



**MINNEHAHA CREEK
WATERSHED DISTRICT**



**DAMON FARBER
LANDSCAPE ARCHITECTS**

310 South 4th Avenue, Suite 7050
Minneapolis, MN 55415
p. 612.332.7522



Contract Drawings For

325 BLAKE RD

REGIONAL STORMWATER AND GREENWAY PROJECT

HDR Project No.
10268112

HOPKINS, MINNESOTA
FEBRUARY, 2023



PROJECT AREA

0 500 1000 Feet



INDEX OF DRAWINGS

GENERAL

GC102	GENERAL NOTES
GC103	PROJECT SYMBOLOLOGY
GC104	SURVEY AND CONTROL
GC105	SITE LAYOUT PLAN
GC106	CONSTRUCTION ACCESS AND PHASING PLAN
GC107	CONSTRUCTION LIMIT CONTROL POINTS
GC108	ALIGNMENT TABLES

SITE WORK

EC101 - EC105	SWPPP & EROSION CONTROL PLAN
CD101 - CD103	DEMOLITION AND PRESERVATION PLAN
CG101 - CG105	SITE GRADING PLAN
CG201 - CG202	SITE TYPICAL SECTIONS
CG301	POND CROSS SECTIONS
CG501 - CG502	CIVIL DETAILS
CT101 - CT104	TRAIL PLAN AND PROFILES
CT201 - CT202	TRAIL CROSS SECTIONS
CIN01	INTERSECTION DETAIL
CP101 - CP104	STORM SEWER PLAN AND PROFILES
CPS01	STORM SEWER TABULATION
S001	SITE PLAN AND STRUCTURAL NOTES
SA100	OUTLET STRUCTURE FOUNDATION, PLANS, & SECTION
SA301	OUTLET STRUCTURE CONCRETE SECTIONS AND DETAILS
SAS01 - SAS02	OUTLET STRUCTURE STEEL SECTIONS AND DETAILS
SB100	WEIR WALL PLAN
SB301	WEIR WALL SECTIONS AND DETAILS
SC100	PEDESTRIAN BRIDGE PLAN, SECTIONS, AND NOTES
SC301	PEDESTRIAN BRIDGE SECTIONS AND DETAILS
SD100	PERGOLA STRUCTURAL FRAMING PLAN
SD301	PERGOLA STRUCTURAL SECTIONS
E001	ELECTRICAL LEGEND
E101 - E102	ELECTRICAL SITE PLAN
E401	ELECTRICAL ENLARGED SITE PLAN
E601	ELECTRICAL ONE LINE DIAGRAMS AND SCHEDULES
L000	LANDSCAPE GENERAL NOTES
L001	SITE ORIENTATION PLAN
L002	CONSTRUCTION ALTERNATES
L005 - L006	TREE PROTECTION SCHEDULE
L010 - L013	SITE MATERIALS SCHEDULE
L020	TREE AND SHRUB PLANTING SCHEDULE
L021	UNDERSTORY PLANTING SCHEDULE
L030	SITE SOIL SCHEDULE
L050 - L056	TREE PROTECTION PLAN ENLARGEMENTS
L057	TREE PROTECTION DETAILS
L100 - L101	LAYOUT AND DIMENSIONS PLANS
L110 - L111	HARDSCAPE PLANS
L130 - L131	SOIL PLANS
L140 - L141	TREE PLANTING PLANS
L150 - L151	UNDERSTORY PLANTING PLANS
L200 - L203	LAYOUT AND DIMENSIONS ENLARGEMENT PLANS
L210 - L214	HARDSCAPE ENLARGEMENT PLANS
L240 - L243	UNDERSTORY PLANTING PLAN ENLARGEMENTS
L310	SITE ELEVATIONS
L410 - L411	SITE SECTIONS
LS00 - LS03	LANDSCAPE DETAILS - PAVING
LS10 - LS11	LANDSCAPE DETAILS - CURBING AND EDGING
LS20 - LS21	LANDSCAPE DETAILS - WALL
LS30	LANDSCAPE DETAILS - DIMENSIONAL STONE
LS40 - LS44	LANDSCAPE DETAILS - PERGOLA
LS50 - LS51	LANDSCAPE DETAILS - GUARDRAIL
LS52	LANDSCAPE DETAILS - FENCE AND GATE
LS60 - LS65	LANDSCAPE DETAILS - SITE FURNISHINGS
LS70 - LS76	LANDSCAPE DETAILS - SIGNAGE
LS80 - LS84	LANDSCAPE DETAILS - AMENITY
LS85 - LS87	LANDSCAPE DETAILS - PLAY EQUIPMENT
LS90	LANDSCAPE DETAILS - PLANTING

STANDARD DETAILS

SEE PACKAGE FOR DRAWING LIST

GENERAL CONSTRUCTION NOTES

1. LOCATE AND PROTECT ALL UTILITIES WHETHER OR NOT THEY ARE SHOWN IN THE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING GOPHER ONE CALL FOR A UTILITY LOCATE AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF WORK.
2. THE CONTRACTOR IS RESPONSIBLE FOR APPLYING FOR THE MINNESOTA NPDES/SDS CONSTRUCTION STORMWATER PERMIT (SWPPP) AND MEETING ALL REQUIREMENTS OF THE PERMIT.
3. STAKE CONSTRUCTION LIMITS FOR OWNER'S REPRESENTATIVE TO REVIEW PRIOR TO STARTING CONSTRUCTION.
4. USE CAUTION WHEN WORKING AROUND ANY EXISTING STRUCTURE AND MINNEHAHA CREEK. ANY DAMAGE INCURRED IS THE RESPONSIBILITY OF THE CONTRACTOR.
5. THIS PROJECT INVOLVES WORK WITHIN THE VICINITY OF OVERHEAD POWER LINES. REVIEW APPLICABLE OSHA REQUIREMENTS AND DEVELOP AND FOLLOW A PLAN FOR ALL PERSONNEL AND VEHICLES THAT WILL BE CROSSING OR WORKING NEAR POWER LINES THAT FOLLOWS OSHA REQUIREMENTS.
6. ALL PRE-PROJECT DRAINAGE PATTERNS WILL BE MAINTAINED UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION DRAWINGS.
7. RESTORE AREAS DISTURBED DURING CONSTRUCTION TO PRE-CONSTRUCTION CONDITIONS, UNLESS OTHERWISE NOTED.
8. DO NOT INTERRUPT OR BLOCK PUBLIC ROAD TRAFFIC.
9. ALLOW ACCESS TO OTHER AREAS OF CONSTRUCTION WITHIN THE PROPERTY BY OTHER CONTRACTORS. COORDINATION WITH ALATUS DEVELOPMENT CONTRACTOR AND CONSTRUCTION PHASING WILL BE REQUIRED. SEE SHEET GC106 FOR DETAILS. PROVIDE ACCESS FOR EMERGENCY PERSONNEL TO THE SITE FROM PUBLIC ROADS AND THE CEDAR LAKE LRT REGIONAL TRAIL.
10. MINNEHAHA CREEK FLOWS AND WATER LEVELS WILL VARY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MONITOR CREEK LEVELS AND WEATHER FORECASTS AND PREPARE THE SITE FOR POTENTIAL HIGH WATER CONDITIONS.
11. THE CONTRACTOR IS RESPONSIBLE FOR APPLYING FOR RIGHT OF WAY (ROW) AND NON-HABITABLE BUILDING PERMITS WITH THE CITY OF HOPKINS. THE FOLLOWING PROVIDES CITY POINTS OF CONTACT:

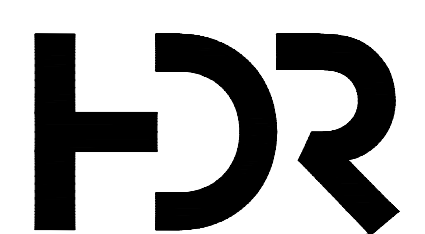
ERIC KLINGBEIL, CITY ENGINEER
(EKLINGBEIL@HOPKINGSMN.COM)

VANCE CAMPBELL, ENGINEERING COORDINATION - ROW PERMITTING
(VCAMPBELL@HOPKINSMN.COM)

CHRISTOPHER KEARNEY, BUILDING OFFICIAL - BUILDING PERMITTING
(CKEARNEY@HOPKINSMN.COM)

DUSTIN PAVEK, STREETS AND PARKS SUPERVISOR - LIGHTING/SIGNAGE
(DPAVEK@HOPKINSMN.COM)

D
C
B
A



ISSUE	DATE	DESCRIPTION
C	03/28/2023	100% DESIGN
B	09/14/2022	90% DESIGN
A	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER ANDREW F. JUDD	
PROJECT NUMBER	10268112

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ANDREW F. JUDD, PE
DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

GENERAL NOTES

FILENAME GC102.DWG
SCALE NA

SHEET
GC102

CIVIL MAPPING SYMBOLOGY

- EMBANKMENT SLOPE (CUT)
- EMBANKMENT SLOPE (FILL)
- EMBANKMENT SLOPE RIGHT ARROW RIGHT
- EMBANKMENT SLOPE LEFT ARROW LEFT
- SPOT ELEVATION/POINT #
- SURVEY BENCHMARK
- SURVEY CONTROL POINT
- HORIZONTAL CONTROL POINT
- VERTICAL CONTROL POINT
- TEST PIT
- SOIL BORING
- FLOW ARROW
- WATER LEVEL IN SECTION/PROFILE
- DOWNGUY
- EXTERIOR UTILITY JUNCTION BOX
- INTERSTATE HIGHWAY SYMBOL
- US HIGHWAY SYMBOL
- STATE HIGHWAY SYMBOL
- COUNTY ROAD SYMBOL
- TEMPORARY SEDIMENT TRAP
- PIEZOMETER
- RAIL SIGNAL
- FIRE HYDRANT
- MONITORING WELL
- SANITARY MANHOLE
- STORM SQUARE CATCH BASIN
- STORM ROUND CATCH BASIN
- STORM DRAINAGE MANHOLE
- DOMESTIC WATER VALVE
- PEDESTAL
- POWER BOX
- POLE
- TARGET ELEVATION

UTILITY/CIVIL LINE SYMBOLOGY

- UTILITY BENEATH STRUCTURE
- RAILROAD
- EASEMENT
- LIMITS OF CONSTRUCTION
- ROW
- EXISTING CONTOUR (MINOR)
- EXISTING CONTOUR W/ELEVATION (MAJOR)
- SURVEYED EDGE OF WATER
- NEW CONTOUR (MINOR)
- NEW CONTOUR (MAJOR)
- SEDIMENT CONTROL LOG, TYPE WOOD CHIP
- SILT FENCE, TYPE HI
- FIBER OPTIC
- NATURAL GAS
- STORM SEWER
- SANITARY FORCE MAIN
- SANITARY SEWER
- WATERMAIN
- OVERHEAD ELECTRICAL
- STREET LIGHTS
- UNDERGROUND ELECTRICAL
- CABLE
- UNDERGROUND TELEPHONE
- TELEPHONE
- SEDIMENT CONTROL LOG, TYPE ROCK
- 100-FT MINNEHAHA CREEK BUFFER
- TEMPORARY PERIMETER CONTROL
- FLOTATION SILT CURTAIN
- TEMPORARY FENCE
- HYDRAULIC MULCH
- ROLLED EROSION PREVENTION CATEGORY 3N
- RIPRAP
- LANDING MIX
- MNDOT CATEGORY 76 HP-TRM
- EXISTING WETLAND
- SOIL TESTING AREA

GENERAL SYMBOLOGY

ARROW INDICATES DIRECTION OF PLAN NORTH

PLAN
1/4" = 1'-0"
PLAN TITLE

SECTION LETTER
FLAG INDICATES DIRECTION OF SECTION CUT

SHEET WHERE SECTION IS LOCATED

SECTION CUT MARKER

SECTION LETTER

SHEET WHERE SECTION VIEW IS FIRST CUT *

SECTION TITLE

DETAIL NUMBER

SHEET WHERE DETAIL IS LOCATED *

DETAIL MARKER
FOR REFERENCING DETAILS INCLUDED IN DRAWING SET.

XXXXXXXXXX

DETAIL MARKER
FOR REFERENCING DETAILS BOUND IN SPECIFICATIONS OR SEPARATE VOLUME.

DETAIL NUMBER

DETAIL SCALE

SHEET WHERE DETAIL WAS CALLED OUT *

DETAIL TITLE

ELEVATION NUMBER

ARROW INDICATES POINT OF VIEW

SHEET WHERE ELEVATION IS LOCATED *

SINGLE ELEVATION OR PHOTO MARKER

ELEVATION NUMBER

ARROW INDICATES POINT OF VIEW ELEVATION

INDICATES SHEET WHERE ELEVATION IS LOCATED

MULTIPLE ELEVATION OR PHOTO MARKER

ELEVATION IDENTIFICATION NUMBER

ELEVATION SCALE

SHEET WHERE POINT OF VIEW MARKER CAN BE FOUND *

ELEVATION TITLE

* EXCEPTIONS WHERE THE SHEET NUMBER IS REPLACED BY A DASH (-).
1) FOR COMMON DETAILS, SECTIONS, ELEVATIONS OR DETAILS THAT ARE CUT OR CALLED OUT ON MULTIPLE SHEETS.
2) SECTIONS, ELEVATIONS OR DETAILS THAT ARE LOCATED ON THE SAME SHEET THEY ARE CUT OR CALLED OUT ON.

SHEET NAMING CONVENTION

DISCIPLINE DESIGNATOR & DISCIPLINE ORDER

- GC GENERAL CIVIL
- EC EROSION CONTROL
- CD CIVIL DEMOLITION
- CG CIVIL GRADING
- CT CIVIL TRAIL
- CP CIVIL STORMWATER PLAN
- ST STRUCTURAL
- L LANDSCAPE ARCHITECT
- E ELECTRICAL

DRAWING TYPE DESIGNATOR

- 0 GENERAL (SCHEDULES, SYMBOLS, LEGENDS)
- 1 PLANS
- 2 PROFILES / ELEVATIONS
- 3 SECTIONS
- 4 LARGE SCALE VIEWS
- 5 DETAILS
- 6 DIAGRAMS
- 7 3D REPRESENTATIONS

EXAMPLE

PLAN AND PROFILE, SHEET 1

C	P	1	0	1
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DISCIPLINE DESIGNATOR

		1		
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DRAWING TYPE DESIGNATOR

			0	1
--	--	--	---	---

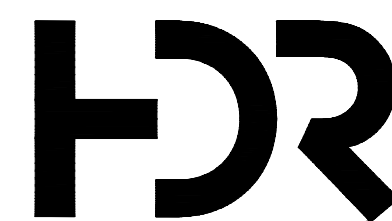
SHEET NUMBER

C	P	1	0	1
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SAMPLE SHEET NUMBER

GENERAL NOTES:

1. THIS IS A STANDARD CIVIL SYMBOLOGY SHEET. ALL SYMBOLS ARE NOT NECESSARILY USED ON THIS PROJECT.
2. SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE.



MINNEHAHA CREEK
WATERSHED DISTRICT

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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

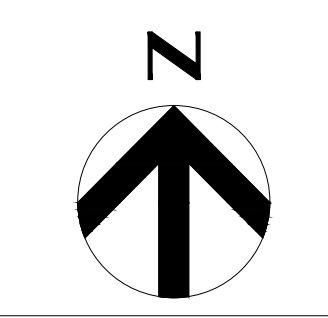
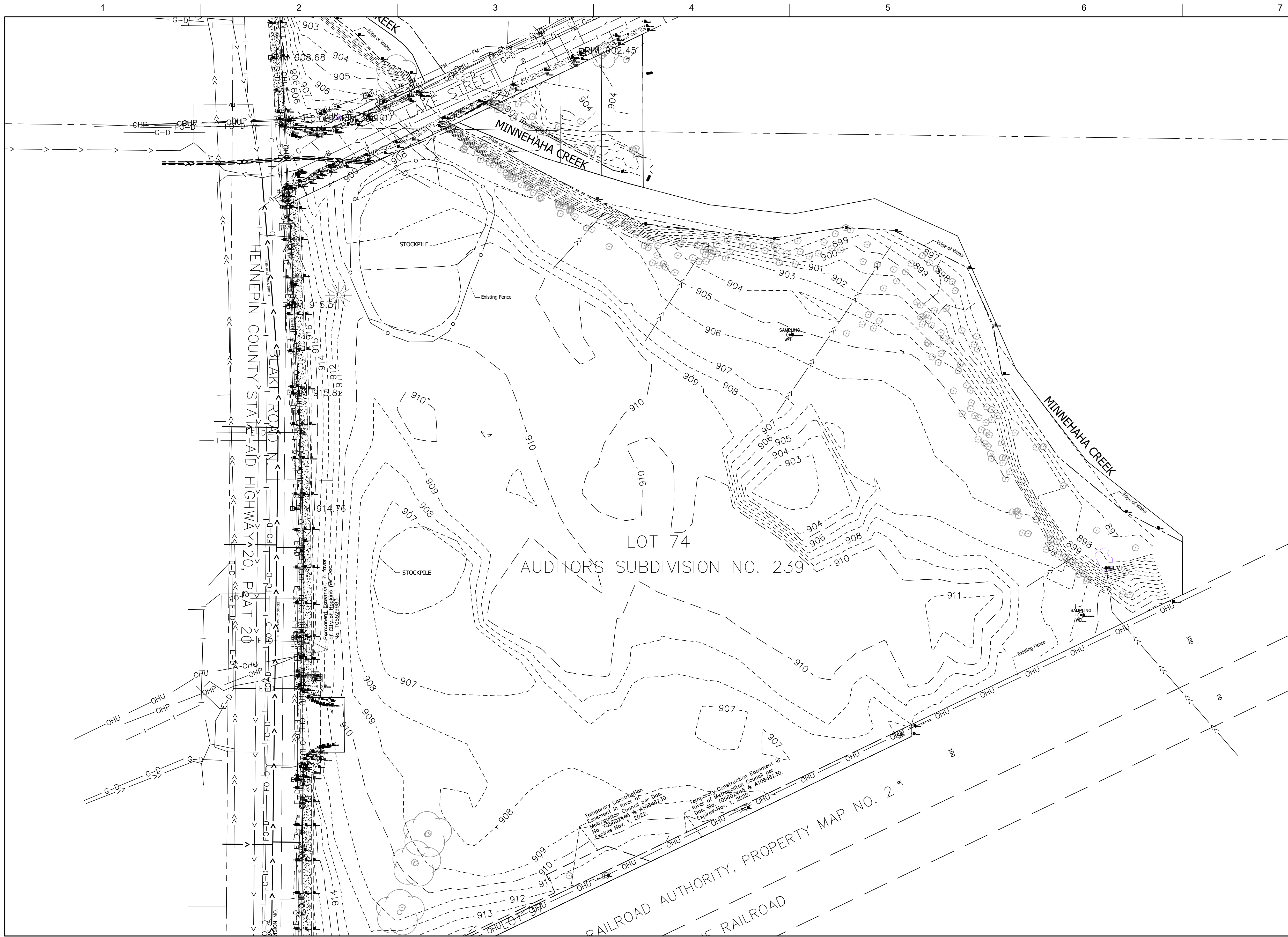
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

PROJECT SYMBOLOGY



FILENAME GC103.DWG
SCALE NA

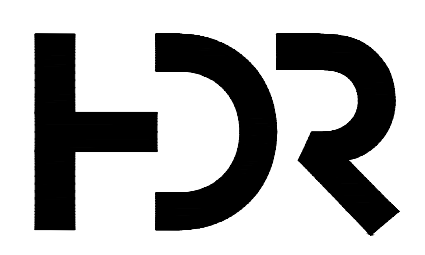
SHEET
GC103



HORIZONTAL DATA
HENNEPIN COUNTY
COORDINATE SYSTEM, NAD83,
2011 ADJUSTMENT, U.S.
SURVEY FOOT

VERTICAL DATA
NAVD88
MNDOT MONUMENT SONYA
GSID STATION #95216
ELEVATION = 902.019'

- SURVEY NOTES**
1. SURVEY WAS COMPLETED JANUARY 2021 AND JUNE 2022 BY STANTEC
 2. VISIBLE FEATURES WERE SURVEYED. DUE TO SNOW COVER ON THE SITE, SOME FEATURES MAY NOT HAVE BEEN VISIBLE AT THE TIME OF SURVEY.
 3. THE UTILITIES SHOWN ON THE SURVEY BASEFILE HAVE BEEN LOCATED FROM ABOVE GROUND VISIBLE EVIDENCE AND UNDERGROUND UTILITY MARKINGS AT THE TIME OF SURVEY.
 4. PRIOR TO ANY SITE DISTURBANCE OR CONSTRUCTION CALL GOPHER STATE ONE-CALL 1-800-252-1166 AND VERIFY ALL UTILITIES WITHIN THE LIMITS OF CONSTRUCTION PRIOR TO STARTING WORK.



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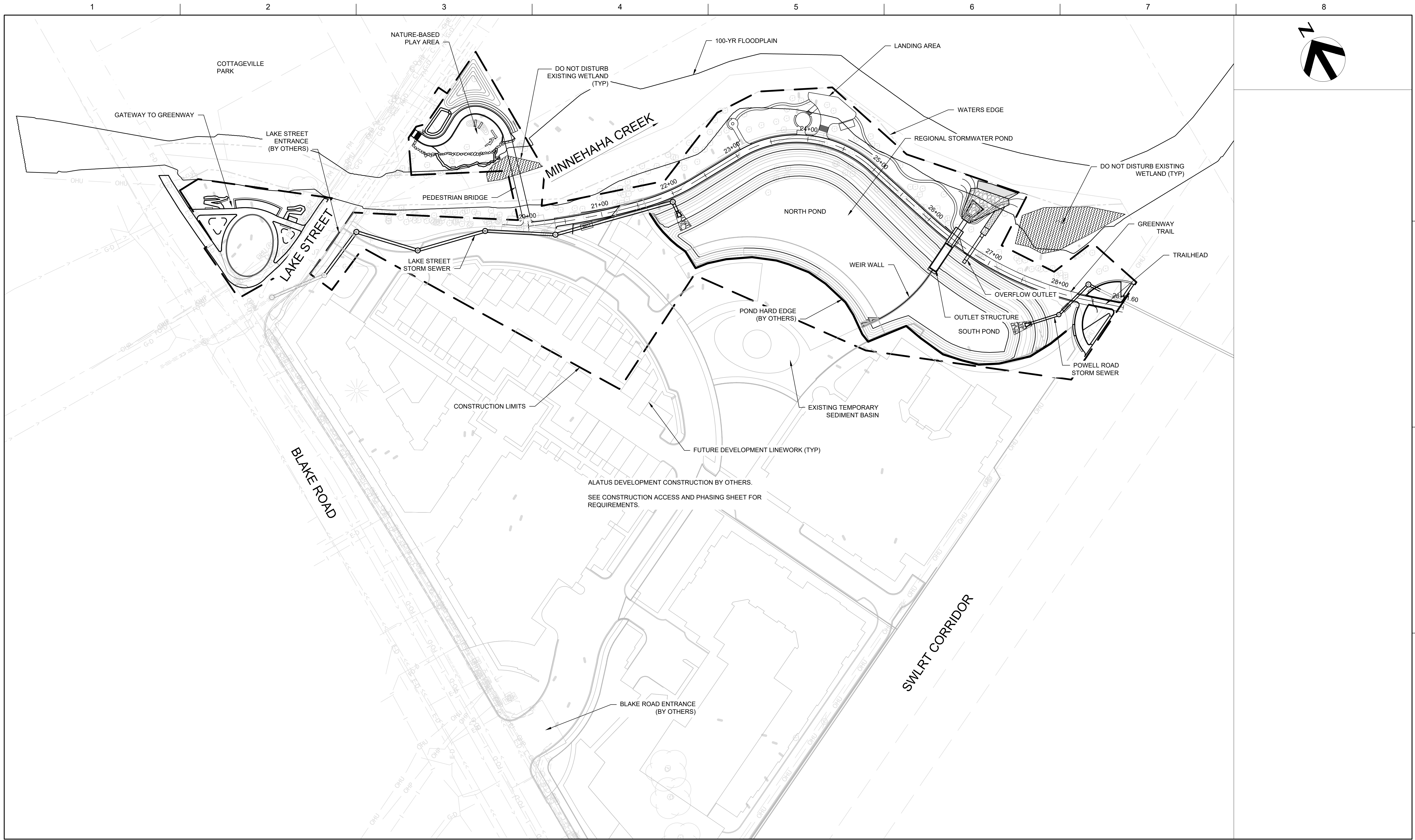
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

SURVEY AND CONTROL

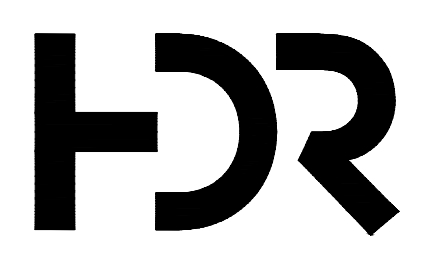
0 1" 2"

FILENAME | GC104.DWG
SCALE | 1" = 60'

SHEET
GC104



ALATUS DEVELOPMENT CONSTRUCTION BY OTHERS.
SEE CONSTRUCTION ACCESS AND PHASING SHEET FOR REQUIREMENTS.



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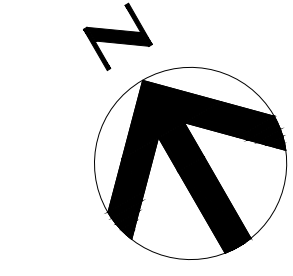
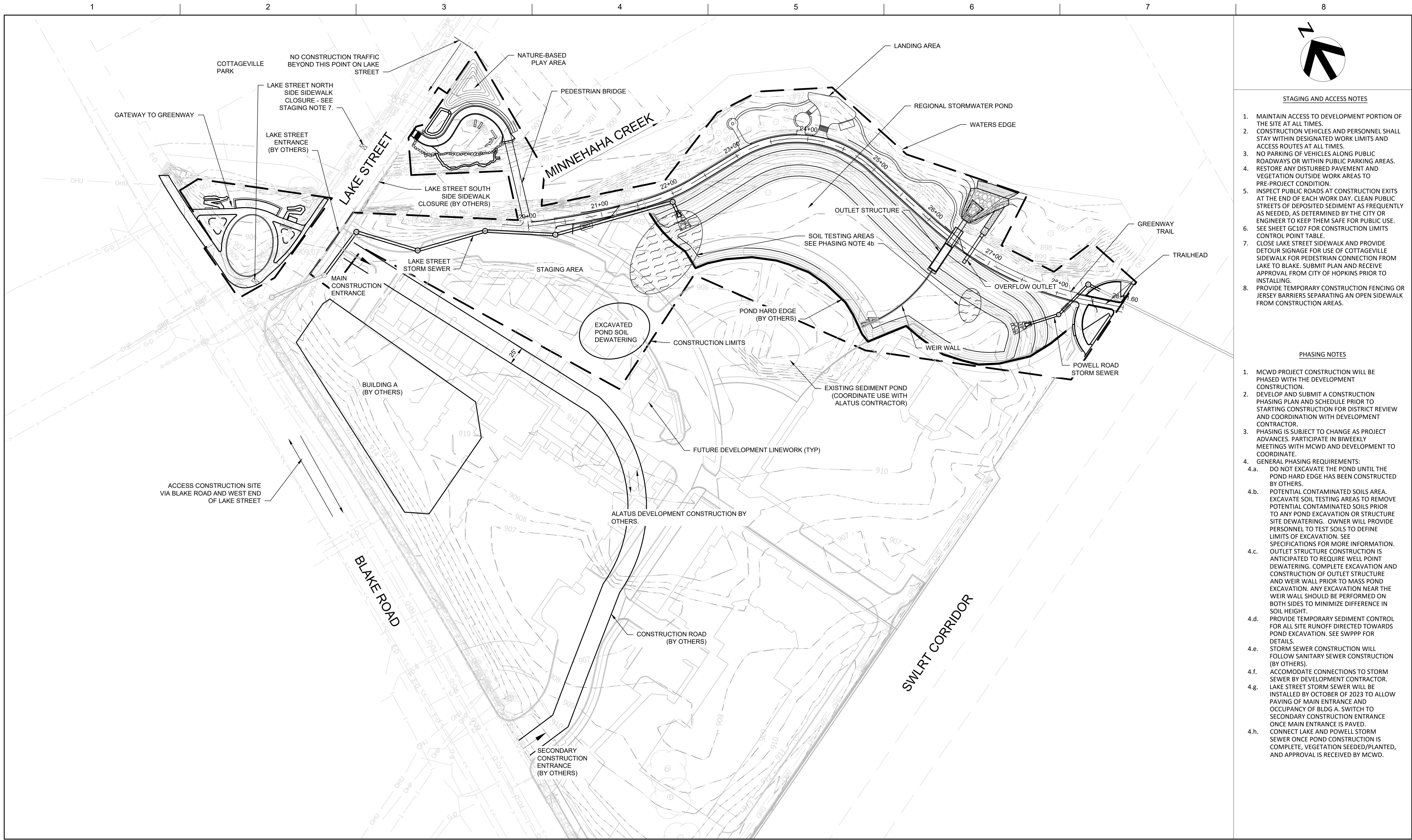
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

SITE LAYOUT PLAN

0 1" 2"

FILENAME GC105-106.DWG
SCALE 1" = 60'

SHEET
GC105



STAGING AND ACCESS NOTES

1. MAINTAIN ACCESS TO DEVELOPMENT PORTION OF THE SITE AT ALL TIMES.
2. CONSTRUCTION VEHICLES AND PERSONNEL SHALL STAY WITHIN DESIGNATED WORK LIMITS AND ACCESS ROUTES AT ALL TIMES.
3. NO PARKING OF VEHICLES ALONG PUBLIC ROADWAYS OR WITHIN PUBLIC PARKING AREAS.
4. RESTORE ANY DISTURBED PAVEMENT AND VEGETATION OUTSIDE WORK AREAS TO PRE-PROJECT CONDITION.
5. INSPECT PUBLIC ROADS AT CONSTRUCTION EXITS AT THE END OF EACH WORK DAY. CLEAN PUBLIC STREETS OF DEPOSITED SEDIMENT AS FREQUENTLY AS NEEDED, AS DETERMINED BY THE CITY OR ENGINEER TO KEEP THEM SAFE FOR PUBLIC USE.
6. SEE SHEET GC107 FOR CONSTRUCTION LIMITS CONTROL POINT TABLE.
7. CLOSE LAKE STREET SIDEWALK AND PROVIDE DETOUR SIGNAGE FOR USE OF COTTAGEVILLE SIDEWALK FOR PEDESTRIAN CONNECTION FROM LAKE TO BLAKE. SUBMIT PLAN AND RECEIVE APPROVAL FROM CITY OF HOPKINS PRIOR TO INSTALLING.
8. PROVIDE TEMPORARY CONSTRUCTION FENCING OR JERSEY BARRIERS SEPARATING AN OPEN SIDEWALK FROM CONSTRUCTION AREAS.

PHASING NOTES

1. MCWD PROJECT CONSTRUCTION WILL BE PHASED WITH THE DEVELOPMENT CONSTRUCTION.
2. DEVELOP AND SUBMIT A CONSTRUCTION PHASING PLAN AND SCHEDULE PRIOR TO STARTING CONSTRUCTION FOR DISTRICT REVIEW AND COORDINATION WITH DEVELOPMENT CONTRACTOR.
3. PHASING IS SUBJECT TO CHANGE AS PROJECT ADVANCES. PARTICIPATE IN BIWEEKLY MEETINGS WITH MCWD AND DEVELOPMENT TO COORDINATE.
4. GENERAL PHASING REQUIREMENTS:
 - 4.a. DO NOT EXCAVATE THE POND UNTIL THE POND HARD EDGE HAS BEEN CONSTRUCTED BY OTHERS.
 - 4.b. POTENTIAL CONTAMINATED SOILS AREA. EXCAVATE SOIL TESTING AREAS TO REMOVE POTENTIAL CONTAMINATED SOILS PRIOR TO ANY POND EXCAVATION OR STRUCTURE SITE DEWATERING. OWNER WILL PROVIDE PERSONNEL TO TEST SOILS TO DEFINE LIMITS OF EXCAVATION. SEE SPECIFICATIONS FOR MORE INFORMATION.
 - 4.c. OUTLET STRUCTURE CONSTRUCTION IS ANTICIPATED TO REQUIRE WELL POINT DEWATERING. COMPLETE EXCAVATION AND CONSTRUCTION OF OUTLET STRUCTURE AND WEIR WALL PRIOR TO MASS POND EXCAVATION. ANY EXCAVATION NEAR THE WEIR WALL SHOULD BE PERFORMED ON BOTH SIDES TO MINIMIZE DIFFERENCE IN SOIL HEIGHT.
 - 4.d. PROVIDE TEMPORARY SEDIMENT CONTROL FOR ALL SITE RUNOFF DIRECTED TOWARDS POND EXCAVATION. SEE SWPPP FOR DETAILS.
 - 4.e. STORM SEWER CONSTRUCTION WILL FOLLOW SANITARY SEWER CONSTRUCTION (BY OTHERS).
 - 4.f. ACCOMMODATE CONNECTIONS TO STORM SEWER BY DEVELOPMENT CONTRACTOR.
 - 4.g. LAKE STREET STORM SEWER WILL BE INSTALLED BY OCTOBER OF 2023 TO ALLOW PAVING OF MAIN ENTRANCE AND OCCUPANCY OF BLDG A. SWITCH TO SECONDARY CONSTRUCTION ENTRANCE ONCE MAIN ENTRANCE IS PAVED.
 - 4.h. CONNECT LAKE AND POWELL STORM SEWER ONCE POND CONSTRUCTION IS COMPLETE, VEGETATION SEEDED/PLANTED, AND APPROVAL IS RECEIVED BY MCWD.



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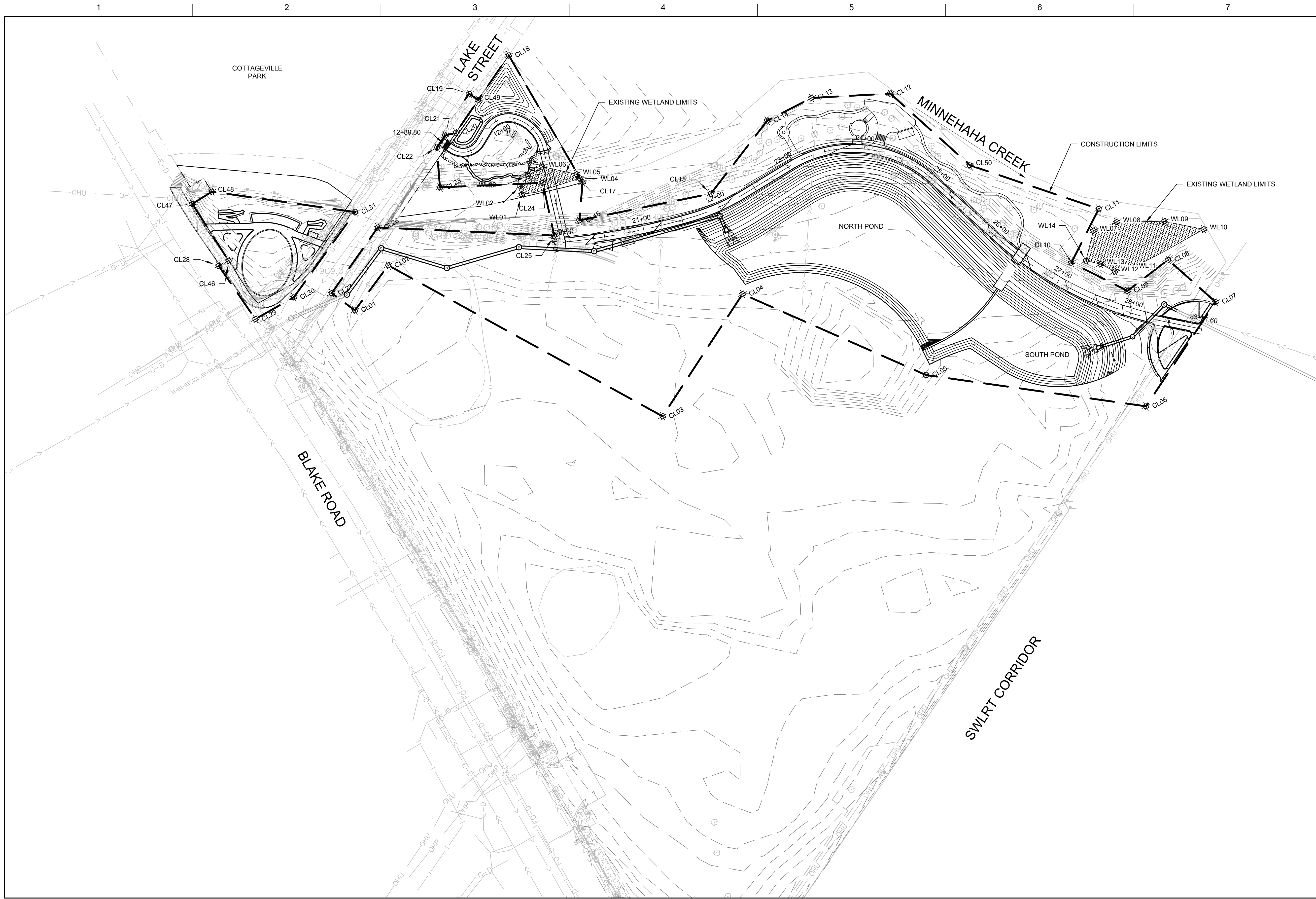
MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

CONSTRUCTION ACCESS AND PHASING PLAN

0 1" 2"

FILENAME GC105-106.DWG
 SCALE 1" = 60'

SHEET
GC106

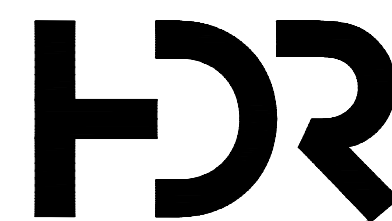


CL Point Table

Point #	Northing	Easting
CL9	150640.611	500397.575
CL1	151105.693	499542.915
CL2	151133.734	499607.620
CL3	150796.547	499811.683
CL4	150879.497	499975.828
CL5	150675.662	500124.918
CL6	150503.155	500345.034
CL7	150572.987	500486.613
CL8	150648.841	500461.458
CL10	150706.708	500354.126
CL11	150748.011	500417.834
CL12	151005.013	500263.039
CL13	151049.838	500174.410
CL14	151052.940	500111.841
CL15	151008.870	500004.424
CL16	151062.461	499844.230
CL17	151101.870	499871.624
CL18	151286.775	499871.120
CL19	151269.767	499803.763
CL20	151235.823	499764.880
CL21	151239.449	499751.311
CL22	151231.688	499735.054
CL23	151186.272	499713.033
CL24	151126.462	499827.915
CL25	151061.782	499807.294
CL26	151181.699	499620.025
CL27	151139.148	499528.417
CL28	151240.128	499422.420
CL29	151158.915	499428.896
CL30	151158.440	499484.518
CL31	151212.759	499604.999
CL46	151239.342	499436.441
CL47	151324.177	499432.640
CL48	151325.167	499461.658
CL49	151257.459	499809.796
CL50	150876.826	500304.742

WL Point Table

Point #	Northing	Easting
WL01	150693.265	500481.574
WL02	151127.183	499797.922
WL03	151137.087	499801.425
WL04	151143.425	499816.478
WL05	151108.119	499871.141
WL06	151114.569	499870.284
WL07	151144.396	499837.691
WL08	150727.719	500398.304
WL09	150722.375	500428.996
WL10	150659.816	500519.211
WL11	150662.499	500417.436
WL12	150669.791	500395.852
WL13	150686.806	500385.059
WL14	150699.567	500371.245



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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

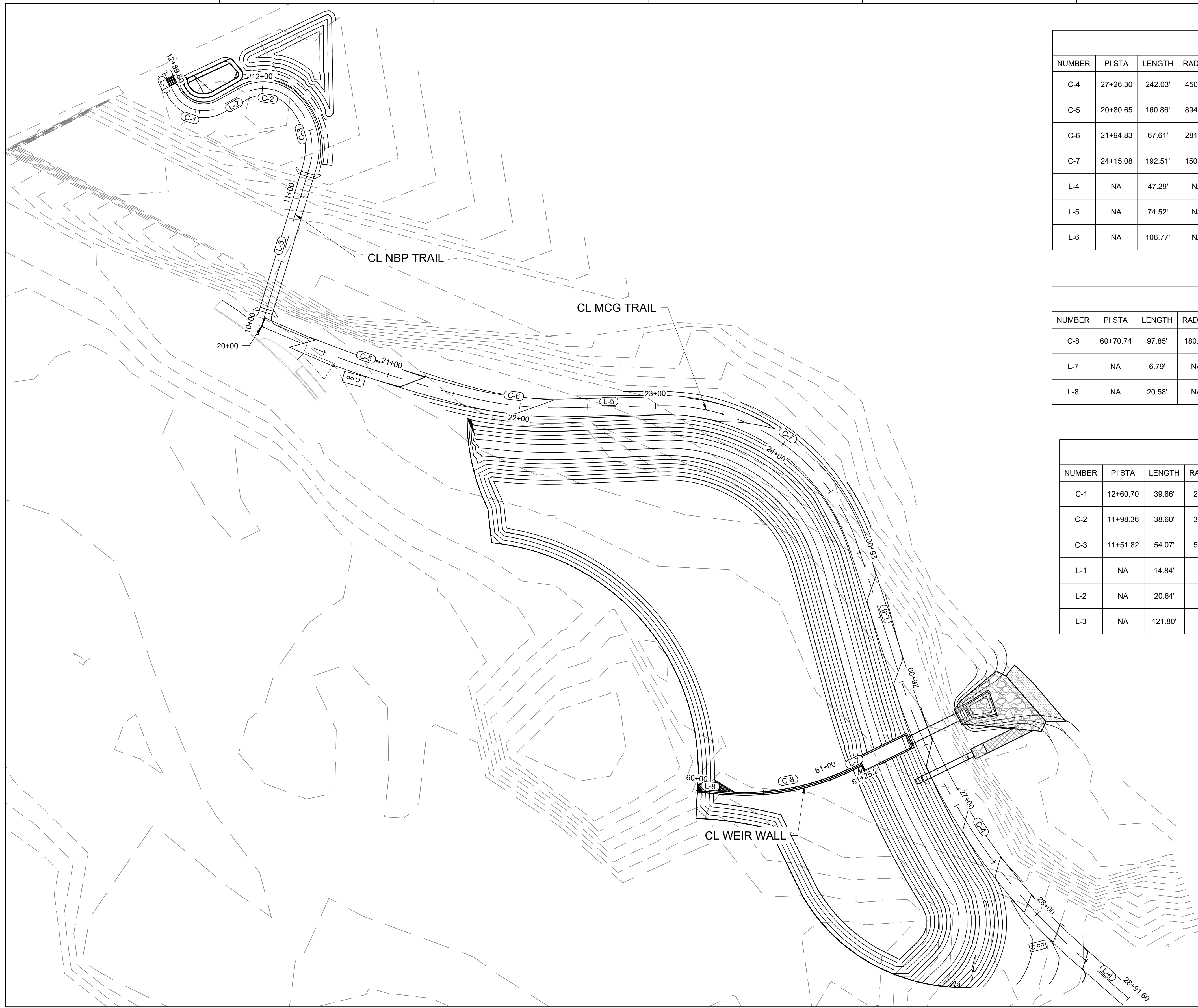
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

CONSTRUCTION LIMIT CONTROL POINTS



FILENAME GC107.DWG
SCALE 1" = 60'

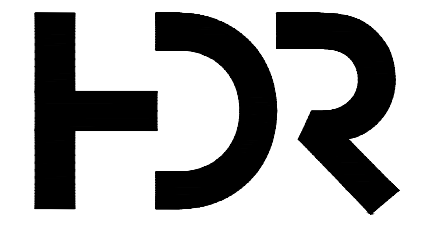
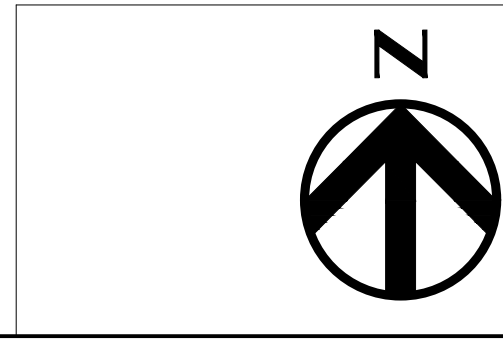
SHEET
GC107



Trail Alignment									
NUMBER	PI STA	LENGTH	RADIUS	LINE/CHORD DIRECTION	STARTING COORDINATES	ENDING COORDINATES	STATION START	STATION END	Δ
C-4	27+26.30	242.03'	450.00'	S33°14'52"E	E 500287.771 N 150783.579	E 500418.871 N 150583.601	26+02.28	28+44.31	30°49'00"
C-5	20+80.65	160.86'	894.00'	S71°03'32"E	E 499815.259 N 151047.751	E 499967.206 N 150995.606	20+00.00	21+60.86	10°18'30"
C-6	21+94.83	67.61'	281.00'	S83°06'25"E	E 499967.206 N 150995.606	E 500034.170 N 150987.511	21+60.86	22+28.48	13°47'10"
C-7	24+15.08	192.51'	150.00'	S54°36'27"E	E 500108.674 N 150989.218	E 500255.061 N 150885.215	23+03.00	24+95.51	73°32'10"
L-4	NA	47.29'	NA	S48°39'20"E	E 500418.871 N 150583.601	E 500454.375 N 150552.360	28+44.31	28+91.60	
L-5	NA	74.52'	NA	N88°41'14"E	E 500034.170 N 150987.511	E 500108.674 N 150989.218	22+28.48	23+03.00	
L-6	NA	106.77'	NA	S17°50'23"E	E 500255.061 N 150885.215	E 500287.771 N 150783.579	24+95.51	26+02.28	

Weir Wall Alignment									
NUMBER	PI STA	LENGTH	RADIUS	LINE/CHORD DIRECTION	STARTING COORDINATES	ENDING COORDINATES	STATION START	STATION END	Δ
C-8	60+70.74	97.85'	180.00'	N79°23'59"E	E 500155.973 N 150703.775	E 500250.970 N 150721.553	60+20.58	61+18.43	31°08'40"
L-7	NA	6.79'	NA	N63°49'38"E	E 500250.970 N 150721.553	E 500257.060 N 150724.547	61+18.43	61+25.21	
L-8	NA	20.58'	NA	S85°01'39"E	E 500135.471 N 150705.559	E 500155.973 N 150703.775	60+00.00	60+20.58	

Nature Play Trail Alignment									
NUMBER	PI STA	LENGTH	RADIUS	LINE/CHORD DIRECTION	STARTING COORDINATES	ENDING COORDINATES	STATION START	STATION END	Δ
C-1	12+60.70	39.86'	25.00'	N71°11'28"W	E 499784.084 N 151209.297	E 499750.227 N 151220.829	12+35.11	12+74.97	91°20'30"
C-2	11+98.36	38.60'	30.00'	N82°02'03"W	E 499837.805 N 151214.269	E 499802.164 N 151219.256	11+75.87	12+14.47	73°42'40"
C-3	11+51.82	54.07'	50.00'	N14°11'43"W	E 499850.429 N 151164.363	E 499837.805 N 151214.269	11+21.80	11+75.87	61°57'50"
L-1	NA	14.84'	NA	N25°32'58"W	E 499750.227 N 151220.829	E 499743.828 N 151234.215	12+74.97	12+89.80	
L-2	NA	20.64'	NA	S61°09'11"W	E 499802.164 N 151219.256	E 499784.084 N 151209.297	12+14.47	12+35.11	
L-3	NA	121.80'	NA	N16°47'07"E	E 499815.255 N 151047.752	E 499850.429 N 151164.363	10+00.00	11+21.80	



ISSUE	DATE	DESCRIPTION
C	03/28/2023	100% DESIGN
B	09/14/2022	90% DESIGN
A	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER ANDREW F. JUDD	
PROJECT NUMBER	10268112

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ANDREW F. JUDD, PE
DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

ALIGNMENT PLAN AND TABLES

0 1" 2"

FILENAME GC108.DWG
SCALE 1" = 40'

SHEET
GC108

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE

PROJECT DESCRIPTION/LOCATION

THE PROPOSED PROJECT IS LOCATED AT 325 BLAKE ROAD NORTH IN THE CITY OF HOPKINS, MN, INCLUDING ADJACENT PARCELS AS DESCRIBED IN THE PROJECT DESIGN PLANS.

THE PLANNED SCOPE OF THE PROJECT INCLUDES 1) PUBLIC REALM IMPROVEMENTS, AND 2) MIXED-USE DEVELOPMENT. THESE PROJECT SCOPES ARE INTENDED AS A COMMON PLAN OF DEVELOPMENT, EACH WITH A SEPARATE SET OF DESIGN AND CONSTRUCTION DRAWINGS, CALCULATIONS, AND ASSOCIATED REPORTS.

