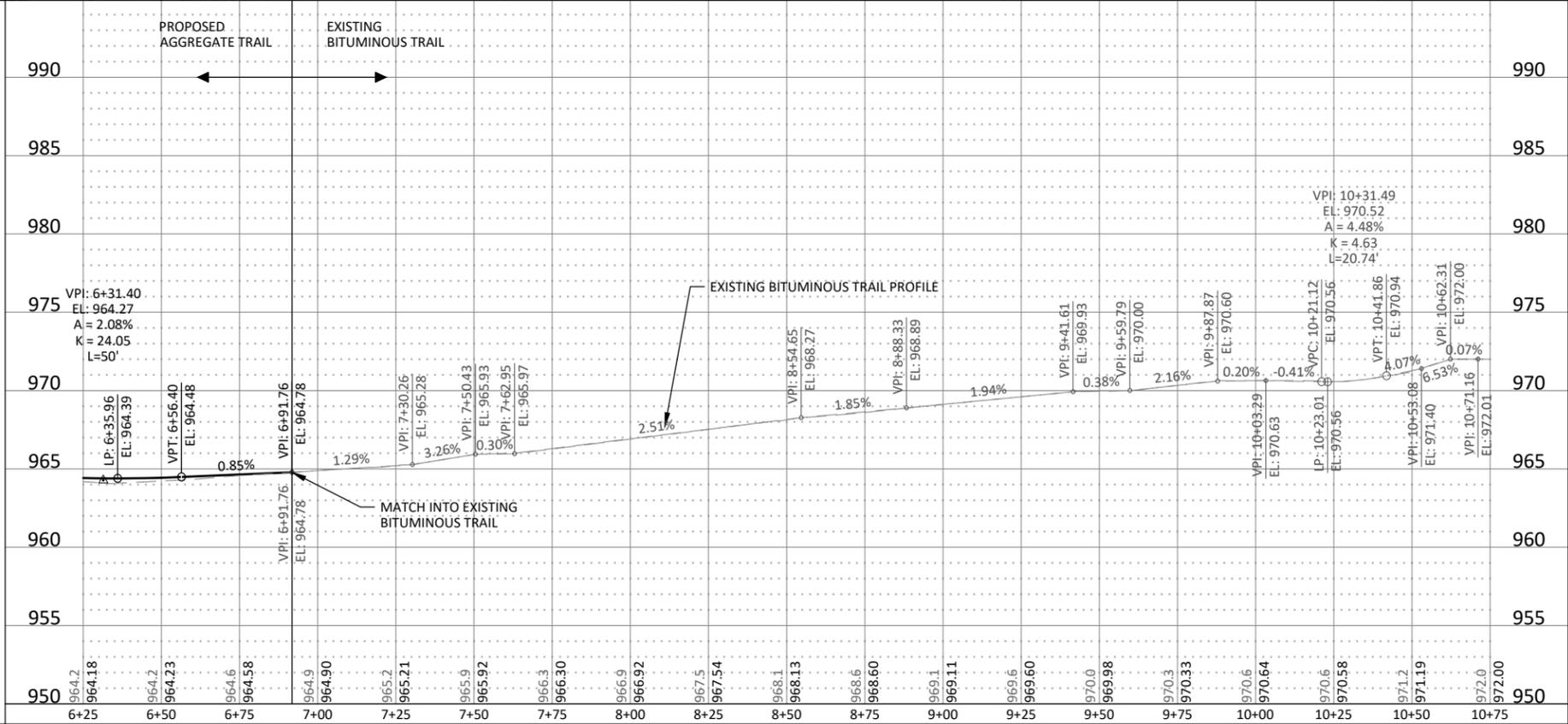
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CITY OF SHOREWOOD
SMITHTOWN POND
HCRA TRAIL DETOUR

SHEET C6.03



LEGEND	
	BITUMINOUS TRAIL
	AGGREGATE SURFACING (CLASS 5)
	AGGREGATE SURFACING (100% LIMESTONE)
	CONCRETE SIDEWALK



STATION	ELEVATION (FEET)	PROPOSED AGGREGATE TRAIL	EXISTING BITUMINOUS TRAIL
6+25	950.2		
6+50	954.2		
6+75	954.6		
7+00	954.9		
7+25	955.2		
7+50	955.9		
7+75	956.3		
8+00	956.9		
8+25	967.5		
8+50	968.1		
8+75	968.6		
9+00	969.1		
9+25	969.6		
9+50	970.0		
9+75	970.3		
10+00	970.6		
10+25	970.6		
10+50	971.2		
10+75	972.0		