- 1) PUBLIC REALM IMPROVEMENTS GENERALLY CONSIST OF THE FOLLOWING ACTIVITIES: STORM SEWER CONSTRUCTION, REGIONAL STORMWATER POND EXCAVATION AND CONSTRUCTION, GREENWAY TRAIL GRADING AND CONSTRUCTION, CONSTRUCTION OF A PUBLIC PLAZA (GATEWAY TO GREENWAY), CONSTRUCTION OF A GREENWAY TRAILHEAD AND ASSOCIATED AMENITIES, CONSTRUCTION OF A PUBLIC LEISURE AREA ALONG MINNEHAHA CREEK (THE LANDING), AND CONSTRUCTION OF A NATURE-BASED PLAY AREA. CONSTRUCTION SUPPORT ACTIVITIES INCLUDE THE INSTALLATION OF A MULTI-STAGE STORMWATER POND OUTLET STRUCTURE, LANDSCAPING AND SITE RESTORATION, AND THE INSTALLATION OF TEMPORARY AND PERMANENT STORMWATER BEST MANAGEMENT PRACTICES (BMPs). REFER TO DESIGN PLANS, MODELS, AND REPORTS DEVELOPED BY HDR ENGINEERING, INC. FOR MORE INFORMATION.
- 2) MIXED-USE DEVELOPMENT CONSISTS OF THE CONSTRUCTION OF NEW RESIDENTIAL BUILDINGS, PRIVATE ROADS AND PARKING AREAS, RESTAURANTS, AND ASSOCIATED UTILITIES. CONSTRUCTION AND OPERATION SUPPORT ACTIVITIES INCLUDE THE INSTALLATION OF A WET WELL AND PUMP FOR STORMWATER RE-USE, INSTALLATION OF A STORMWATER CASCADE, INSTALLATION OF TEMPORARY AND PERMANENT STORMWATER BMPs, LANDSCAPING AND SITE RESTORATION. REFER TO DESIGN PLANS, MODELS, AND REPORTS DEVELOPED BY LOUCKS, INC., FOR MORE INFORMATION.

RECEIVING WATERS WITHIN 1-MILE AERIAL RADIUS OF PROJECT

RECEIVING WATER	LOCATION	SPECIAL WATER	IMPAIRED WATER	TROUT	TMDL	INVASIVE
UNNAMED WETLANDS	RIPARIAN EDGE OF MINNEHAHA CREEK	NO	NO	NO	NO	NO
MINNEHAHA CREEK	ADJACENT TO ALL CONSTRUCTION SITES	NO	YES*	NO	YES	YES**

* THIS REACH IS IMPAIRED FOR CHLORIDE, FECAL COLIFORM (E. COLI), DISSOLVED OXYGEN (DO), MACROINVERTEBRATES BIOASSESSMENTS, AND FISH BIOASSESSMENTS.

** MNDNR INVENTORY OF INFESTED WATERS LISTS THIS REACH FOR ZEBRA MUSSEL, FLOWERING RUSH, AND EURASIAN WATERMILFOIL.

THE RECEIVING WATERS LISTED IN THE TABLE ABOVE ARE LOCATED WITHIN ONE MILE (AERIAL RADIUS) OF THE PROJECT LIMITS AND RECEIVE RUNOFF FROM THE PROJECT SITE. THE PROXIMITY TO IMPAIRED WATERS REQUIRES ADDITIONAL STORMWATER BMPs AS OUTLINED IN APPENDIX A OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT.

AREAS OF ENVIRONMENTAL SENSITIVITY (AES)

IN ADDITION TO THE LIST OF SPECIAL AND IMPAIRED WATERS, THE CONTRACTOR SHALL BE AWARE THAT THERE ARE WETLANDS WITHIN AND NEAR THE PROJECT BOUNDARY, CONTAMINATED SOILS, AND POTENTIAL FOR WILDLIFE TO BE ON OR NEAR SITE REQUIRING PROTECTION.

SOIL TYPES

SOIL TYPES ON THE PROPERTY PRIMARILY CONSIST OF MEDIUM TO COARSE SAND AND GRAVEL, WITH TRACE AMOUNTS OF SILT AND CLAY. IN SOME LOCATIONS, SOILS NEAR THE GROUND SURFACE ARE COMPRISED OF FILL, CONSISTING OF TOPSOIL AND ORGANIC SANDY SILT. THE DOMINANT SAND AND GRAVEL SOIL TEXTURE IS TYPICALLY TO DEPTHS OF 3 TO 6 FEET OR DEEPER, WHICH IS TYPICALLY UNDERLAIN BY 2 TO 4 FEET OF SOFT CLAY BEFORE TRANSITIONING BACK TO SAND AND GRAVEL AT GREATER DEPTHS. THE GROUNDWATER TABLE IS TYPICALLY SIMILAR IN ELEVATION TO THE WATER SURFACE ELEVATION OF THE ADJACENT MINNEHAHA CREEK, WHICH IS SUBJECT TO SEASONAL WEATHER CONDITIONS. GROUNDWATER HAS BEEN REPORTED BETWEEN ELEVATIONS 889.0 AND 897.9 IN DIFFERENT LOCATIONS OF THE PROPERTY OVER MULTIPLE YEARS OF DATA COLLECTION.

LONG TERM MAINTENANCE AND OPERATION

MINNEHAHA CREEK WATERSHED DISTRICT, CITY OF HOPKINS, AND ALATUS, INC. HAVE ENTERED INTO A COOPERATIVE AGREEMENT FOR LONG-TERM OPERATION AND MAINTENANCE OF VARIOUS PROJECT FEATURES, INCLUDING DEFINED RESPONSIBILITIES FOR VARIOUS PROJECT INFRASTRUCTURE. REFER TO THE PROJECT OPERATION, MAINTENANCE, AND MONITORING (OMM) PLAN FOR MORE INFORMATION.

PROJECT PERSONNEL AND TRAINING

THIS SWPPP WAS PREPARED BY PERSONNEL THAT ARE CERTIFIED IN THE DESIGN OF CONSTRUCTION SWPPPS. COPIES OF THE CERTIFICATIONS ARE AVAILABLE UPON REQUEST. REFER TO APPENDIX F OF THE PROJECT DESIGN MEMO FOR SCANNED COPIES OF CURRENT CERTIFICATIONS.

THE CONTRACTOR SHALL PROVIDE A CERTIFIED EROSION CONTROL SUPERVISOR IN GOOD STANDING WHO IS KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES. THE EROSION CONTROL SUPERVISOR SHALL WORK WITH THE PROJECT ENGINEER, AS NECESSARY, TO OVERSEE THE IMPLEMENTATION OF THE SWPPP AND THE INSTALLATION, INSPECTION, AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMPs BEFORE, DURING AND AFTER CONSTRUCTION UNTIL THE NOTICE OF TERMINATION (NOT) HAS BEEN FILED WITH THE MPCA. THE CONTRACTOR SHALL MAINTAIN PROOF OF EROSION CONTROL TRAINING AND CERTIFICATION AND SHALL MAKE SUCH RECORDS AVAILABLE UPON REQUEST.

THE CONTRACTOR SHALL PROVIDE AT LEAST ONE CERTIFIED INSTALLER FOR EACH CONTRACTOR OR SUBCONTRACTOR THAT INSTALLS EROSION CONTROL PRODUCTS LISTED IN THE PROJECT DESIGN PLANS AND SPECIFICATIONS. PROOF OF TRAINING AND CERTIFICATION SHALL BE MADE AVAILABLE UPON REQUEST.

CHAIN OF RESPONSIBILITY

THE CONTRACTOR IS RESPONSIBLE TO COMPLY WITH ALL ASPECTS OF THE NPDES CONSTRUCTION PERMIT AT ALL TIMES UNTIL THE NOTICE OF TERMINATION (NOT) HAS BEEN FILED WITH THE MPCA. THE CONTRACTOR SHALL DEVELOP A CHAIN OF COMMAND WITH SUBCONTRACTORS ON THE SITE TO ENSURE THAT THE SWPPP WILL BE IMPLEMENTED AND STAY IN EFFECT UNTIL THE CONSTRUCTION PROJECT IS COMPLETE, THE ENTIRE SITE HAS UNDERGONE FINAL STABILIZATION, AND AN NOT HAS BEEN SUBMITTED TO THE MPCA. THE ALATUS DEVELOPMENT HAS ITS OWN CONSTRUCTION PERMITS. CONTRACTORS ARE RESPONSIBLE FOR COMPLIANCE WITH THEIR INDIVIDUAL SWPPP'S AND PERMITS IN SHARED AREAS OF CONSTRUCTION.

PROJECT CONTACTS

THE PROJECT ENGINEER AND CONTRACTOR ARE RESPONSIBLE FOR IMPLEMENTATION OF THE SWPPP AND INSTALLATION, INSPECTION, AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMPs BEFORE, DURING, AND AFTER CONSTRUCTION, UNTIL THE NOTICE OF TERMINATION HAS BEEN FILED.

ORGANIZATION	CONTACT NAME	PHONE
MINNEHAHA CREEK WATERSHED DISTRICT	GABE SHERMAN	952-641-4510
ALATUS, LLC	CHRIS OSMUNDSON	612-455-0712
HDR ENGINEERING, INC.	MICHAEL RYAN	763-591-5440
LOUCKS, INC.	MIKE ST. MARTIN	763-496-6713
CONTRACTOR (TBD)		
MPCA DUTY OFFICER 24-HOUR EMERGENCY NOTIFICATION: 651-649-5451 OR 800-422-0798		

LOCATION OF SWPPP REQUIREMENTS

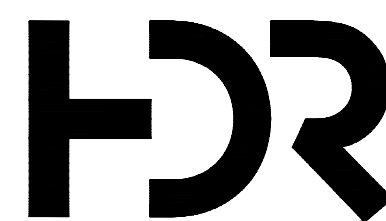
THE REQUIRED SWPPP ELEMENTS MAY BE LOCATED IN MANY PLACES WITHIN THE PLAN SET, IN THE PROJECT SPECIFICATIONS AND SPECIAL PROVISIONS, OR ON FILE WITH MINNEHAHA CREEK WATERSHED DISTRICT AND HDR ENGINEERING, INC. THE NOTES AND TABLE BELOW ARE INTENDED TO BE A QUICK REFERENCE FOR THE CONTRACTOR AND PROJECT ENGINEER TO USE IN THE FIELD. THERE MAY BE ADDITIONAL REQUIRED SWPPP ELEMENTS INCLUDED ON THE PROJECT THAT ARE NOT LISTED ON THIS SHEET.

LOCATION OF SWPPP REQUIREMENTS IN PROJECT PLAN

TEMPORARY EROSION CONTROL MEASURES	CONTRACT DRAWINGS
PERMANENT EROSION CONTROL MEASURES	CONTRACT DRAWINGS
DIRECTION OF FLOW	CONTRACT DRAWINGS
FINAL STABILIZATION	CONTRACT DRAWINGS
SOILS AND CONSTRUCTION NOTES	CONTRACT DRAWINGS
DRAINAGE STRUCTURES	CONTRACT DRAWINGS
DRAINAGE TABULATION	DESIGN REPORT
STORM SEWER PROFILES	CONTRACT DRAWINGS
STORM SEWER TABULATION	CONTRACT DRAWINGS
EROSION AND SEDIMENT CONTROL DETAILS	CONTRACT DRAWINGS
EROSION CONTROL TABULATION	CONTRACT DRAWINGS
TURF ESTABLISHMENT TABULATION	CONTRACT DRAWINGS
SITE MAP	CONTRACT DRAWINGS
STORMWATER CALCULATIONS	DESIGN REPORT AND APPENDICES
WATER RESOURCES NOTES	CONTRACT DRAWINGS



MINNEHAHA CREEK WATERSHED DISTRICT



ISSUE	DATE	DESCRIPTION
C	03/28/2023	100% DESIGN
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PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER	10268112

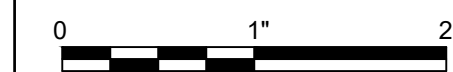
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DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

SWPPP PLAN



FILENAME EC101-103.DWG
SCALE NA

SHEET
EC101

SITE INSPECTION AND MAINTENANCE

INSPECT THE ENTIRE CONSTRUCTION SITE A MINIMUM OF ONCE EVERY SEVEN DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS. INSPECT ALL TEMPORARY AND PERMANENT WATER QUALITY MANAGEMENT, EROSION PREVENTION AND SEDIMENT CONTROL BMPs UNTIL THE SITE HAS UNDERGONE FINAL STABILIZATION AND THE NOT HAS BEEN SUBMITTED. INSPECT SURFACE WATER INCLUDING FLOW PATHS FOR SIGNS OF EROSION AND SEDIMENT DEPOSITION. INSPECT CONSTRUCTION SITE VEHICLE EXIT LOCATIONS FOR EVIDENCE OF TRACKING ONTO PAVED SURFACES. INSPECT SURROUNDING PROPERTIES FOR EVIDENCE OF OFF SITE SEDIMENT ACCUMULATION. INSPECT STORMWATER BMPs FOR SIGNS OF SEDIMENT DEPOSITION, COMPACTION, CONSTRUCTION CONFORMANCE TO DESIGN, AND MATERIAL DEFECTS.

RECORD ALL INSPECTIONS AND MAINTENANCE ACTIVITIES IN WRITING WITHIN 24 HOURS. SUBMIT INSPECTION REPORTS IN A FORMAT THAT IS ACCEPTABLE TO THE PROJECT OWNER AND ENGINEER. INCLUDE THE FOLLOWING IN THE RECORDS OF EACH INSPECTION AND MAINTENANCE ACTIVITY:

- A. DATE AND TIME OF INSPECTIONS
- B. NAME OF PERSONS CONDUCTING INSPECTIONS
- C. FINDINGS OF INSPECTIONS, INCLUDING RECOMMENDATIONS FOR CORRECTIVE ACTIONS
- D. CORRECTIVE ACTIONS TAKEN, INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES
- E. DATE AND AMOUNT OF ALL RAINFALL EVENTS GREATER THAN 0.5 INCHES IN 24 HOURS
- F. DOCUMENTS ADDED AND CHANGES MADE TO THE SWPPP

REPLACE, REPAIR OR SUPPLEMENT ALL NONFUNCTIONAL BMPs BY THE END OF THE NEXT BUSINESS DAY FOLLOWING DISCOVERY UNLESS LISTED DIFFERENTLY BELOW:

- A. REPAIR, REPLACE, OR SUPPLEMENT PERIMETER CONTROL DEVICES WHEN IT BECOMES NONFUNCTIONAL OR SEDIMENT REACHES 1/2 THE HEIGHT OF THE DEVICE. COMPLETE REPAIRS BY THE END OF THE NEXT BUSINESS DAY FOLLOWING DISCOVERY.
- B. REPAIR OR REPLACE INLET PROTECTION DEVICES WHEN THEY BECOME NONFUNCTIONAL OR SEDIMENT REACHES 1/2 THE HEIGHT AND/OR DEPTH OF THE DEVICE.
- C. DRAIN AND REMOVE SEDIMENT FROM TEMPORARY AND PERMANENT SEDIMENT BASINS ONCE THE SEDIMENT HAS REACHED 1/2 THE STORAGE VOLUME. COMPLETE WORK WITHIN 72 HOURS OF DISCOVERY.
- D. REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS. RESTABILIZE ANY AREAS THAT ARE DISTURBED BY SEDIMENT REMOVAL OPERATIONS. SEDIMENT REMOVAL AND STABILIZATION MUST BE COMPLETED WITHIN 7 DAYS OF DISCOVERY. PREPARE AND SUBMIT A SITE MANAGEMENT PLAN FOR WORKING IN SURFACE WATERS AS NECESSARY. CONTACT ALL APPROPRIATE AUTHORITIES PRIOR TO WORKING IN SURFACE WATERS.
- E. REMOVE TRACKED SEDIMENT FROM PAVED SURFACES BOTH ON AND OFF SITE WITHIN 24 HOURS OF DISCOVERY. STREET SWEEPING MAY HAVE TO OCCUR MORE OFTEN TO MINIMIZE OFF SITE IMPACTS. LIGHTLY WET THE PAVEMENT PRIOR TO SWEEPING.
- F. MAINTAIN ALL BMPs UNTIL WORK HAS BEEN COMPLETED, SITE HAS GONE UNDER FINAL STABILIZATION, AND THE NOTICE OF TERMINATION (NOT) HAS BEEN SUBMITTED TO THE MPCA.

ENVIRONMENTAL REVIEW

STORMWATER IS PROHIBITED FROM MIXING WITH CONTAMINATED SOILS AS IDENTIFIED THROUGH STUDIES AND INVESTIGATIONS. THERE ARE NO FURTHER STORMWATER MITIGATION MEASURES REQUIRED AS A RESULT OF ENVIRONMENTAL, ARCHAEOLOGICAL, OR AGENCY REVIEW.

THE PROJECT IS NOT LOCATED IN A WELLHEAD PROTECTION AREA (WHPA) OR A DRINKING WATER SUPPLY MANAGEMENT AREA (DWSMA).

LAND FEATURE CHANGES (ACRES)

LAND FEATURE INFORMATION	PUBLIC REALM	MIXED-USE DEVELOPMENT
SIZE OF SITE	3.78	13.06
TOTAL DISTURBED AREA	3.47	13.06
TOTAL EXISTING IMPERVIOUS SURFACE AREA	1.37	10.63
TOTAL IMPERVIOUS SURFACE AREA	0.15	9.15
TOTAL PROPOSED NET CHANGE IN IMPERVIOUS AREA	(-) 1.22	(-) 1.48

STABILIZATION TIME FRAMES

AREA	TIME FRAME	NOTES
LAST 200 FEET OF DRAINAGE DITCH OR SWALE	WITHIN 24 HOURS OF CONNECTION TO SURFACE WATER OR PROPERTY EDGE	1, 2, 3
REMAINING PORTIONS OF DRAINAGE DITCH OR SWALE	7 DAYS	1, 3
PIPE AND CULVERT OUTLETS	24 HOURS	
EXPOSED SOILS AND STOCKPILES	7 DAYS	1
WITHIN 200 FEET OF A PUBLIC WATER	24 HOURS	7

1. INITIATE STABILIZATION IMMEDIATELY WHEN CONSTRUCTION HAS TEMPORARILY OR PERMANENTLY CEASED ON ANY PORTION OF THE SITE. COMPLETE STABILIZATION WITHIN THE TIME FRAME LISTED. IN MANY INSTANCES THIS WILL REQUIRE STABILIZATION TO OCCUR MORE THAN ONCE DURING THE COURSE OF THE PROJECT. TEMPORARY SOIL STOCKPILES WITHOUT SIGNIFICANT CLAY OR SILT AND STOCKPILED AND CONSTRUCTED ROAD BASE ARE EXEMPT FROM THE STABILIZATION REQUIREMENT.

2. STABILIZE WETTED PERIMETER OF DITCHES AND SWALES (I.E., WHERE THE DITCH GETS WET).

3. APPLICATION OF MULCH, HYDROMULCH, TACKIFIER AND POLYACRYLAMIDE ARE NOT ACCEPTABLE STABILIZATION METHODS IN THESE AREAS.

4. STABILIZE ALL AREAS OF THE SITE PRIOR TO THE ONSET OF WINTER WHERE CONSTRUCTION WILL NOT RESUME. ANY WORK STILL BEING PERFORMED SHALL BE SNOW MULCHED, SEEDED, AND BLANKETED UPON COMPLETION OF LAND DISTURBANCE WITHIN THE TIME FRAMES DESCRIBED IN THE NPDES PERMIT.

5. TOPSOIL BERMS MUST BE STABILIZED IN ORDER TO BE CONSIDERED PERIMETER CONTROL BMPs. USE RAPID STABILIZATION METHODS CONSISTENT WITH STATE OF MINNESOTA SPECIFICATIONS AND AS APPROVED BY THE ENGINEER.

6. KEEP DITCHES AND EXPOSED SOILS IN AN EVEN ROUGH GRADED CONDITION IN ORDER TO BE ABLE TO APPLY EROSION CONTROL MULCHES, HYDROMULCHES, AND EROSION CONTROL BLANKETS.

7. MNDNR LISTS PUBLIC WATER (I.E., MINNEHAHA CREEK) WORK-IN-WATER EXCLUSION DATES BETWEEN MARCH 15 AND JUNE 15. THE CONTRACTOR SHALL COMPLY WITH ALL MNDNR GENERAL PUBLIC WATERS WORK PERMIT REQUIREMENTS AS APPLICABLE. STABILIZE ALL EXPOSED SOILS WITHIN 200 FEET OF THE WATER'S EDGE WITHIN 24 HOURS DURING THE RESTRICTION PERIOD.

GENERAL SWPPP NOTES FOR CONSTRUCTION ACTIVITY

1. AMEND THE SWPPP AND DOCUMENT ANY AND ALL CHANGES TO THE SWPPP AND ASSOCIATED PLAN SHEETS IN A TIMELY MANNER. STORE THE SWPPP AND ALL AMENDMENTS ON SITE AT ALL TIMES.

2. PREPARE AND SUBMIT A SITE MANAGEMENT PLAN FOR THE ENGINEER'S ACCEPTANCE FOR CONCRETE MANAGEMENT, CONCRETE SLURRY APPLICATION AREAS, WORK IN AND NEAR AREAS OF ENVIRONMENTAL SENSITIVITY, AREAS IDENTIFIED IN THE PLANS AS "SITE MANAGEMENT PLAN AREA", ANY WORK THAT WILL REQUIRE DEWATERING, AND AS REQUESTED BY THE ENGINEER. SUBMIT ALL SITE MANAGEMENT PLANS TO THE ENGINEER IN WRITING. ALLOW A MINIMUM OF 7 DAYS FOR THE OWNER TO REVIEW AND ACCEPT SITE MANAGEMENT PLAN SUBMITTALS. WORK WILL NOT BE ALLOWED TO COMMENCE IF A SITE MANAGEMENT PLAN IS REQUIRED UNTIL ACCEPTANCE HAS BEEN GRANTED BY THE ENGINEER. THERE WILL BE NO EXTRA TIME ADDED TO THE CONTRACT DUE TO THE UNTIMELY SUBMITTAL.

3. IT IS THE DESIGNER'S INTENT THAT THE CONTRACTOR CONSTRUCT PONDS AND SIMILAR BMPs AND PLACE EROSION CONTROL BMPs AND STABILIZATION MEASURES BEFORE PUTTING THEM INTO ACTIVE SERVICE TO THE MAXIMUM EXTENT PRACTICABLE.

4. BURNING OF ANY MATERIAL IS NOT ALLOWED WITHIN PROJECT BOUNDARY.

5. DO NOT DISTURB AREAS OUTSIDE OF THE CONSTRUCTION LIMITS. DELINEATE AREAS NOT TO BE DISTURBED PRIOR TO STARTING GROUND DISTURBING ACTIVITIES. IF IT BECOMES NECESSARY TO DISTURB AREAS OUTSIDE OF THE CONSTRUCTION LIMITS OBTAIN WRITTEN PERMISSION FROM THE PROJECT ENGINEER PRIOR TO PROCEEDING. PRESERVE ALL NATURAL BUFFERS SHOWN ON THE PLANS.

6. ROUTE STORMWATER AROUND UNSTABILIZED AREAS OF THE SITE WHENEVER FEASIBLE. PROVIDE EROSION CONTROL AND VELOCITY DISSIPATION DEVICES AS NEEDED TO KEEP CHANNELS FROM ERODING AND TO PREVENT NUISANCE CONDITIONS AT THE OUTLET.

7. DIRECT DISCHARGES FROM BMPs TO VEGETATED AREAS WHENEVER FEASIBLE. PROVIDE VELOCITY DISSIPATION DEVICES AS NEEDED TO PREVENT EROSION.

8. THE EROSION PREVENTION AND SEDIMENT CONTROL BMPs SHALL BE PLACED AS NECESSARY TO MINIMIZE EROSION FROM DISTURBED SURFACES AND TO CAPTURE SEDIMENT ON SITE. ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF ANY REMOVAL WORK AND/OR GROUND DISTURBING ACTIVITIES.

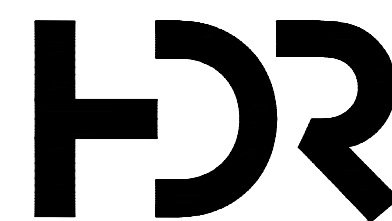
9. ESTABLISH SEDIMENT CONTROL DEVICES ON ALL DOWN GRADIENT PERIMETERS AND UPGRADIENT OF ANY BUFFER ZONES BEFORE ANY UP GRADIENT LAND DISTURBING ACTIVITIES BEGIN. MAINTAIN SEDIMENT CONTROL DEVICES UNTIL CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.

10. LOCATE PERIMETER CONTROLS ON THE CONTOUR TO CAPTURE OVERLAND, LOW-VELOCITY SHEET FLOWS DOWN-GRADIENT OF ALL EXPOSED SOILS AND PRIOR TO DISCHARGING TO SURFACE WATERS. PLACE J-HOOKS AT A MAXIMUM OF 100 FOOT INTERVALS.

11. PROVIDE PERIMETER CONTROL AROUND ALL STOCKPILES. PLACE BMP A MINIMUM 5 FEET FROM THE TOE OF SLOPE WHERE FEASIBLE. DO NOT PLACE STOCKPILES IN NATURAL BUFFER AREAS, SURFACE WATERS OR STORMWATER CONVEYANCES.

12. FLOATING SILT CURTAIN IS ALLOWED AS PERIMETER CONTROL FOR IN WATER WORK ONLY. PLACE THE FLOATING SILT CURTAIN AS CLOSE TO SHORE AS POSSIBLE. PLACE PERIMETER CONTROL BMP ON LAND IMMEDIATELY AFTER THE IN WATER WORK IS COMPLETED.

13. DITCH CHECKS AND SLOPE BREAKS SHALL BE PLACED AS INDICATED ON THE PLANS DURING ALL PHASES OF CONSTRUCTION.



MINNEHAHA CREEK WATERSHED DISTRICT

ISSUE	DATE	DESCRIPTION	PROJECT NUMBER
C	03/28/2023	100% DESIGN	10268112
B	09/14/2022	90% DESIGN	
A	06/13/2022	PFA GRANT PACKAGE	

PROJECT MANAGER ANDREW F. JUDD

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ANDREW F. JUDD, PE

DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

SWPPP PLAN

0 1" 2"

FILENAME | EC101-103.DWG
SCALE | NA

SHEET
EC102

14. PROTECT STORM SEWER INLETS AT ALL TIMES WITH THE APPROPRIATE INLET PROTECTION FOR EACH SPECIFIC PHASE OF CONSTRUCTION. PROVIDE INLET PROTECTION DEVICES WITH EMERGENCY OVERFLOW CAPABILITIES. SILT FENCE PLACED IN THE INLET GRATE IS NOT AN ACCEPTABLE INLET PROTECTION BMP FOR GRADING OPERATIONS. SILT FENCE PLACED IN THE GRATE IS ONLY ALLOWED FOR SHORT INTERVALS DURING MILLING OR PAVING OPERATIONS. INLET PROTECTION DEVICES MAY NEED TO BE PLACED MULTIPLE TIMES IN THE SAME LOCATION OVER THE LIFE OF THE CONTRACT. INLET PROTECTION DEVICES WILL BE PAID FOR ONCE PER INLET REGARDLESS OF THE NUMBER OF TIMES THE BMP IS PLACED. KEEP ALL STORM SEWER INLET PROTECTION DEVICES IN GOOD FUNCTIONAL CONDITION AT ALL TIMES. REPLACE INLET PROTECTION DEVICE WITH A SUITABLE ALTERNATIVE IF THE PROJECT ENGINEER DEEMS AN INLET PROTECTION DEVICE TO BE NONFUNCTIONAL, IN POOR CONDITION, INEFFECTIVE, OR NOT APPROPRIATE FOR THE CURRENT CONSTRUCTION ACTIVITIES. THERE WILL BE NO COST TO MINNEHAHA CREEK WATERSHED DISTRICT FOR REPLACEMENT OF INLET PROTECTION DEVICES.

15. PLACE CONSTRUCTION EXITS, AS NECESSARY, TO PREVENT TRACKING OF SEDIMENT ONTO PAVED SURFACES BOTH ON AND OFF THE PROJECT SITE. PROVIDE CONSTRUCTION EXITS OF SUFFICIENT SIZE TO PREVENT TRACK OUT. MAINTAIN CONSTRUCTION EXITS WHEN EVIDENCE OF TRACKING IS DISCOVERED. REGULAR STREET SWEEPING IS NOT AN ACCEPTABLE ALTERNATIVE TO PROPER CONSTRUCTION EXIT INSTALLATION AND MAINTENANCE.

16. DISCHARGE TURBID OR SEDIMENT LADEN WATER TO TEMPORARY SEDIMENT BASINS WHENEVER FEASIBLE. IN THE EVENT THAT IT IS NOT FEASIBLE TO DISCHARGE THE SEDIMENT LADEN WATER TO A TEMPORARY SEDIMENT BASIN, THE WATER MUST BE TREATED SO THAT IT DOES NOT CAUSE A NUISANCE CONDITION IN THE RECEIVING WATERS OR TO DOWNSTREAM LANDOWNERS. CLEAN OUT ALL PERMANENT STORMWATER BASINS REGARDLESS OF WHETHER USED AS TEMPORARY SEDIMENT BASINS OR TEMPORARY SEDIMENT TRAPS TO THE DESIGN CAPACITY AFTER ALL UPGRADIENT LAND DISTURBING ACTIVITY IS COMPLETED.

17. PROVIDE SCOUR PROTECTION AT ANY OUTFALL OF DEWATERING ACTIVITIES.

18. PROVIDE STABILIZATION IN ANY TRENCHES CUT FOR DEWATERING OR SITE DRAINING PURPOSES.

19. REMOVE SEDIMENT FROM STORMWATER SYSTEMS AT THE END OF PROJECT.

20. PRESERVE A MINIMUM OF 100 FOOT NATURAL BUFFER OR (IF BUFFER IS INFEASIBLE) PROVIDE REDUNDANT SEDIMENT CONTROLS WHEN A SURFACE WATER IS LOCATED WITHIN 100 FEET OF LAND DISTURBANCE AND STORMWATER FLOWS TO THE SURFACE WATER.

POLLUTION PREVENTION

1. PROVIDE A SPILL KIT AT EACH WORK LOCATION ON THE SITE.

2. STORE ALL BUILDING MATERIALS THAT HAVE THE POTENTIAL TO LEACH POLLUTANTS, PESTICIDES, HERBICIDES, INSECTICIDES, FERTILIZERS, TREATMENT CHEMICALS, AND LANDSCAPE MATERIALS UNDER COVER AND WITH SECONDARY CONTAINMENT.

3. PROVIDE A SECURE STORAGE AREA WITH RESTRICTED ACCESS FOR ALL HAZARDOUS MATERIALS AND TOXIC WASTE. RETURN ALL HAZARDOUS MATERIALS AND TOXIC WASTE TO THE DESIGNATED STORAGE AREA AT THE END OF THE BUSINESS DAY UNLESS INFEASIBLE. STORE ALL HAZARDOUS MATERIALS AND TOXIC WASTE (INCLUDING BUT NOT LIMITED TO OIL, DIESEL FUEL, GASOLINE, HYDRAULIC FLUIDS, PAINT, PETROLEUM BASED PRODUCTS, WOOD PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS) IN SEALED CONTAINERS WITH SECONDARY CONTAINMENT. CLEAN UP SPILLS IMMEDIATELY.

4. STORE, COLLECT AND DISPOSE OF ALL SOLID WASTE.

5. POSITION ALL PORTABLE TOILETS SO THAT THEY ARE SECURE AND CANNOT BE TIPPED OR KNOCKED OVER. PROPERLY DISPOSE OF ALL SANITARY WASTE.

6. FUEL AND MAINTAIN VEHICLES IN A DESIGNATED CONTAINED AREA WHENEVER FEASIBLE. USE DRIP PANS OR ABSORBENT MATERIALS TO PREVENT SPILLS OR LEAKED CHEMICALS FROM DISCHARGING TO SURFACE WATER OR STORMWATER CONVEYANCES. PROVIDE A SPILL KIT AT EACH LOCATION THAT VEHICLES AND EQUIPMENT ARE FUELED OR MAINTAINED AT.

7. LIMIT VEHICLE AND EQUIPMENT WASHING TO A DEFINED AREA OF THE SITE. CONTAIN RUNOFF FROM THE WASHING AREA TO A TEMPORARY SEDIMENT BASIN OR OTHER EFFECTIVE CONTROL. PROPERLY DISPOSE OF ALL WASTE GENERATED BY VEHICLE AND EQUIPMENT WASHING. ENGINE DEGREASING IS NOT ALLOWED ON THE SITE.

8. PROVIDE EFFECTIVE CONTAINMENT FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS. LIQUID AND SOLID WASHOUT WASTES MUST NOT CONTACT THE GROUND. DESIGN THE CONTAINMENT SO THAT IT DOES NOT RESULT IN RUNOFF FROM THE WASHOUT OPERATIONS OR CONTAINMENT AREA.

9. CREATE AND FOLLOW A WRITTEN DISPOSAL PLAN FOR ALL WASTE MATERIALS. INCLUDE IN THE PLAN HOW THE MATERIAL WILL BE DISPOSED OF AND THE LOCATION OF THE DISPOSAL SITE. SUBMIT PLAN TO THE ENGINEER.

10. USE METHODS AND OPERATIONAL PROCEDURES THAT PREVENT DISCHARGE OR PLACEMENT OF BITUMINOUS GRINDINGS, CUTTINGS, MILLINGS, AND OTHER BITUMINOUS WASTES FROM AREAS OF EXISTING OR FUTURE VEGETATED SOILS AND FROM ALL WATER CONVEYANCE SYSTEMS, INCLUDING INLETS, DITCHES AND CURB FLOW LINES.

11. USE METHODS AND OPERATIONAL PROCEDURES THAT PREVENT CONCRETE DUST, PARTICLES, CONCRETE WASH OUT, AND OTHER CONCRETE WASTES FROM LEAVING CONSTRUCTION LIMITS, DEPOSITING IN EXISTING OR FUTURE VEGETATED AREAS, AND FROM ENTERING STORMWATER CONVEYANCE SYSTEMS, INCLUDING INLETS, DITCHES AND CURB FLOW LINES. USE METHODS AND OPERATIONAL PROCEDURES THAT PREVENT SAW CUT SLURRY AND PLANING WASTE FROM LEAVING CONSTRUCTION LIMITS AND FROM ENTERING STORMWATER CONVEYANCE SYSTEMS INCLUDING PONDS, DITCHES, AND CULVERTS.

WATER RESOURCES AND SOIL NOTES

THESE NOTES, ALONG WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE, ARE INTENDED TO PROVIDE INFORMATION ON CRITICAL DRAINAGE FEATURES, NATURAL RESOURCES, AND CONTRACTOR OPERATIONS THAT MAY IMPACT DRAINAGE AND NATURAL RESOURCES.

1. THE SIZE AND ELEVATION OF CULVERTS, STORM SEWER PIPES, CATCH BASINS, PONDS, STORMWATER PONDS AND BMPs, PERMEABLE DITCH CHECKS AND SLOPE BREAKS, AND OVERFLOW DEVICES HAVE BEEN SPECIFICALLY DESIGNED TO CONFORM TO MINNEHAHA CREEK WATERSHED DISTRICT, MINNESOTA POLLUTION CONTROL AGENCY, AND CITY OF HOPKINS PERMIT REQUIREMENTS. THE DESIGN COMPUTATIONS ARE ON FILE WITH HDR ENGINEERING, INC. CHANGING THESE ITEMS OR THE DIRECTION OF FLOW FROM WHAT IS SHOWN ON THE PLANS MAY CAUSE PROBLEMS THAT RESULT IN THE PROJECT BECOMING OUT OF COMPLIANCE WITH APPROVED PERMITS. ANY CHANGES TO THE SIZE, ELEVATION, OR DIRECTION OF FLOW OF THE DRAINAGE SYSTEMS MUST BE APPROVED BY THE ENGINEER.

2. TILL SUBGRADE TO A MINIMUM DEPTH OF 4 INCHES. REMOVE STONES LARGER THAN 6 INCHES IN ANY DIMENSION, ALONG WITH STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEIOUS MATTER. APPLY AND MIX UNAMENDED SOIL AND AMENDMENTS (AS REQUIRED PER TESTING) CONSISTENT WITH SECTION 32 91 13 OF THE PROJECT SPECIFICATIONS. COMPACT EACH BLENDED LIFT OF PLANTING SOIL TO 75 TO 82 PERCENT OF MAXIMUM STANDARD PROCTOR DENSITY ACCORDING TO ASTM D 698 UNLESS OTHERWISE INDICATED. TEST COMPACTION AFTER PLACING EACH LIFT USING A DENSITOMETER OR SOIL-COMPACTING METER CALIBRATED TO A REFERENCED TEST VALUE IN ACCORDANCE WITH ASTM D 698. GRADE PLANTING SOIL TO A SMOOTH, UNIFORM SURFACE PLANE WITH LOOSE, UNIFORMLY FINE TEXTURE. ROLL AND RAKE, REMOVE RIDGES, AND FILL DEPRESSIONS TO MEET GRADE. PROTECT IN-PLACE AND GRADED SOIL FROM ADDITIONAL COMPACTION, EXCEPT AS REQUIRED TO PERFORM PLANTING OPERATIONS. IF PLANTING SOIL OR SUBGRADE IS OVERCOMPACTED, DISTURBED, OR CONTAMINATED, REMOVE THE SOIL AND RESTORE AS DIRECTED BY THE LANDSCAPE ARCHITECT. REPLACE AS NECESSARY.

3. PROVIDE TOPSOIL FOR ALL DISTURBED AREAS TO BE RESTORED TO VEGETATED SPACE IN ACCORDANCE WITH THE PROJECT DESIGN PLANS AND SPECIFICATION. STRIP EXISTING TOPSOIL TO DEPTHS ENCOUNTERED OR AS SPECIFIED WITHIN THE SOILS REPORT, TO A MINIMUM OF 4 INCHES. REMOVE HEAVY GROWTHS OF GRASS BEFORE STRIPPING. STOP TOPSOIL STRIPPING SUFFICIENT DISTANCE FROM TREES TO PREVENT DAMAGE TO ROOT SYSTEMS. SEPARATE TOPSOIL FROM UNDERLYING SUBSOIL OR OBJECTIONABLE MATERIAL. EXISTING TOPSOIL SHALL BE PRESERVED TO BE USED ON SITE, OR REPLACED OR SUPPLEMENTED AS NECESSARY, SUCH THAT A TOPSOIL DEPTH OF AT LEAST 4 INCHES IS PROVIDED IN ALL AREAS TO BE REVEGETATED. PLACE TOPSOIL IN A SINGLE UNCOMPACTED LAYER AND HAND-GRADE TO REQUIRED FINISH ELEVATIONS.

4. AMEND PLANTING SOIL BY BLENDING PRESERVED OR IMPORTED UNAMENDED SOILS WITH THE SOIL AMENDMENTS AND FERTILIZERS (PER TESTING) AS DESCRIBED IN SPECIFICATION SECTION 32 91 13.

5. PERFORM POST INSTALLATION MANDREL TESTING OF ALL PLASTIC PIPE.

6. ANY UNKNOWN SUBSURFACE DRAINAGE SYSTEMS ENCOUNTERED DURING CONSTRUCTION SHALL BE MAINTAINED UNTIL REVIEWED BY THE ENGINEER. IF DAMAGED, THEY SHALL BE REPAIRED, REPLACED OR REROUTED, AND CONNECTED TO A FUNCTIONING DRAINAGE SYSTEM OR DISCHARGED IN ACCORDANCE WITH ALL STATE AND LOCAL REQUIREMENTS. WORK SHALL BE COORDINATED WITH, AND IS SUBJECT TO APPROVAL FROM, THE ENGINEER.

7. THE FOLLOWING WATER RELATED PERMITS APPLY TO THIS PROJECT, AT A MINIMUM:

AGENCY	TYPE OF PERMIT
MINNESOTA POLLUTION CONTROL AGENCY	NPDES CONSTRUCTION PERMIT *
MINNESOTA DEPARTMENT OF NATURAL RESOURCES	PUBLIC WATERS WORK PERMIT
MINNESOTA DEPARTMENT OF NATURAL RESOURCES	WATER APPROPRIATIONS PERMIT **
U.S. ARMY CORPS OF ENGINEERS (USACE)	SECTION 404 (WETLANDS) PERMIT ***

* THE PROPOSED STORMWATER POND WILL TREAT STORMWATER RUNOFF FROM REGIONAL SUBWATERSHEDS, THE PUBLIC REALM DEVELOPMENT, AND THE MIXED-USE DEVELOPMENT.

** TEMPORARY DEWATERING ACTIVITIES MAY BE REQUIRED DURING CONSTRUCTION. A PERMIT FOR THE TEMPORARY APPROPRIATION OF WATERS OF THE STATE, NON-IRRIGATION FROM MNDNR MAY BE REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THIS PERMIT PRIOR TO COMMENCING DEWATERING ACTIVITIES. ALL TEMPORARY DEWATERING SHALL BE DISCHARGED TO AN APPROVED LOCATION FOR TREATMENT PRIOR TO DISCHARGE TO RECEIVING WATERS. THE CONTRACTOR SHALL SUBMIT A SITE MANAGEMEN TPLAN TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCING WORK.

*** NO WETLAND IMPACTS ARE ANTICIPATED AT THIS TIME. IF WETLAND IMPACTS OCCUR, SECTION 404 PERMITTING WILL BE NECESSARY.

8. NON-TROUT STREAMS (I.E., MINNEHAHA CREEK) HAVE WORK IN WATER EXCLUSIONS. NO WORK IN THE WATER IS ALLOWED DURING THE EXCLUSION DATES BETWEEN MARCH 15 AND JUNE 15. SEE MNDNR GENERAL PUBLIC WATERS WORK PERMIT FOR MORE INFORMATION.

PERMIT TERMINATION CONDITIONS

THE FOLLOWING CONDITIONS MUST BE MET FOR NPDES PERMIT TERMINATION.

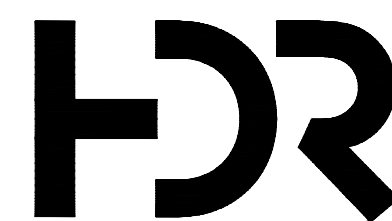
1. UNIFORM PERENNIAL VEGETATIVE COVER AT LEAST 70% DENSITY OF THE EXPECTED FINAL GROWTH HAS BEEN ESTABLISHED.

2. THE PERMANENT STORMWATER TREATMENT SYSTEM IS CONSTRUCTED, MEETS ALL REQUIREMENTS, AND IS OPERATING AS DESIGNED.

3. ALL TEMPORARY SYNTHETIC EROSION AND SEDIMENT CONTROL BMPs HAVE BEEN REMOVED FROM THE SITE.

4. ALL SEDIMENT HAS BEEN CLEANED OUT FROM CONVEYANCE SYSTEMS AND PERMANENT STORMWATER TREATMENT SYSTEMS.

5. A NOTICE OF TERMINATION HAS BEEN SUBMITTED TO MPCA.



MINNEHAHA CREEK WATERSHED DISTRICT

ISSUE	DATE	DESCRIPTION	PROJECT NUMBER
C	03/28/2023	100% DESIGN	10268112
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ANDREW F. JUDD, PE

DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

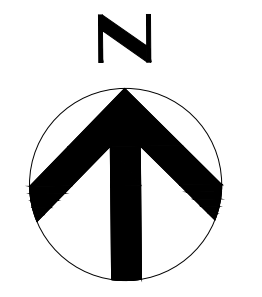
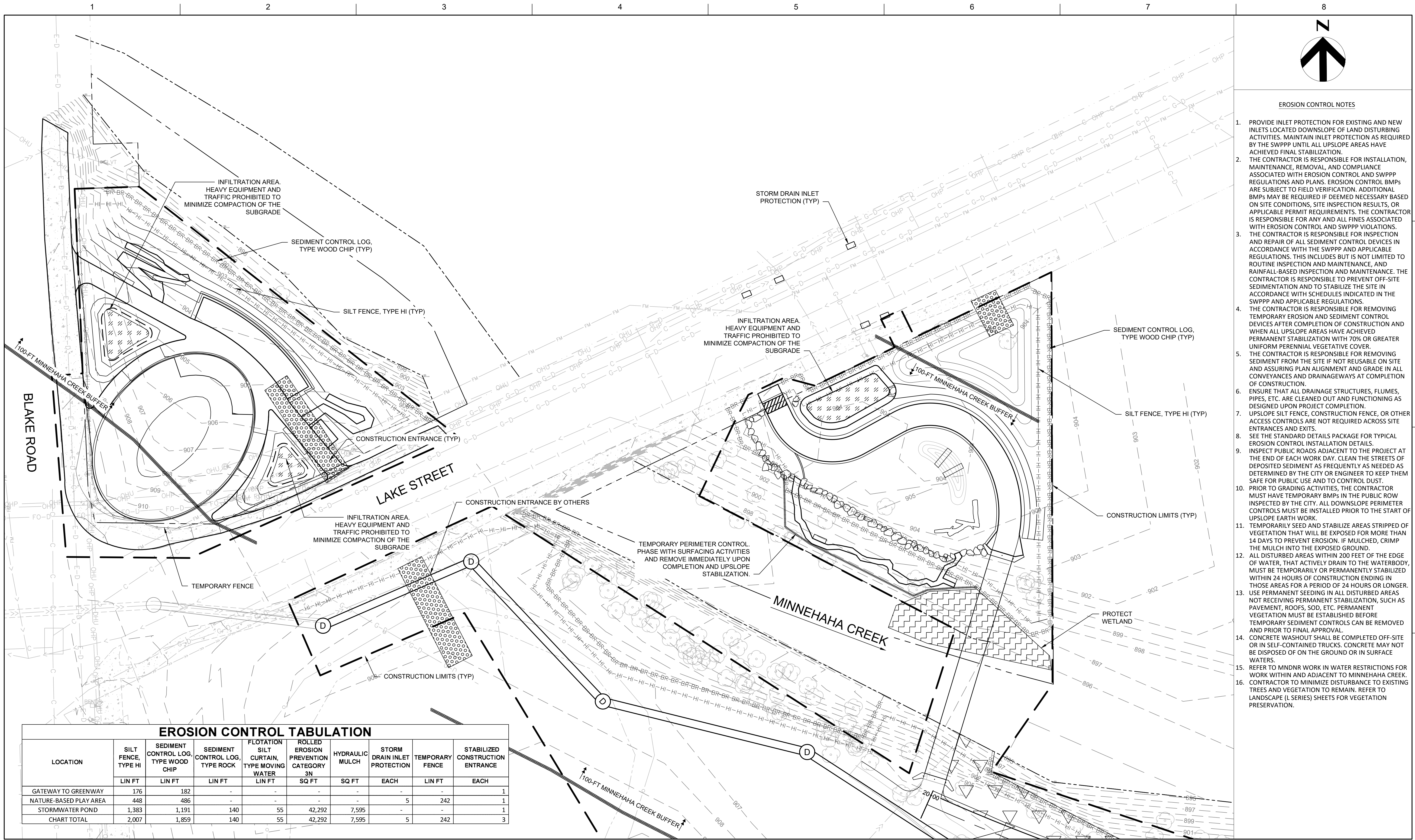
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

SWPPP PLAN



FILENAME | EC101-103.DWG
SCALE | NA

SHEET
EC103



EROSION CONTROL NOTES

1. PROVIDE INLET PROTECTION FOR EXISTING AND NEW INLETS LOCATED DOWNSLOPE OF LAND DISTURBING ACTIVITIES. MAINTAIN INLET PROTECTION AS REQUIRED BY THE SWPPP UNTIL ALL UPSLOPE AREAS HAVE ACHIEVED FINAL STABILIZATION.
2. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION, MAINTENANCE, REMOVAL, AND COMPLIANCE ASSOCIATED WITH EROSION CONTROL AND SWPPP REGULATIONS AND PLANS. EROSION CONTROL BMPs ARE SUBJECT TO FIELD VERIFICATION. ADDITIONAL BMPs MAY BE REQUIRED IF DEEMED NECESSARY BASED ON SITE CONDITIONS, SITE INSPECTION RESULTS, OR APPLICABLE PERMIT REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL FINES ASSOCIATED WITH EROSION CONTROL AND SWPPP VIOLATIONS.
3. THE CONTRACTOR IS RESPONSIBLE FOR INSPECTION AND REPAIR OF ALL SEDIMENT CONTROL DEVICES IN ACCORDANCE WITH THE SWPPP AND APPLICABLE REGULATIONS. THIS INCLUDES BUT IS NOT LIMITED TO ROUTINE INSPECTION AND MAINTENANCE, AND RAINFALL-BASED INSPECTION AND MAINTENANCE. THE CONTRACTOR IS RESPONSIBLE TO PREVENT OFF-SITE SEDIMENTATION AND TO STABILIZE THE SITE IN ACCORDANCE WITH SCHEDULES INDICATED IN THE SWPPP AND APPLICABLE REGULATIONS.
4. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND WHEN ALL UPSLOPE AREAS HAVE ACHIEVED PERMANENT STABILIZATION WITH 70% OR GREATER UNIFORM PERENNIAL VEGETATIVE COVER.
5. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SEDIMENT FROM THE SITE IF NOT REUSABLE ON SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL CONVEYANCES AND DRAINAGEWAYS AT COMPLETION OF CONSTRUCTION.
6. ENSURE THAT ALL DRAINAGE STRUCTURES, FLUMES, PIPES, ETC. ARE CLEANED OUT AND FUNCTIONING AS DESIGNED UPON PROJECT COMPLETION.
7. UPSLOPE SILT FENCE, CONSTRUCTION FENCE, OR OTHER ACCESS CONTROLS ARE NOT REQUIRED ACROSS SITE ENTRANCES AND EXITS.
8. SEE THE STANDARD DETAILS PACKAGE FOR TYPICAL EROSION CONTROL INSTALLATION DETAILS.
9. INSPECT PUBLIC ROADS ADJACENT TO THE PROJECT AT THE END OF EACH WORK DAY. CLEAN THE STREETS OF DEPOSITED SEDIMENT AS FREQUENTLY AS NEEDED AS DETERMINED BY THE CITY OR ENGINEER TO KEEP THEM SAFE FOR PUBLIC USE AND TO CONTROL DUST.
10. PRIOR TO GRADING ACTIVITIES, THE CONTRACTOR MUST HAVE TEMPORARY BMPs IN THE PUBLIC ROW INSPECTED BY THE CITY. ALL DOWNSLOPE PERIMETER CONTROLS MUST BE INSTALLED PRIOR TO THE START OF UPSLOPE EARTH WORK.
11. TEMPORARILY SEED AND STABILIZE AREAS STRIPPED OF VEGETATION THAT WILL BE EXPOSED FOR MORE THAN 14 DAYS TO PREVENT EROSION. IF MULCHED, CRIMP THE MULCH INTO THE EXPOSED GROUND.
12. ALL DISTURBED AREAS WITHIN 200 FEET OF THE EDGE OF WATER, THAT ACTIVELY DRAIN TO THE WATERBODY, MUST BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 24 HOURS OF CONSTRUCTION ENDING IN THOSE AREAS FOR A PERIOD OF 24 HOURS OR LONGER.
13. USE PERMANENT SEEDING IN ALL DISTURBED AREAS NOT RECEIVING PERMANENT STABILIZATION, SUCH AS PAVEMENT, ROOFS, SOD, ETC. PERMANENT VEGETATION MUST BE ESTABLISHED BEFORE TEMPORARY SEDIMENT CONTROLS CAN BE REMOVED AND PRIOR TO FINAL APPROVAL.
14. CONCRETE WASHOUT SHALL BE COMPLETED OFF-SITE OR IN SELF-CONTAINED TRUCKS. CONCRETE MAY NOT BE DISPOSED OF ON THE GROUND OR IN SURFACE WATERS.
15. REFER TO MNDNR WORK IN WATER RESTRICTIONS FOR WORK WITHIN AND ADJACENT TO MINNEHAHA CREEK. CONTRACTOR TO MINIMIZE DISTURBANCE TO EXISTING TREES AND VEGETATION TO REMAIN. REFER TO LANDSCAPE (L-SERIES) SHEETS FOR VEGETATION PRESERVATION.
- 16.

EROSION CONTROL TABULATION

LOCATION	SILT FENCE, TYPE HI	SEDIMENT CONTROL LOG, TYPE WOOD CHIP	SEDIMENT CONTROL LOG, TYPE ROCK	FLOTATION SILT CURTAIN, TYPE MOVING WATER	ROLLED EROSION PREVENTION CATEGORY 3N	HYDRAULIC MULCH	STORM DRAIN INLET PROTECTION	TEMPORARY FENCE	STABILIZED CONSTRUCTION ENTRANCE
	LIN FT	LIN FT	LIN FT	LIN FT	SQ FT	SQ FT	EACH	LIN FT	EACH
GATEWAY TO GREENWAY	176	182	-	-	-	-	-	-	1
NATURE-BASED PLAY AREA	448	486	-	-	-	-	5	242	1
STORMWATER POND	1,383	1,191	140	55	42,292	7,595	-	-	1
CHART TOTAL	2,007	1,859	140	55	42,292	7,595	5	242	3

PROJECT MANAGER ANDREW F. JUDD

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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

**EROSION CONTROL PLAN
GATEWAY TO GREENWAY & NATURE-BASED PLAY AREA**



FILENAME EC104-105.DWG
SCALE 1" = 20'

SHEET
EC104

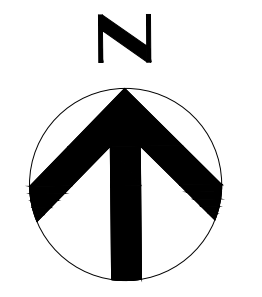
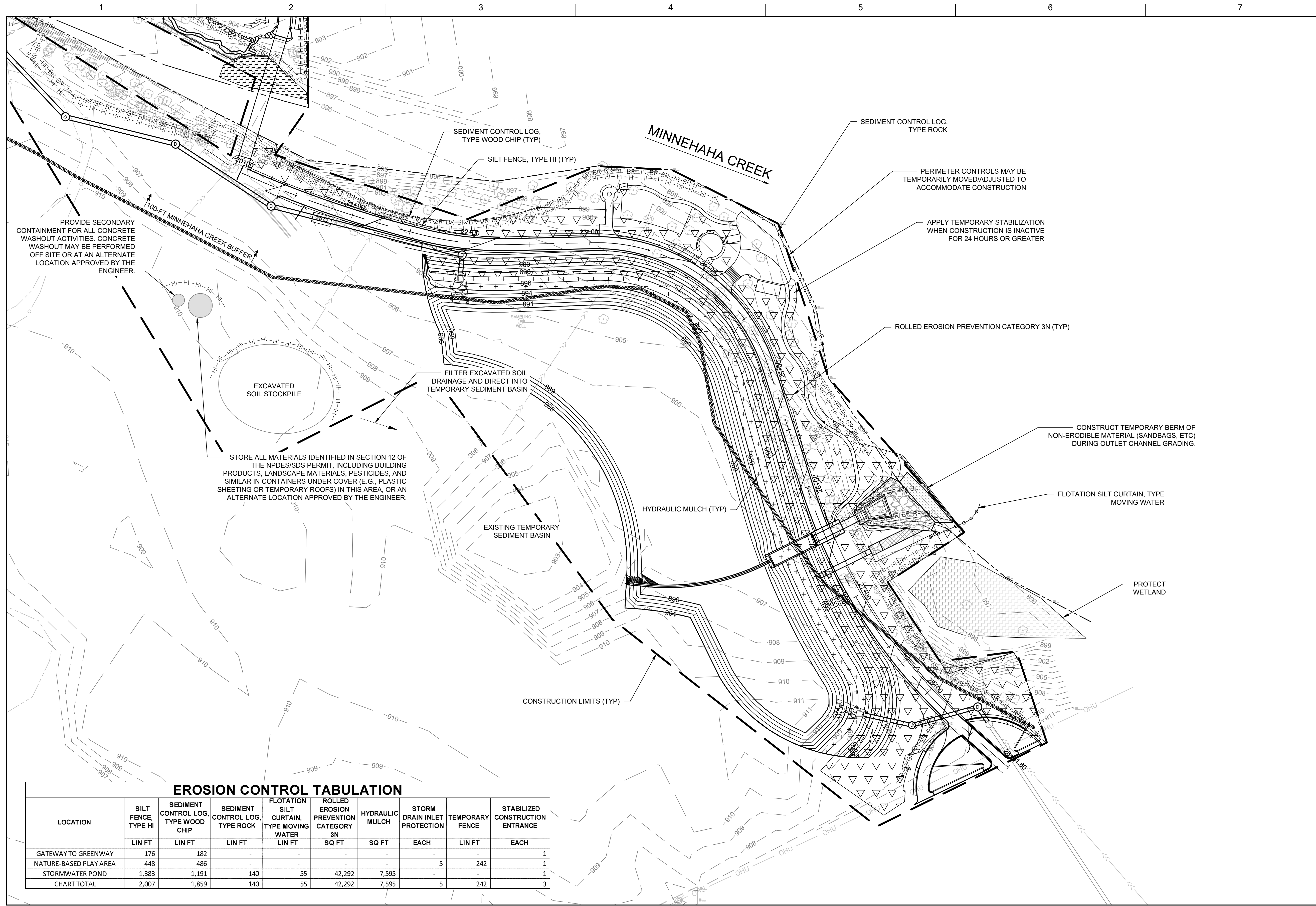


MINNEHAHA CREEK
WATERSHED DISTRICT

ISSUE	DATE	DESCRIPTION
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B	09/14/2022	90% DESIGN
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PROJECT NUMBER 10268112

ANDREW F. JUDD, PE
DATE XX/XX/XXXX LICENSE # 47301



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7. UPSLOPE SILT FENCE, CONSTRUCTION FENCE, OR OTHER ACCESS CONTROLS ARE NOT REQUIRED ACROSS SITE ENTRANCES AND EXITS.
8. SEE STANDARD DETAIL PACKAGE FOR TYPICAL EROSION CONTROL INSTALLATION DETAILS.
9. INSPECT PUBLIC ROADS ADJACENT TO THE PROJECT AT THE END OF EACH WORK DAY. CLEAN THE STREETS OF DEPOSITED SEDIMENT AS FREQUENTLY AS NEEDED AS DETERMINED BY THE CITY OR ENGINEER TO KEEP THEM SAFE FOR PUBLIC USE AND TO CONTROL DUST.
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16. CONSTRUCT TEMPORARY BERM OF NON-ERODIBLE MATERIAL (SANDBAGS, ETC) DURING OUTLET CHANNEL GRADING.

EROSION CONTROL TABULATION

LOCATION	SILT FENCE, TYPE HI	SEDIMENT CONTROL LOG, TYPE WOOD CHIP	SEDIMENT CONTROL LOG, TYPE ROCK	FLOTATION SILT CURTAIN, TYPE MOVING WATER	ROLLED EROSION PREVENTION CATEGORY 3N	HYDRAULIC MULCH	STORM DRAIN INLET PROTECTION	TEMPORARY FENCE	STABILIZED CONSTRUCTION ENTRANCE
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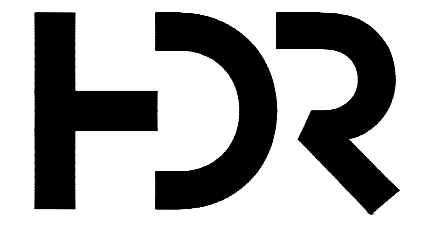
325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

ANDREW F. JUDD, PE
DATE XX/XX/XXXX LICENSE # 47301

PROJECT NUMBER 10268112

ISSUE	DATE	DESCRIPTION
C	03/28/2023	100% DESIGN
B	09/14/2022	90% DESIGN
A	06/13/2022	PFA GRANT PACKAGE

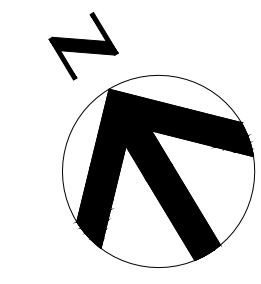
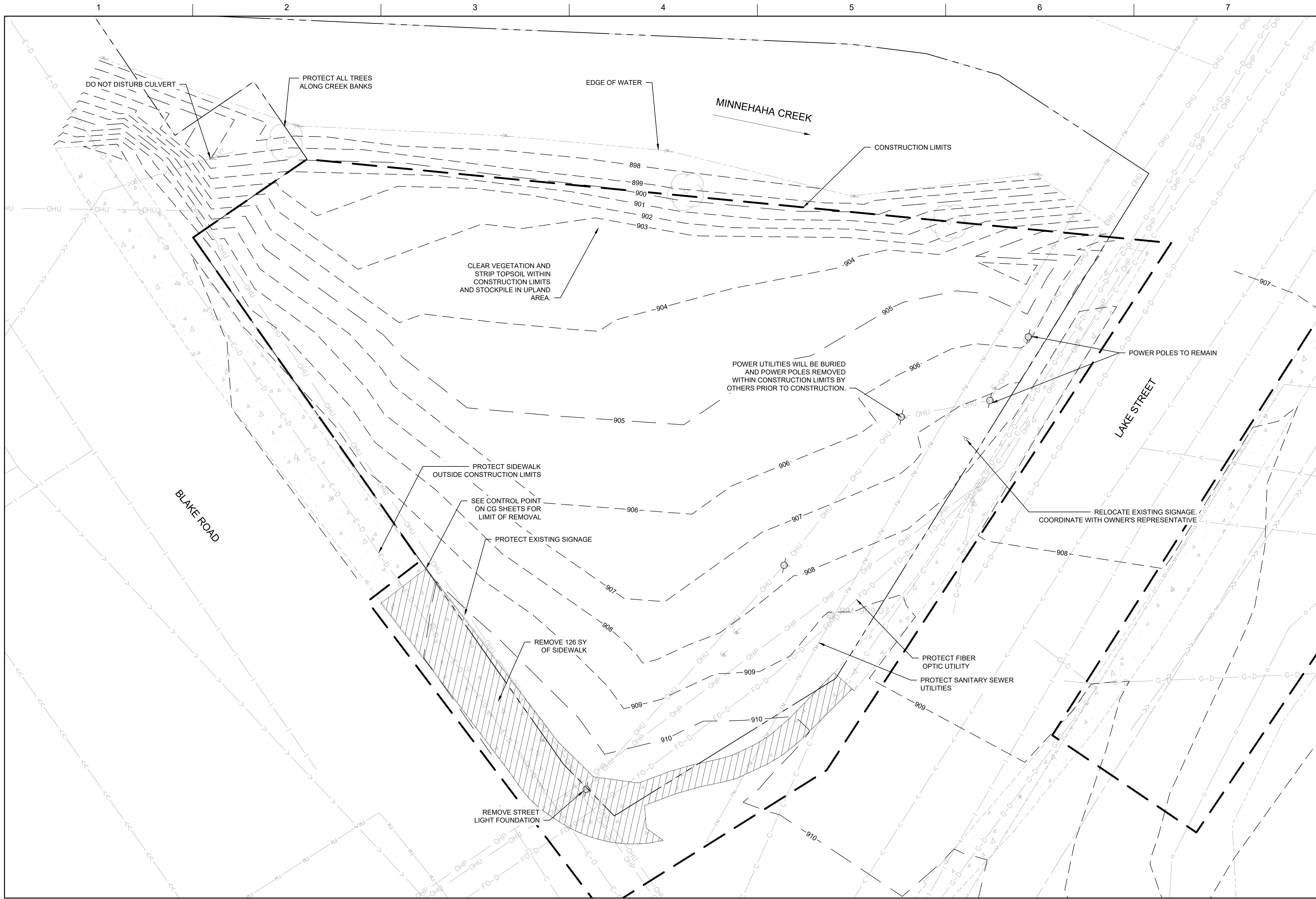


MINNEHAHA CREEK WATERSHED DISTRICT



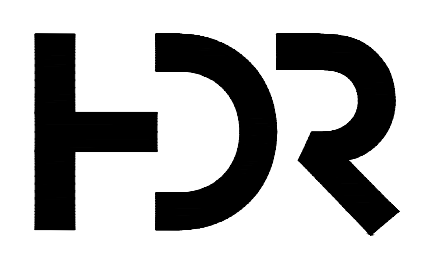
FILENAME EC104-105.DWG
SCALE 1" = 40'

SHEET EC105



GENERAL NOTES

1. FIELD VERIFY LOCATION OF ALL ELEMENTS SHOWN FOR DEMOLITION PRIOR TO BEGINNING DEMOLITION ACTIVITIES.
2. THE LIMITS, EXTENT, AND ITEMS TO BE DEMOLISHED ARE PROVIDED AS A GUIDE. ADDITIONAL DEMOLITION WITHIN THE LIMITS OF CONSTRUCTION MAY BE REQUIRED. NOTIFY THE OWNER'S REPRESENTATIVE OF ANY APPARENT CONFLICTS BETWEEN ITEMS NOT IDENTIFIED FOR DEMOLITION AND PROPOSED PROJECT FEATURES.
3. SOME UTILITY REMOVALS AND RELOCATIONS WILL BE COMPLETED BY OTHERS PRIOR TO OR DURING THIS CONTRACT. COORDINATE LOCATION AND SCHEDULE WITH OWNER'S REPRESENTATIVE.
4. CALL GOPHER STATE ONE CALL 1-800-252-1166 AND VERIFY ALL UTILITIES WITHIN THE LIMITS OF CONSTRUCTION PRIOR TO STARTING WORK.
5. DO NOT BURY, DUMP, OR DISCHARGE DEBRIS ON SITE.
6. STAY WITHIN LIMITS OF CONSTRUCTION AND DO NOT DISTURB CREEK BANK VEGETATION UNLESS REQUIRED FOR PROPOSED CONSTRUCTION.
7. ALL TREES IDENTIFIED FOR REMOVAL ARE IDENTIFIED ON THE L050 SHEET SERIES. VERIFY ALL TREE REMOVALS WITH OWNER'S REPRESENTATIVE PRIOR TO BEGINNING TREE REMOVAL.
8. SEE DETAILS ON SHEET L057 FOR TREE PROTECTION REQUIREMENTS FOR TREES IDENTIFIED TO REMAIN WITHIN LIMITS OF CONSTRUCTION.
9. AT ALL LOCATIONS WHERE PROPOSED PAVEMENT TIES INTO EXISTING, SAW CUT AND REMOVE EXISTING PAVEMENT TO PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING AND NEW PAVEMENT.
10. REPLACE ANY CURB, SIDEWALK, PAVEMENT OR OTHER EXISTING FEATURES DEGRADED OR DAMAGED BY CONSTRUCTION OPERATIONS.



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PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

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ANDREW F. JUDD, PE
DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

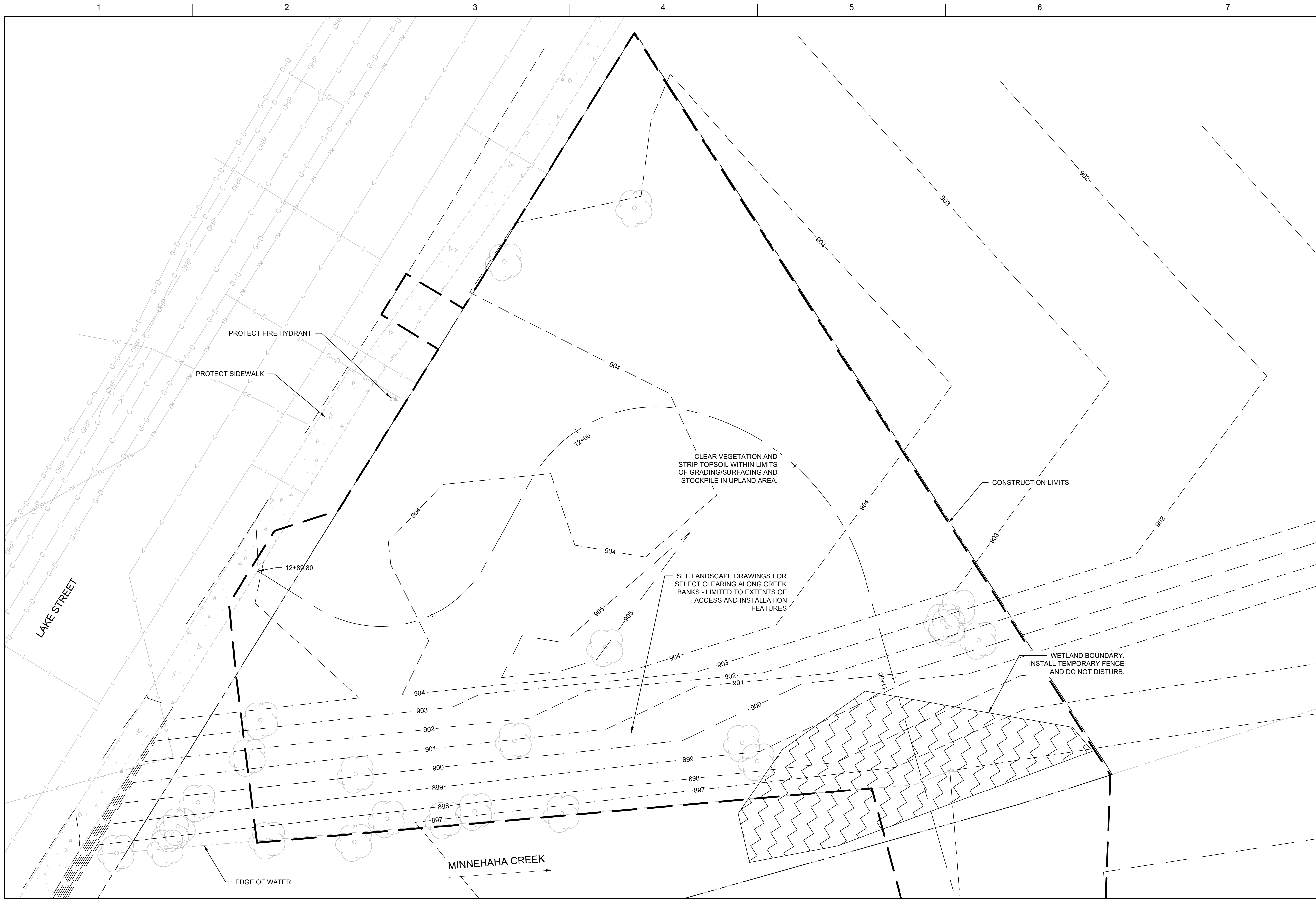
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

**DEMOLITION PLAN
GATEWAY TO GREENWAY**

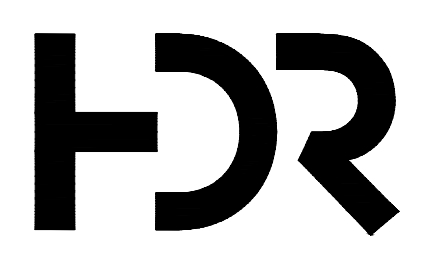
0 1" 2"

FILENAME | CD101-103.DWG
SCALE | 1" = 10'

SHEET
CD101



- GENERAL NOTES**
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 5. DO NOT BURY, DUMP, OR DISCHARGE DEBRIS ON SITE.
 6. STAY WITHIN LIMITS OF CONSTRUCTION AND DO NOT DISTURB CREEK BANK VEGETATION UNLESS REQUIRED FOR PROPOSED CONSTRUCTION.
 7. ALL TREES IDENTIFIED FOR REMOVAL ARE IDENTIFIED ON THE L050 SHEET SERIES. VERIFY ALL TREE REMOVALS WITH OWNER'S REPRESENTATIVE PRIOR TO BEGINNING TREE REMOVAL.
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PROJECT NUMBER	10268112
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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

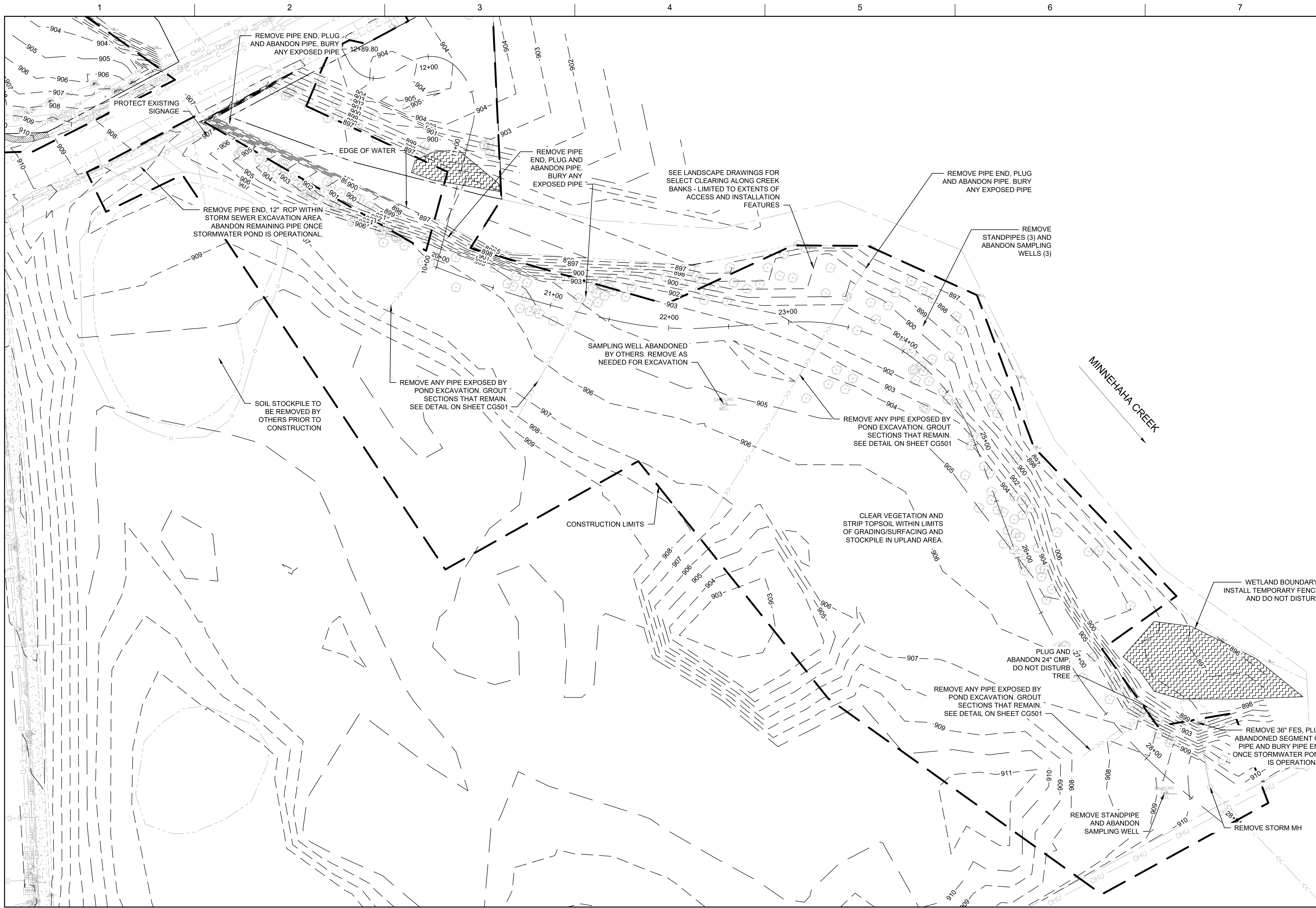
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

**DEMOLITION PLAN
NATURE-BASED PLAY AREA**

0 1" 2"

FILENAME | CD101-103.DWG
SCALE | 1" = 10'

SHEET
CD102



- GENERAL NOTES**
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MINNEHAHA CREEK WATERSHED DISTRICT

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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

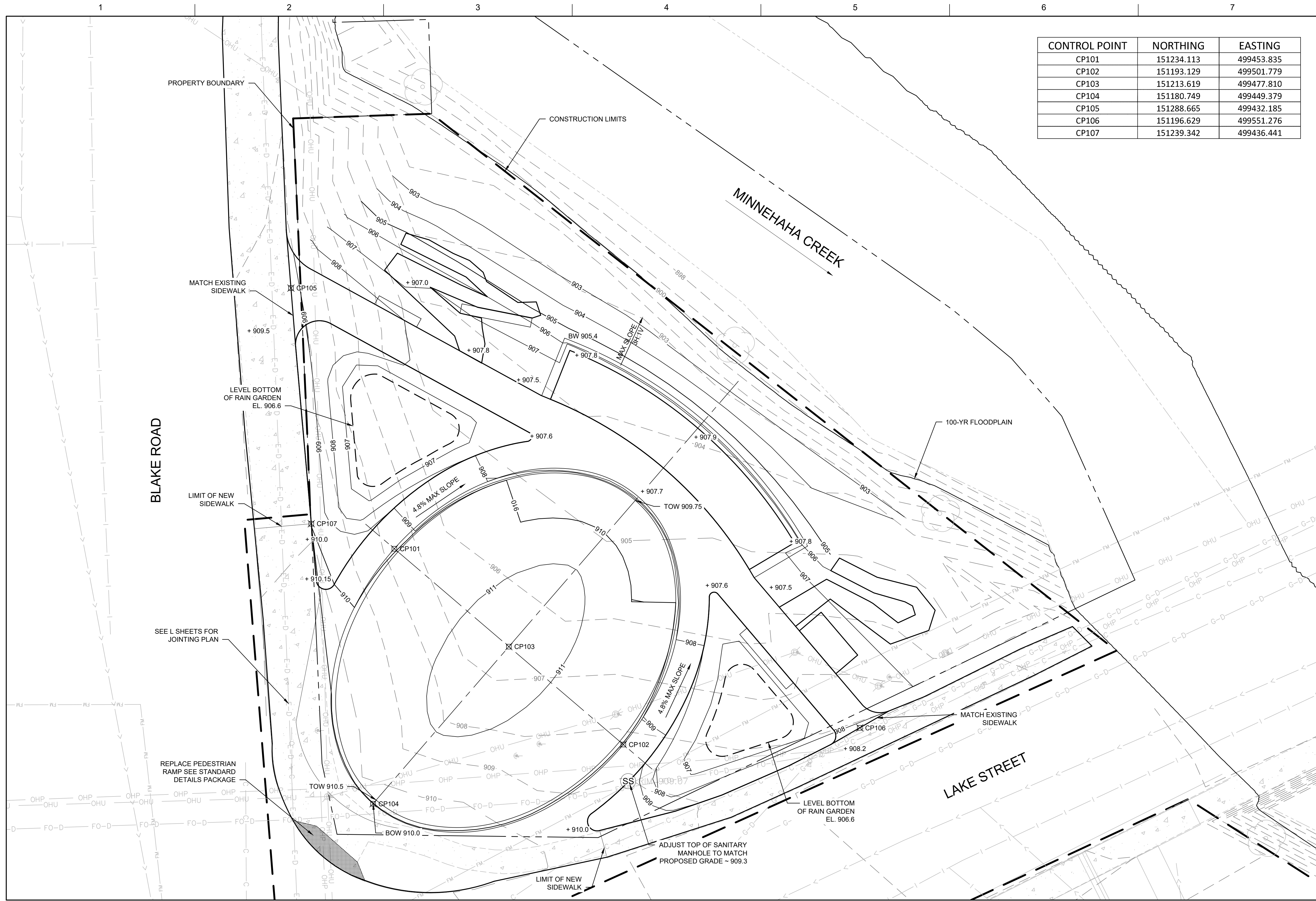
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

**DEMOLITION PLAN
STORMWATER POND AND TRAILHEAD**

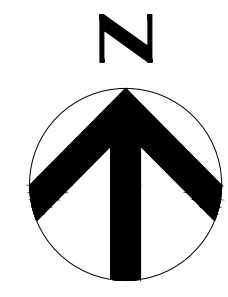
0 1" 2"

FILENAME | CD101-103.DWG
SCALE | 1" = 30'

SHEET
CD103



CONTROL POINT	NORTHING	EASTING
CP101	151234.113	499453.835
CP102	151193.129	499501.779
CP103	151213.619	499477.810
CP104	151180.749	499449.379
CP105	151288.665	499432.185
CP106	151196.629	499551.276
CP107	151239.342	499436.441



GENERAL NOTES

- LAYOUT AND ALIGNMENT OF TRAILS, EMBANKMENTS, AND WALLS TO BE FIELD STAKED AND APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- MAXIMUM LONGITUDINAL AND CROSS SLOPES TO BE AS INDICATED. NOTIFY OWNER'S REPRESENTATIVE IMMEDIATELY OF ANY CONFLICTS.
- PROVIDE SMOOTH SLOPE TRANSITIONS IN PAVED AND VEGETATED AREAS THAT MINIMIZE IMPACTED AREA. NOTIFY OWNER'S REPRESENTATIVE OF ANY CONFLICTS IMMEDIATELY.
- SEE CT SHEETS FOR TRAIL AND PEDESTRIAN BRIDGE PLAN AND PROFILE AND CP SHEETS FOR STORM SEWER, WEIR WALL, AUXILIARY OVERFLOW, AND OUTLET STRUCTURE.
- SEE L SHEETS FOR INFORMAL PATHS, SURFACING, PLANTING, AND SITE FURNISHINGS.

BLAKE ROAD

LAKE STREET

MINNEHAHA CREEK

PROJECT MANAGER ANDREW F. JUDD

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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

**SITE GRADING PLAN
GATEWAY TO GREENWAY**



FILENAME CG101-105.DWG
SCALE 1" = 10'

SHEET
CG101



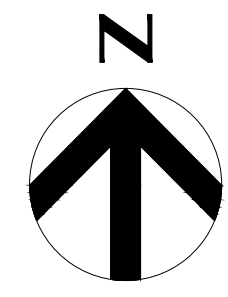
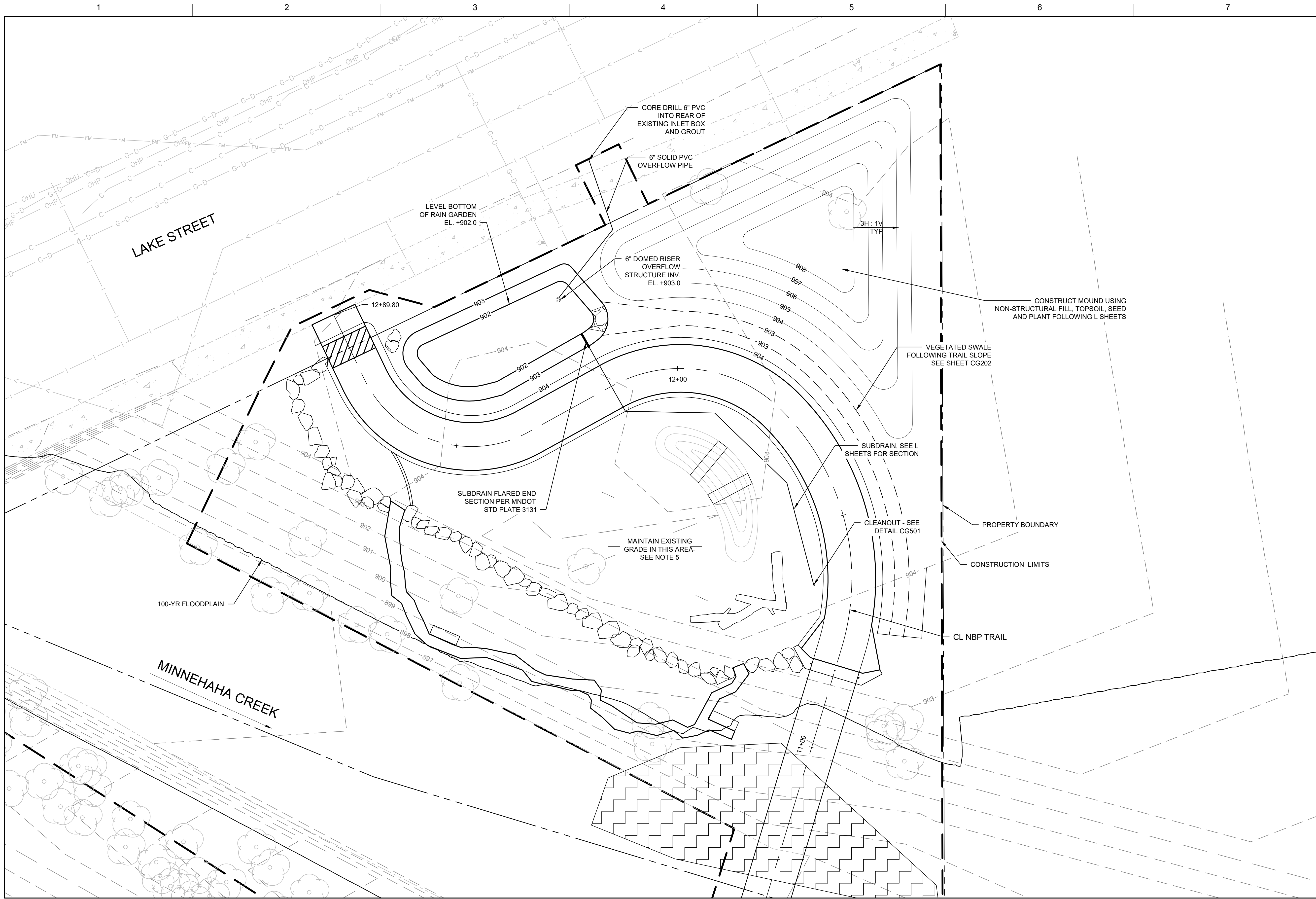
MINNEHAHA CREEK
WATERSHED DISTRICT



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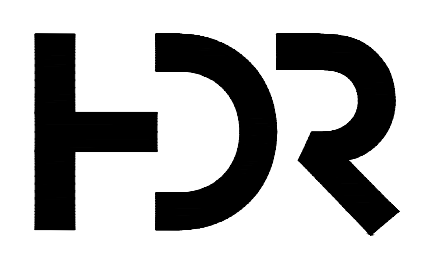
PROJECT NUMBER 10268112

ANDREW F. JUDD, PE
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**MINNEHAHA CREEK
WATERSHED DISTRICT**

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PROJECT MANAGER ANDREW F. JUDD	
PROJECT NUMBER	10268112

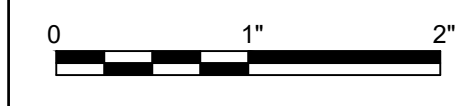
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DATE XX/XX/XXXX LICENSE # 47301

**325 BLAKE RD REGIONAL STORMWATER
AND GREENWAY**

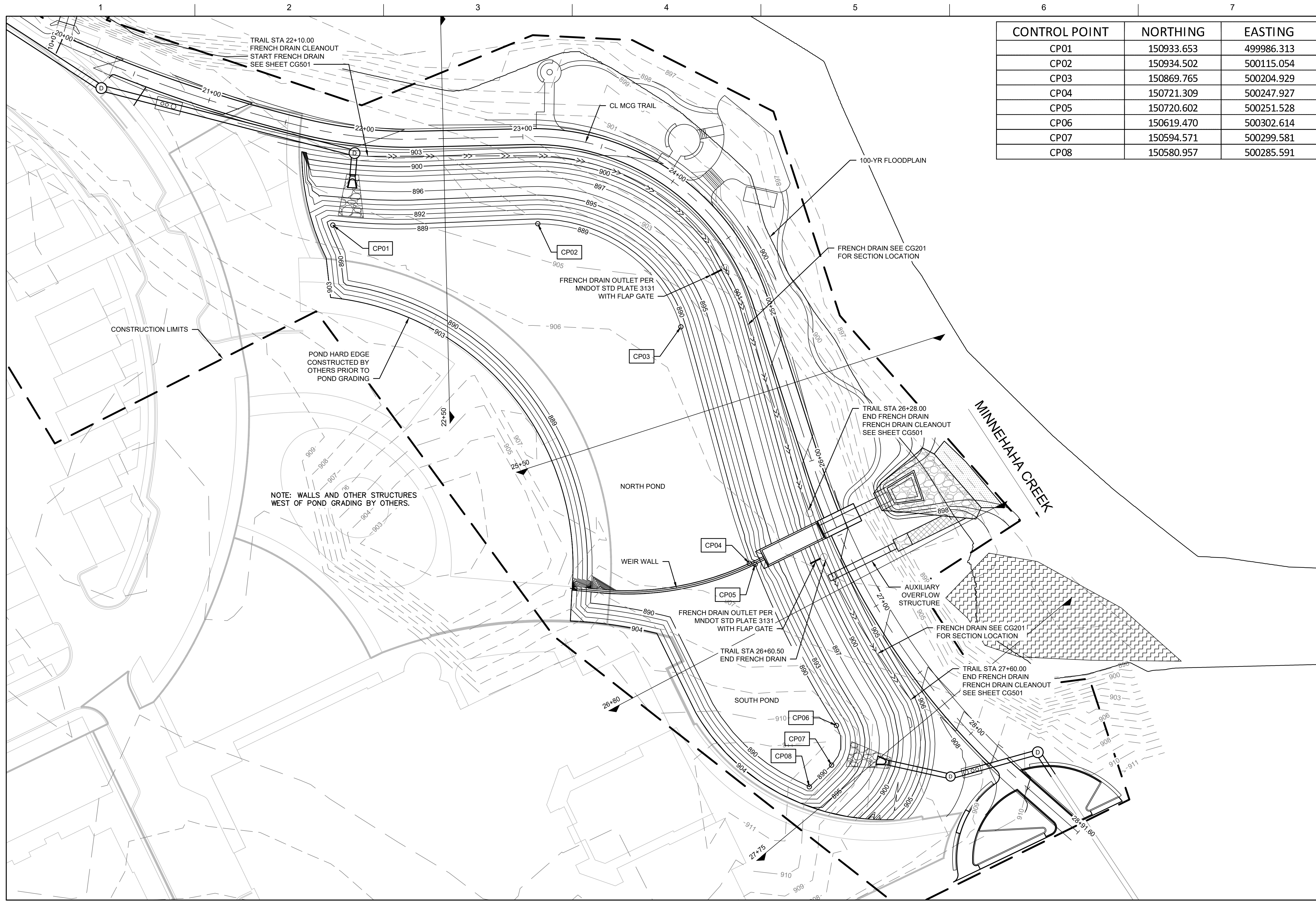
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

**SITE GRADING PLAN
NATURE-BASED PLAY AREA**

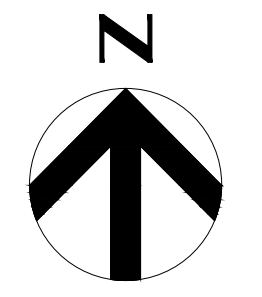


FILENAME CG101-105.DWG
SCALE 1" = 10'

SHEET
CG102



CONTROL POINT	NORTHING	EASTING
CP01	150933.653	499986.313
CP02	150934.502	500115.054
CP03	150869.765	500204.929
CP04	150721.309	500247.927
CP05	150720.602	500251.528
CP06	150619.470	500302.614
CP07	150594.571	500299.581
CP08	150580.957	500285.591



GENERAL NOTES

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- SEE L SHEETS FOR INFORMAL PATHS, SURFACING, PLANTING, AND SITE FURNISHINGS.
- SEE CG201 FOR POND TYPICAL SECTIONS FOR SLOPES AND GRADE BREAK ELEVATIONS.

NOTE: WALLS AND OTHER STRUCTURES WEST OF POND GRADING BY OTHERS.

CONSTRUCTION LIMITS

POND HARD EDGE CONSTRUCTED BY OTHERS PRIOR TO POND GRADING

NORTH POND

WEIR WALL

SOUTH POND

MINNEHAHA CREEK



MINNEHAHA CREEK WATERSHED DISTRICT

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PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

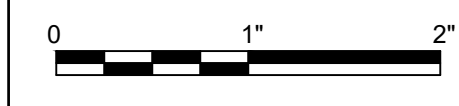
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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

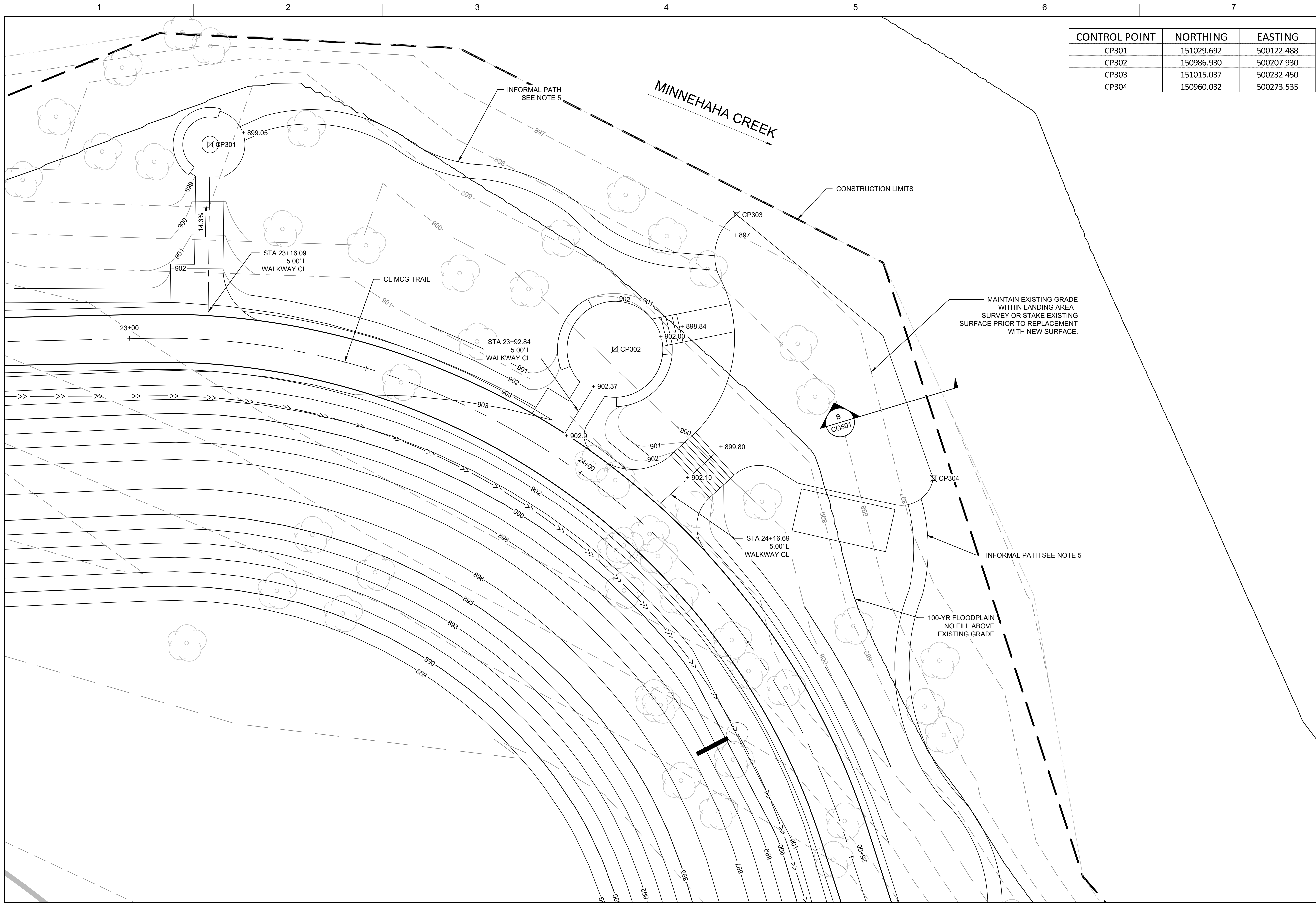
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

**SITE GRADING PLAN
STORMWATER POND**

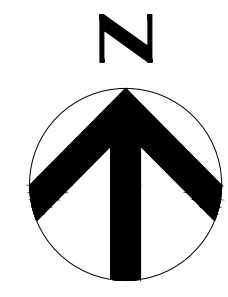


FILENAME CG103.DWG
SCALE 1" = 30'

SHEET
CG103



CONTROL POINT	NORTHING	EASTING
CP301	151029.692	500122.488
CP302	150986.930	500207.930
CP303	151015.037	500232.450
CP304	150960.032	500273.535



GENERAL NOTES

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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

**SITE GRADING PLAN
LANDING AREA**

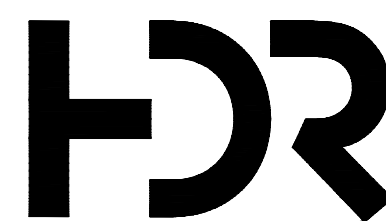


FILENAME CG101-105.DWG
SCALE 1" = 10'

SHEET
CG104



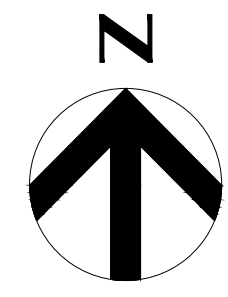
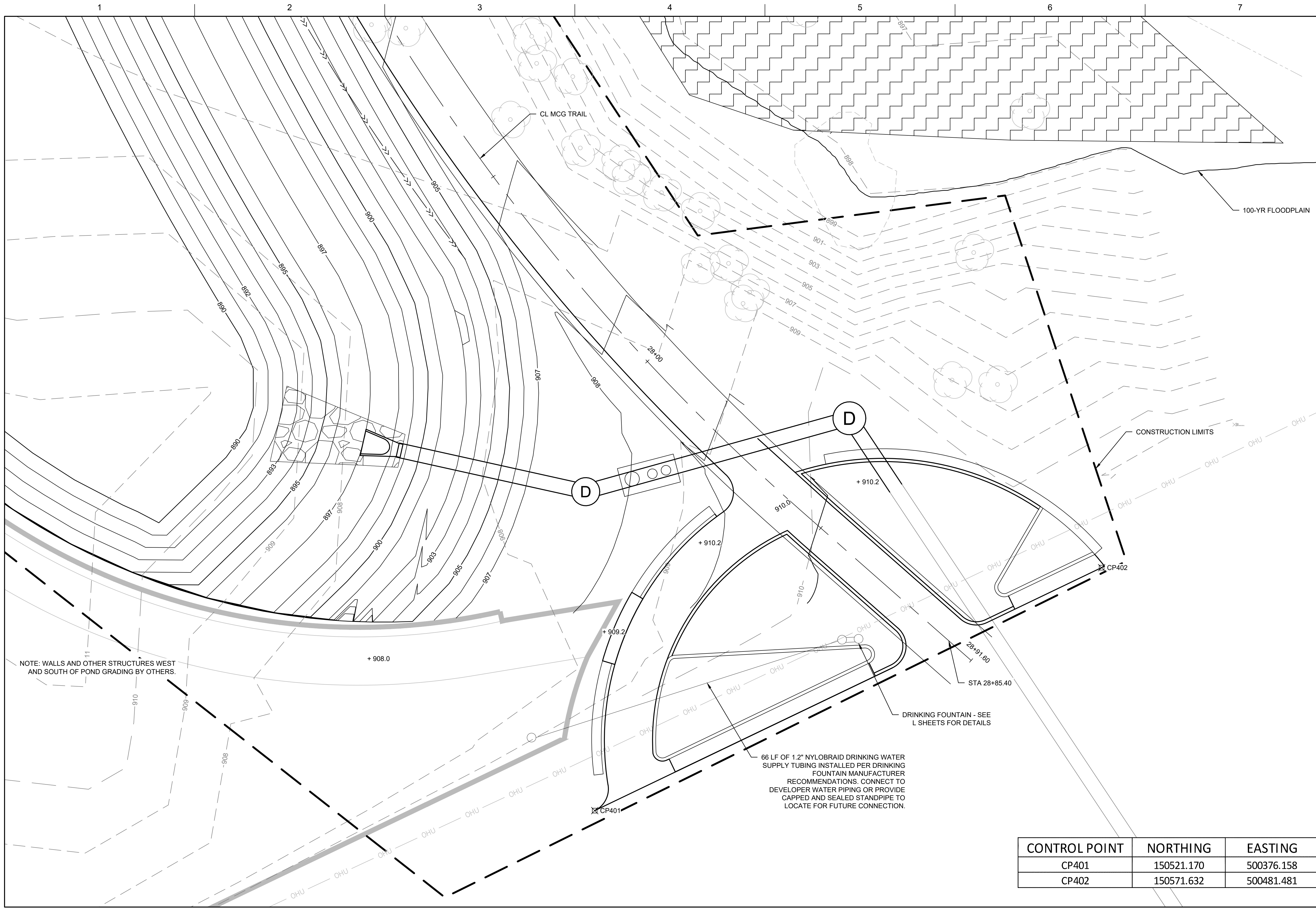
MINNEHAHA CREEK
WATERSHED DISTRICT



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PROJECT NUMBER 10268112

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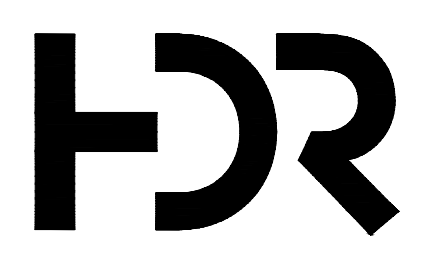


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5. SEE L SHEETS FOR INFORMAL PATHS, SURFACING, PLANTING, AND SITE FURNISHINGS.