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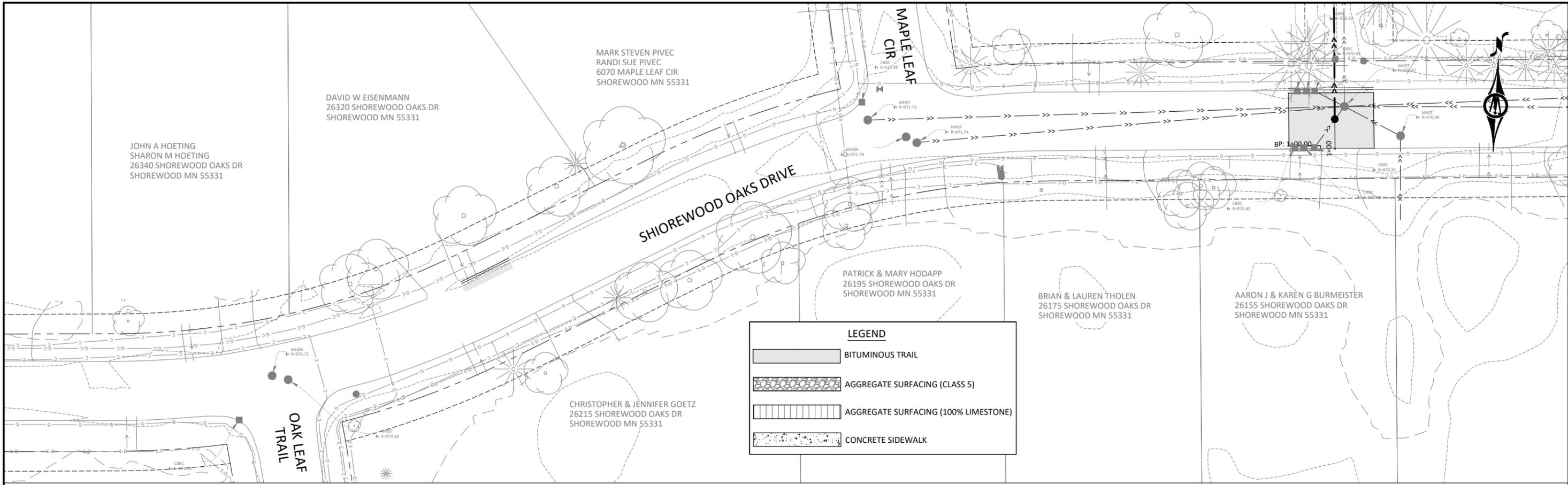
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CITY OF SHOREWOOD
SMITHTOWN POND
HCRA TRAIL DETOUR

SHEET
C6.04

DRAFT

HORIZ. SCALE: 1" = 25 FEET
VERT. SCALE: 1" = 5 FEET



LEGEND

	BITUMINOUS TRAIL
	AGGREGATE SURFACING (CLASS 5)
	AGGREGATE SURFACING (100% LIMESTONE)
	CONCRETE SIDEWALK

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HORZ SCALE 1" = 25 FEET

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CITY OF SHOREWOOD
SMITHTOWN POND
SHOREWOOD OAKS DRIVE CURB REPLACEMENT