NOTE: WALLS AND OTHER STRUCTURES WEST AND SOUTH OF POND GRADING BY OTHERS.

CONTROL POINT	NORTHING	EASTING
CP401	150521.170	500376.158
CP402	150571.632	500481.481



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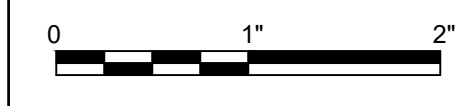
PROJECT MANAGER ANDREW F. JUDD	
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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

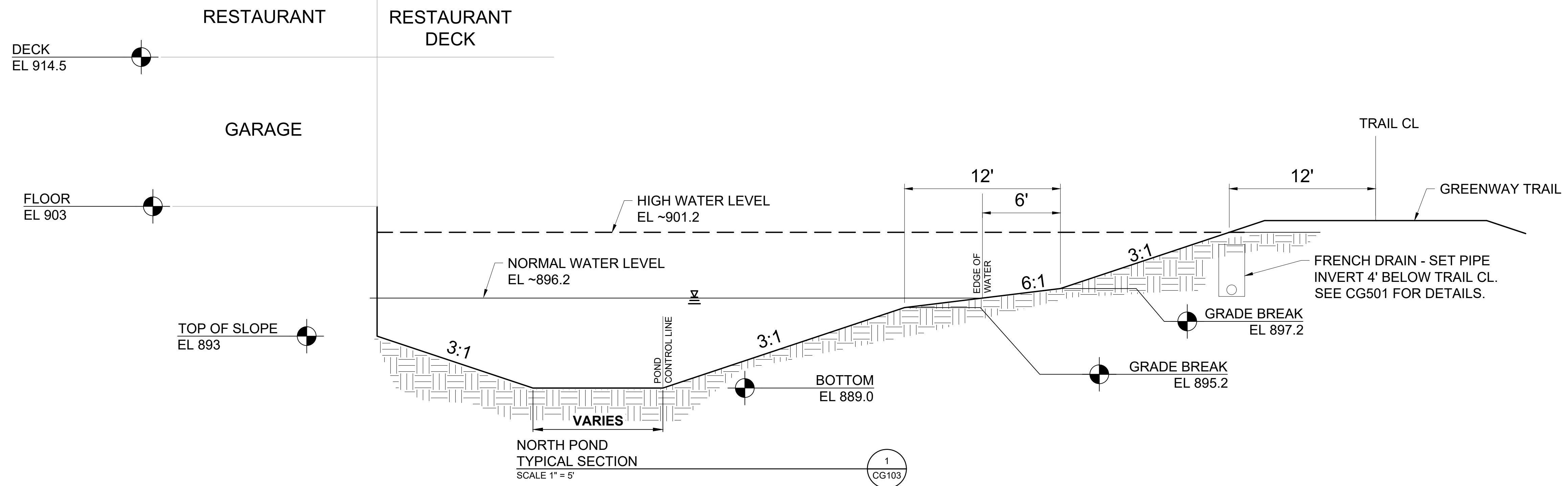
MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343



FILENAME CG101-105.DWG
 SCALE 1" = 10'

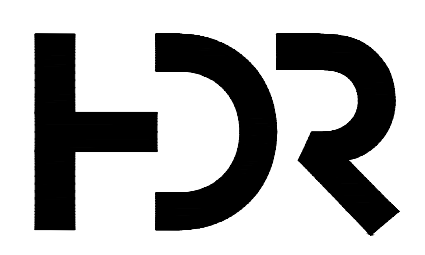
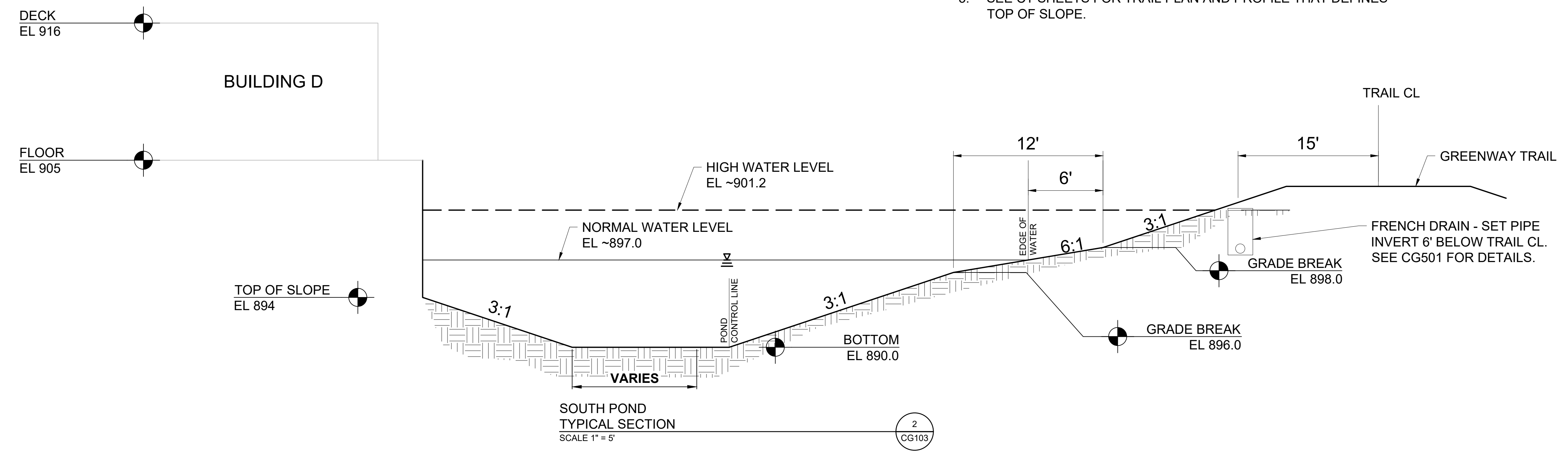
SHEET
CG105

SITE GRADING PLAN TRAILHEAD



WALL AND OTHER STRUCTURES BY OTHERS

- NOTES:**
1. SEE L SHEETS FOR SOIL IMPROVEMENTS AND SEEDING PLAN.
 2. GROUNDWATER WAS ENCOUNTERED NEAR EL ~896' DURING SOIL BORINGS. WET SOIL CONDITIONS SHOULD BE ANTICIPATED DURING POND EXCAVATION.
 3. SEE CT SHEETS FOR TRAIL PLAN AND PROFILE THAT DEFINES TOP OF SLOPE.



MINNEHAHA CREEK WATERSHED DISTRICT

ISSUE	DATE	DESCRIPTION
C	03/28/2023	100% DESIGN
B	09/14/2022	90% DESIGN
A	03/13/2022	60% DRAFT FOR COMMENT REVIEW

PROJECT MANAGER ANDREW F. JUDD

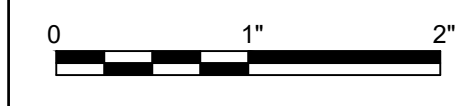
PROJECT NUMBER	10268112
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ANDREW F. JUDD, PE
DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

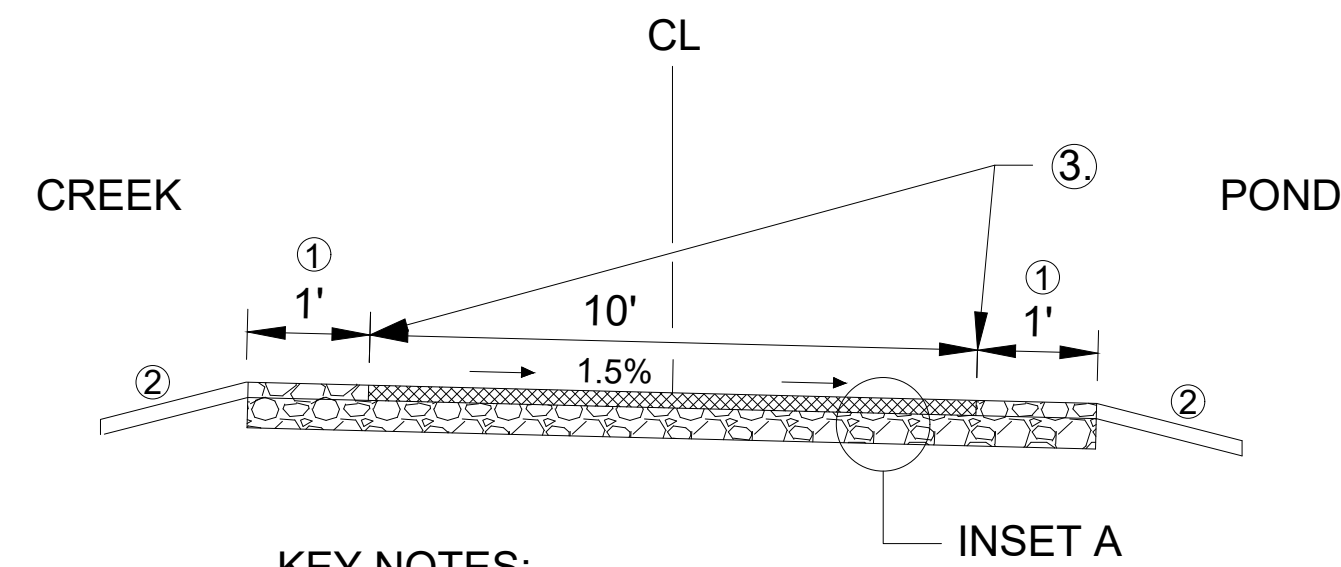
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343



TYPICAL SECTIONS POND

FILENAME CG201.DWG
SCALE 1" = 5'

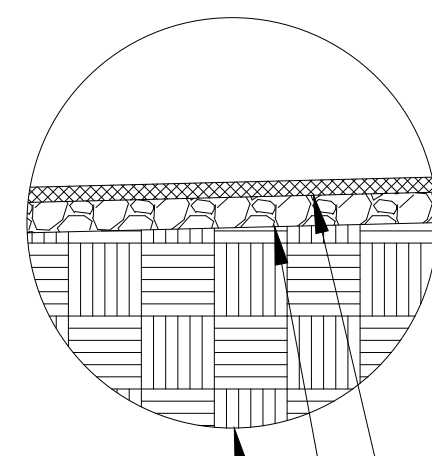
SHEET
CG201



KEY NOTES:

- ① 1' WIDE AGGREGATE (CLASS 5) SHOULDER. MINIMUM 6" THICKNESS.
- ② 3:1 MAXIMUM SLOPE (H:V) OUTSIDE OF 1' SHOULDER.
- ③ SEE INSET C FOR TRAIL SEGMENTS THAT ABUT TO CONCRETE PAVEMENT OR PAVERS.

INSET A



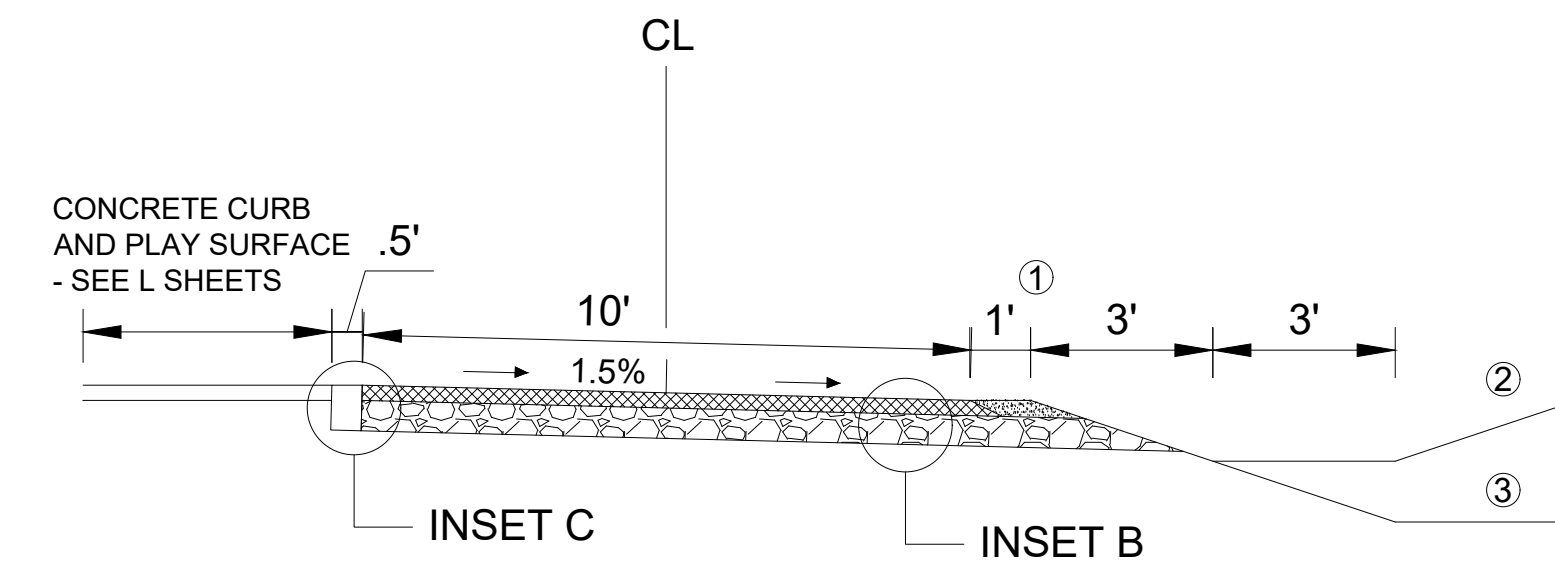
- 3" MNDOT SPEC 2360 SPWEA240C BITUMINOUS PAVEMENT
- 6" CL. 5 AGGREGATE BASE
- 12" SCARIFY, DRY, AND RE-COMPACT SUBGRADE MATERIAL FOLLOWING REVIEW BY OWNER.

GENERAL NOTES:

1. BITUMINOUS SHALL BE PLACED IN ONE LIFT.
2. CLASS 5 AGGREGATE BASE SHALL CONFORM TO MNDOT SPEC 3138.
3. SUBGRADE SHALL BE TEST ROLLED PRIOR TO AGGREGATE BASE INSTALLATION AND CONFORM TO MNDOT SPEC 2111.
4. SEE CT SHEETS FOR TRAIL PLAN AND PROFILE.
5. SEE L SHEETS FOR TOPSOIL REQUIREMENTS AND PLANTING/SEEDING PLAN FOR VEGETATED AREAS.

**MINNEHAHA CREEK GREENWAY TRAIL
TYPICAL SECTION
NOT TO SCALE**

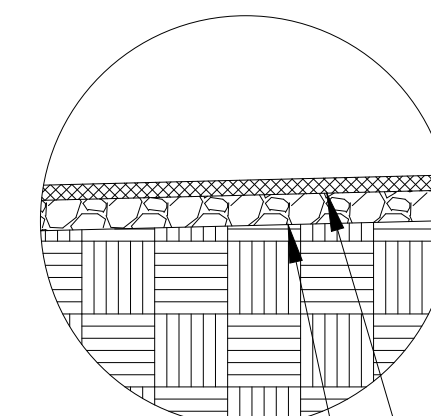
3
CT103



KEY NOTES:

- ① 1' WIDE VEGETATED SHOULDER
- ② STA 11+21.80 TO STA 12+08.00 - 3' WIDE VEGETATED SWALE WITH 3:1 (H:V) SIDE SLOPES.
- ③ STA 12+08.00 TO STA 12+89.88 - 3:1 (H:V) SIDE SLOPE DOWN TO RAIN GARDEN, SEE CIVIL DETAILS FOR SECTION.

INSET B



- 3" MNDOT SPEC 2360 SPWEA240C BITUMINOUS PAVEMENT
- 6" CL. 5 AGGREGATE BASE
- 12" SCARIFY, DRY, AND RE-COMPACT SUBGRADE MATERIAL FOLLOWING REVIEW BY OWNER.

GENERAL NOTES:

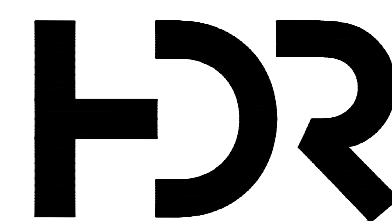
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2. CLASS 5 AGGREGATE BASE SHALL CONFORM TO MNDOT SPEC 3138.
3. SUBGRADE SHALL BE TEST ROLLED PRIOR TO AGGREGATE BASE INSTALLATION AND CONFORM TO MNDOT SPEC 2111.
4. SEE CT SHEETS FOR TRAIL PLAN AND PROFILE.
5. SEE L SHEETS FOR TOPSOIL REQUIREMENTS AND PLANTING/SEEDING PLAN FOR VEGETATED AREAS.

**NATURE BASED PLAY TRAIL
TYPICAL SECTION
NOT TO SCALE**

4
CT103



**MINNEHAHA CREEK
WATERSHED DISTRICT**



ISSUE	DATE	DESCRIPTION
C	03/28/2023	100% DESIGN
B	09/14/2022	90% DESIGN
A	03/13/2022	60% DRAFT FOR CLIENT REVIEW

PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER	10268112
----------------	----------

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ANDREW F. JUDD, PE
DATE XX/XX/XXXX LICENSE # 47301

**325 BLAKE RD REGIONAL STORMWATER
AND GREENWAY**

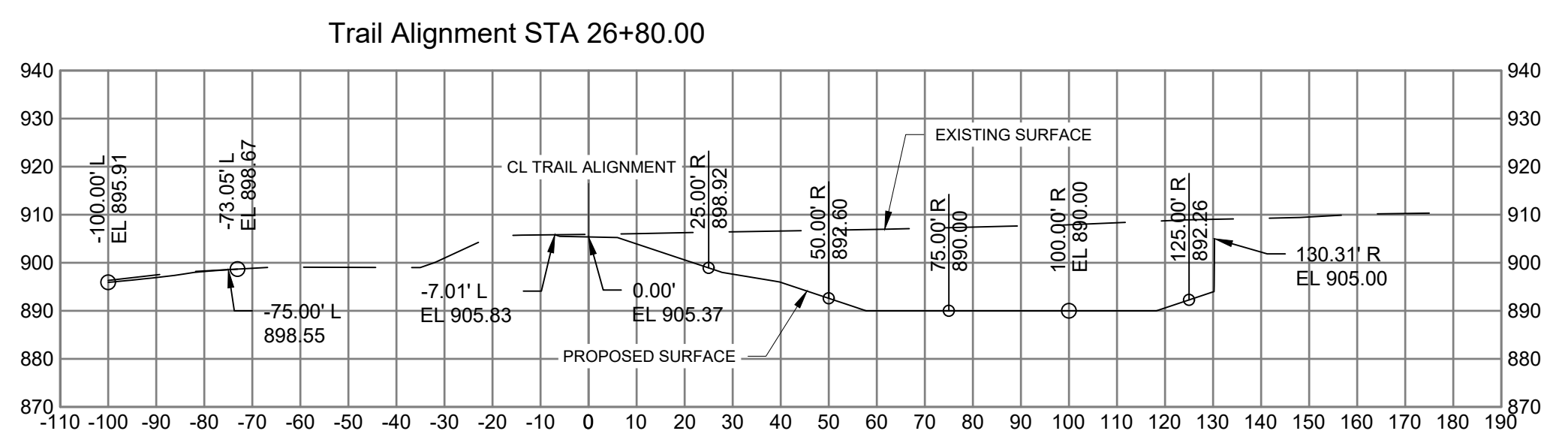
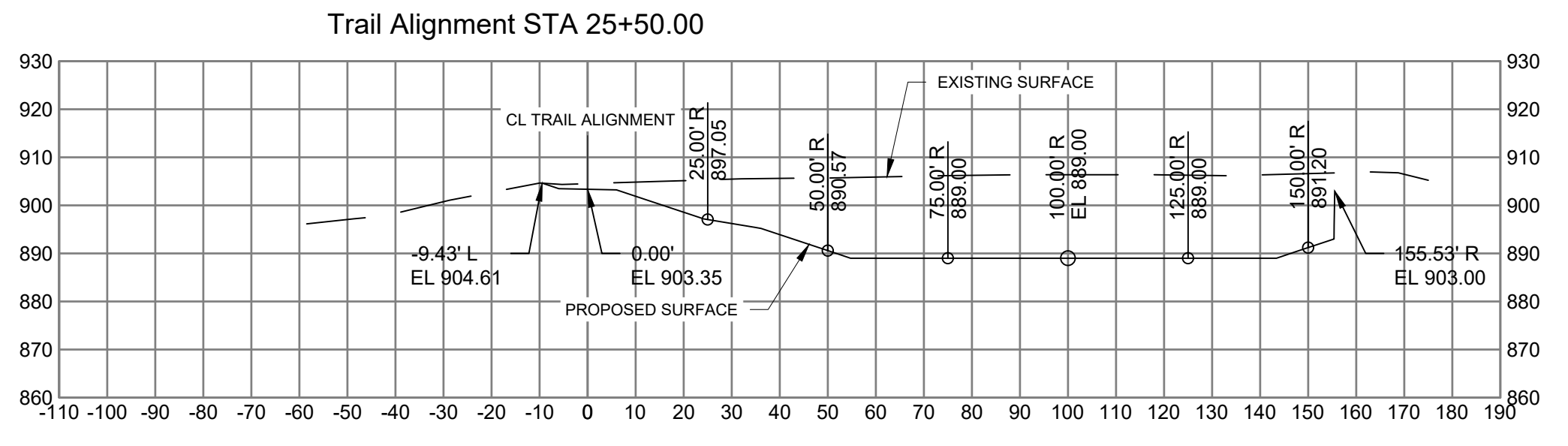
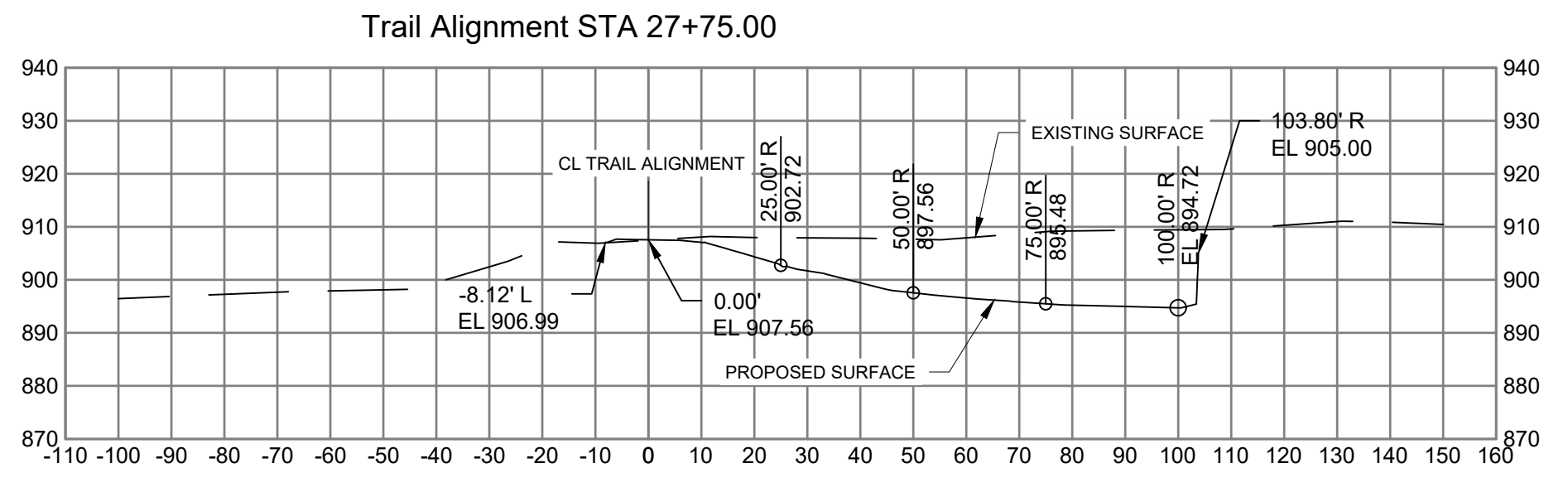
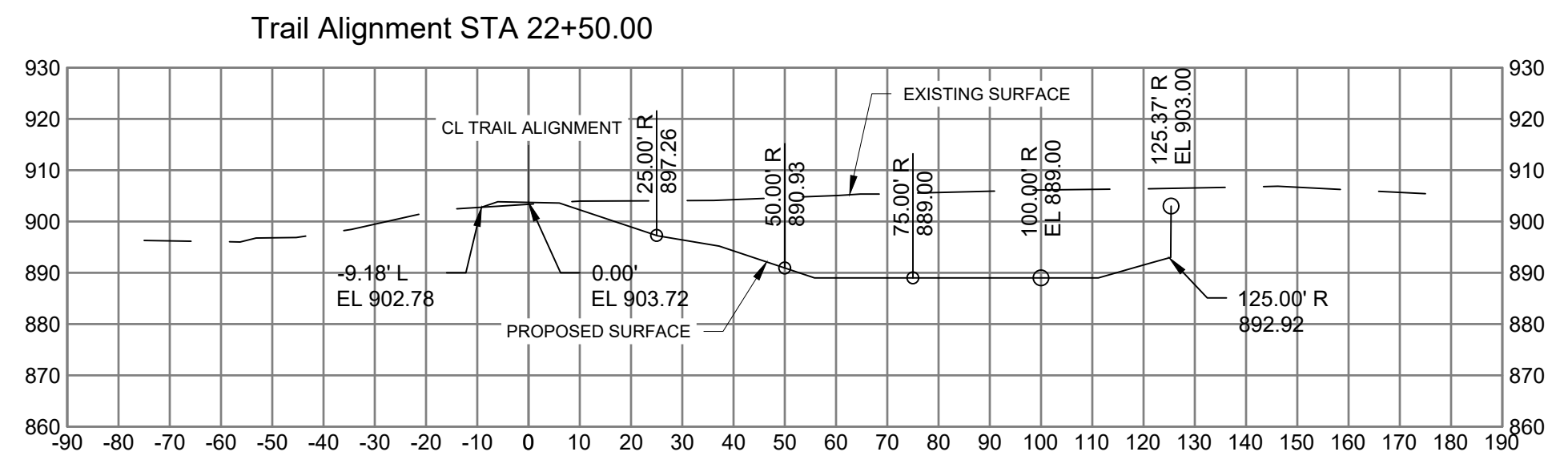
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

**TYPICAL SECTIONS
TRAIL**



FILENAME CG202.DWG
SCALE 1" = 8'

SHEET
CG202



ISSUE	DATE	DESCRIPTION
C	03/28/2023	100% DESIGN
B	09/14/2022	90% DESIGN
A	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

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ANDREW F. JUDD, PE
 DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

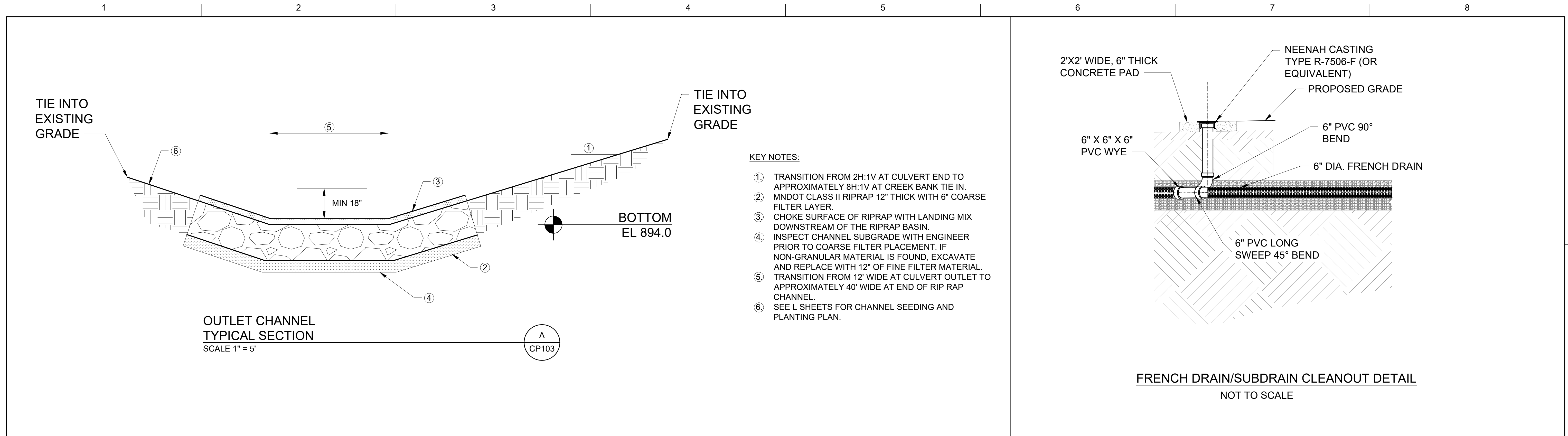
MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

CROSS SECTIONS

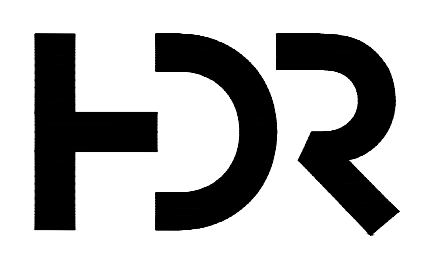
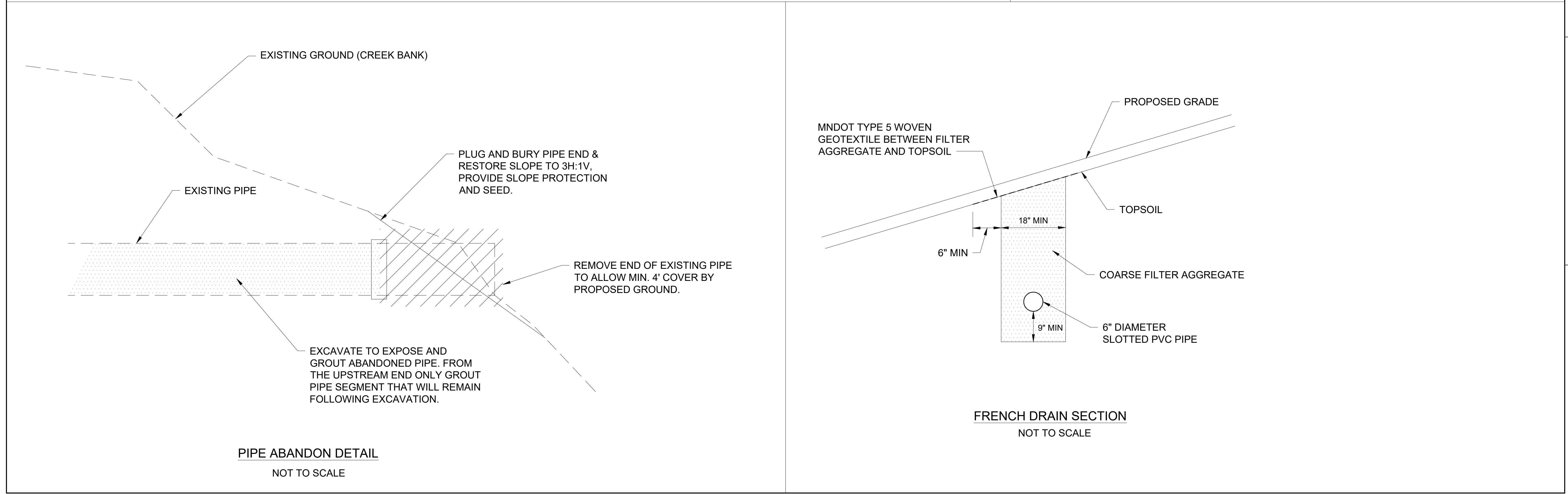
SCALE 1" = 30'

FILENAME CG103.DWG

SHEET **CG301**



- KEY NOTES:**
- ① TRANSITION FROM 2H:1V AT CULVERT END TO APPROXIMATELY 8H:1V AT CREEK BANK TIE IN.
 - ② MNDOT CLASS II RIPRAP 12" THICK WITH 6" COARSE FILTER LAYER.
 - ③ CHOKE SURFACE OF RIPRAP WITH LANDING MIX DOWNSTREAM OF THE RIPRAP BASIN.
 - ④ INSPECT CHANNEL SUBGRADE WITH ENGINEER PRIOR TO COARSE FILTER PLACEMENT. IF NON-GRANULAR MATERIAL IS FOUND, EXCAVATE AND REPLACE WITH 12" OF FINE FILTER MATERIAL.
 - ⑤ TRANSITION FROM 12' WIDE AT CULVERT OUTLET TO APPROXIMATELY 40' WIDE AT END OF RIP RAP CHANNEL.
 - ⑥ SEE L SHEETS FOR CHANNEL SEEDING AND PLANTING PLAN.



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PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

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ANDREW F. JUDD, PE
 DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

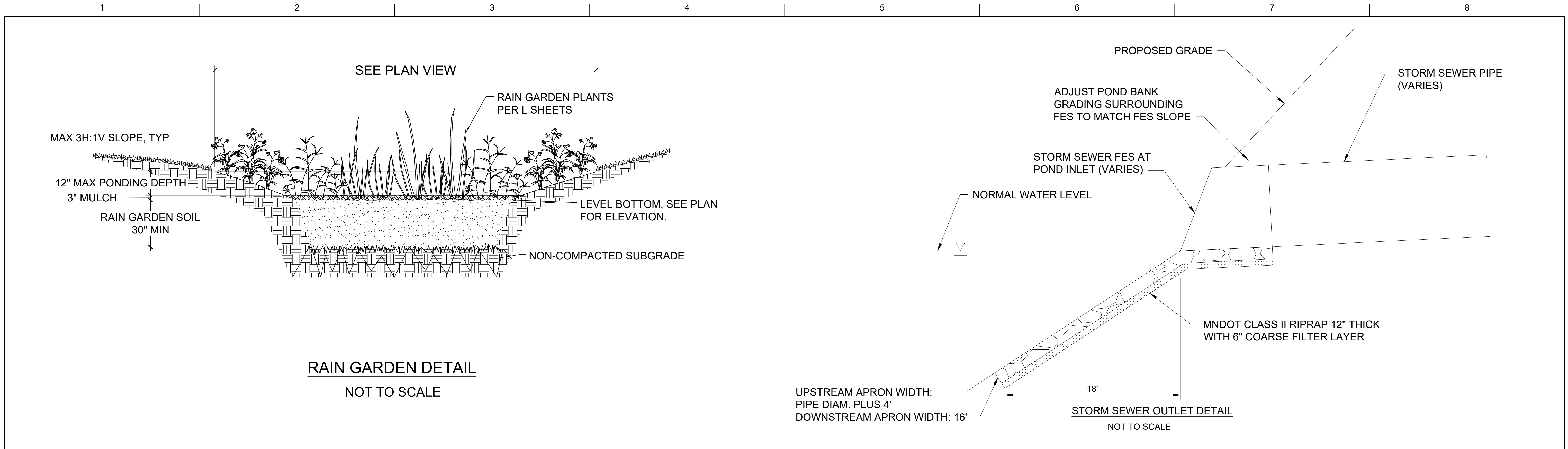
MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

CIVIL DETAILS

0 1" 2" SCALE

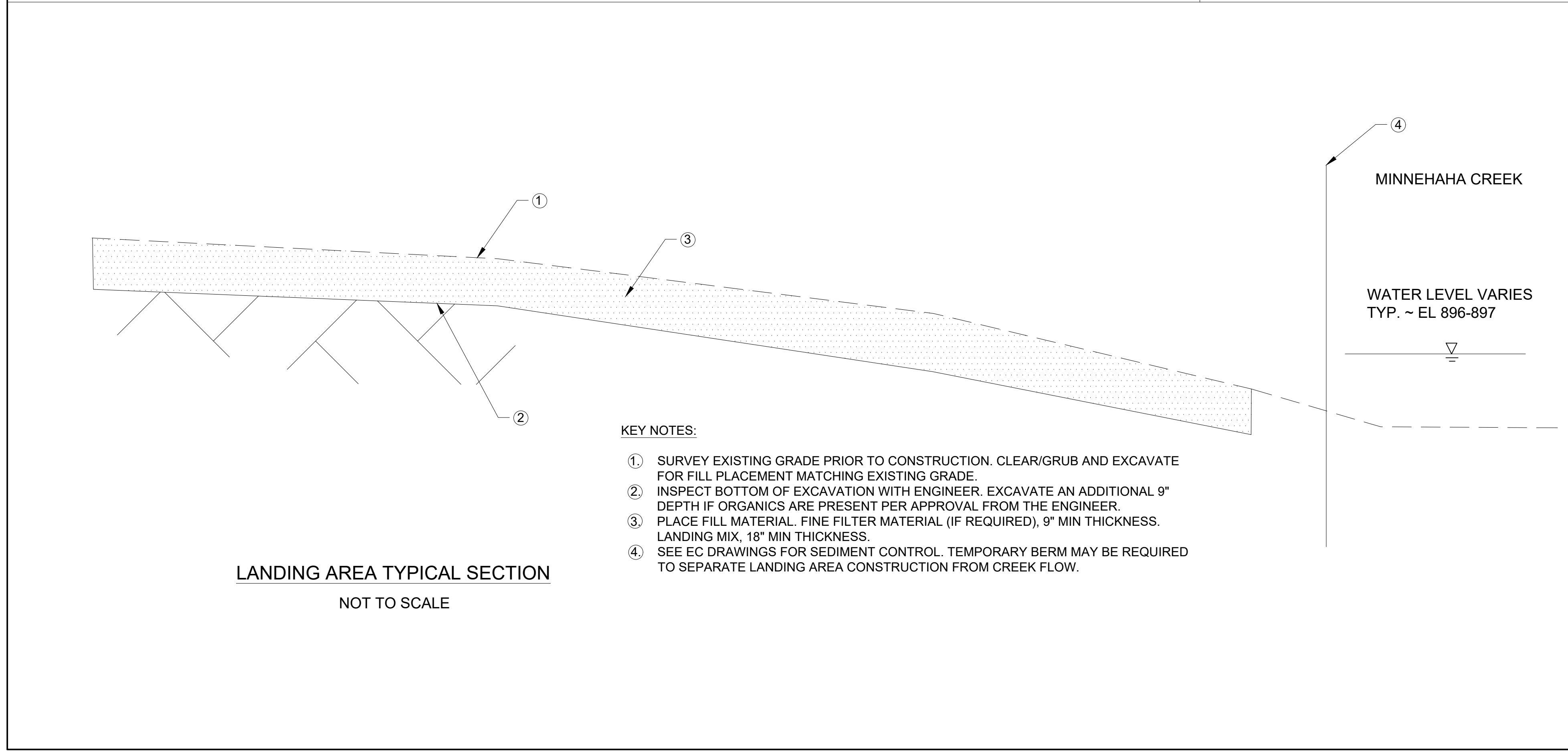
FILENAME CG501.DWG
 SCALE NA

SHEET
CG501



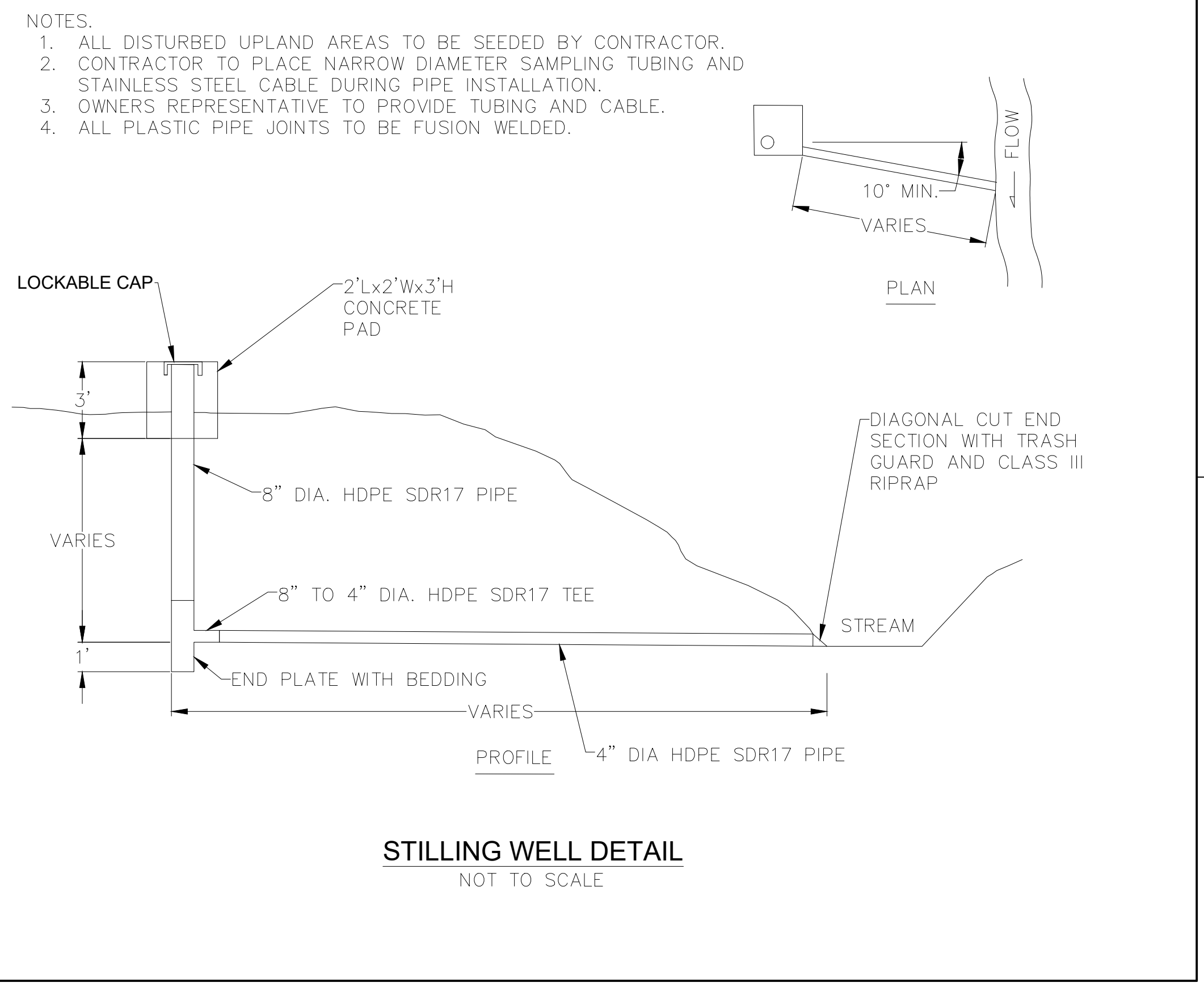
RAIN GARDEN DETAIL
NOT TO SCALE

STORM SEWER OUTLET DETAIL
NOT TO SCALE

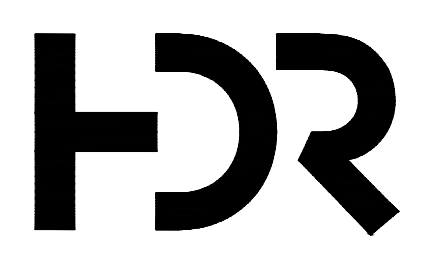


LANDING AREA TYPICAL SECTION
NOT TO SCALE

- KEY NOTES:**
- ① SURVEY EXISTING GRADE PRIOR TO CONSTRUCTION. CLEAR/GRUB AND EXCAVATE FOR FILL PLACEMENT MATCHING EXISTING GRADE.
 - ② INSPECT BOTTOM OF EXCAVATION WITH ENGINEER. EXCAVATE AN ADDITIONAL 9" DEPTH IF ORGANICS ARE PRESENT PER APPROVAL FROM THE ENGINEER.
 - ③ PLACE FILL MATERIAL. FINE FILTER MATERIAL (IF REQUIRED), 9" MIN THICKNESS. LANDING MIX, 18" MIN THICKNESS.
 - ④ SEE EC DRAWINGS FOR SEDIMENT CONTROL. TEMPORARY BERM MAY BE REQUIRED TO SEPARATE LANDING AREA CONSTRUCTION FROM CREEK FLOW.



STILLING WELL DETAIL
NOT TO SCALE



ISSUE	DATE	DESCRIPTION
C	03/28/2023	100% DESIGN
B	09/14/2022	90% DESIGN
A	06/13/2022	PFA GRANT PACKAGE

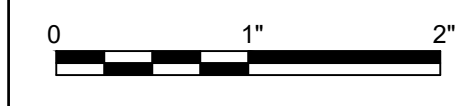
PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

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ANDREW F. JUDD, PE
DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

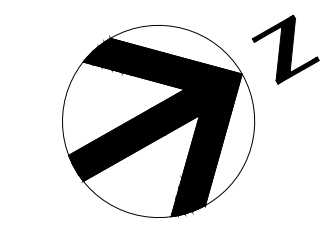
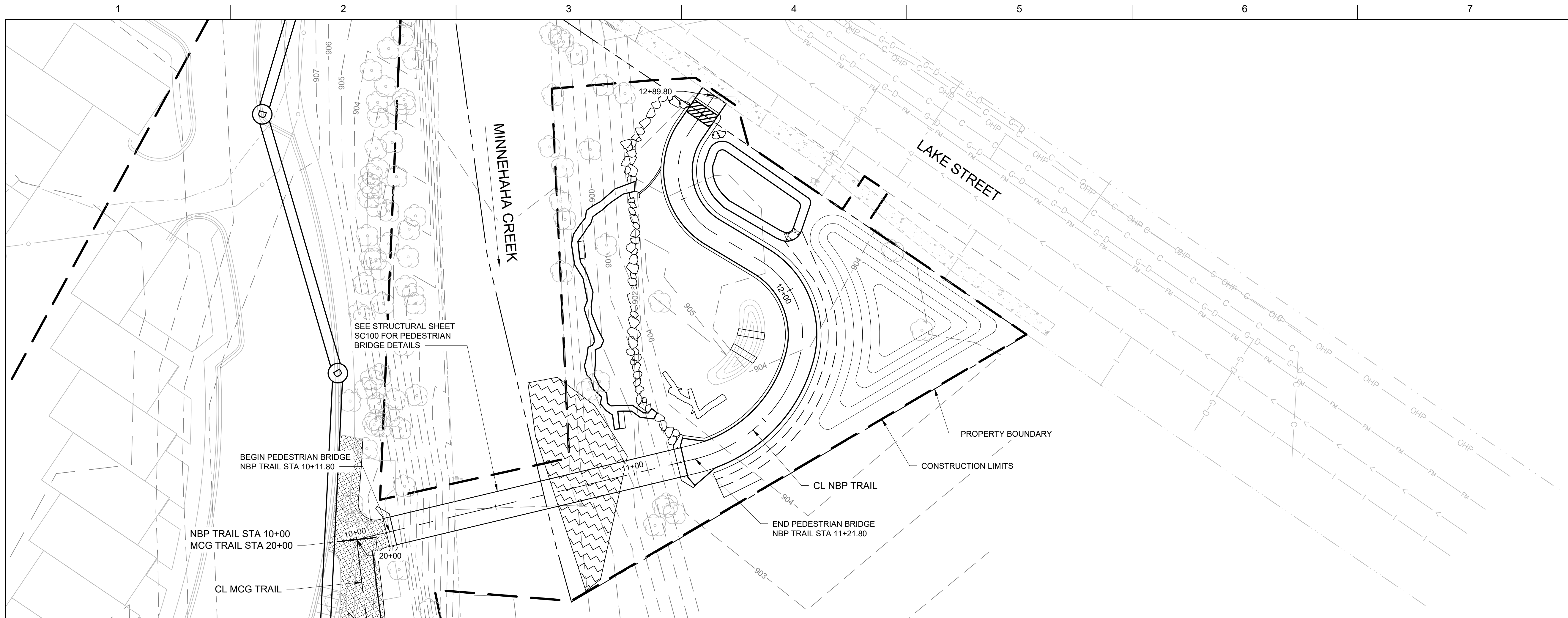
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343



CIVIL DETAILS

FILENAME CG501.DWG
SCALE NA

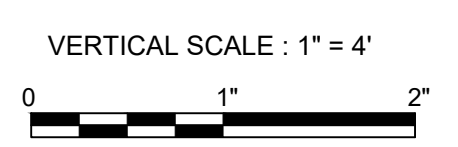
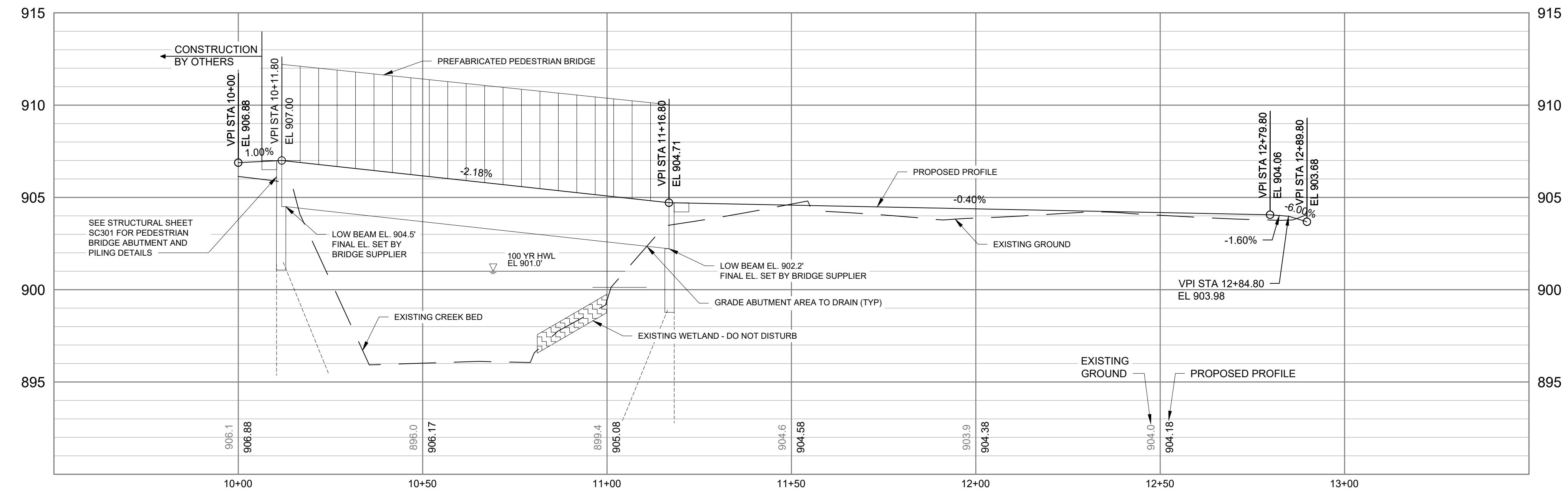
SHEET
CG502



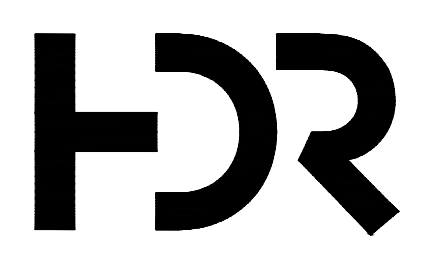
GENERAL NOTES

1. SEE SHEET CG202 FOR TRAIL SECTION.
2. SEE SHEET GC108 FOR ALIGNMENT TABLES.
3. SEE L SHEETS FOR SURFACING OUTSIDE OF TRAIL SECTION.

NBP TRAIL



MINNEHAHA CREEK
WATERSHED DISTRICT



ISSUE	DATE	DESCRIPTION
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PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

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ANDREW F. JUDD, PE
DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

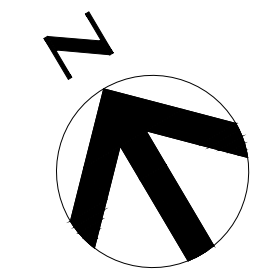
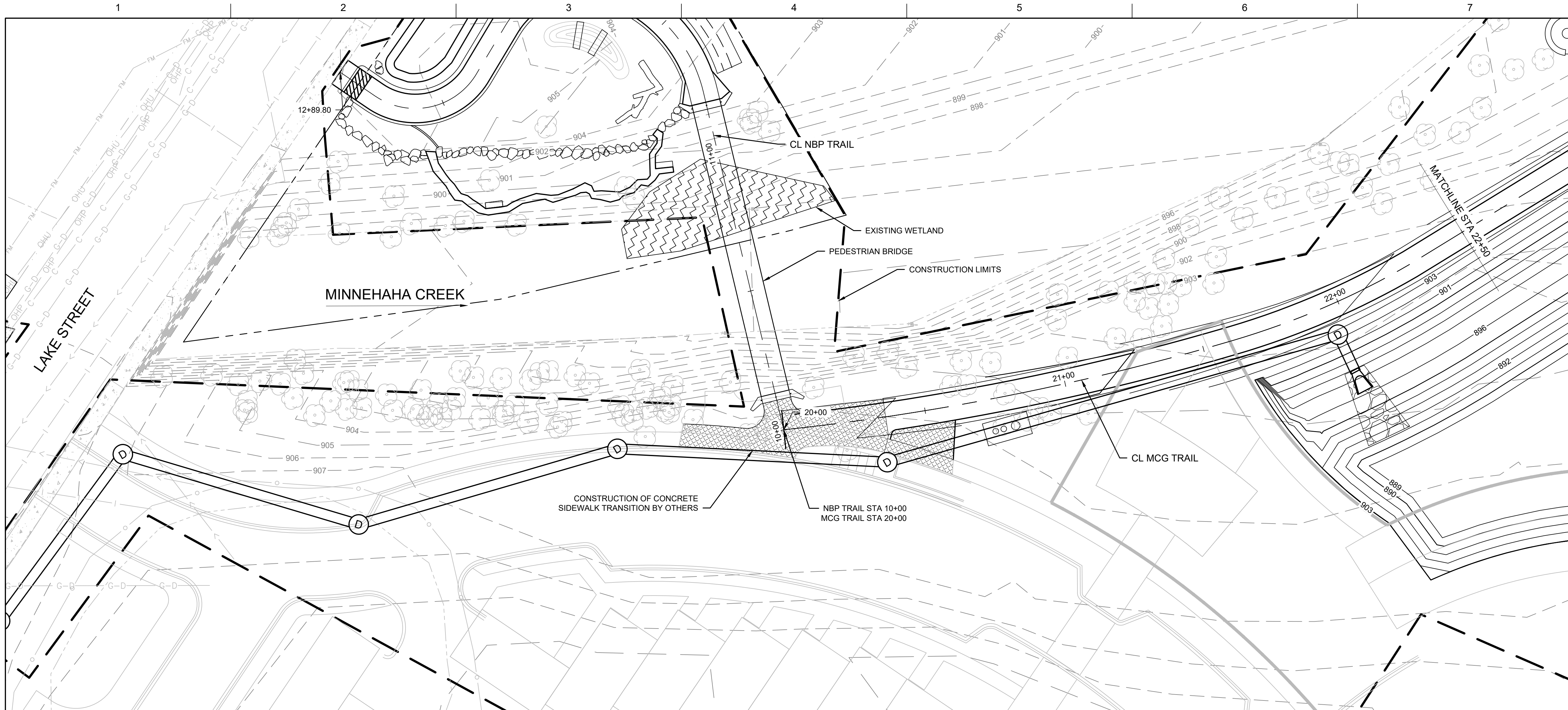
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

TRAIL PLAN & PROFILE



FILENAME CT101-104.DWG
SCALE 1" = 20'

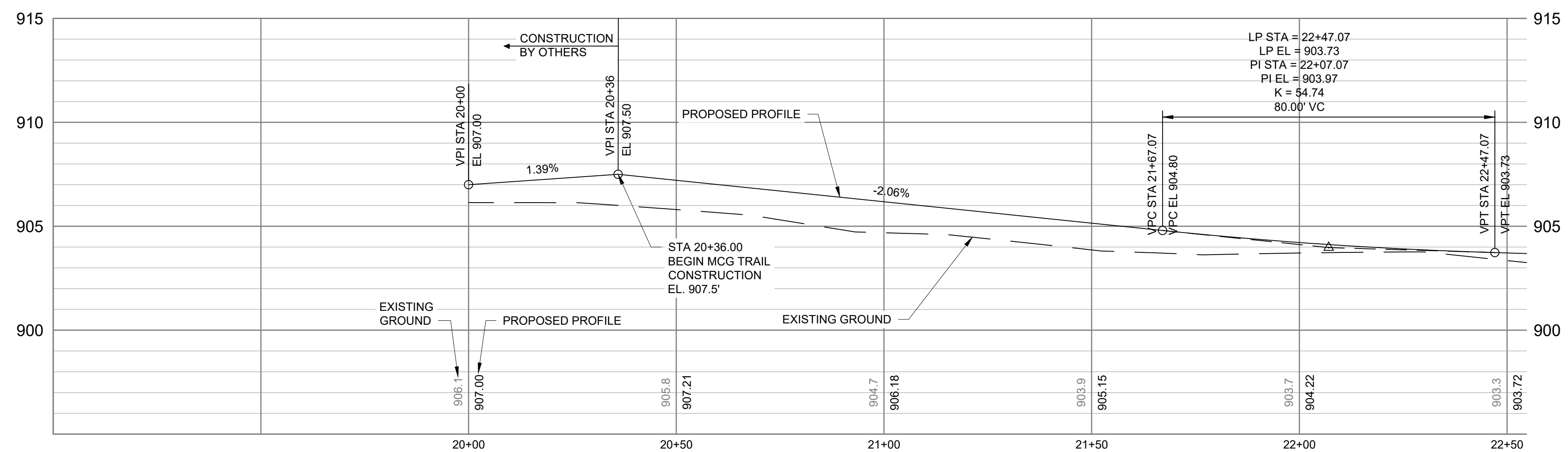
SHEET
CT101



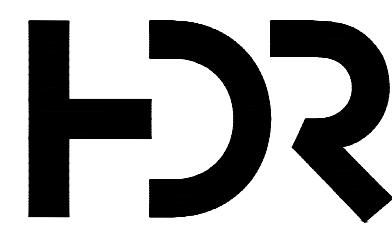
GENERAL NOTES

1. SEE SHEET CG202 FOR TRAIL SECTION.
2. SEE SHEET GC108 FOR ALIGNMENT TABLES.
3. SEE L SHEETS FOR SURFACING OUTSIDE OF TRAIL SECTION.

MCG TRAIL



**MINNEHAHA CREEK
WATERSHED DISTRICT**



ISSUE	DATE	DESCRIPTION
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A	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER	10268112
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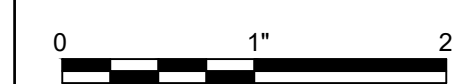
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DATE XX/XX/XXXX LICENSE # 47301

**325 BLAKE RD REGIONAL STORMWATER
AND GREENWAY**

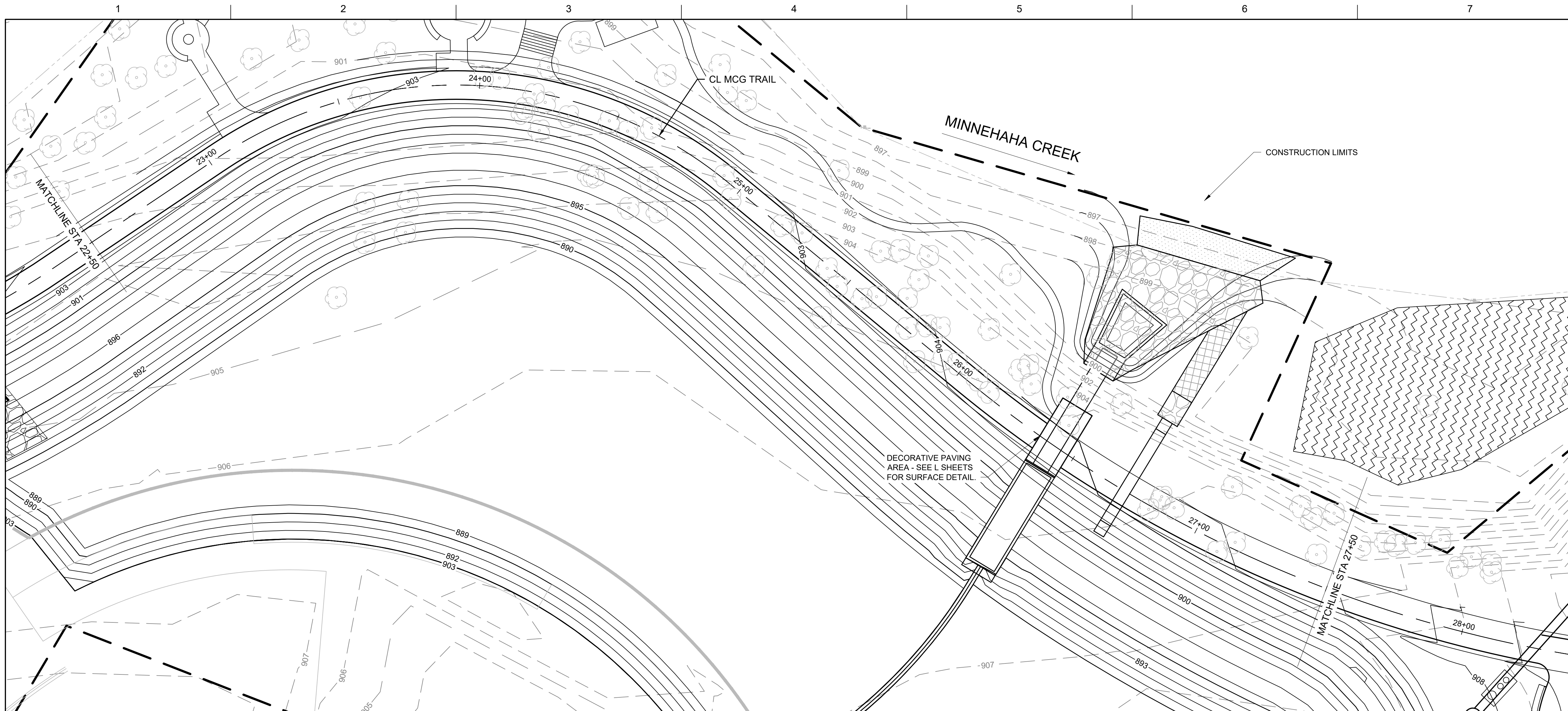
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

TRAIL PLAN & PROFILE



FILENAME CT101-104.DWG
SCALE 1" = 20'

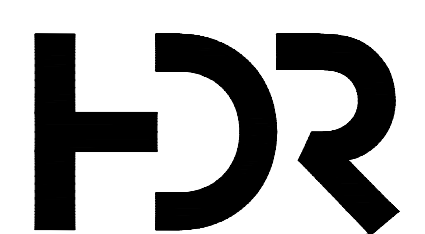
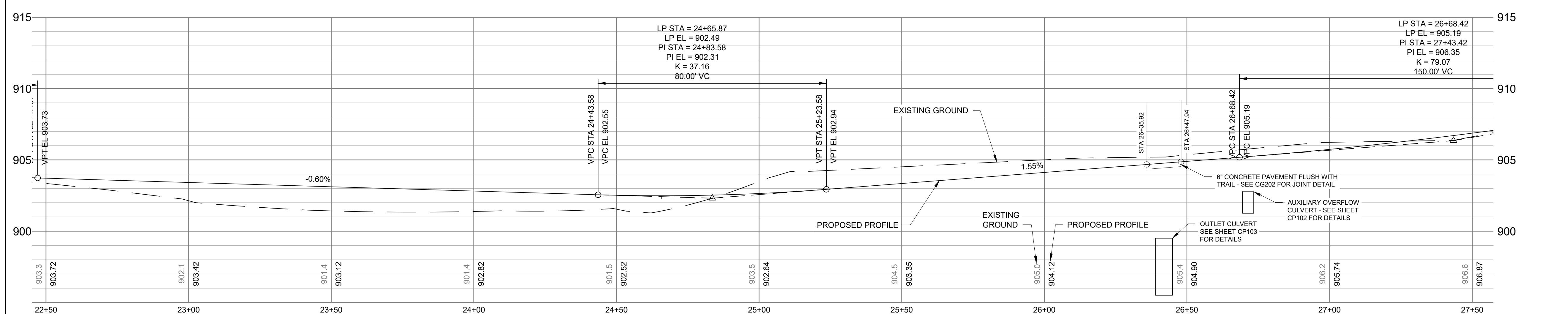
SHEET
CT102



GENERAL NOTES

1. SEE SHEET CG202 FOR TRAIL SECTION.
2. SEE SHEET GC108 FOR ALIGNMENT TABLES.
3. SEE L SHEETS FOR SURFACING OUTSIDE OF TRAIL SECTION.

MCG TRAIL



ISSUE	DATE	DESCRIPTION	PROJECT NUMBER
C	03/28/2023	100% DESIGN	10268112
B	09/14/2022	90% DESIGN	
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PROJECT MANAGER ANDREW F. JUDD

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DATE XX/XX/XXXX LICENSE # 47301

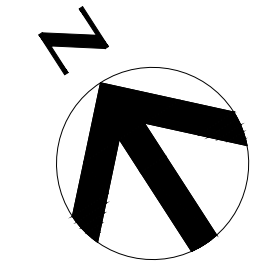
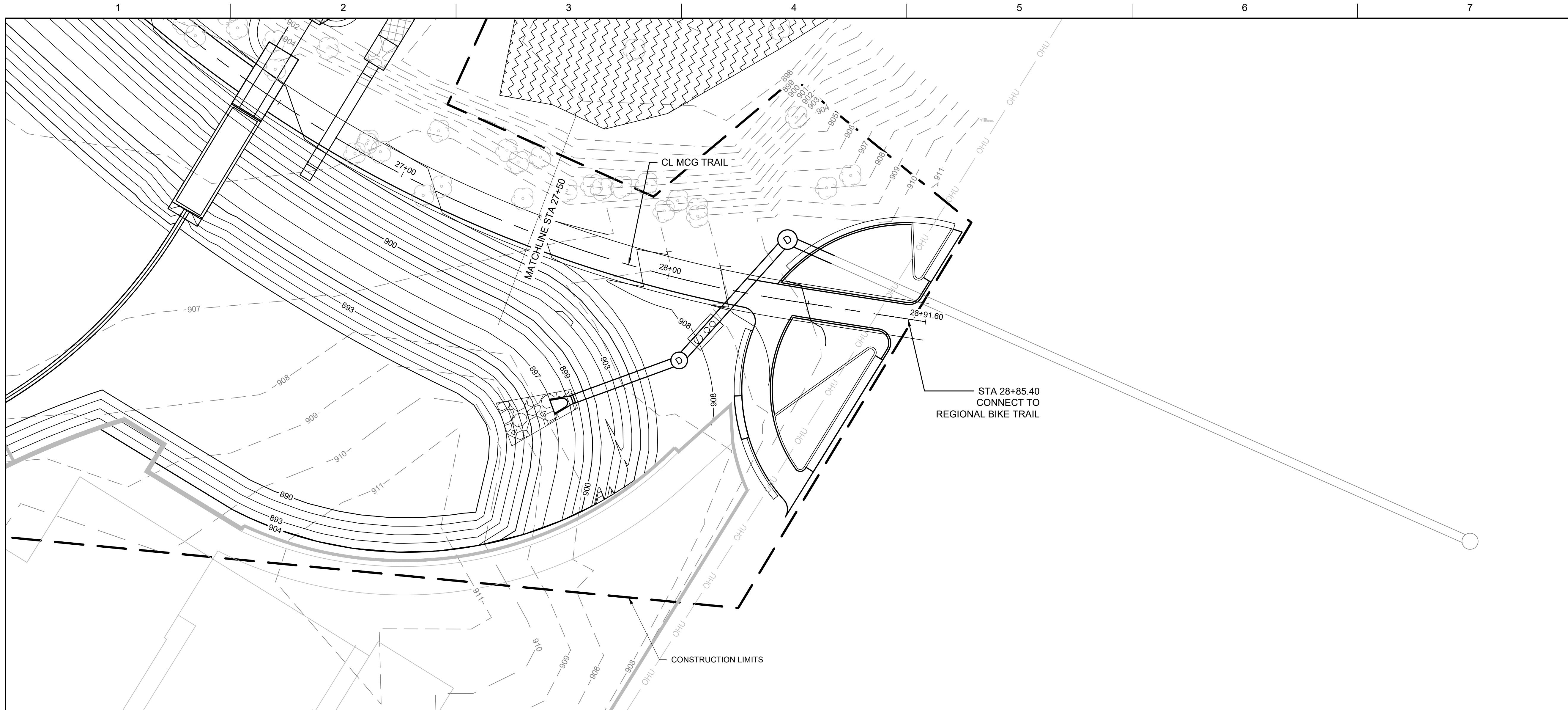
325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

TRAIL PLAN & PROFILE

FILENAME CT101-104.DWG
SCALE 1" = 20'

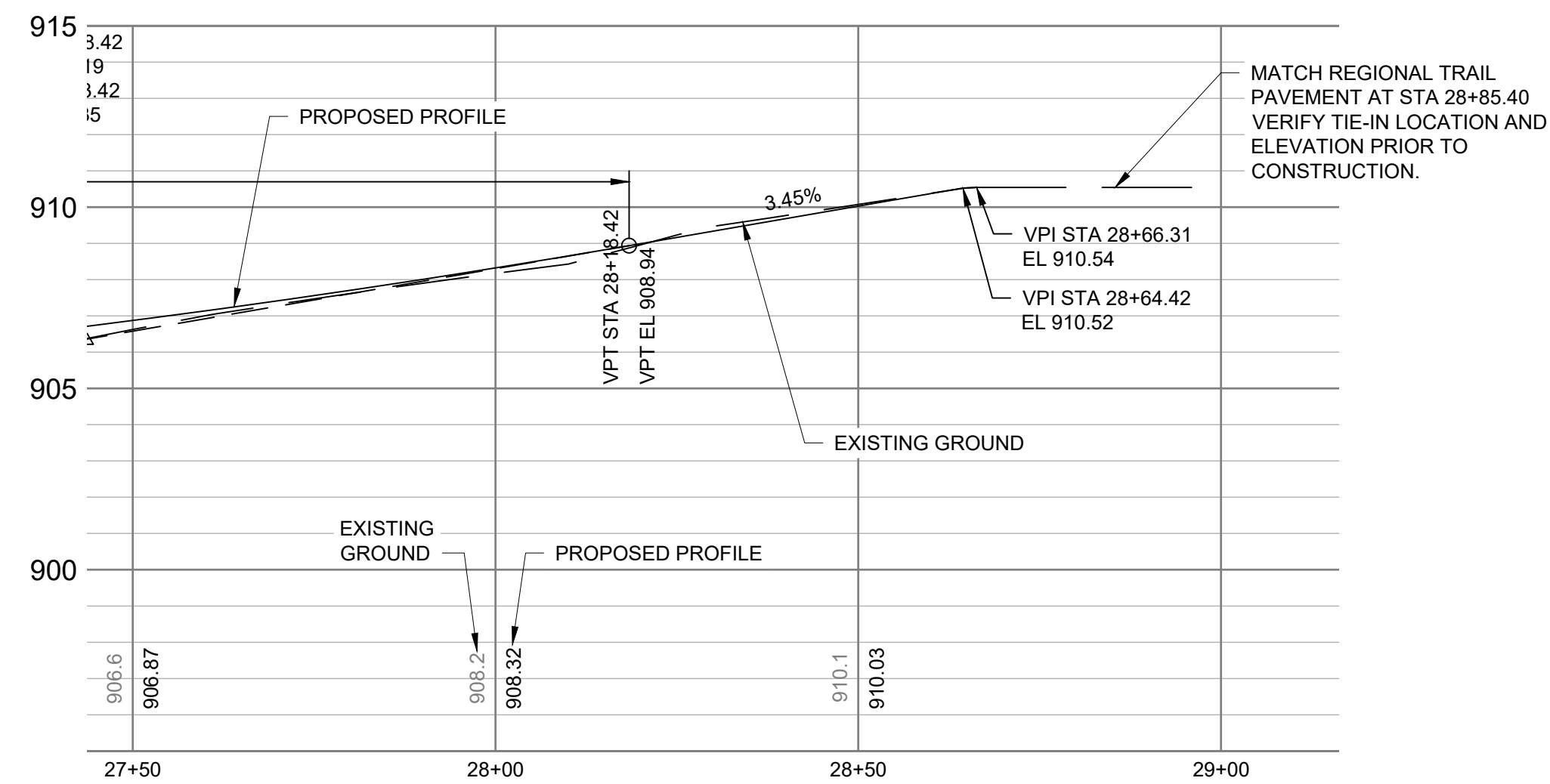
SHEET
CT103



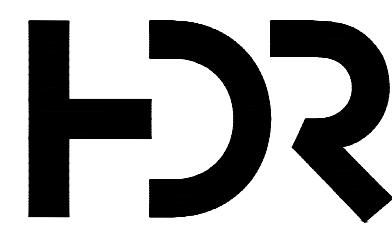
GENERAL NOTES

1. SEE SHEET CG202 FOR TRAIL SECTION.
2. SEE SHEET GC108 FOR ALIGNMENT TABLES.
3. SEE L SHEETS FOR SURFACING OUTSIDE OF TRAIL SECTION.

MCG TRAIL



**MINNEHAHA CREEK
WATERSHED DISTRICT**



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PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

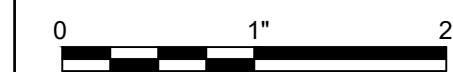
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**325 BLAKE RD REGIONAL STORMWATER
AND GREENWAY**

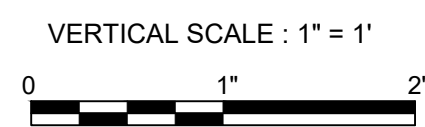
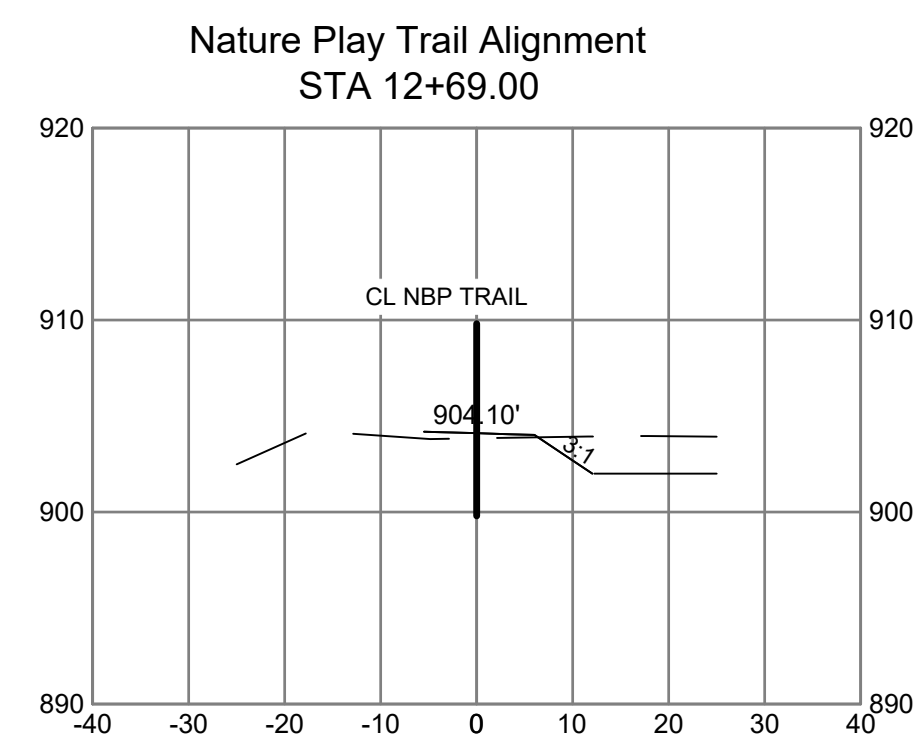
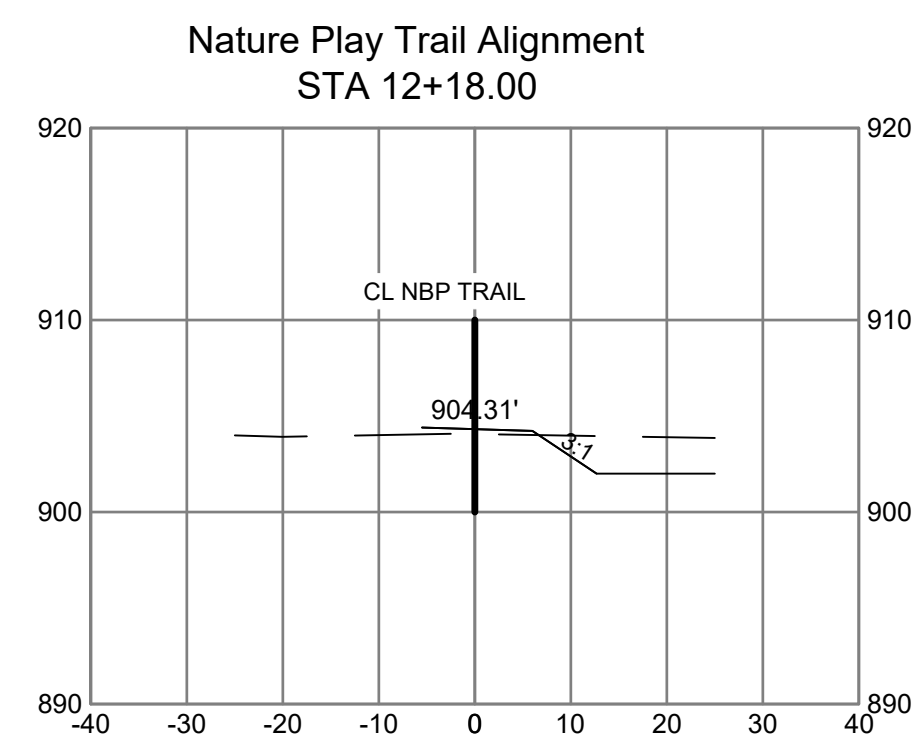
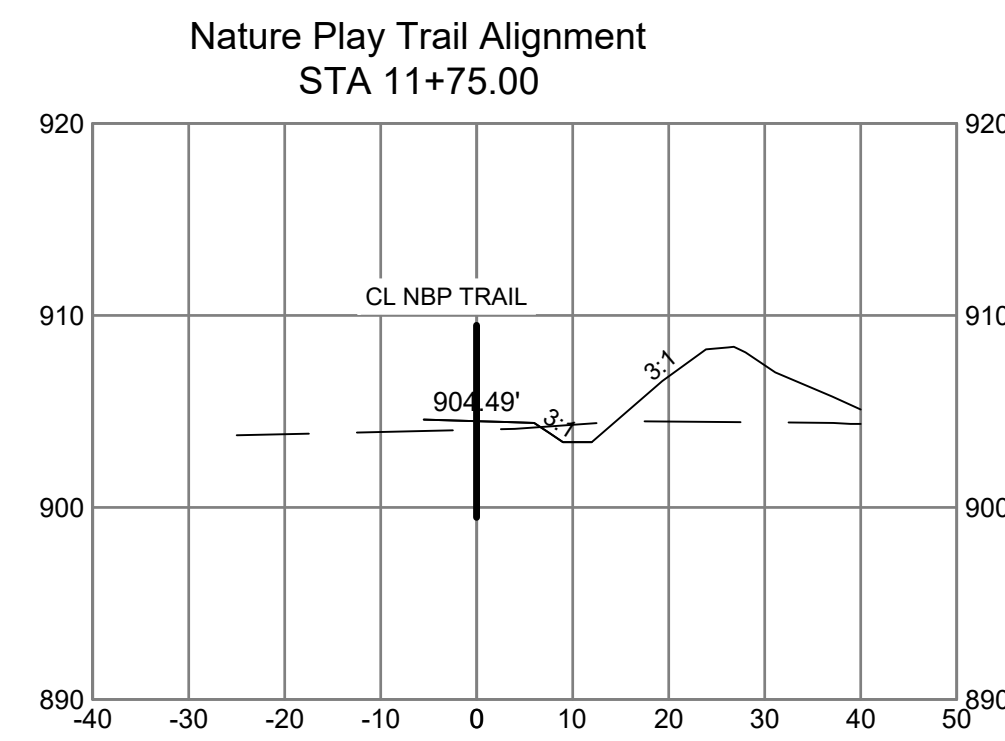
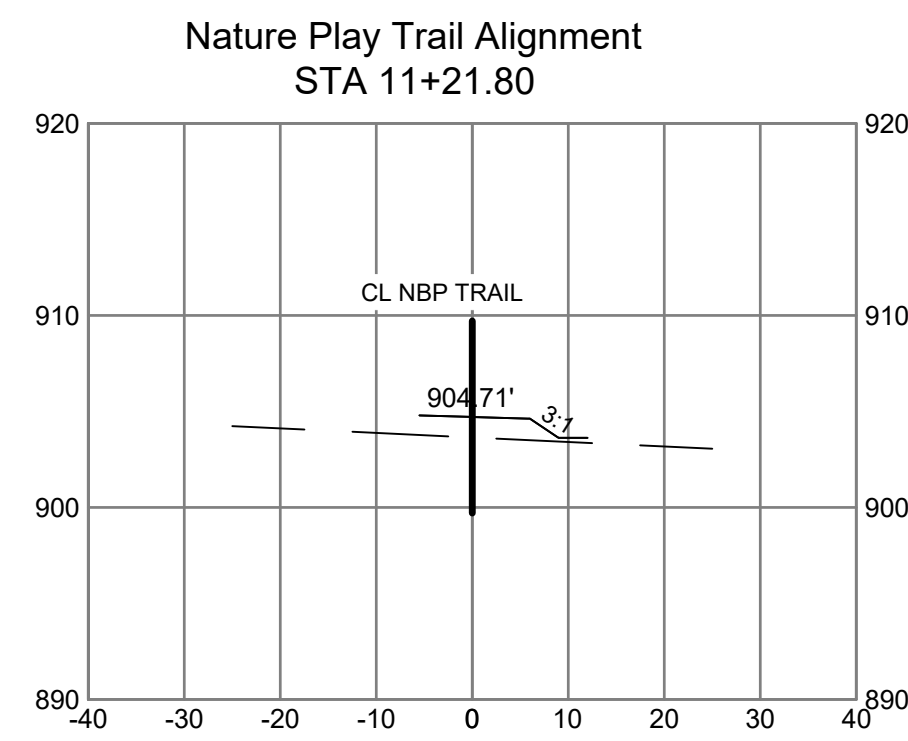
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

TRAIL PLAN & PROFILE

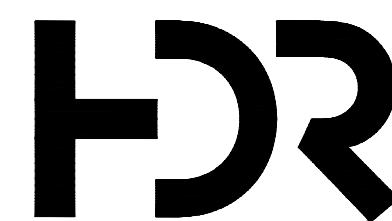


FILENAME CT101-104.DWG
SCALE 1" = 20'

SHEET
CT104



MINNEHAHA CREEK
WATERSHED DISTRICT



ISSUE	DATE	DESCRIPTION
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PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER	10268112
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DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

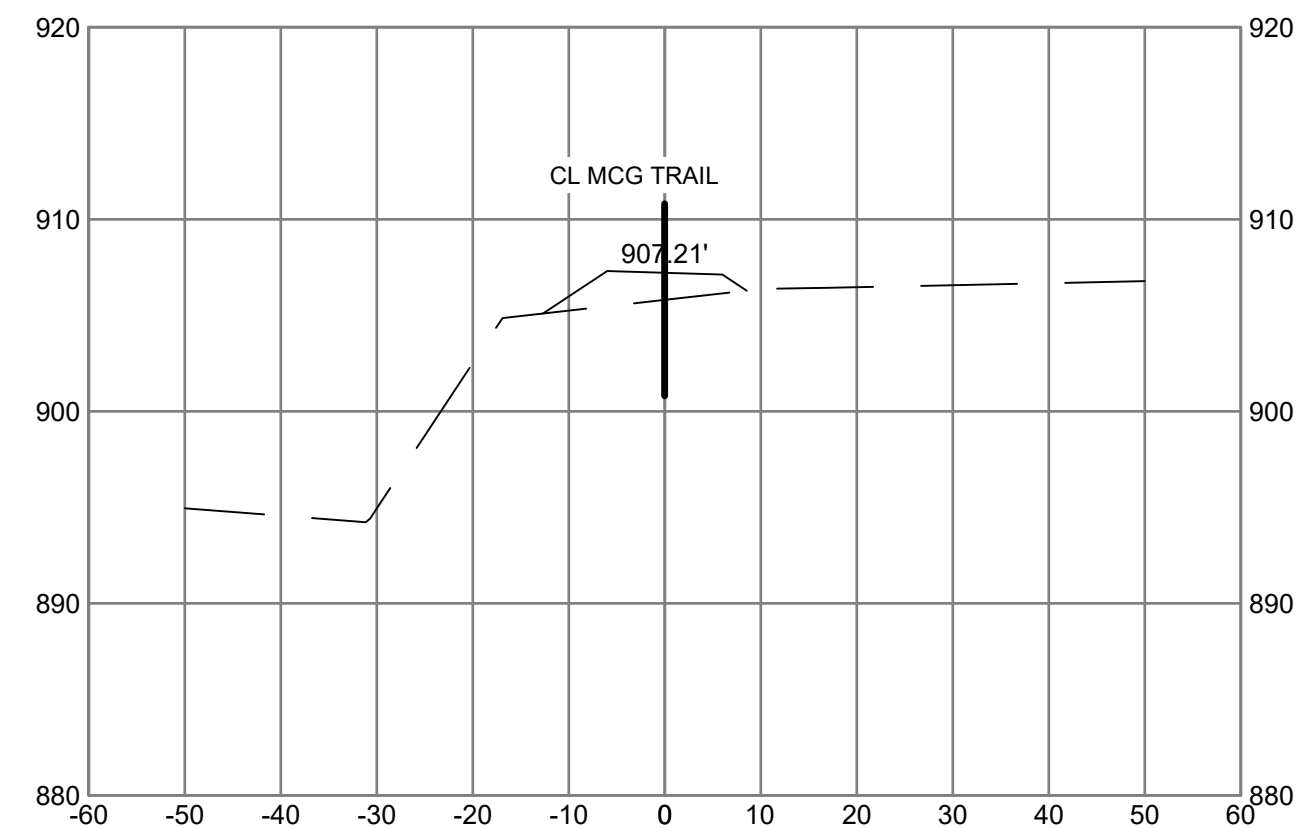
**TRAIL CROSS SECTIONS
NATURE BASED PLAY TRAIL**



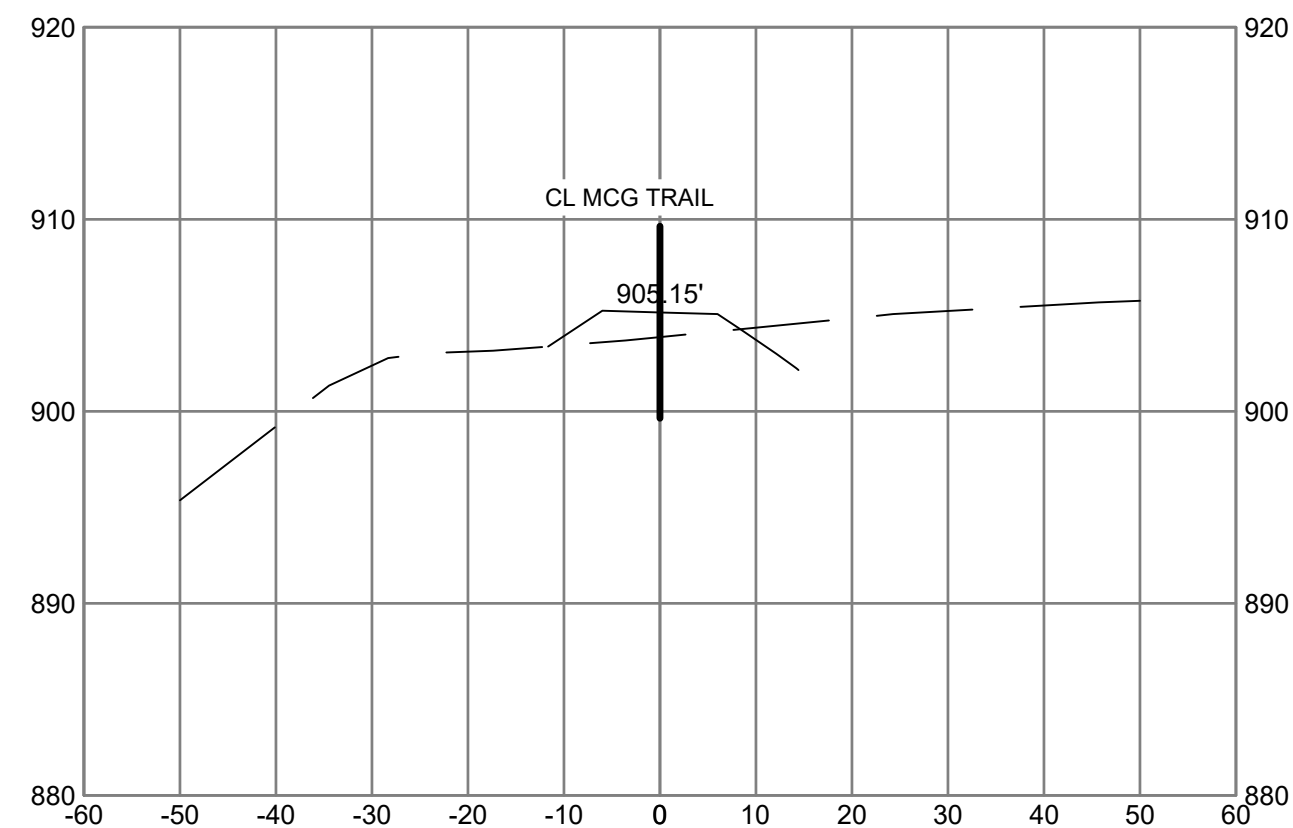
FILENAME CT201.DWG
SCALE HORIZONTAL: 1" = 20'