SHEET
C6.05

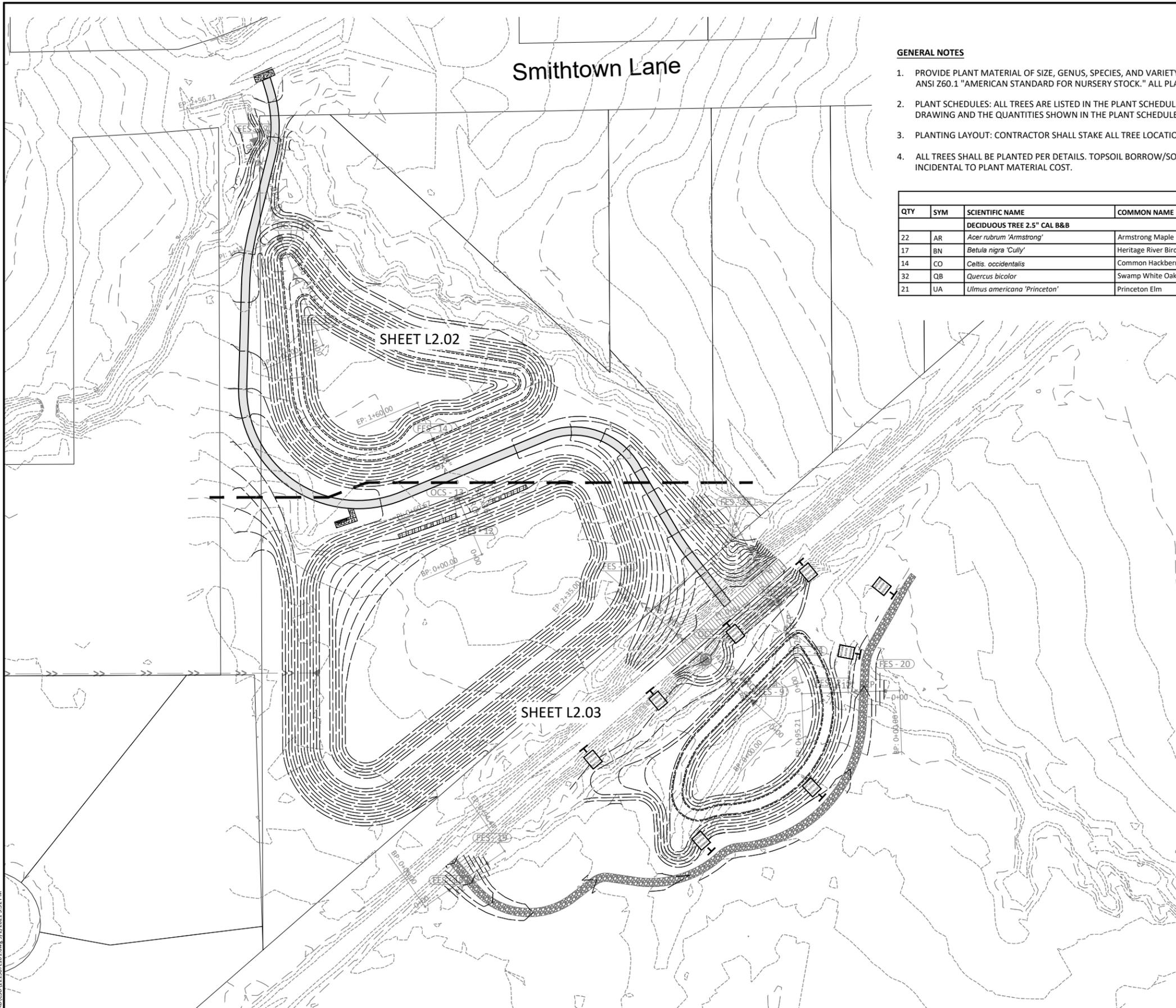


Smithtown Lane

GENERAL NOTES

1. PROVIDE PLANT MATERIAL OF SIZE, GENUS, SPECIES, AND VARIETY SHOWN AND COMPLYING WITH REQUIREMENTS OF THE MOST RECENT VERSION OF ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK." ALL PLANTING MATERIAL SUBJECT TO APPROVAL BY OWNER OR OWNER'S REPRESENTATIVE.
2. PLANT SCHEDULES: ALL TREES ARE LISTED IN THE PLANT SCHEDULE. IF THERE IS A CONFLICT BETWEEN THE QUANTITIES SHOWN ON THE PLAN DRAWING AND THE QUANTITIES SHOWN IN THE PLANT SCHEDULE, THE PLAN QUANTITIES SHALL PREVAIL.
3. PLANTING LAYOUT: CONTRACTOR SHALL STAKE ALL TREE LOCATIONS AND OBTAIN APPROVAL OF THE OWNER'S REPRESENTATIVE PRIOR TO PLANTING.
4. ALL TREES SHALL BE PLANTED PER DETAILS. TOPSOIL BORROW/SOIL BACK-FILL, MULCH MATERIAL, AND NECESSARY PRUNING OR GUY ASSEMBLIES INCIDENTAL TO PLANT MATERIAL COST.

PLANT SCHEDULE							
QTY	SYM	SCIENTIFIC NAME	COMMON NAME	UNIT	SIZE	SPACING	CHARACTERISTICS
DECIDUOUS TREE 2.5" CAL B&B							
22	AR	<i>Acer rubrum</i> 'Armstrong'	Armstrong Maple	TREE	2.5" CAL	SEE PLAN	BALLED & BURLAPPED
17	BN	<i>Betula nigra</i> 'Cully'	Heritage River Birch	TREE	2.5" CAL	SEE PLAN	BALLED & BURLAPPED, CLUMP
14	CO	<i>Celtis occidentalis</i>	Common Hackberry	TREE	2.5" CAL	SEE PLAN	BALLED & BURLAPPED
32	QB	<i>Quercus bicolor</i>	Swamp White Oak	TREE	2.5" CAL	SEE PLAN	BALLED & BURLAPPED
21	UA	<i>Ulmus americana</i> 'Princeton'	Princeton Elm	TREE	2.5" CAL	SEE PLAN	BALLED & BURLAPPED



SHEET L2.02

SHEET L2.03

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JONATHAN D. NELSEN
LIC. NO. 53433 DATE 02/10/2021



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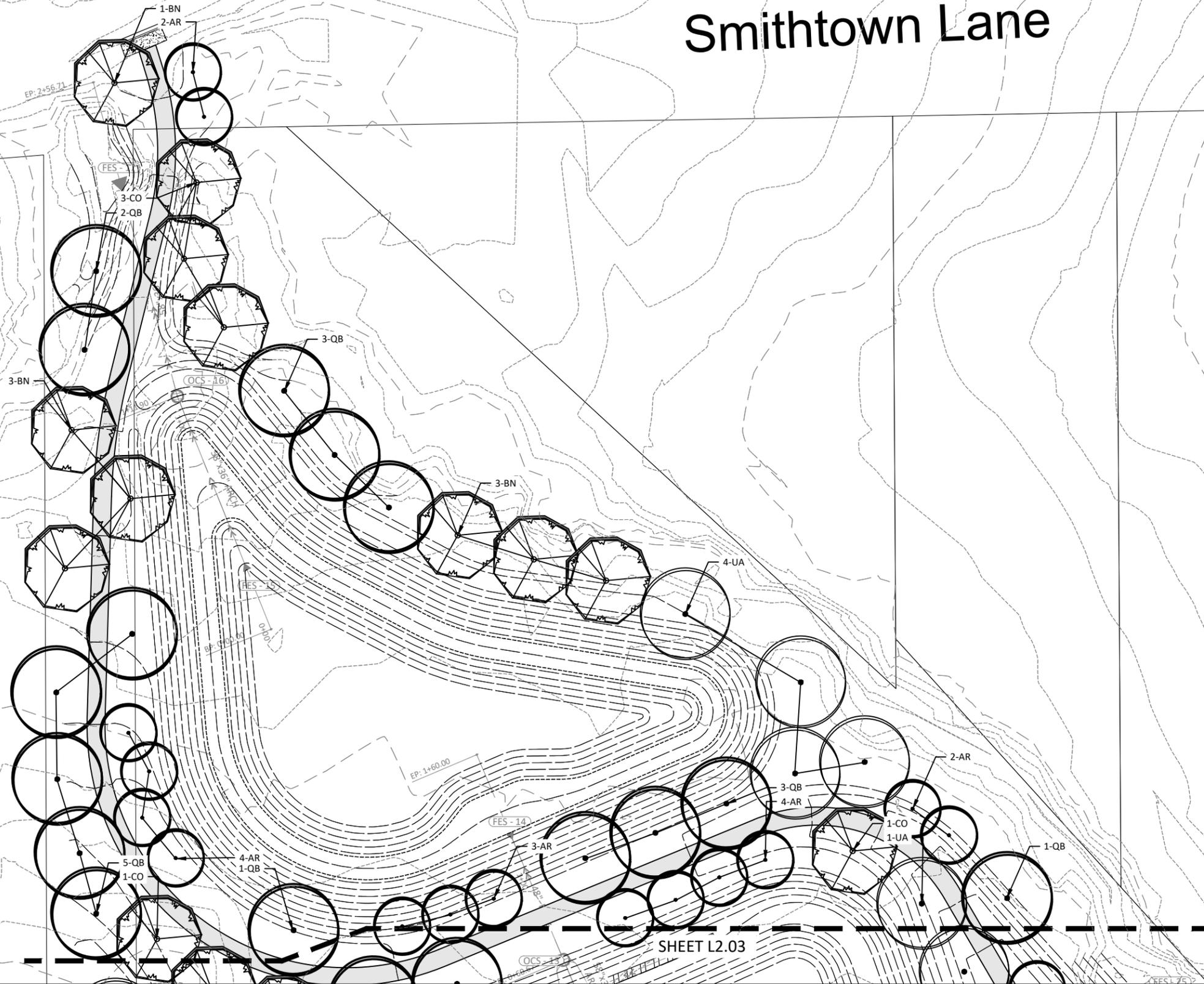
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CITY OF SHOREWOOD
SMITHTOWN POND
LANDSCAPE PLAN