SHEET
CT201

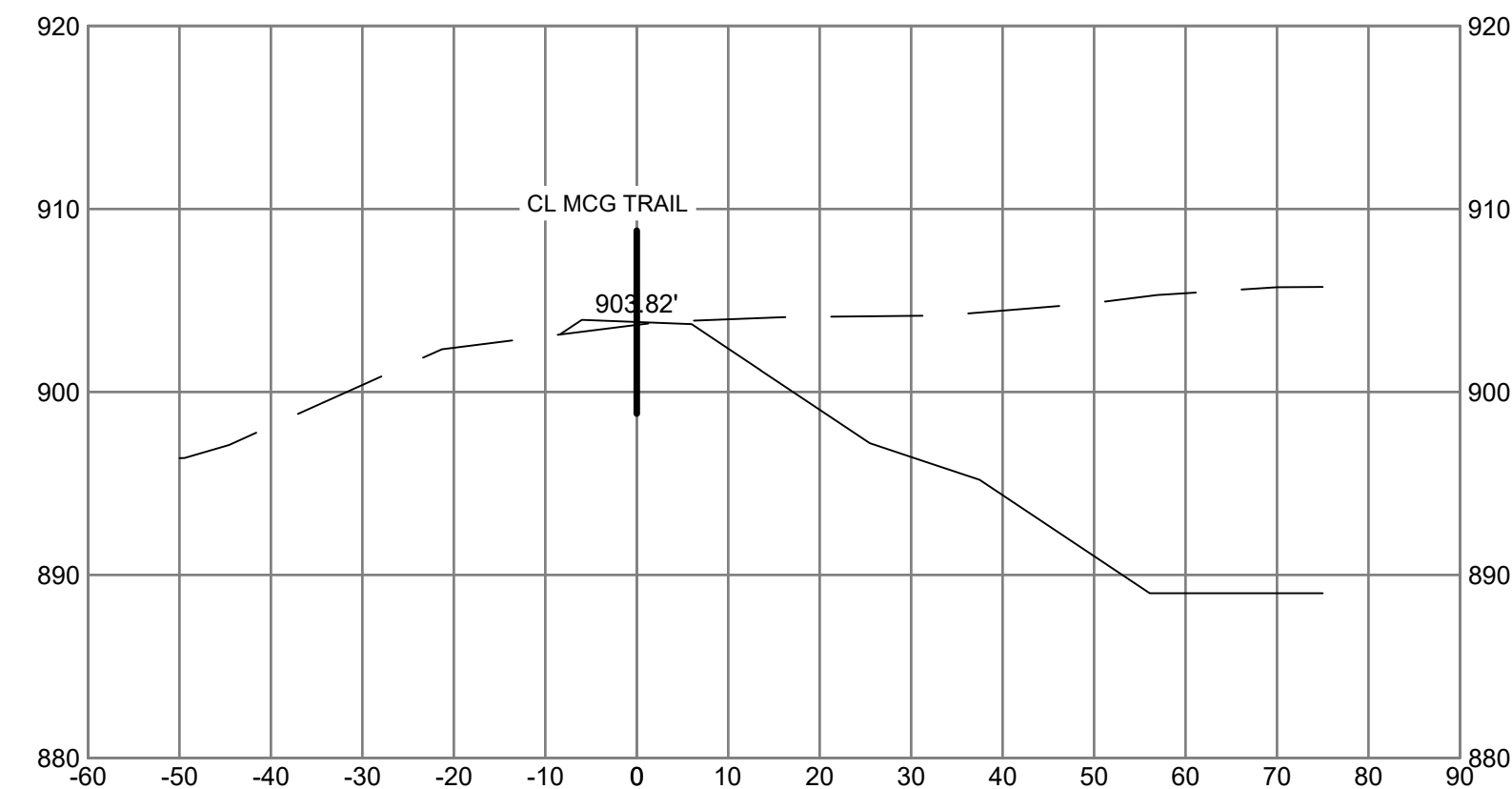
MCG Trail Alignment
STA 20+50.00



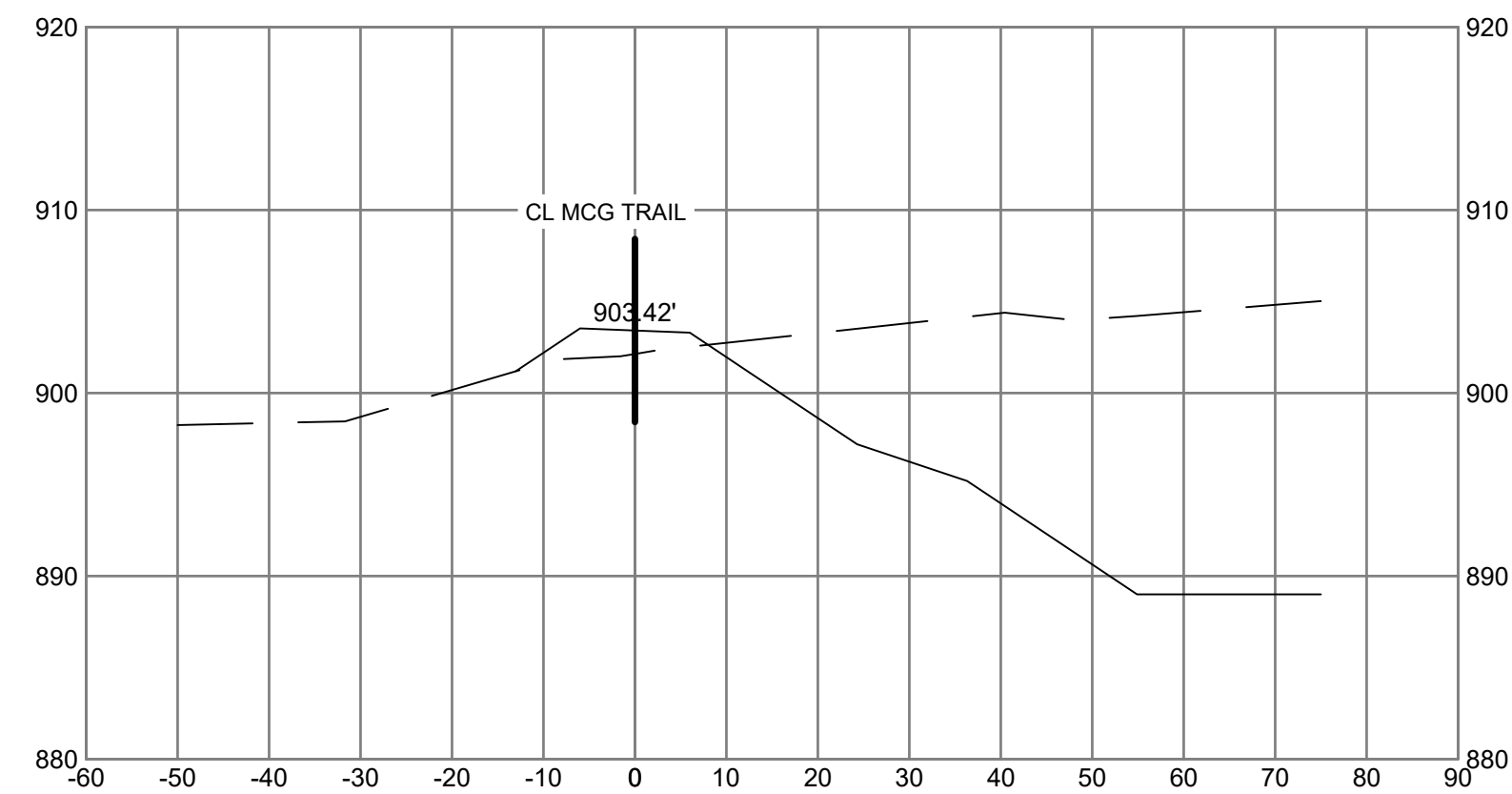
MCG Trail Alignment
STA 21+50.00



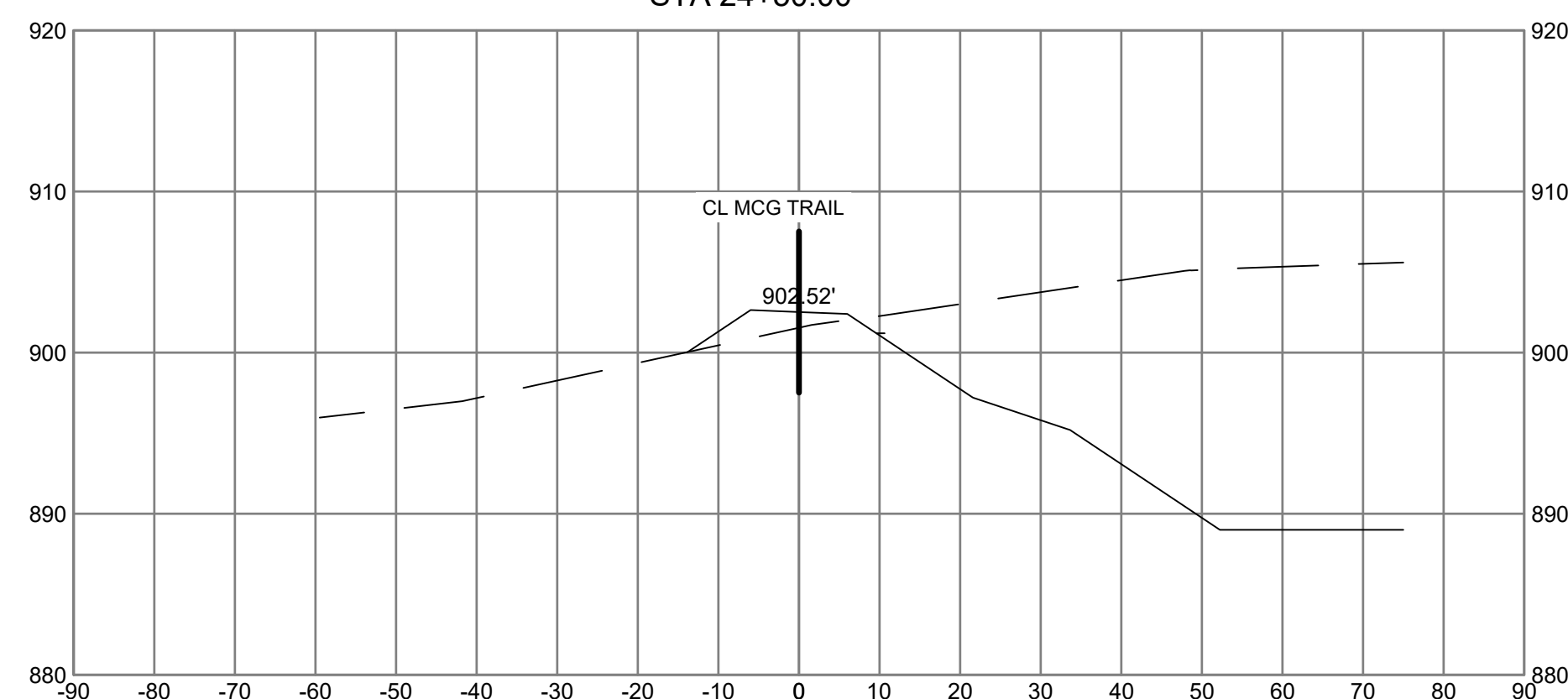
MCG Trail Alignment
STA 22+35.00



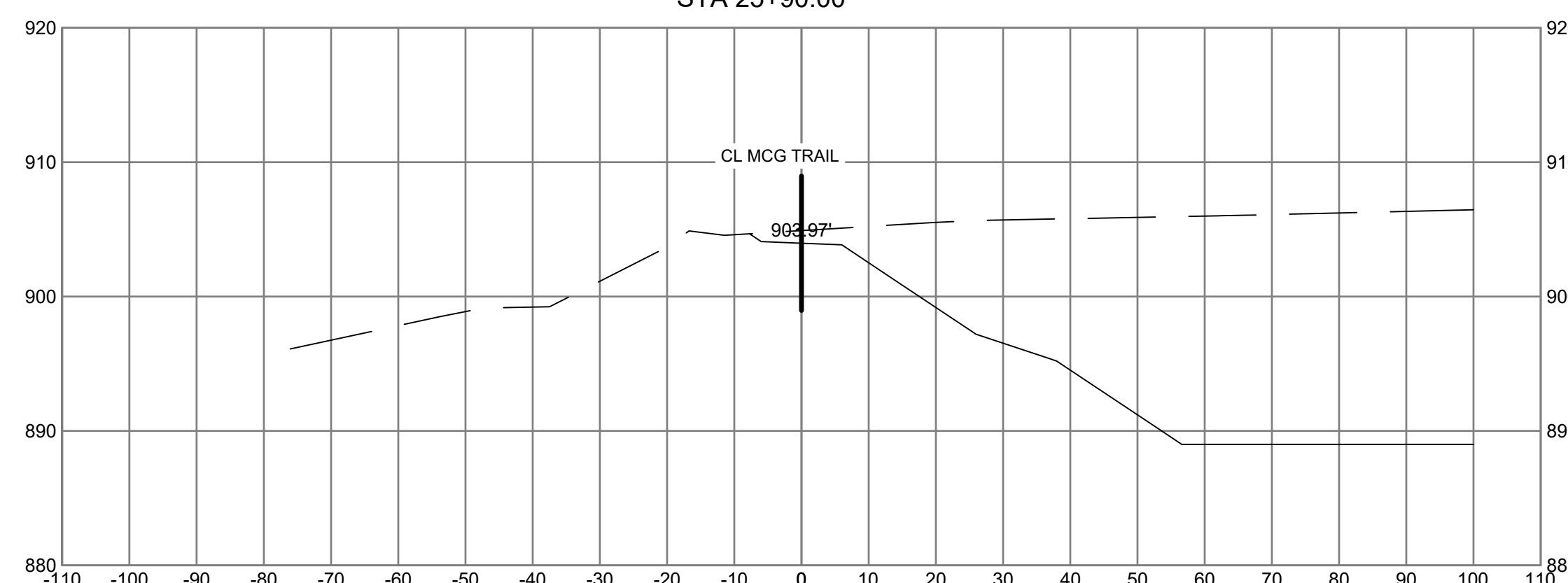
MCG Trail Alignment
STA 23+00.00



MCG Trail Alignment
STA 24+50.00



MCG Trail Alignment
STA 25+90.00



VERTICAL SCALE : 1" = 1'



MINNEHAHA CREEK
WATERSHED DISTRICT



ISSUE	DATE	DESCRIPTION
C	03/28/2023	100% DESIGN
B	09/14/2022	90% DESIGN
A	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER	10268112

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ANDREW F. JUDD, PE

DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER
AND GREENWAY

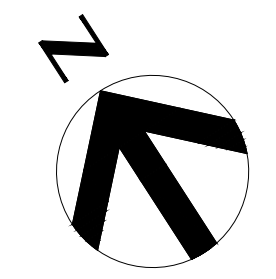
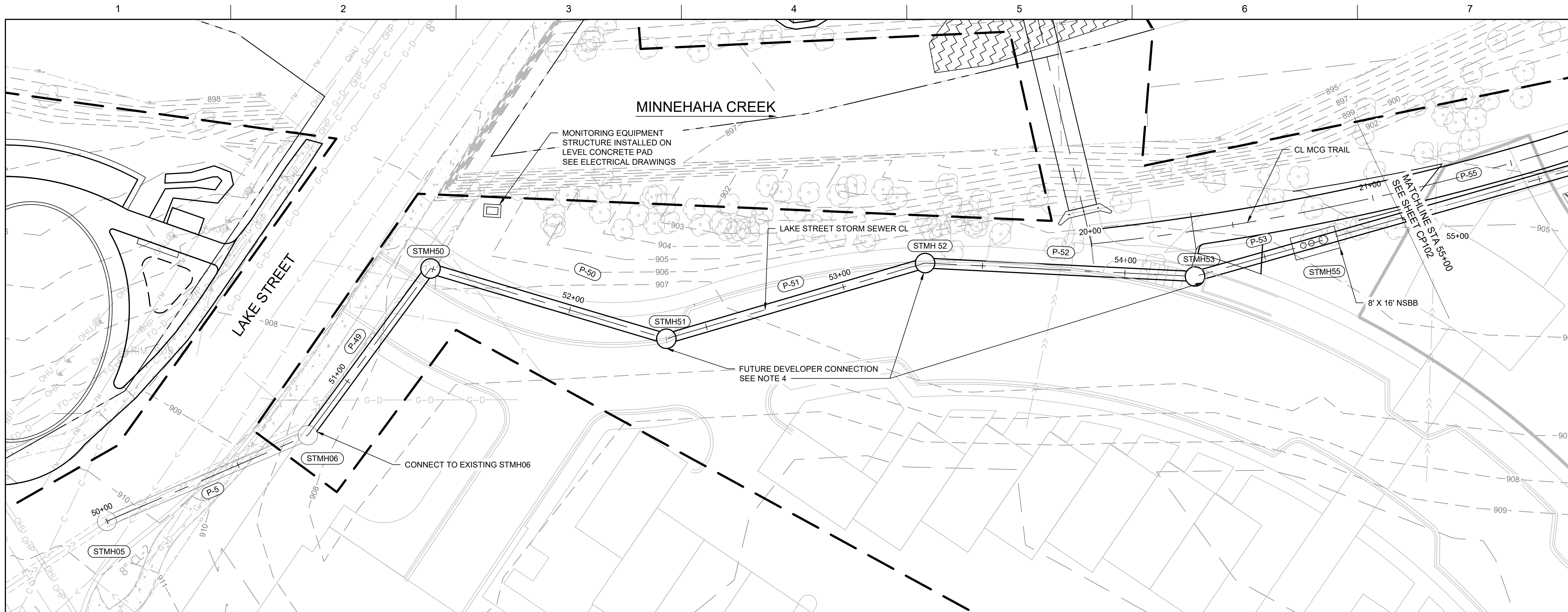
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

TRAIL CROSS SECTIONS
MINNEHAHA CREEK GREENWAY TRAIL



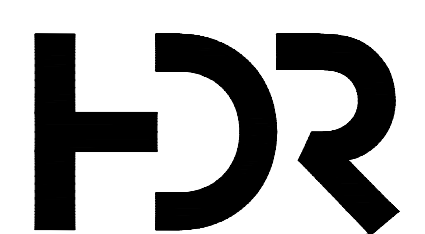
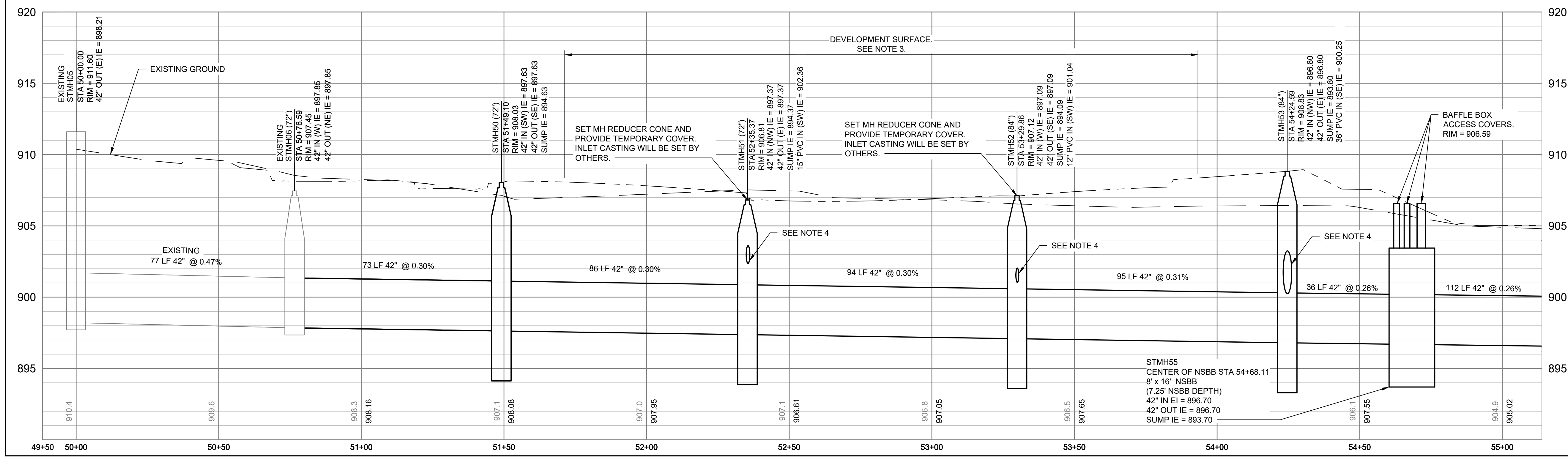
FILENAME CT201.DWG
SCALE HORIZONTAL: 1" = 20'

SHEET
CT202



GENERAL NOTES

- SEE SHEET CP501 FOR STORM SEWER TABULATIONS.
- SEE STANDARD DETAIL PACKAGE FOR STORM SEWER AND CULVERT CONSTRUCTION DETAILS.
- DEVELOPMENT SURFACE BY OTHERS. SET MH RIM TO TOP ELEVATION AND RESTORE GRADE TO MATCH SURROUNDING STRUCTURE.
- COORDINATE WITH OWNER'S REPRESENTATIVE BEFORE ORDERING MH'S TO CONFIRM SIZE AND INVERT OF DEVELOPER PIPE CONNECTION. DEVELOPER STORM SEWER WILL BE CONNECTED BY OTHERS INCLUDING ANY ASSOCIATED EXCAVATION OR BACKFILL.



ISSUE	DATE	DESCRIPTION
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PROJECT MANAGER	ANDREW F. JUDD
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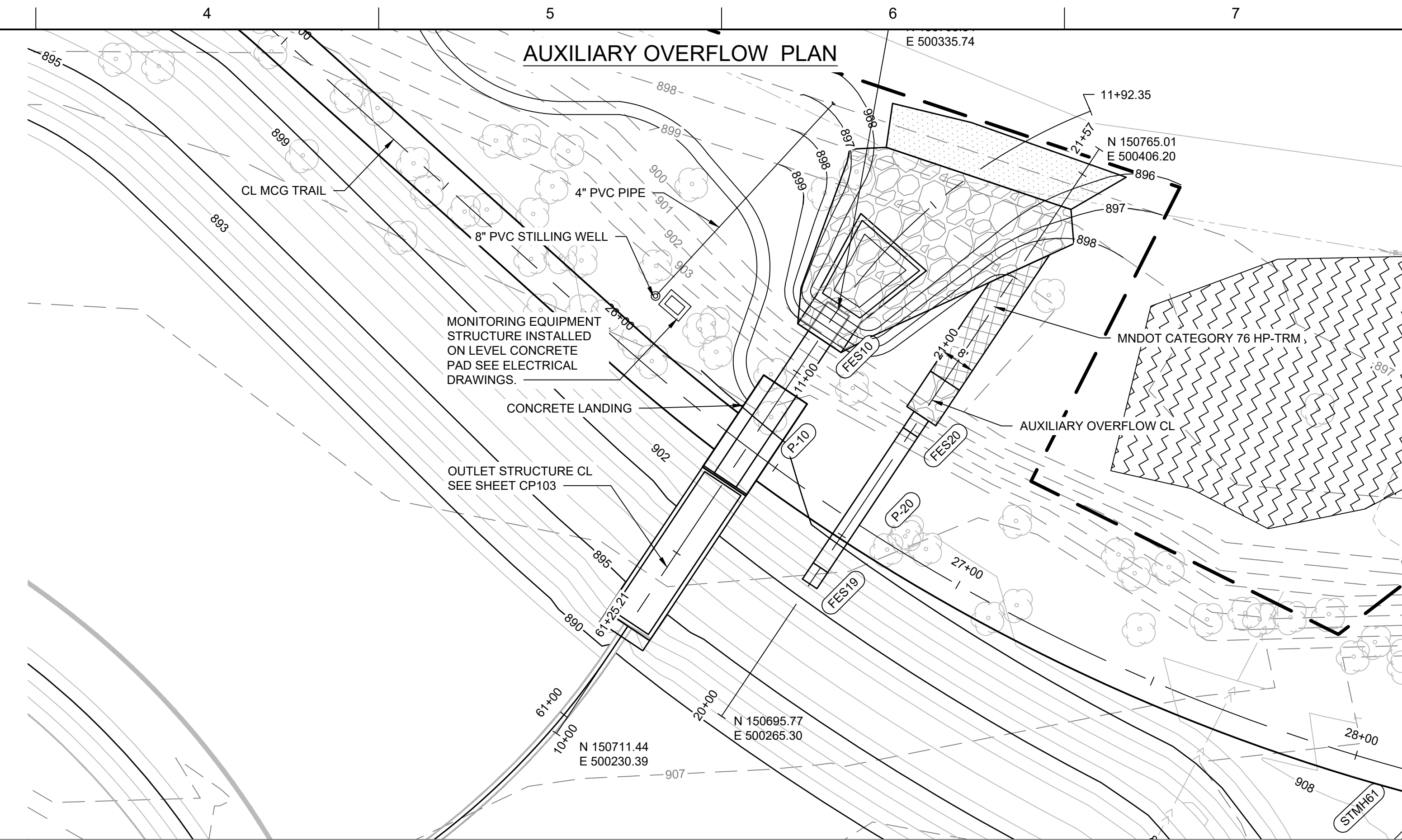
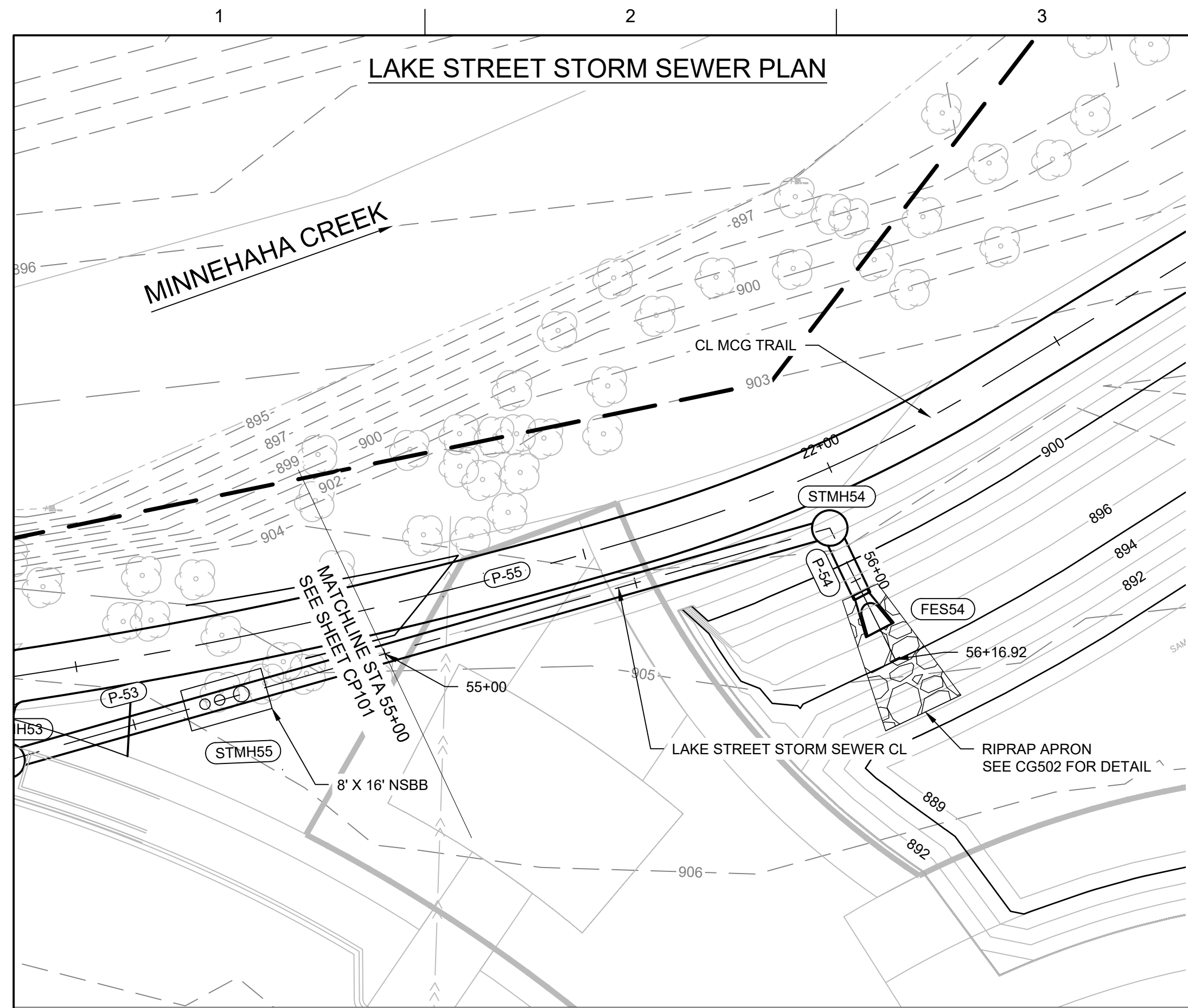
ANDREW F. JUDD, PE
DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

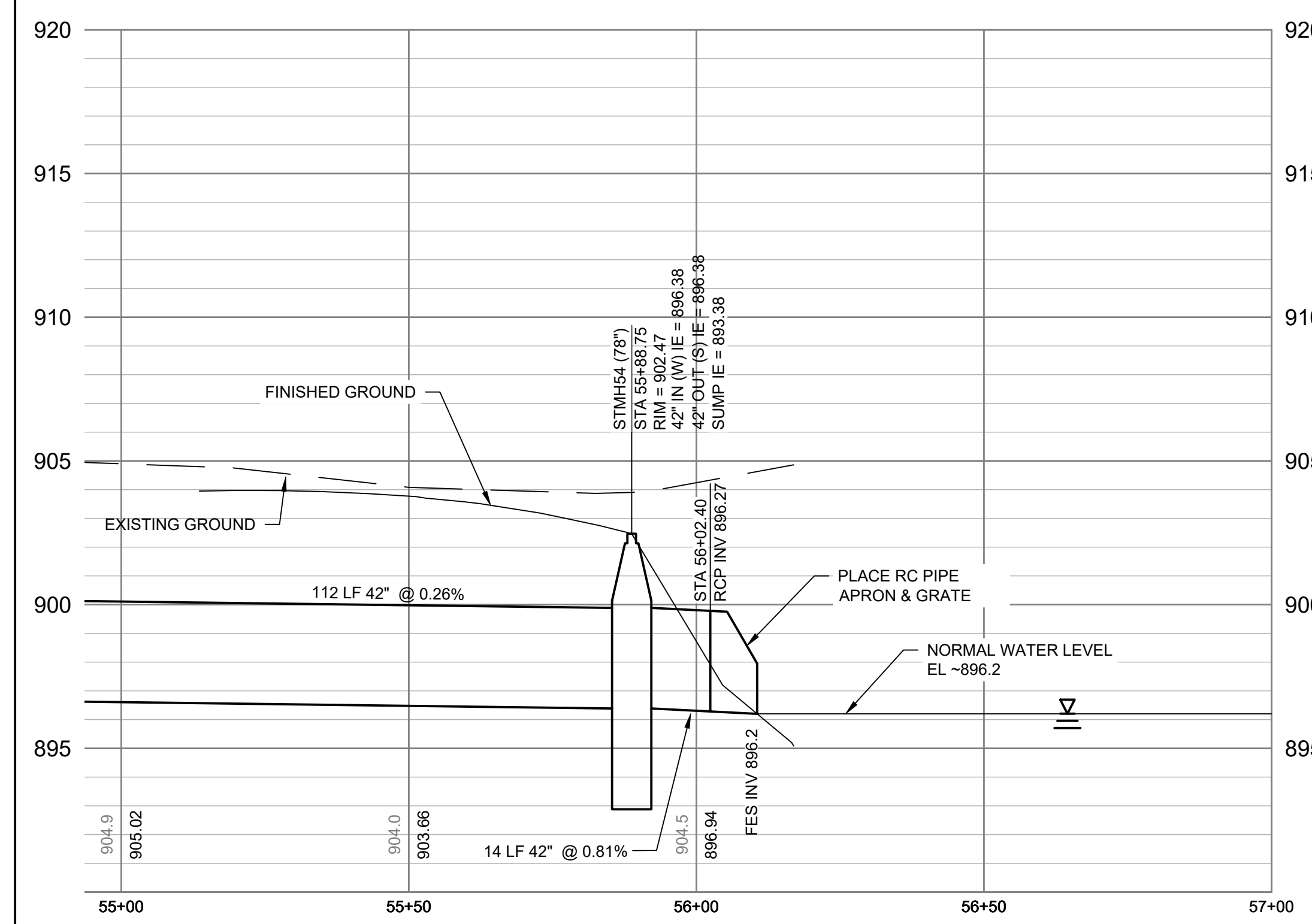
STORM SEWER PLAN & PROFILE

FILENAME | CP101-104.DWG
SCALE | 1" = 20'
SHEET | CP101

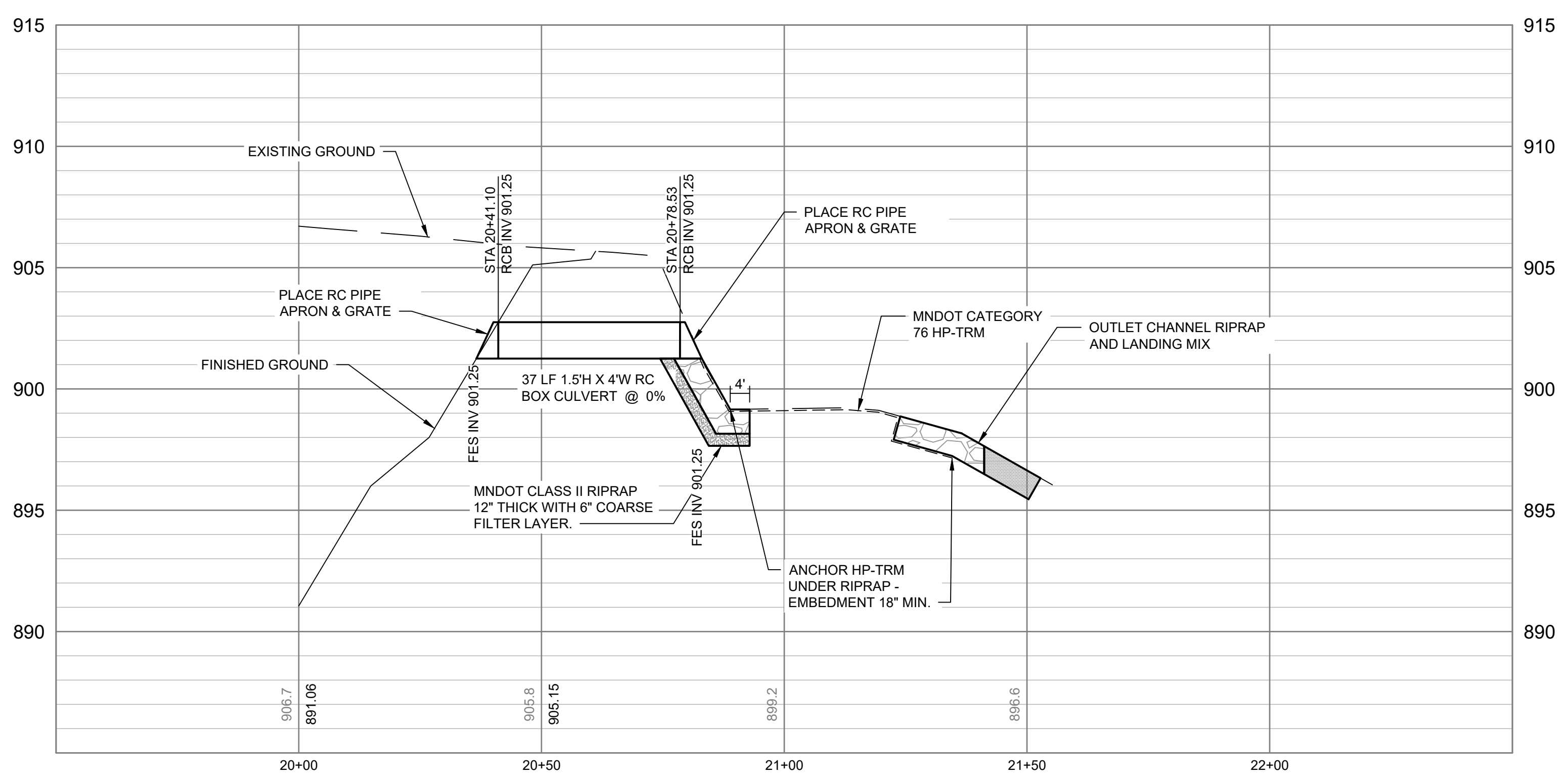


GENERAL NOTES

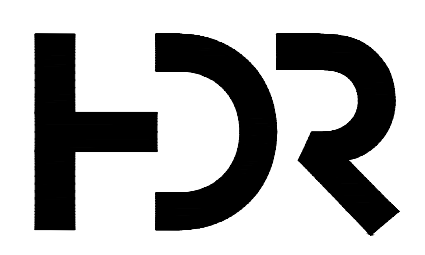
- SEE SHEET CP501 FOR STORM SEWER TABULATIONS.
- SEE STANDARD DETAIL PACKAGE FOR STORM SEWER AND CULVERT CONSTRUCTION DETAILS.



LAKE STREET STORM SEWER PROFILE
H: 1"=20', V: 1"=4'



AUXILIARY OVERFLOW PROFILE
H: 1"=20', V: 1"=4'



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PROJECT MANAGER	ANDREW F. JUDD
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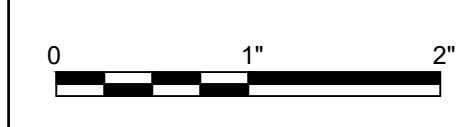
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ANDREW F. JUDD, PE
DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

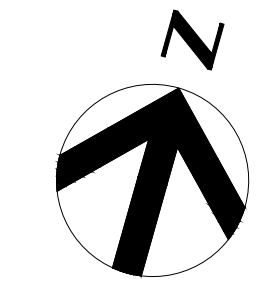
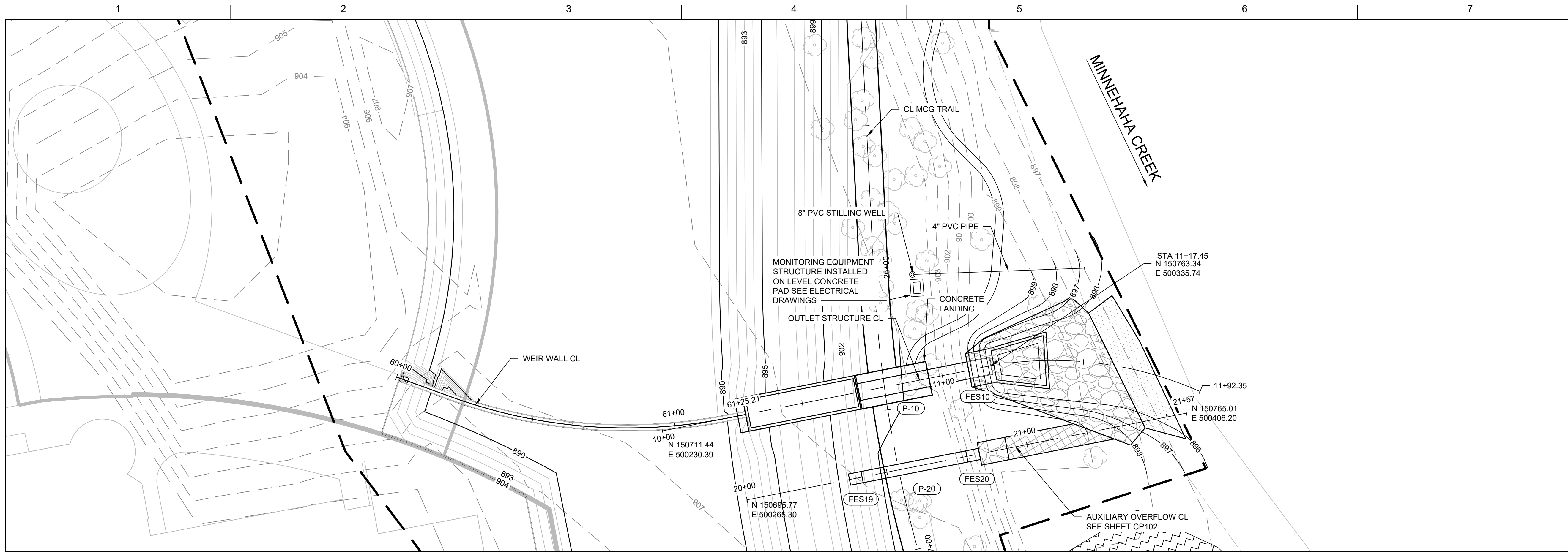
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

STORM SEWER PLAN & PROFILE



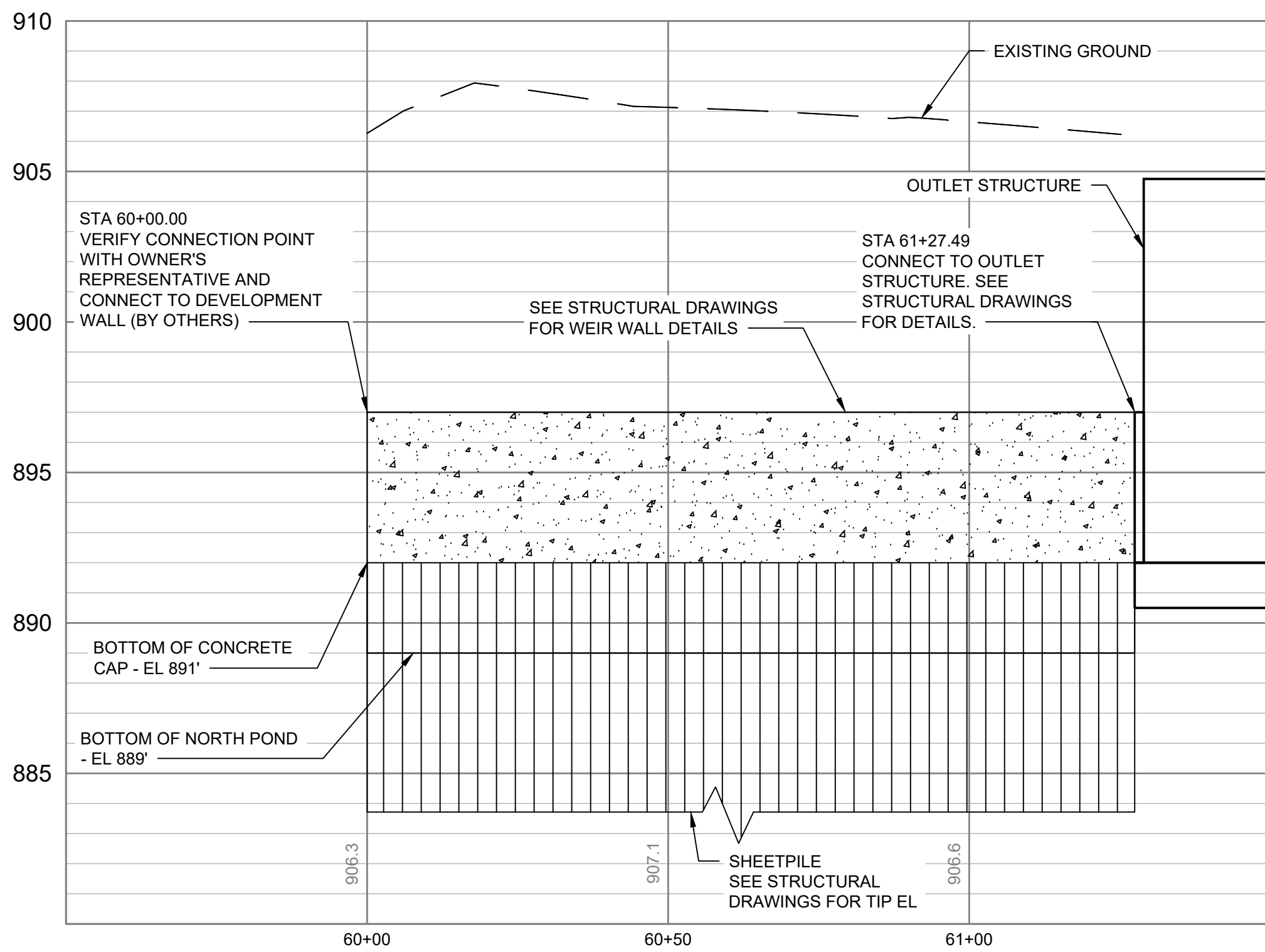
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SCALE | 1" = 20'

SHEET
CP102



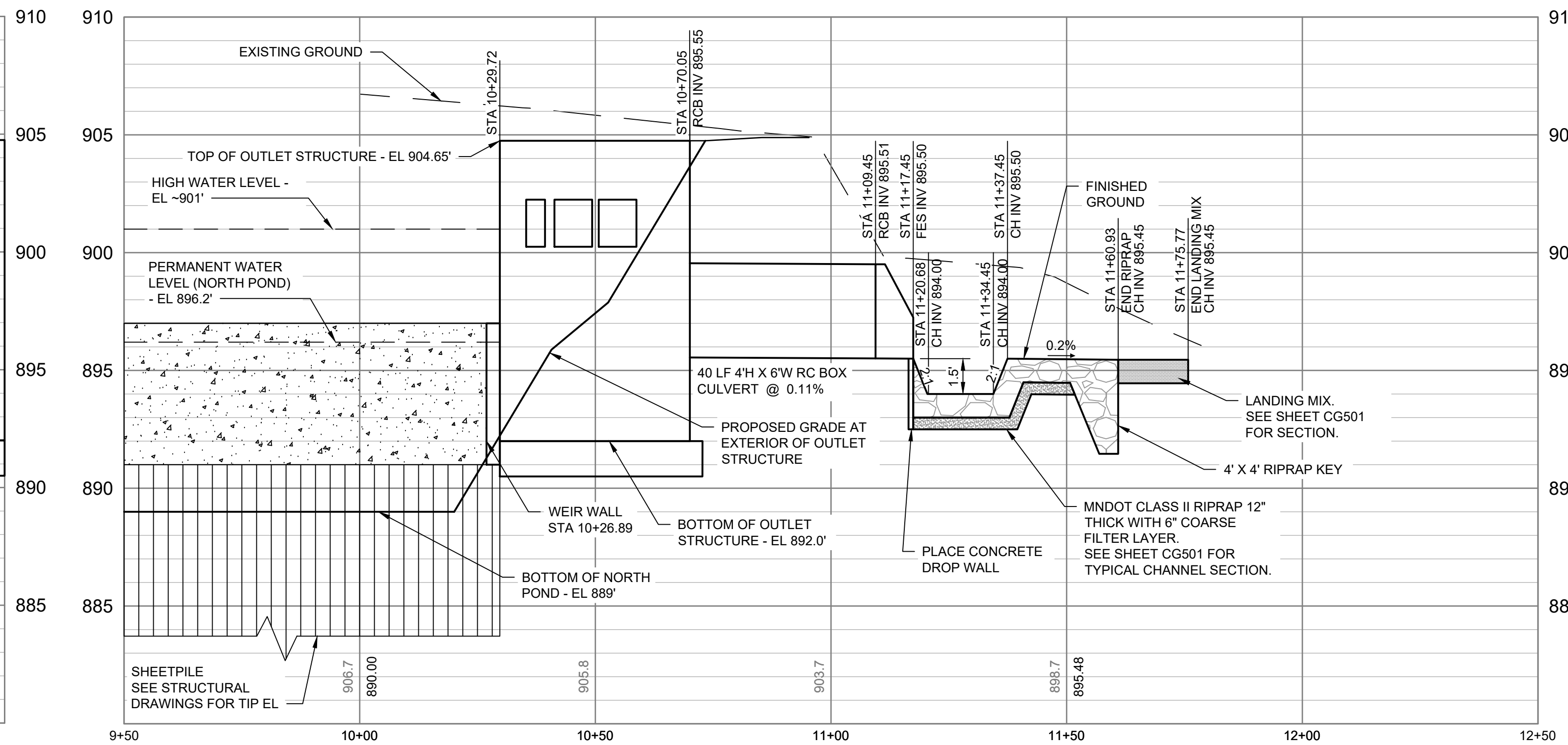
GENERAL NOTES

- SEE SHEET CP501 FOR STORM SEWER TABULATIONS.
- SEE STANDARD DETAIL PACKAGE FOR STORM SEWER AND CULVERT CONSTRUCTION DETAILS.



WEIR WALL PROFILE

H: 1"=20', V: 1"=4'

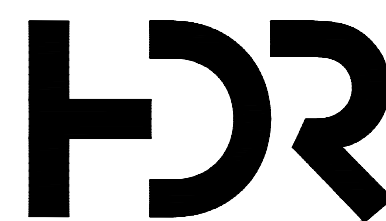


OUTLET STRUCTURE PROFILE

H: 1"=20', V: 1"=4'



**MINNEHAHA CREEK
WATERSHED DISTRICT**



ISSUE	DATE	DESCRIPTION
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PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER	10268112
----------------	----------

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DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

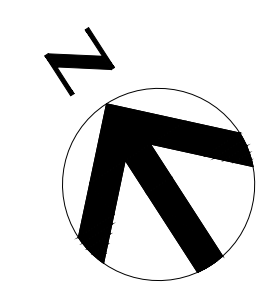
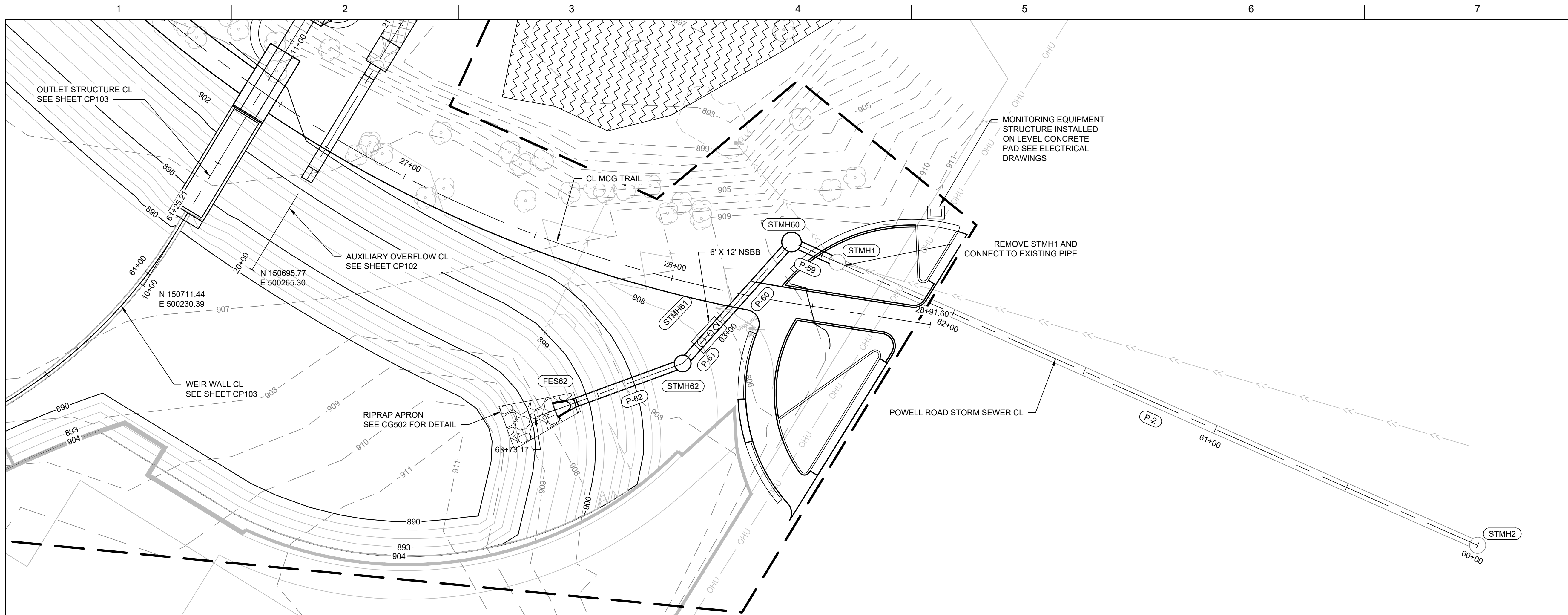
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

STORM SEWER PLAN & PROFILE



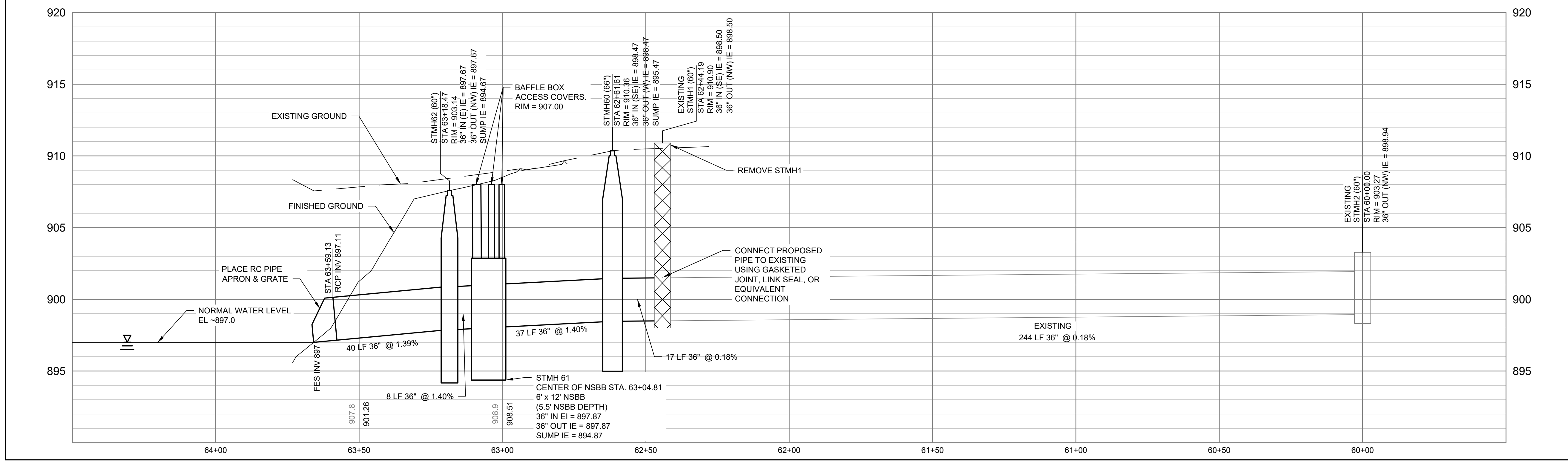
FILENAME CP101-104.DWG
SCALE 1" = 20'

SHEET
CP103



GENERAL NOTES

- SEE SHEET CP501 FOR STORM SEWER TABULATIONS.
- SEE STANDARD DETAIL PACKAGE FOR STORM SEWER AND CULVERT CONSTRUCTION DETAILS.