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L2.01

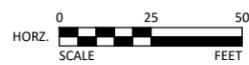
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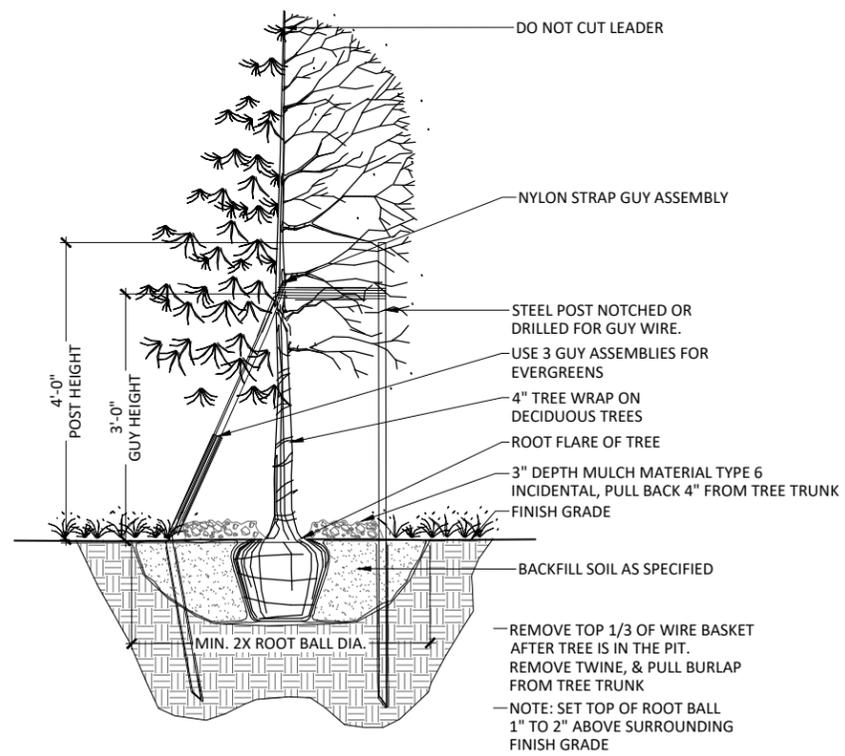


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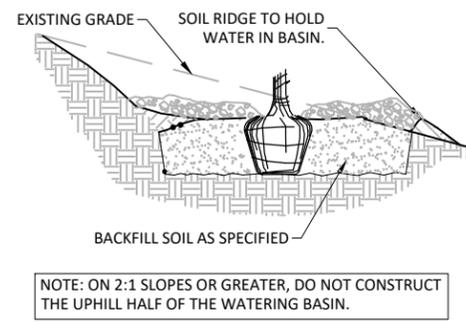
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CITY OF SHOREWOOD
 SMITHTOWN POND
 LANDSCAPE PLAN

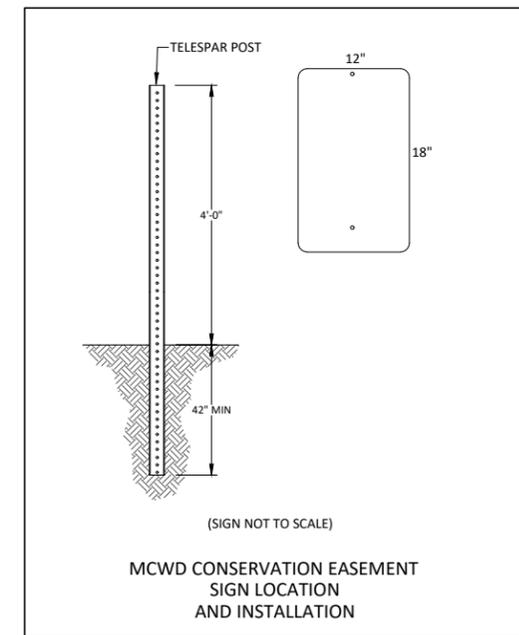
SHEET
 L2.02



1 TREE PLANTING DETAIL
SCALE: N.T.S.



2 PLANTING ON SLOPES
SCALE: N.T.S.



3 INFORMATIONAL SIGN
SCALE: N.T.S.

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CITY OF SHOREWOOD
SMITHTOWN POND
LANDSCAPE DETAILS

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