VERTICAL SCALE : 1" = 4'



ISSUE	DATE	DESCRIPTION
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PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

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ANDREW F. JUDD, PE

DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

STORM SEWER PLAN & PROFILE

FILENAME | CP101-104.DWG

SCALE | 1" = 20'

SHEET | **CP104**

STORM SEWER TABULATION

STRUCTURE ID	DRAINAGE STRUCTURE					DRAINAGE STRUCTURE														REMARKS			
	STRUCTURE LOCATION					DEPTH ② LIN FT	CASTING ASSEMBLY ③ TYPE	TOP ELEV	STEPS REQ'D	UPSTREAM INVERT ELEV	DRAINS TO		DOWNSREAM PIPE				DOWNSREAM INVERT ELEV	CONNECT TO EXISTING STORM			APRON EACH	APRON TYPE	
	ALIGN.	STATION ①	NORTHING	EASTING	TYPE						DESIGN	STRUCTURE ID	SLOPE (%)	36" RCP CL III LIN FT	42" RCP CL III LIN FT	36" RCP CL V LIN FT		42" RCP CL V LIN FT	EACH				EACH
STMH06	LAKE STREET STORM SEWER	50+76.59	151128.02	499544.14	MH			907.45		897.85	STMH50	0.30		73			897.63	1			Existing structure		
STMH50	LAKE STREET STORM SEWER	51+49.10	151156.851	499610.66	MH	72-4020		13.67	A-7	908.30	Y	897.63	STMH51	0.30		86		897.37					
STMH51	LAKE STREET STORM SEWER	52+35.37	151094.01	499669.77	CB	72-4020		12.44	By Others	906.81	Y	897.37	STMH52	0.30		94		897.09				⑩	
STMH52	LAKE STREET STORM SEWER	53+29.86	151071.316	499761.50	CB	84-4020		13.03	By Others	907.12	Y	897.09	STMH53	0.31		95		896.80				⑩	
STMH53	LAKE STREET STORM SEWER	54+24.59	151019.694	499840.93	CB	84-4020		15.03	By Others	908.83	Y	896.80	STMH55	0.26		36		896.70				⑩	
STMH55	LAKE STREET STORM SEWER	54+67.74	151008.817	499883.25	NSBB	④		10.25		906.59	⑥	896.70	STMH54	0.26		112		896.38					
STMH54	LAKE STREET STORM SEWER	55+88.75	150978.882	499999.94	MH	78-4020		9.09	A-7	902.47	Y	896.38	FES54 ⑦	0.81			14	⑧	896.20	⑧	1	RC APRON	
STMH1	POWELL ROAD STORM SEWER	62+44.19	150588.16	500438.71	MH					898.50	STMH60	0.18	17					898.47	1			Existing structure to be removed	
STMH60	POWELL ROAD STORM SEWER	62+61.61	150602.663	500429.08	MH	66-4020		14.89	A-7	910.36	Y	898.47	STMH61	1.40	37			897.87					
STMH61	POWELL ROAD STORM SEWER	63+04.81	150591.152	500387.34	NSBB	④		8.50		907.00	⑥	897.87	STMH62	1.40	8			897.67					
STMH62	POWELL ROAD STORM SEWER	63+18.47	150587.419	500374.29	MH	60-4020		8.47	A-7	903.14	Y	897.67	FES62 ⑦	1.22		40	⑨	897.00	⑧	1	RC APRON		

GENERAL NOTES

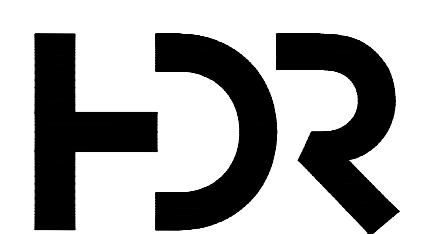
1. INVERT ELEVATIONS ARE GIVEN AT CENTER OF STRUCTURES.
2. PIPE LENGTHS ARE FROM CENTER TO CENTER OF STRUCTURE.
3. IF STEPS REQUIRED, STRUCTURE TO INCLUDE MANHOLE STEPS 16" ON CENTER. SEE MNDOT STANDARD PLATE 4180.
4. ALL PIPE JOINTS SHALL BE TIED FROM APRON TO THE FIRST STRUCTURE. PIPE TIES SHALL BE INCIDENTAL.
5. ALL CONCRETE PIPE SEWER DESIGN 3006 GASKET JOINT PIPE.
6. APRON STATIONS ARE GIVEN AT THE UPSTREAM END OF APRON.

OUTFALL PIPE TABULATION

STRUCTURE ID	ALIGN.	UPSTREAM INVERT ELEV	SLOPE (%)	DOWNSTREAM INVERT ELEV	4Hx6W RC BOX CULVERT	1.5Hx4W RC BOX CULVERT	APRON	APRON TYPE	REMARKS
					LIN FT	LIN FT	EACH		
P-10	OUTLET STRUCTURE CL	895.55	0.11	895.5 ⑧	40 ⑨		1	TYPE I SINGLE BARREL	
P-20	AUXILIARY OVERFLOW CL	901.25 ⑧	0	901.25 ⑧		37	2	TYPE I SINGLE BARREL	

SPECIFIC NOTES:

- ① CENTER OF CASTING (GRATE OR COVER).
- ② DEPTH CALCULATED AS RIM ELEVATION - STRUCTURE INVERT (INCLUDES SUMP).
- ③ FOR SPECIFIC CASTING ASSEMBLY SUMMARY SEE MNDOT STANDARD PLATES 4101 AND 4110.
- ④ SEE SPECIFICATIONS FOR NUTRIENT SEPARATING BAFFLE BOX (NSBB) DETAILS.
- ⑤ NSBB DEPTH REFERS TO STRUCTURE DEPTH WITH A 3' SUMP.
- ⑥ RIM ELEVATION FOR NSBB ACCESS COVERS.
- ⑦ FES54 LOCATED AT STATION 56+02.40. FES62 LOCATED AT STATION 63+59.13.
- ⑧ INVERT IS GIVEN AT THE END OF APRON.
- ⑨ TIE JOINTS IN THIS PIPE SEGMENT.
- ⑩ COORDINATE WITH OWNER'S REPRESENTATIVE FOR FUTURE DEVELOPER CONNECTION.



ISSUE	DATE	DESCRIPTION
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A	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

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ANDREW F. JUDD, PE
DATE XX/XX/XXXX LICENSE # 47301

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

STORM SEWER TABULATION



FILENAME | CP105.DWG
SCALE | NA

SHEET
CP501

GENERAL:

SCOPE:

THE NOTES ON THIS SHEET AND THE STANDARD STRUCTURAL DETAILS ARE GENERAL AND APPLY TO THE ENTIRE PROJECT WHETHER SPECIFICALLY CALLED OUT OR NOT, EXCEPT WHERE THERE ARE SPECIFIC INDICATIONS TO THE CONTRARY ON STRUCTURAL SHEETS. IF THERE ARE QUESTIONS, THEY SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER AND ANSWERED IN WRITING PRIOR TO CONSTRUCTION.

APPLICABLE SPECIFICATIONS AND CODES:

- A. 2020 MINNESOTA BUILDING CODE
B. 2018 INTERNATIONAL BUILDING CODE
C. ACI 318-14 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
D. ACI 350-06 CODE REQUIREMENTS FOR ENVIRONMENTAL CONCRETE STRUCTURES
E. ASCE7-16 MINIMUM DESIGN LOADS AND ASSOCIATED CRITERIA FOR BUILDINGS

STANDARD DETAILS:

THE STANDARD DETAILS DEPICT TYPICAL DETAILING TO BE USED ON THIS PROJECT. IF CONDITIONS ARE NOT EXPLICITLY SHOWN ON THE DRAWINGS THEY SHALL BE MADE SIMILAR TO THE STANDARD DETAILS. OBTAIN APPROVAL OF ENGINEER IN WRITING FOR SIMILAR CONDITIONS PRIOR TO CONSTRUCTION.

MATERIAL

DESIGN STRENGTHS:

CONCRETE 4000 PSI @ 28 DAYS
REINFORCEMENT ASTM A615 GRADE 60
CONCRETE FILL 3,000 PSI @ 28 DAYS

STEEL:

W-SHAPE ASTM A992 GRADE 50
HSS-SHAPE ASTM A500 GRADE B
SHEET PILING ASTM A328 GRADE 50
PED BRIDGE GALVANIZED STEEL
ASTM A500 TUBING
ASTM A572 PLATES & OTHER SHAPES GRADE 50
WIRE ROPE ASTM A1023
TURNBUCKLES ASTM A182, GRADE F316
OTHER SHAPES ASTM A36

CONSTRUCTION NOTES:

EXCAVATION:

CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL TEMPORARY SHEETING AND BRACING NECESSARY TO PROTECT PERSONNEL AND ADJACENT.

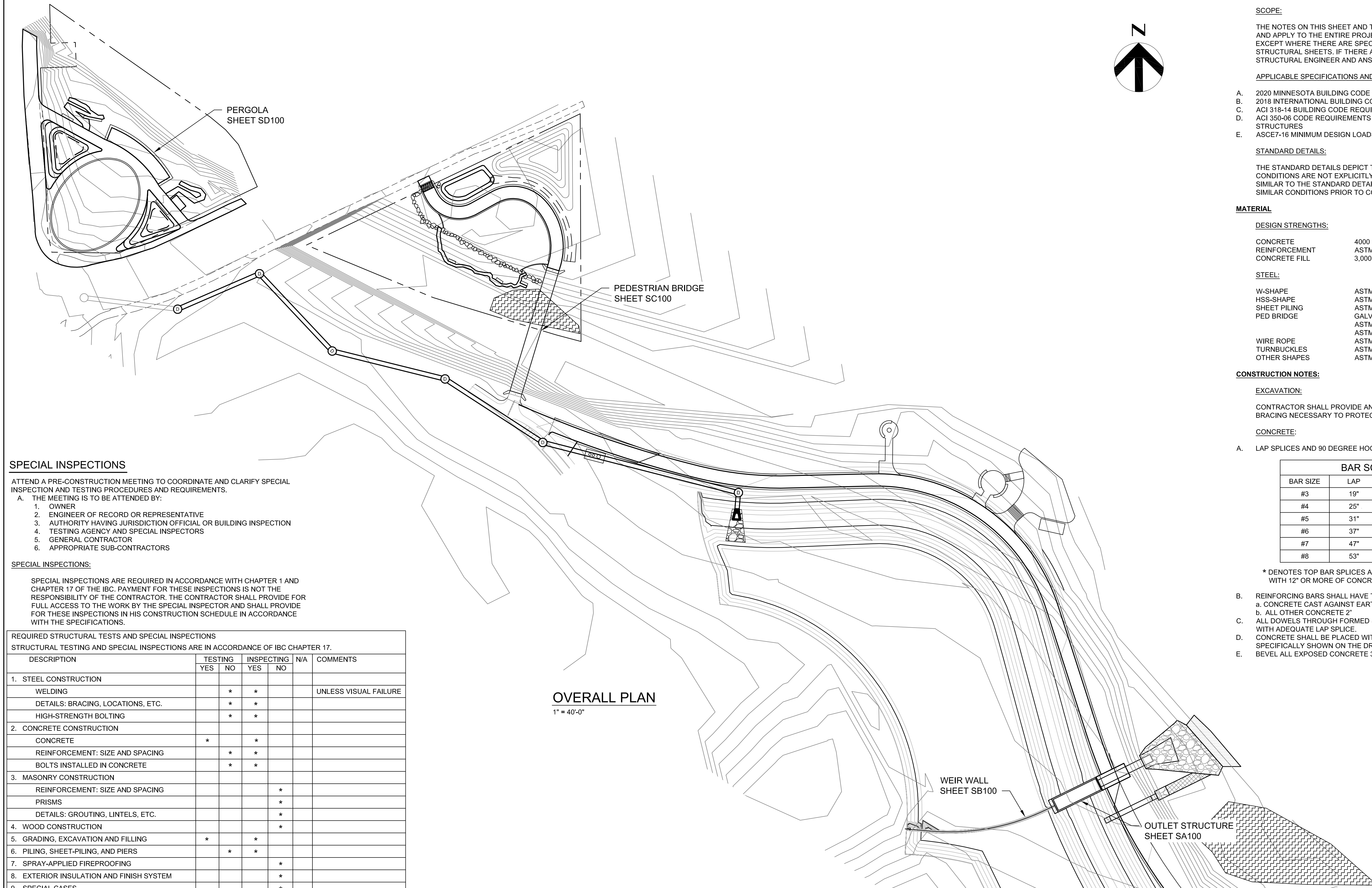
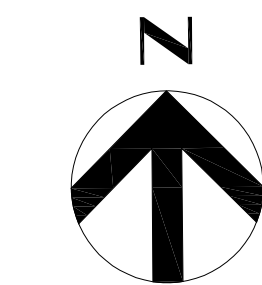
CONCRETE:

- A. LAP SPLICES AND 90 DEGREE HOOKS SHALL BE AS INDICATED BELOW

Table with 4 columns: BAR SIZE, LAP, TOP*, 90° HOOK. Rows for bar sizes #3 through #8.

* DENOTES TOP BAR SPLICES ARE HORIZONTAL REINFORCEMENT WITH 12" OR MORE OF CONCRETE CAST BELOW SPLICE.

- B. REINFORCING BARS SHALL HAVE THE FOLLOWING CONCRETE COVER UNO:
a. CONCRETE CAST AGAINST EARTH 3"
b. ALL OTHER CONCRETE 2"
C. ALL DOWELS THROUGH FORMED SURFACES SHALL BE THREADED OR EQUIPPED WITH ADEQUATE LAP SPLICE.
D. CONCRETE SHALL BE PLACED WITHOUT CONSTRUCTION JOINTS EXCEPT WHERE SPECIFICALLY SHOWN ON THE DRAWINGS OR AS APPROVED BY THE EOR.
E. BEVEL ALL EXPOSED CONCRETE 3/4" X 3/4" UNO.



OVERALL PLAN
1" = 40'-0"

SPECIAL INSPECTIONS

ATTEND A PRE-CONSTRUCTION MEETING TO COORDINATE AND CLARIFY SPECIAL INSPECTION AND TESTING PROCEDURES AND REQUIREMENTS.
A. THE MEETING IS TO BE ATTENDED BY:
1. OWNER
2. ENGINEER OF RECORD OR REPRESENTATIVE
3. AUTHORITY HAVING JURISDICTION OFFICIAL OR BUILDING INSPECTION
4. TESTING AGENCY AND SPECIAL INSPECTORS
5. GENERAL CONTRACTOR
6. APPROPRIATE SUB-CONTRACTORS

SPECIAL INSPECTIONS:

SPECIAL INSPECTIONS ARE REQUIRED IN ACCORDANCE WITH CHAPTER 1 AND CHAPTER 17 OF THE IBC. PAYMENT FOR THESE INSPECTIONS IS NOT THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE FOR FULL ACCESS TO THE WORK BY THE SPECIAL INSPECTOR AND SHALL PROVIDE FOR THESE INSPECTIONS IN HIS CONSTRUCTION SCHEDULE IN ACCORDANCE WITH THE SPECIFICATIONS.

Table with 6 columns: DESCRIPTION, TESTING YES/NO, INSPECTING YES/NO, N/A, COMMENTS. Lists required structural tests and special inspections for steel, concrete, masonry, wood, grading, piling, fireproofing, and exterior insulation.



MINNEHAHA CREEK WATERSHED DISTRICT

Table with 3 columns: ISSUE, DATE, DESCRIPTION. Shows revision history for design and PFA grant package.

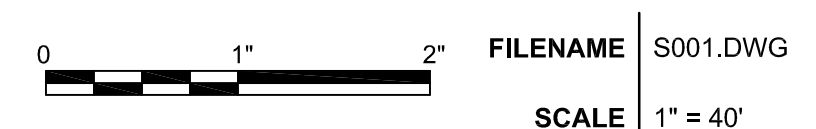
Table with 2 columns: PROJECT MANAGER, DESIGNED BY, CHECKED BY, DRAWN BY, PROJECT NUMBER. Lists project personnel and number 10268112.

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
JEROME W. MULVIHILL, PE
DATE 03/28/2023 LICENSE # 41241

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

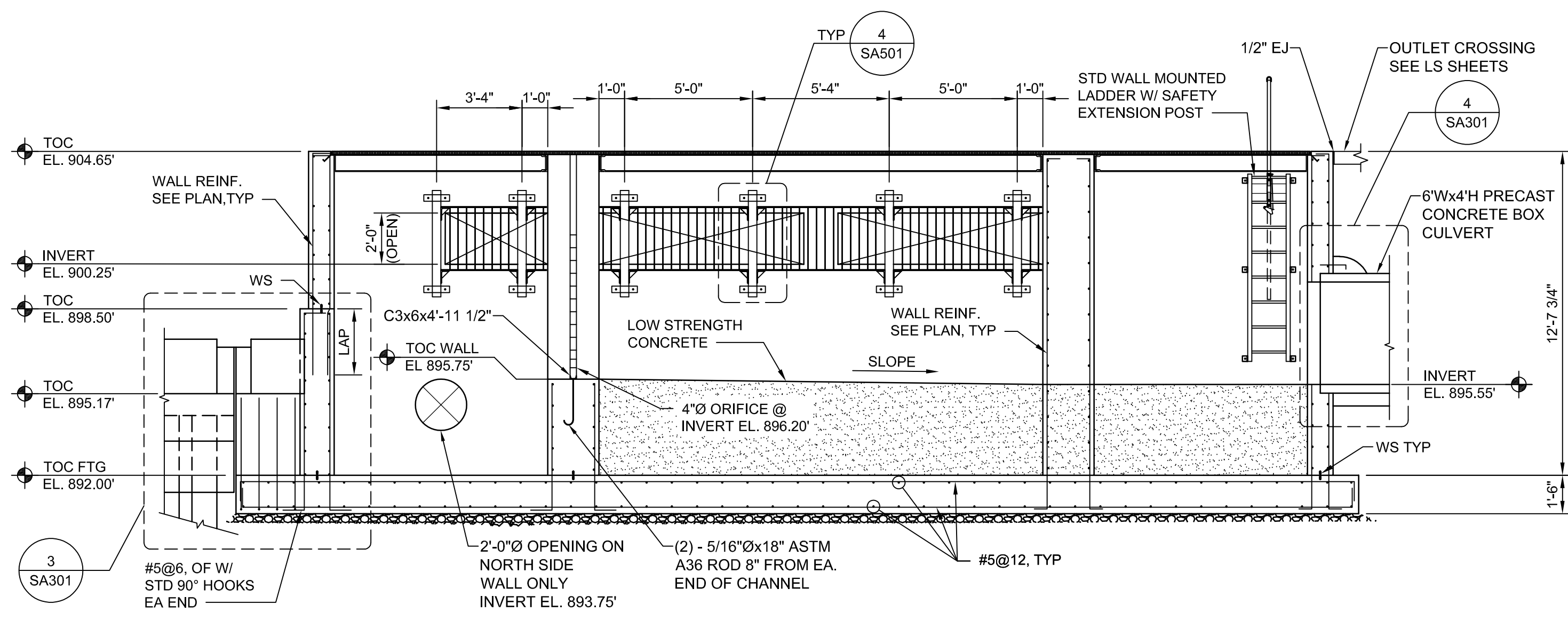
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

SITE PLAN AND STRUCTURAL NOTES

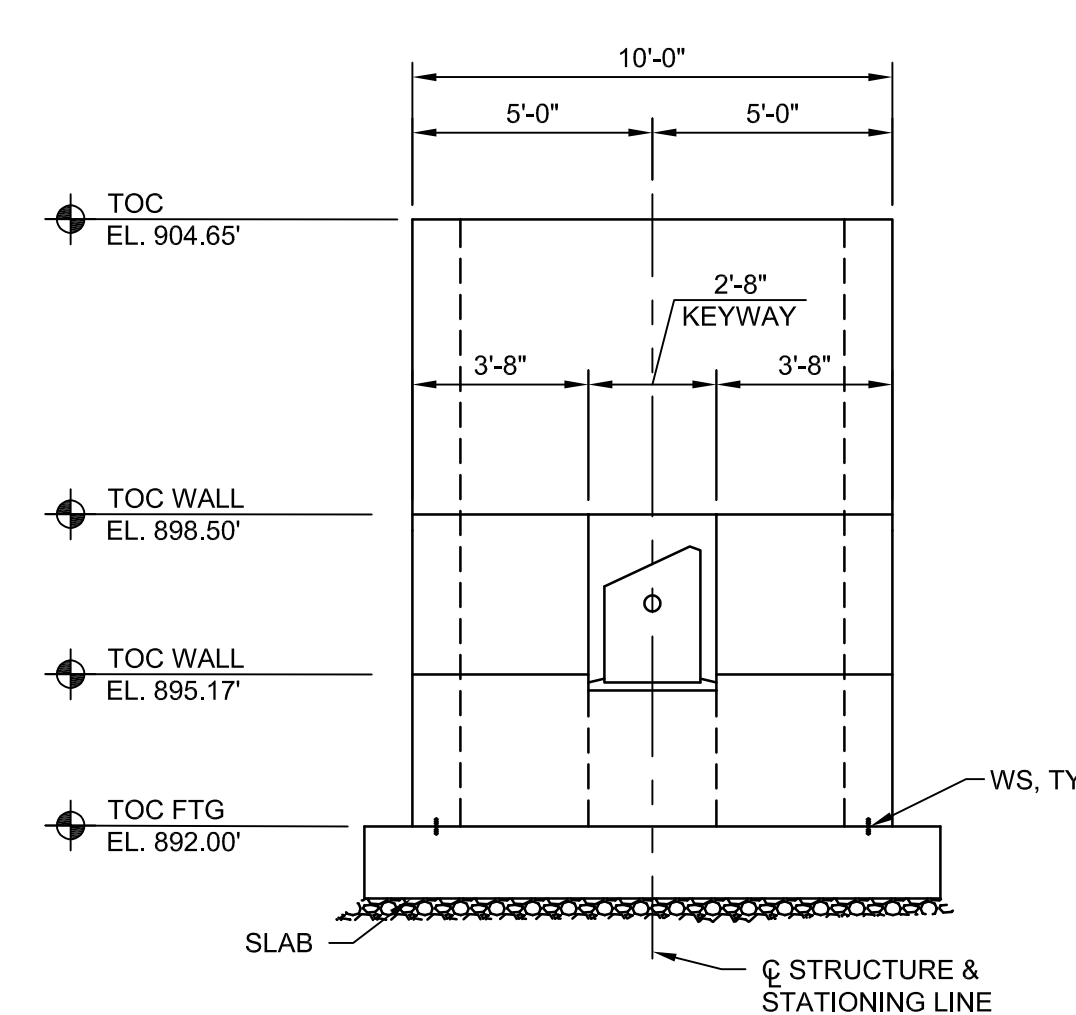


FILENAME | S001.DWG
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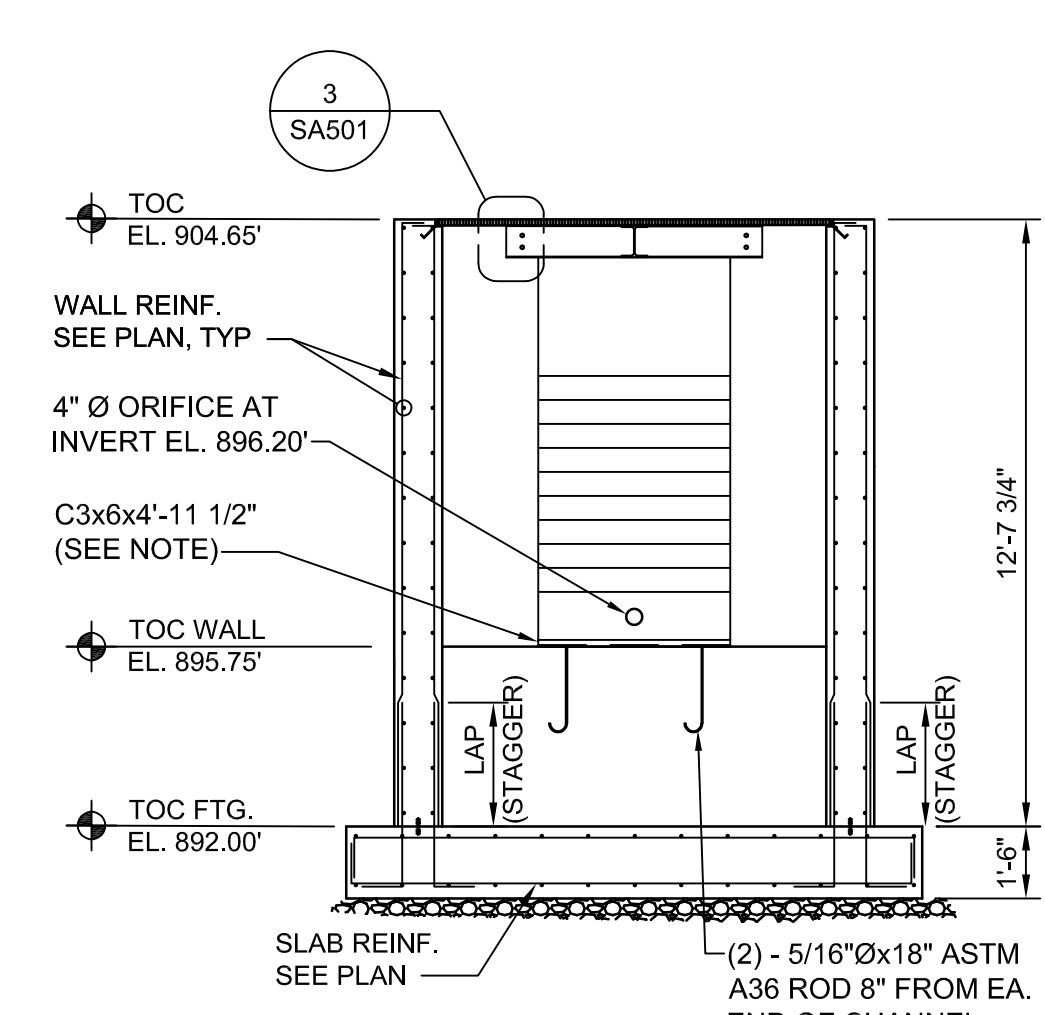
SHEET
S001



A SECTION
SA100 SCALE: 1/4" = 1'-0"

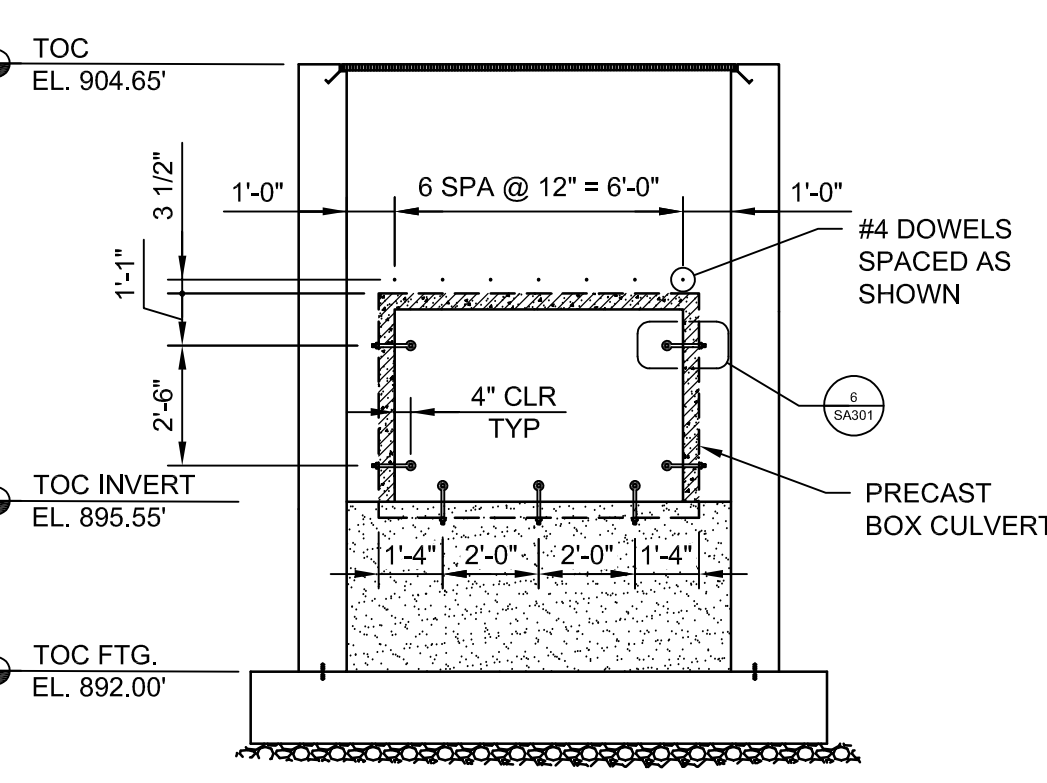


B SECTION
SA100 SCALE: 1/4" = 1'-0"

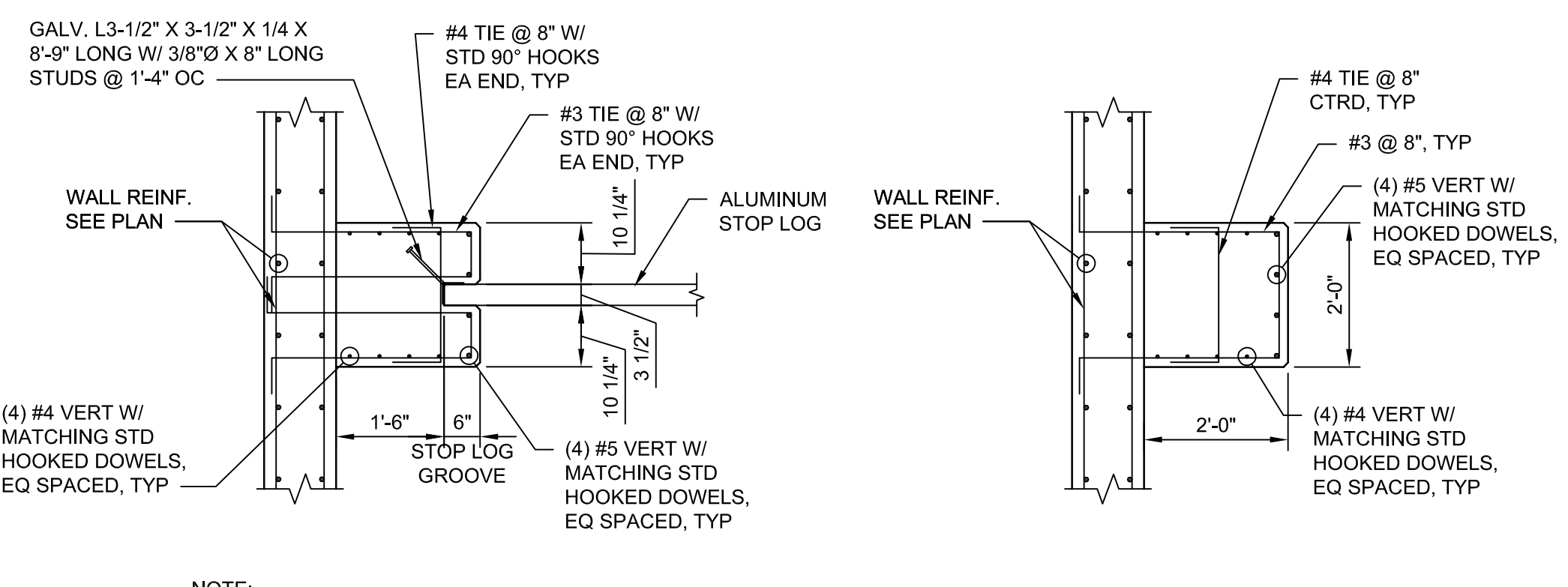


C SECTION
SA100 SCALE: 1/4" = 1'-0"

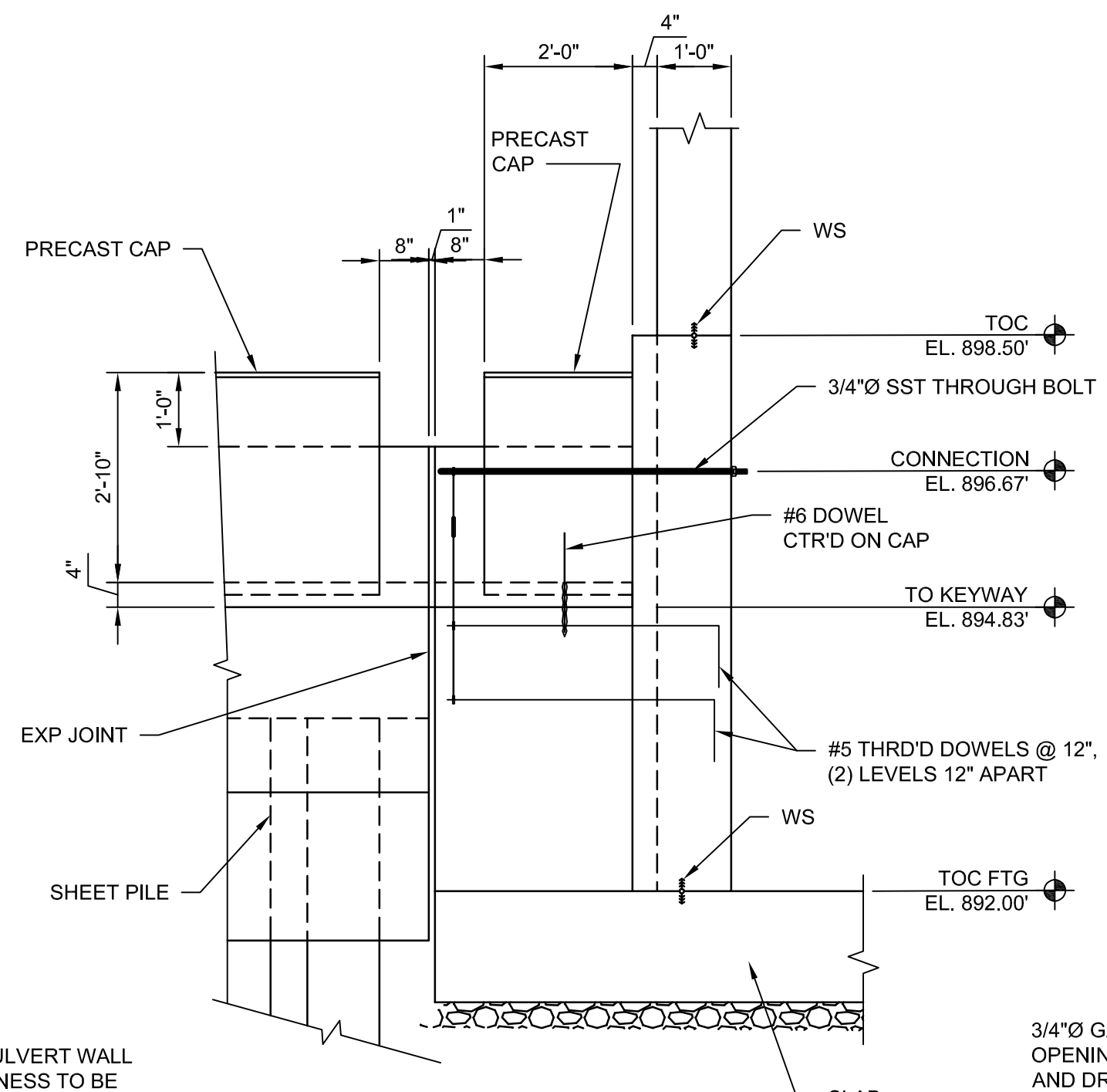
- GENERAL NOTES:**
1. ALL DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION.
 2. ALL LAPS AT CONSTRUCTION JOINTS SHOULD BE STAGGERED PER DETAIL 3/SA502.
 3. CONTRACTOR SHALL AVOID REINFORCEMENT DAMAGES BY LOCATING ALL REBARS IN WALLS AND FOUNDATION PRIOR TO INSTALLING DOWELS AND EYELETS.
 4. CONTRACTOR SHALL COORDINATE ANY REQUIREMENT NEEDED FOR PENETRATING PRECAST MEMBERS WITH THE PRECAST MANUFACTURER.
 5. CONTRACTOR SHALL DETERMINE REQUIRED LENGTH OF EYELETS BASED ON PRECAST CULVERT CONCRETE THICKNESS.
 6. FOR OUTLET CROSSING GEOMETRY AND DETAILS REFERENCE LS SHEETS.



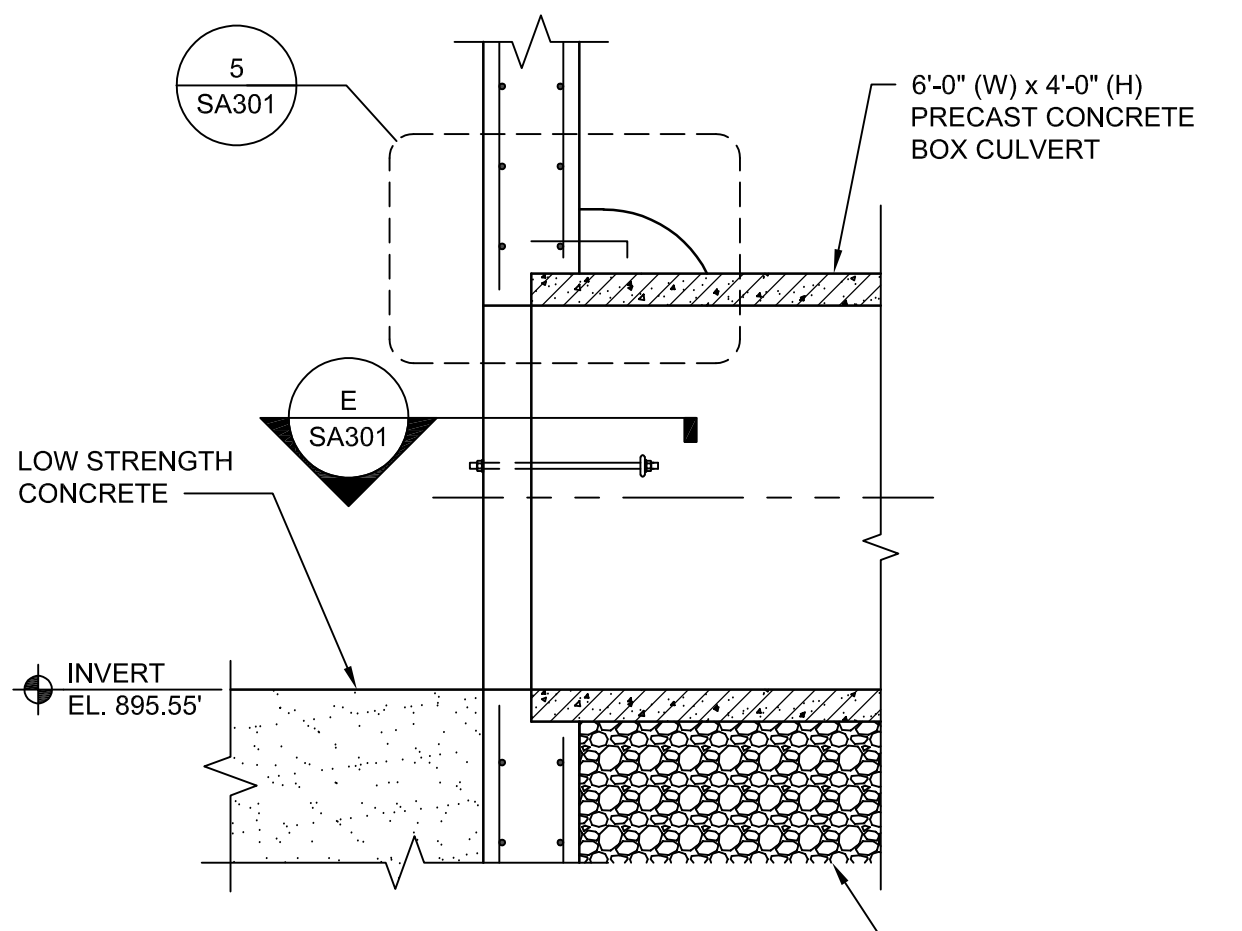
D SECTION
SA100 SCALE: 1/4" = 1'-0"



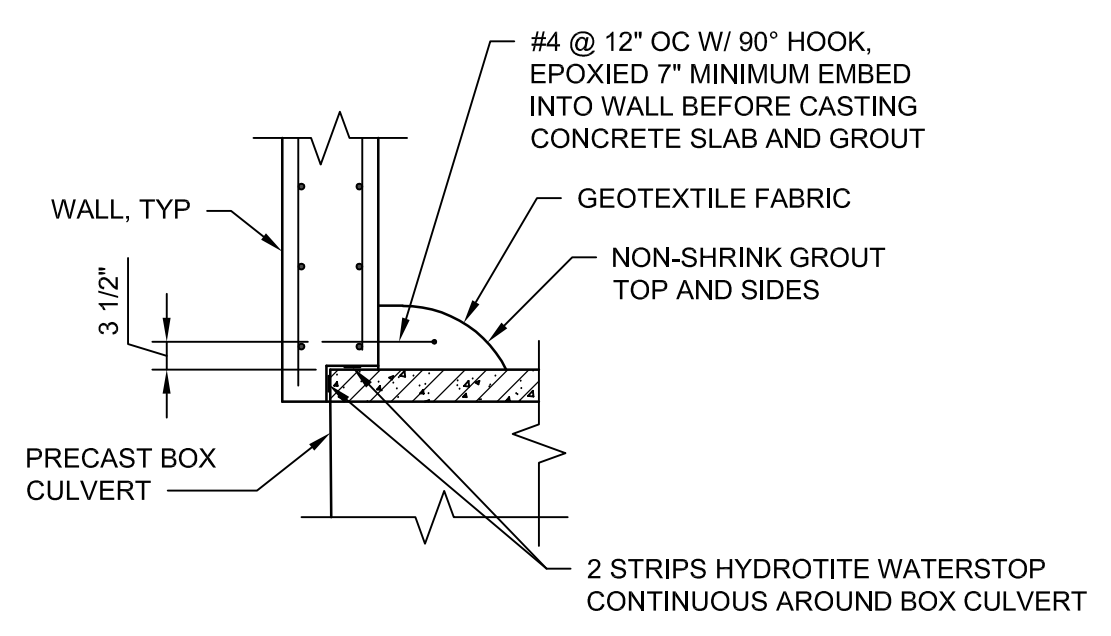
1 PIER DETAIL
SA100 SCALE: 1/2" = 1'-0"



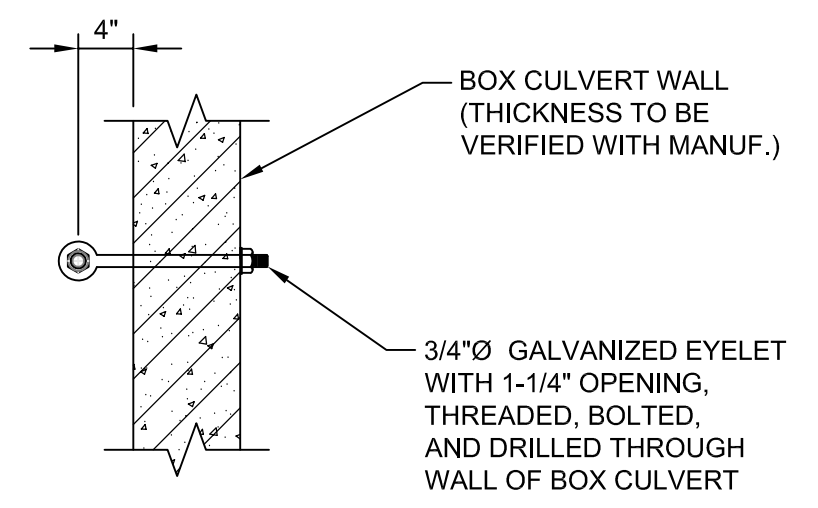
2 PIER DETAIL
SA301 SCALE: 1/2" = 1'-0"



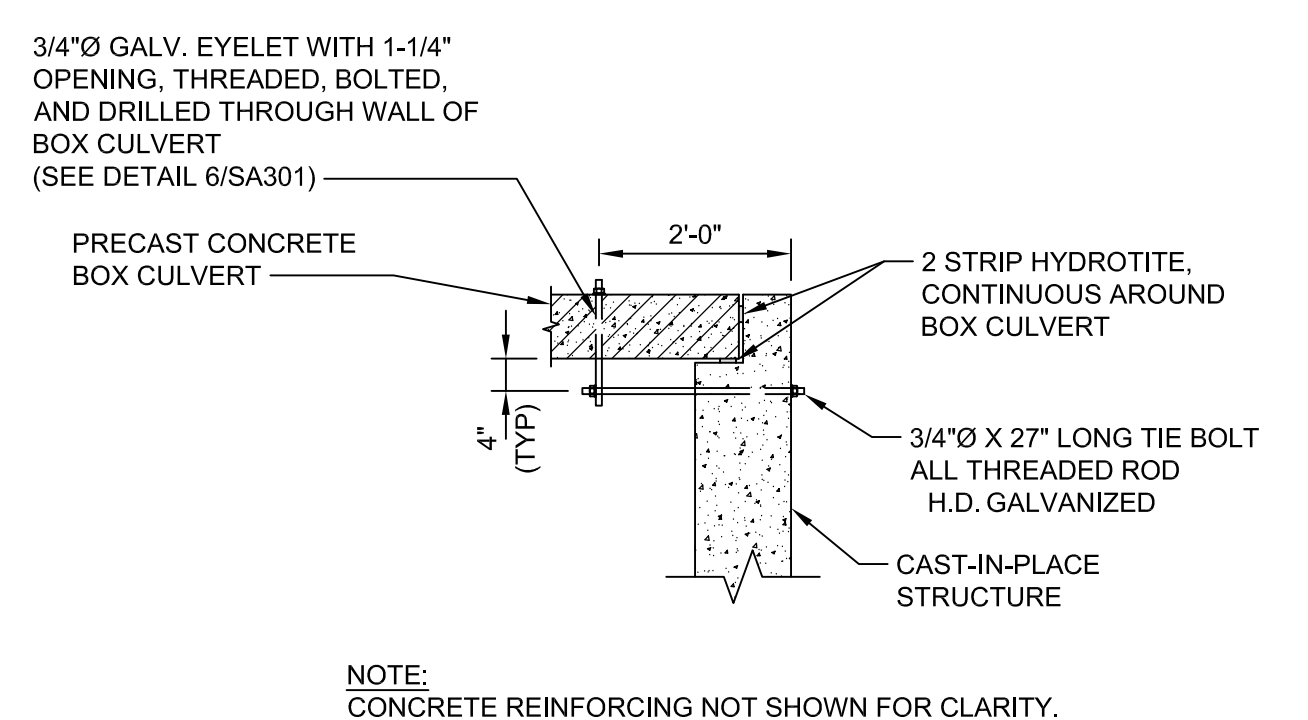
4 DETAIL
SA301 SCALE: 1/2" = 1'-0"



5 DETAIL
SA301 SCALE: 1/2" = 1'-0"



6 DETAIL
SA301 NOT TO SCALE



3 DETAIL
SA301 SCALE: 1/2" = 1'-0"

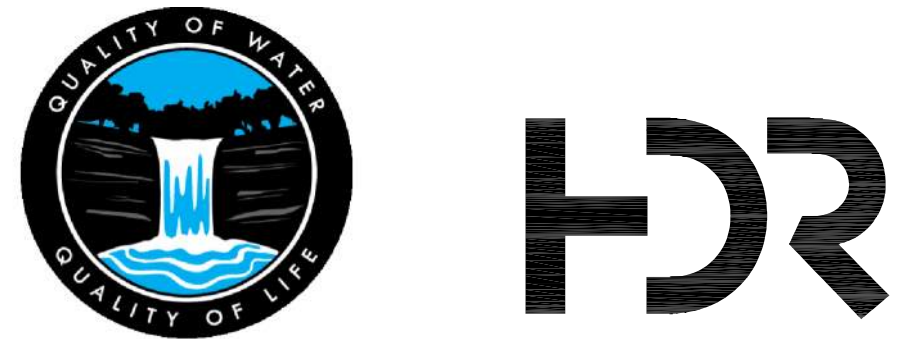
BOX CULVERT TIE TO CIP CONNECTION SECTION

SA301 SCALE: 1/2" = 1'-0"

EYELET THROUGH BOX CULVERT TYPICAL DETAIL

NOTE: CONCRETE REINFORCING NOT SHOWN FOR CLARITY.

NOTE: CONCRETE REINFORCING NOT SHOWN FOR CLARITY.



MINNEHAHA CREEK WATERSHED DISTRICT

ISSUE	DATE	DESCRIPTION
3	03/28/2023	100% DESIGN
2	09/14/2022	90% DESIGN
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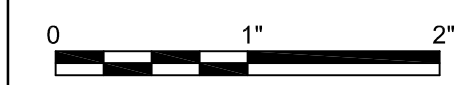
PROJECT MANAGER	ANDREW F. JUDD
DESIGNED BY	J. MULVIHILL
CHECKED BY	G. STEKOVIC
DRAWN BY	G. STEKOVIC
PROJECT NUMBER	10268112

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

JEROME W. MULVIHILL, PE
DATE 03/28/2023 LICENSE # 41241

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

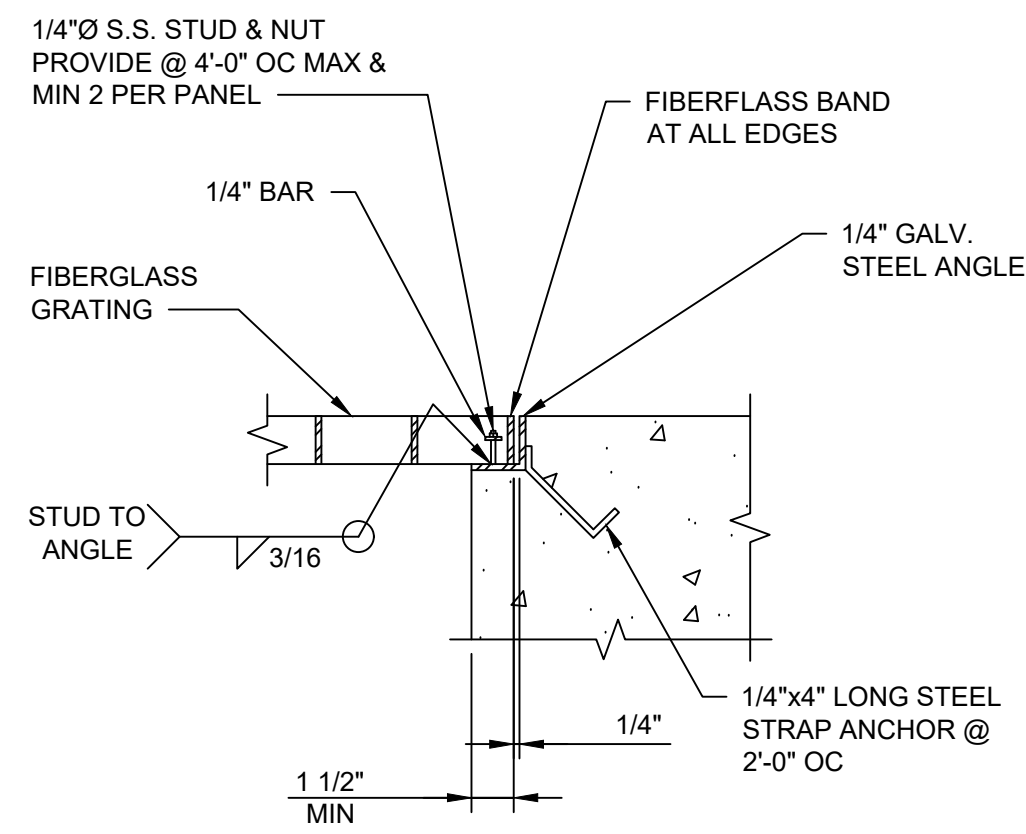
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343



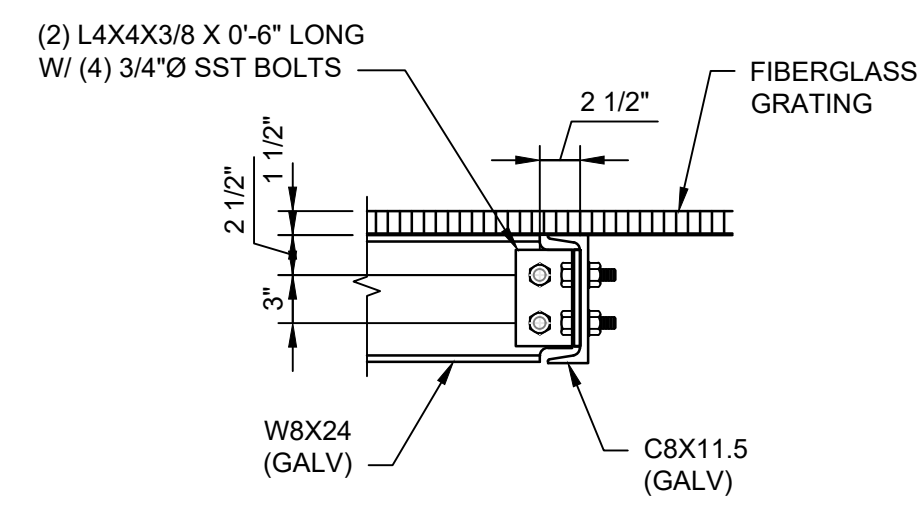
OUTLET STRUCTURE CONCRETE SECTIONS AND DETAILS

FILENAME SA301.DWG
SCALE AS NOTED

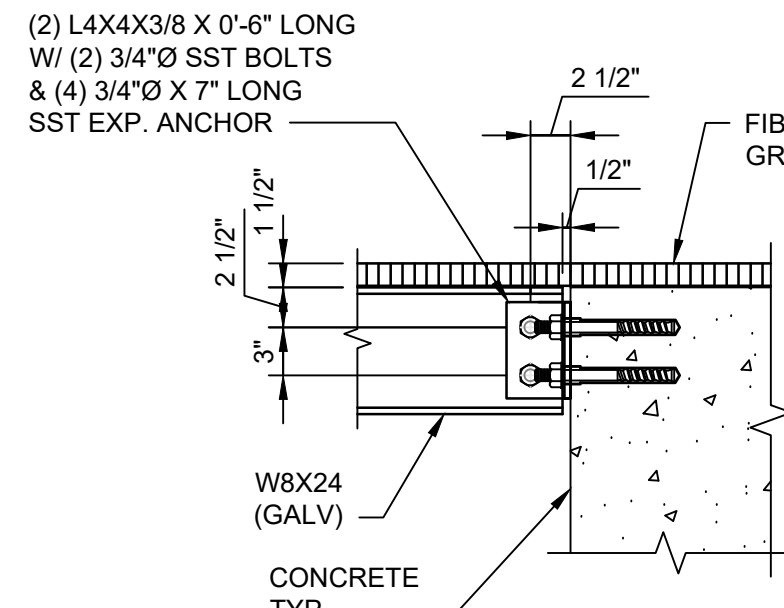
SHEET SA301



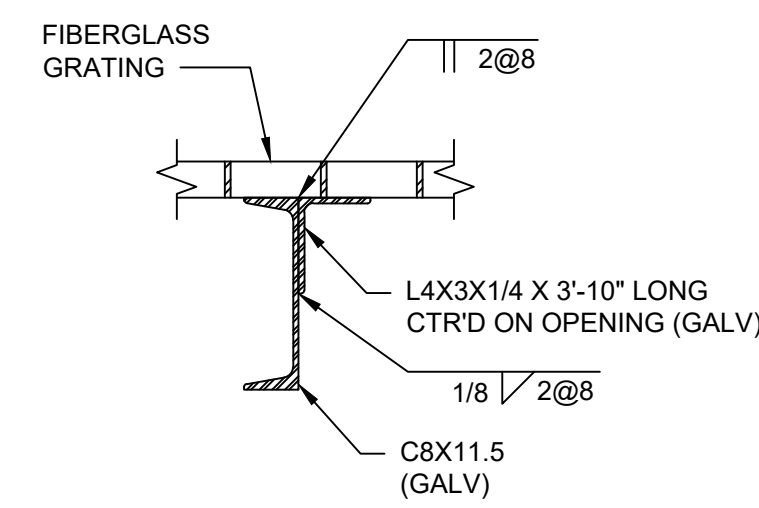
A SECTION
SA100 1-1/2" = 1'-0"



B SECTION
SA100 1" = 1'-0"

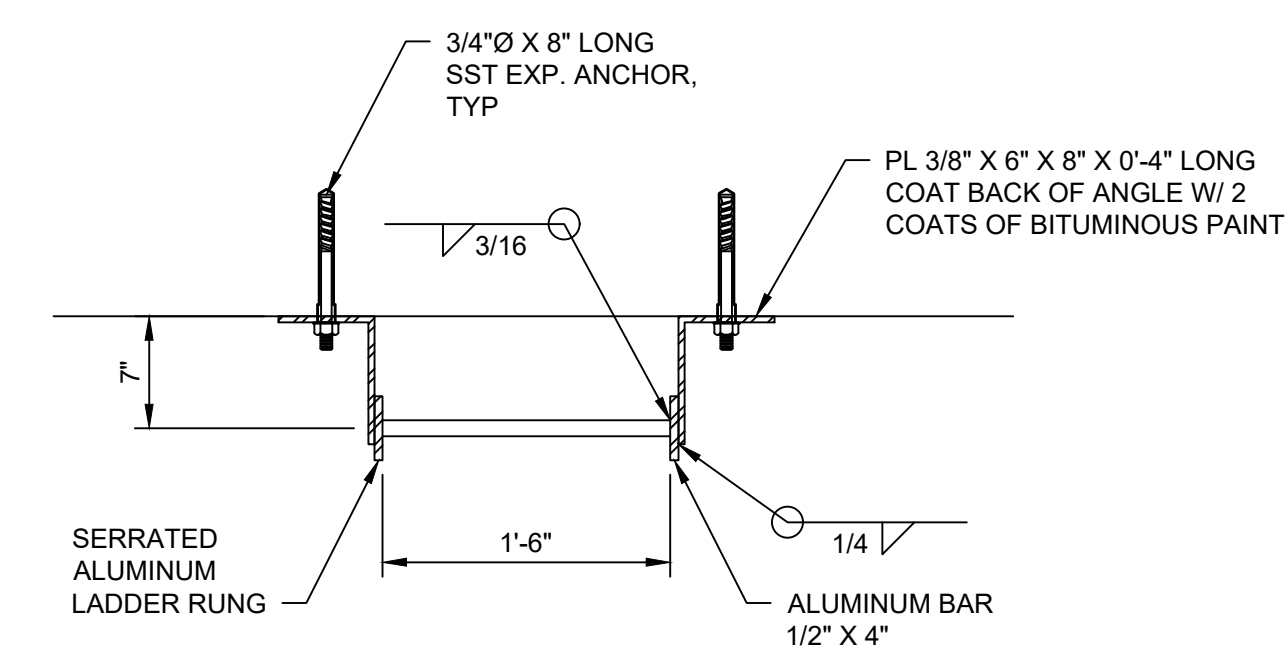


C SECTION
SA100 1" = 1'-0"

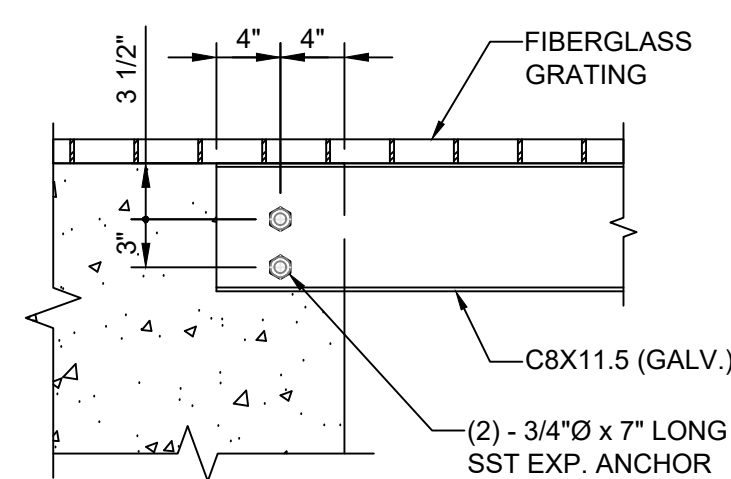


NOTE:
HOT DIP ENTIRE ASSEMBLY AFTER FABRICATION

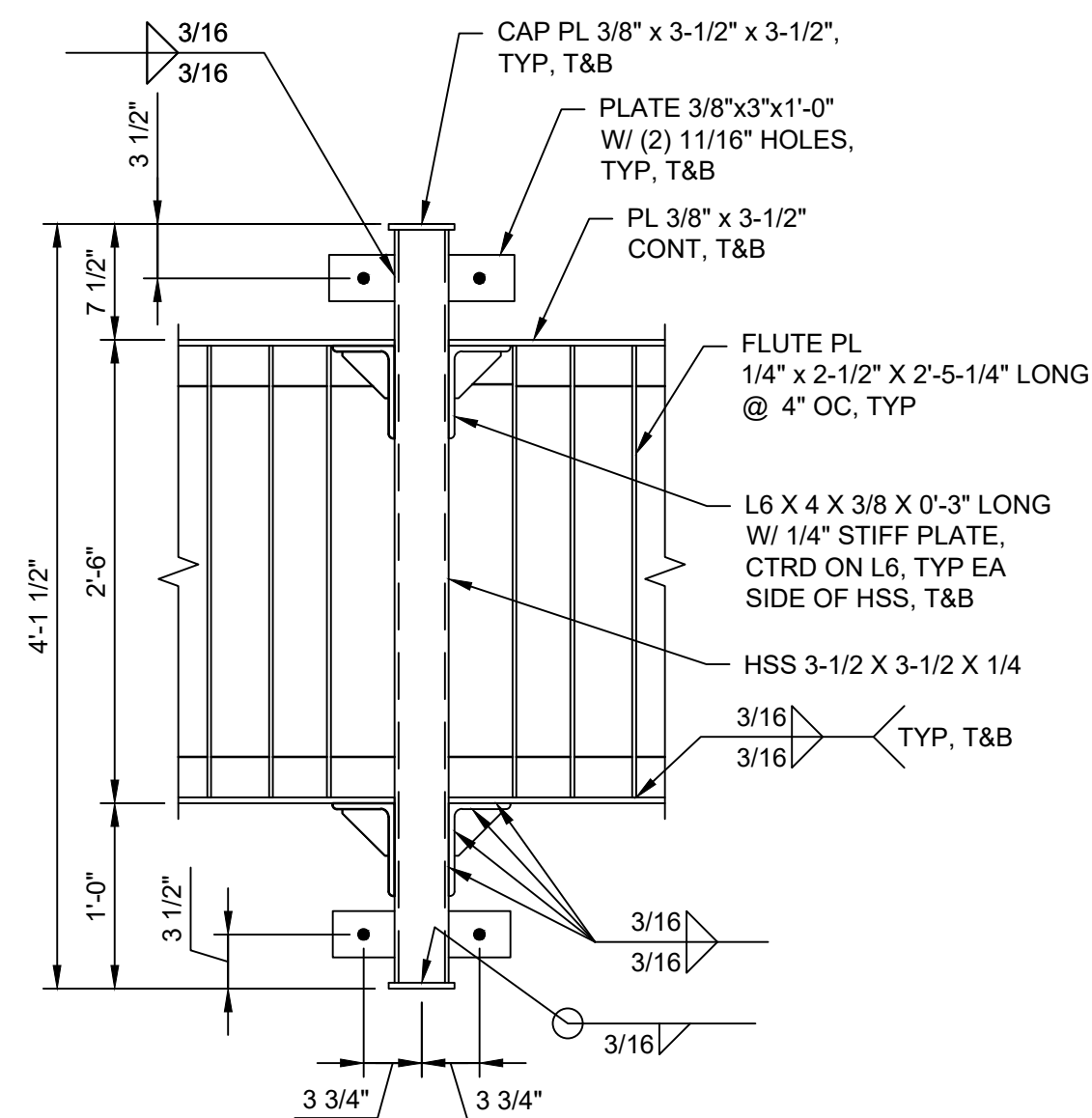
D SECTION
SA100 1-1/2" = 1'-0"



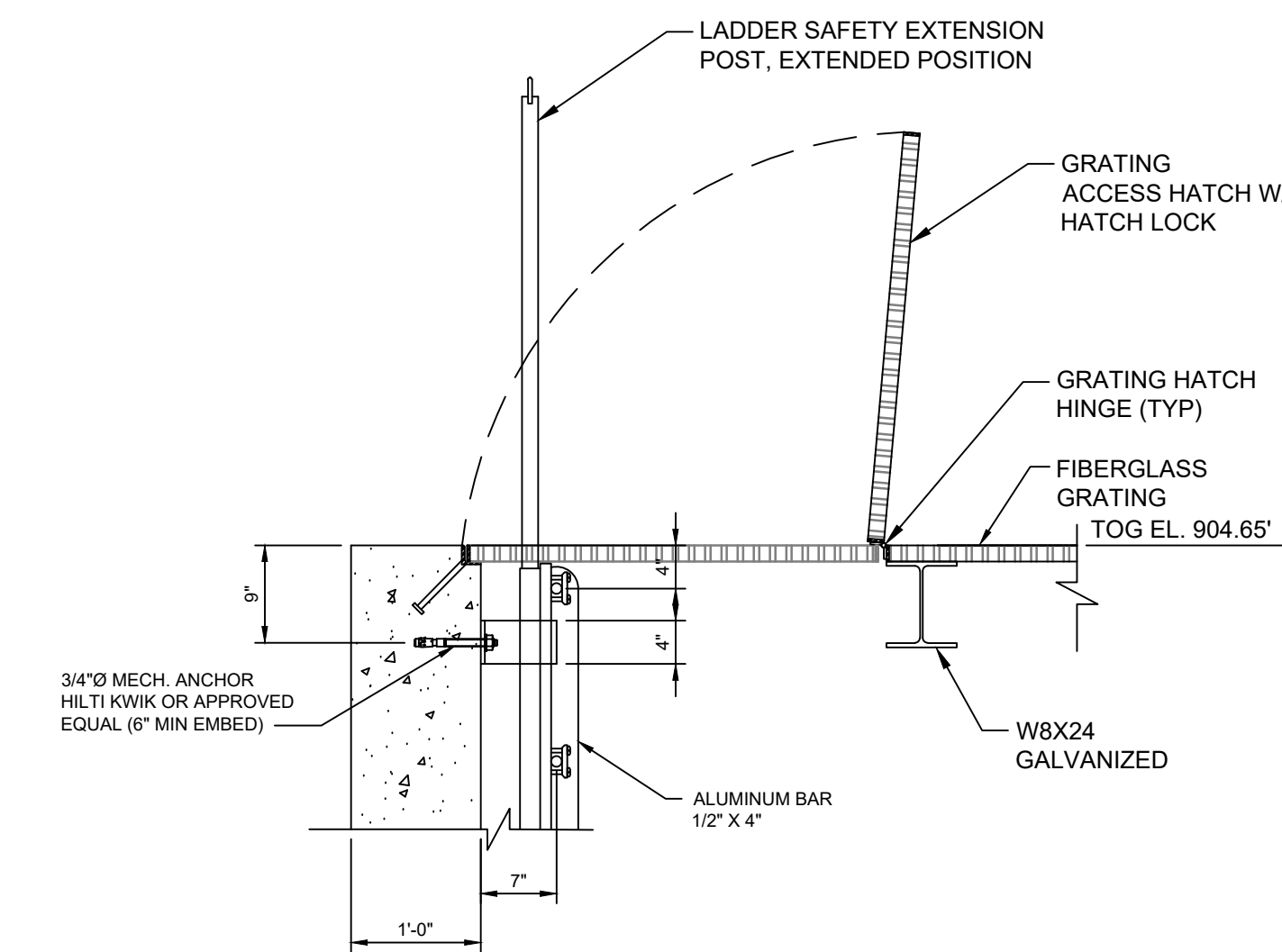
1 LADDER SUPPORT DETAIL
SA100 1" = 1'-0"



3 DETAIL
SA301 1" = 1'-0"

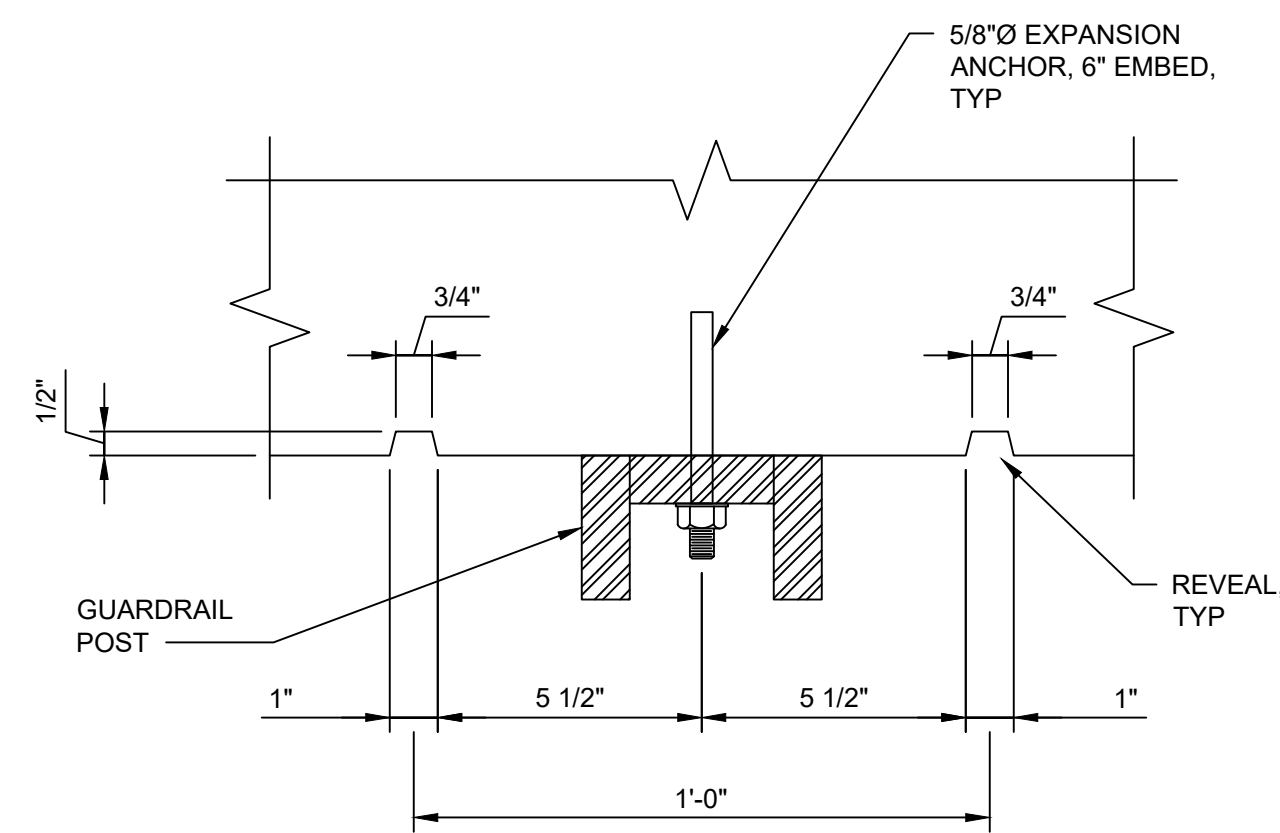


4 DETAIL
SA301 1" = 1'-0"



NOTE:
CONCRETE WALL REINFORCING NOT SHOWN FOR CLARITY

E SECTION
SA100 SCALE: 3/4" = 1'-0"



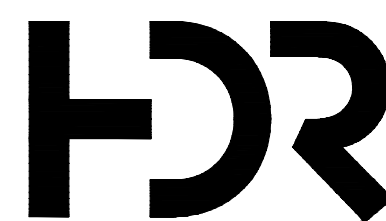
2 DETAIL
SA100 3" = 1'-0"

GENERAL NOTES:

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
2. CONTRACTOR TO COORDINATE LOCKING MECHANISM FOR GRATING HATCH WITH THE FIBERGLASS GRATING MANUFACTURER.
3. LADDER SAFETY SYSTEM SHALL COMPLY WITH OSHA REQUIREMENTS.
4. FIBERGLASS GRATING AND APPURTENANCES TO BE SIZED BY THE FIBERGLASS GRATING MANUFACTURER.



MINNEHAHA CREEK
WATERSHED DISTRICT



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PROJECT MANAGER ANDREW F. JUDD

DESIGNED BY J. MULVIHILL
CHECKED BY G. STEKOVIC
DRAWN BY G. STEKOVIC

PROJECT NUMBER 10268112

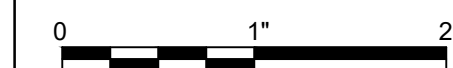
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JEROME W. MULVIHILL, PE
DATE 03/28/2023 LICENSE # 41241

325 BLAKE RD REGIONAL STORMWATER
AND GREENWAY

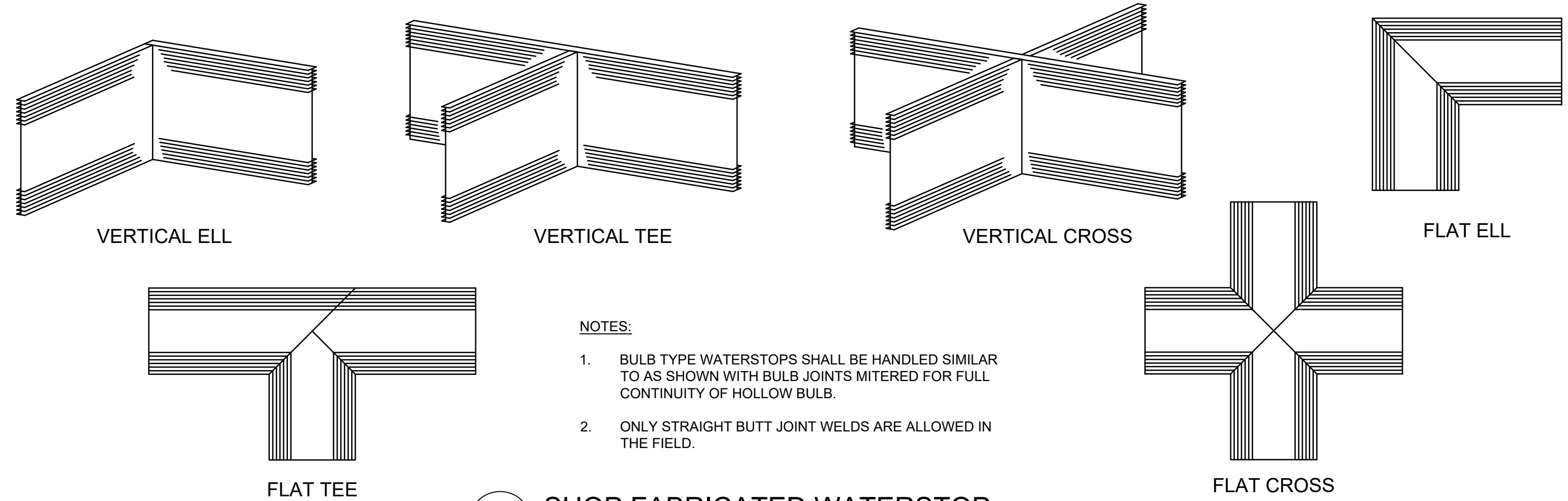
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

OUTLET STRUCTURE
STEEL SECTIONS AND DETAILS



FILENAME SA501.DWG
SCALE AS NOTED

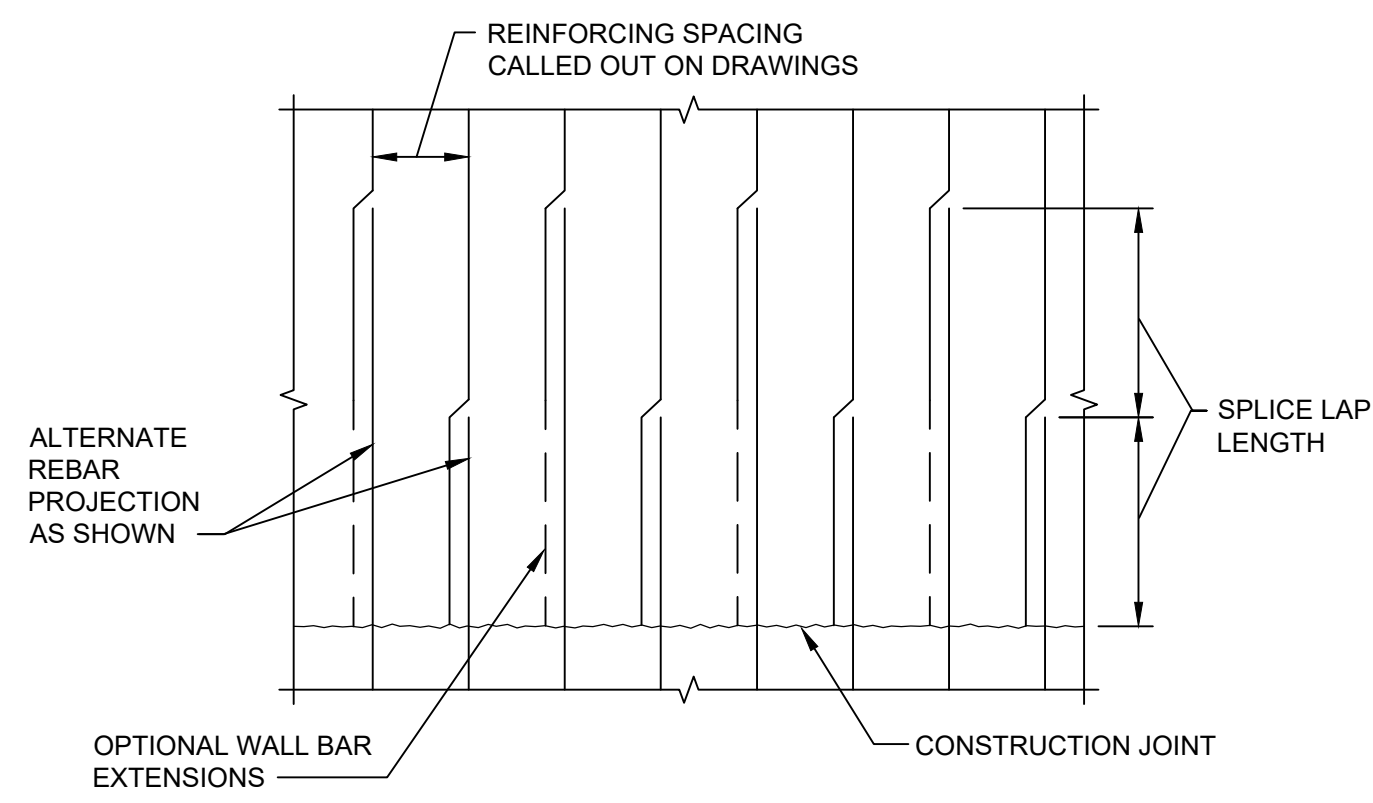
SHEET
SA501



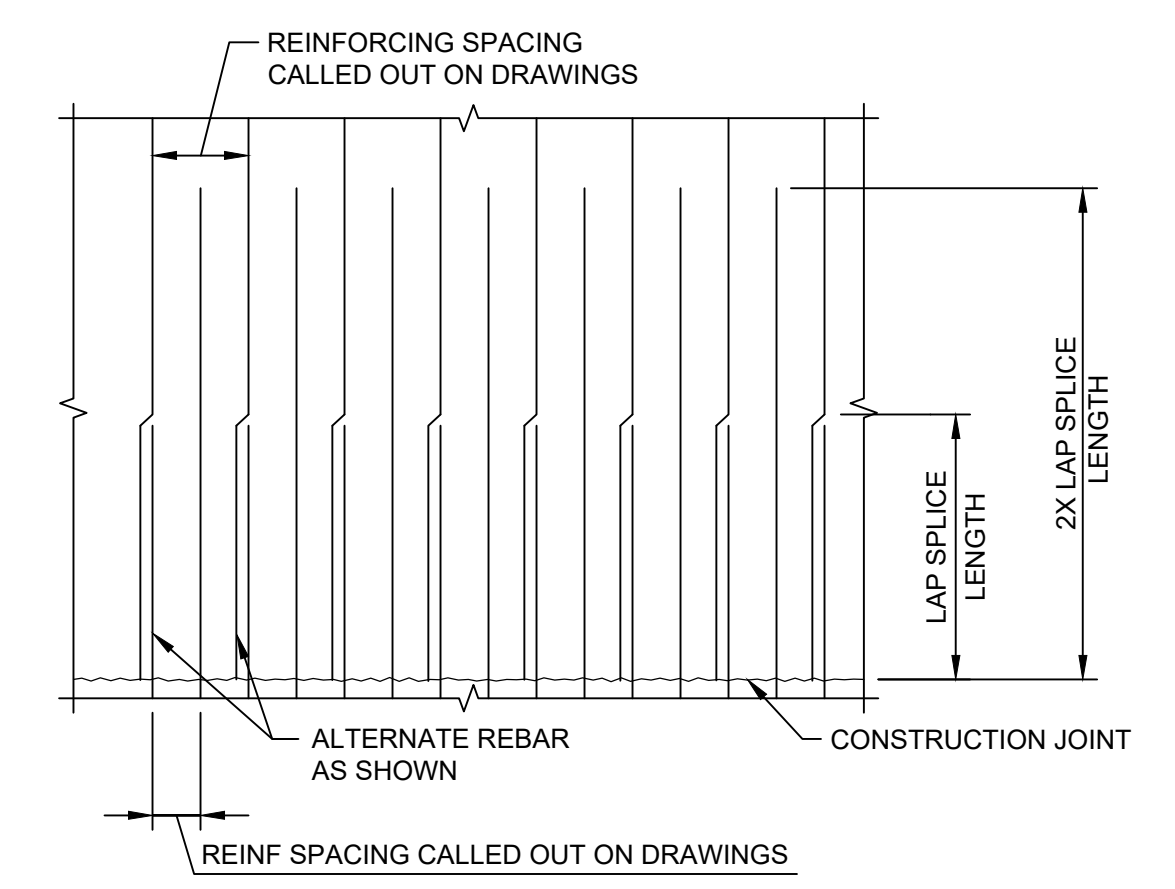
NOTES:

1. BULB TYPE WATERSTOPS SHALL BE HANDLED SIMILAR TO AS SHOWN WITH BULB JOINTS MITERED FOR FULL CONTINUITY OF HOLLOW BULB.
2. ONLY STRAIGHT BUTT JOINT WELDS ARE ALLOWED IN THE FIELD.

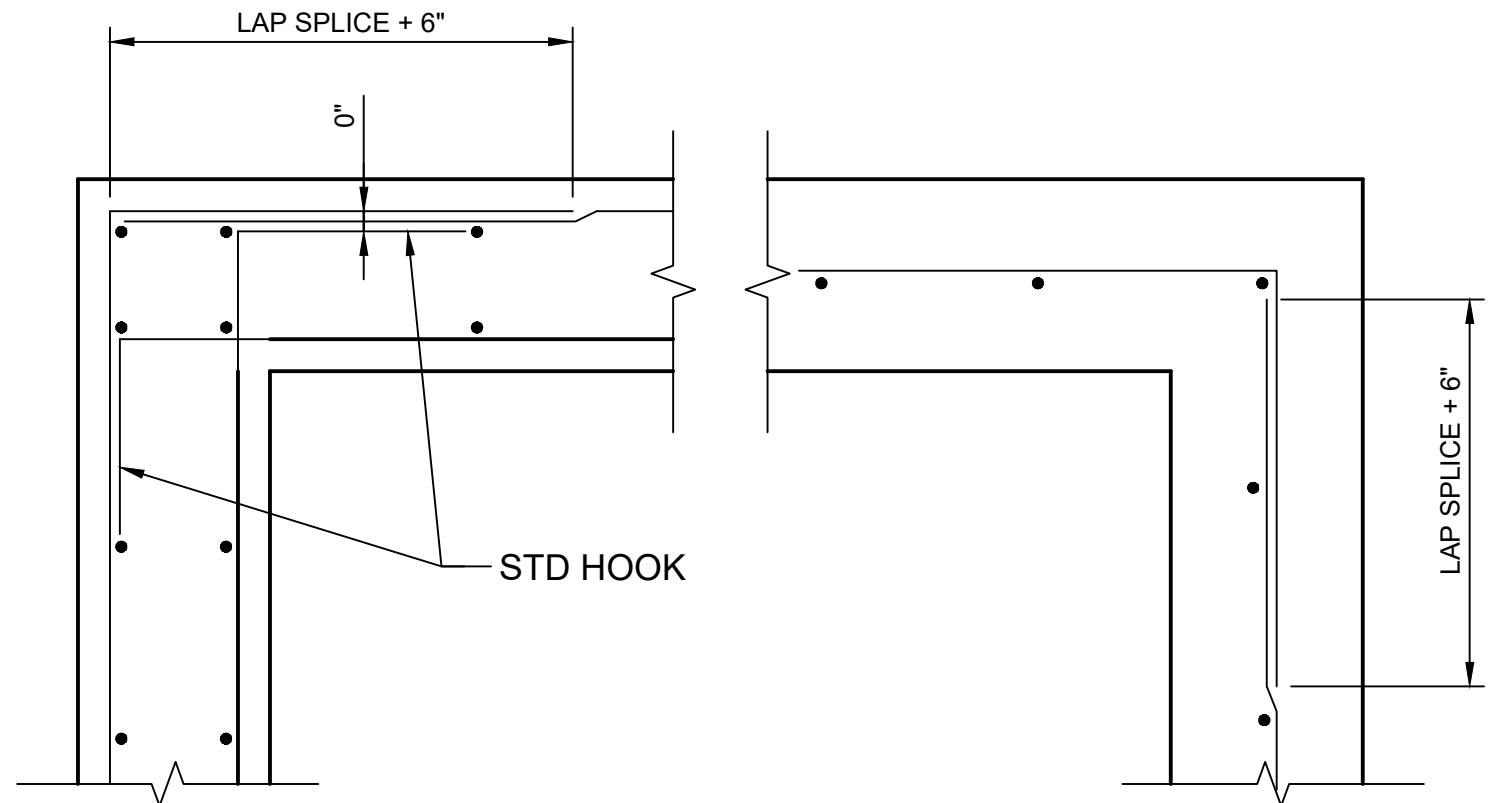
1 SHOP FABRICATED WATERSTOP
NOT TO SCALE



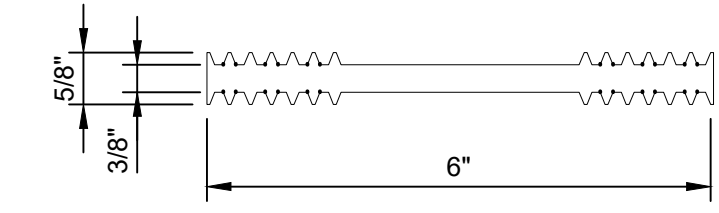
2 STAGGERED REINFORCING AT CONSTRUCTION JOINT
NOT TO SCALE



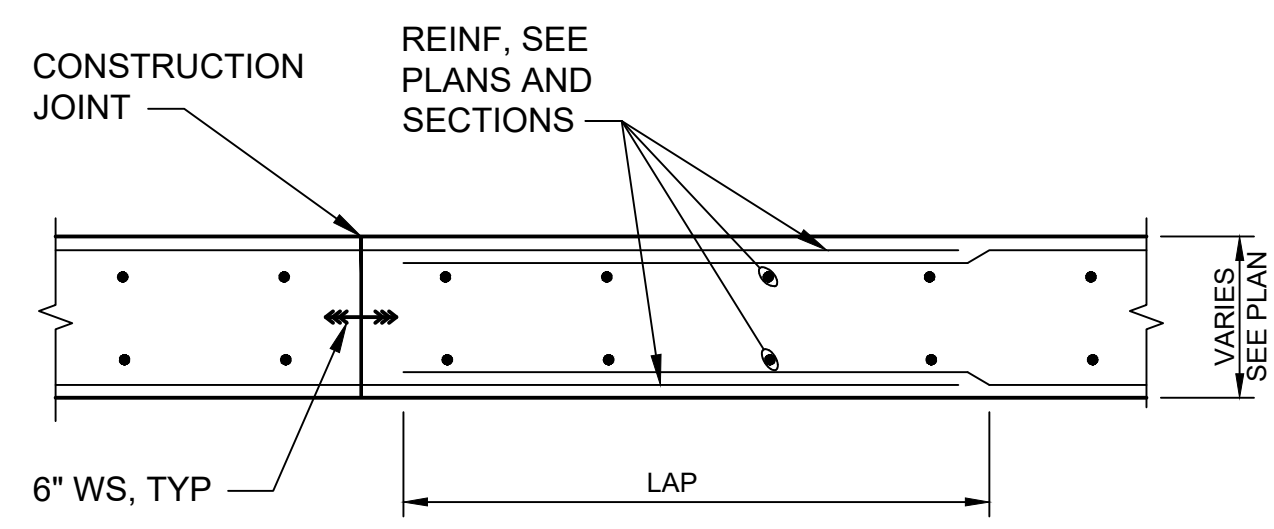
3 WALL VERTICAL REINFORCING AT CONSTRUCTION JOINT
NOT TO SCALE



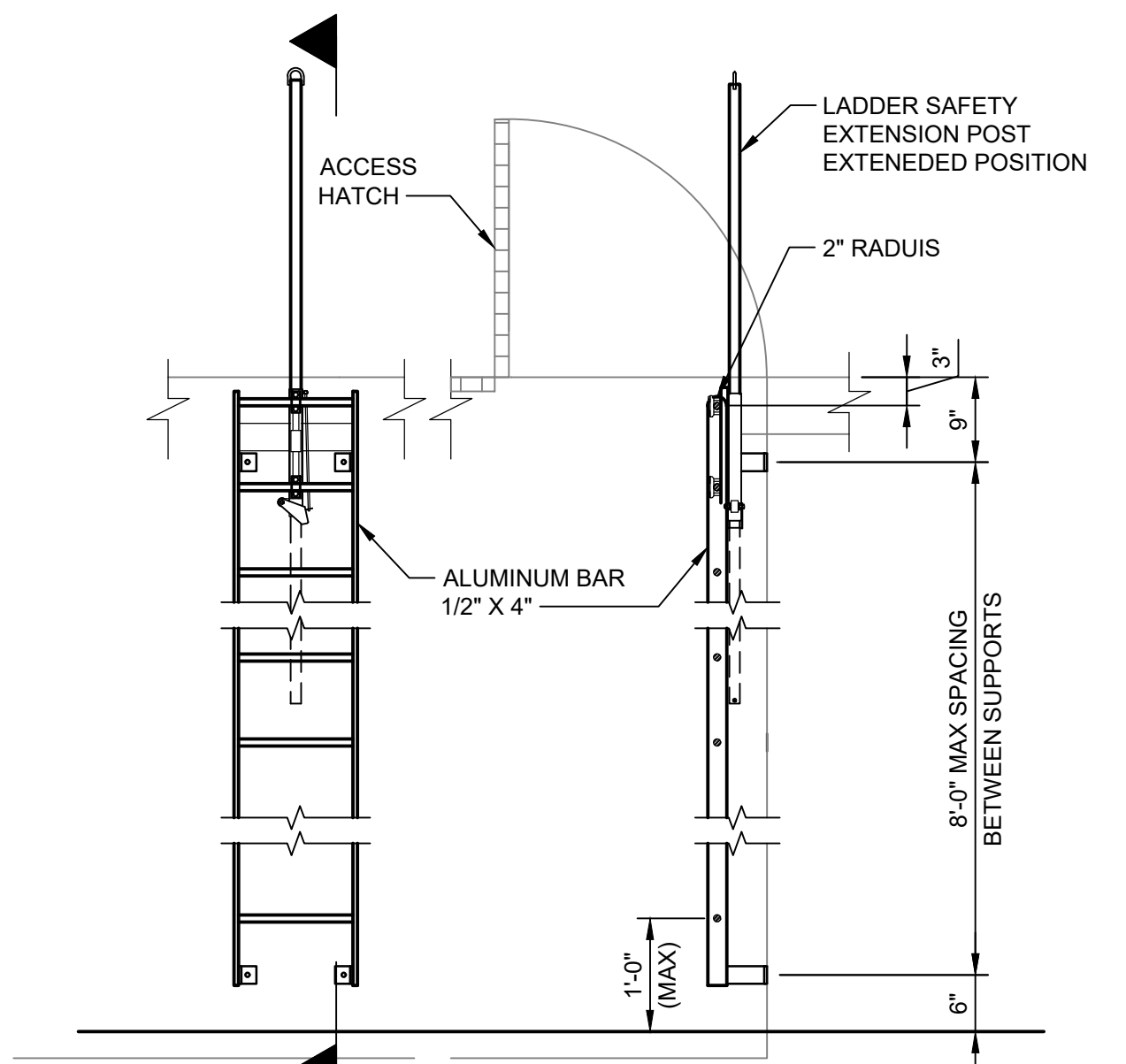
4 WALL REINFORCEMENT AT CORNERS
NOT TO SCALE



5 TYPICAL WATERSTOP DETAIL
NOT TO SCALE



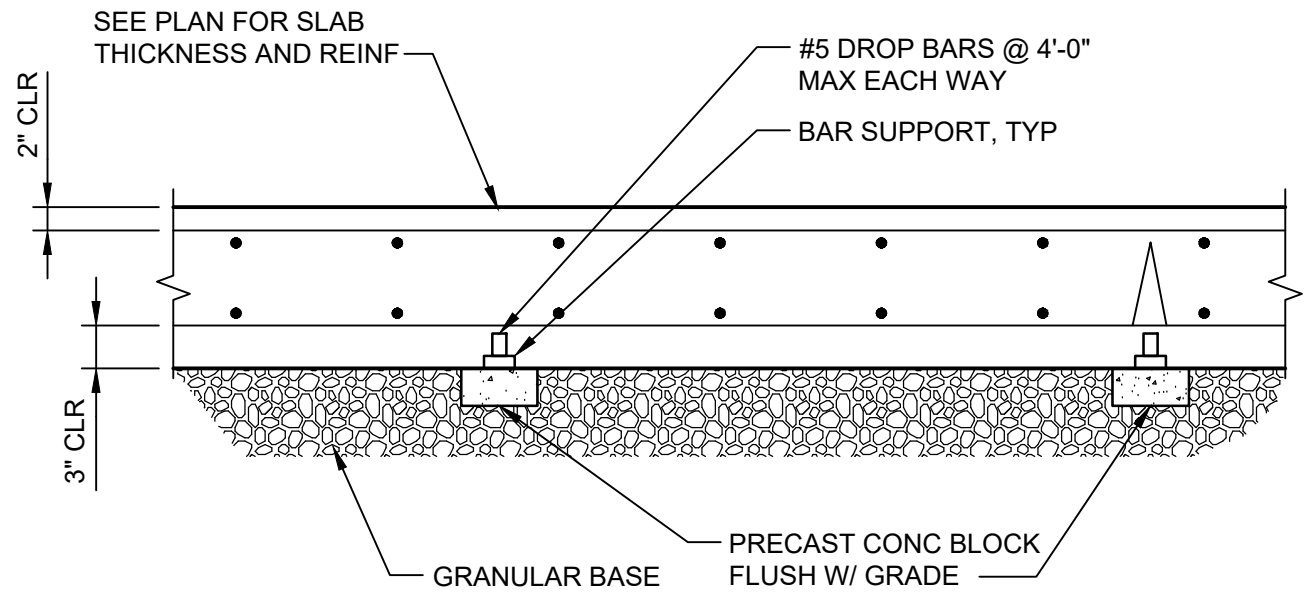
6 CONSTRUCTION JOINT DETAIL
NOT TO SCALE



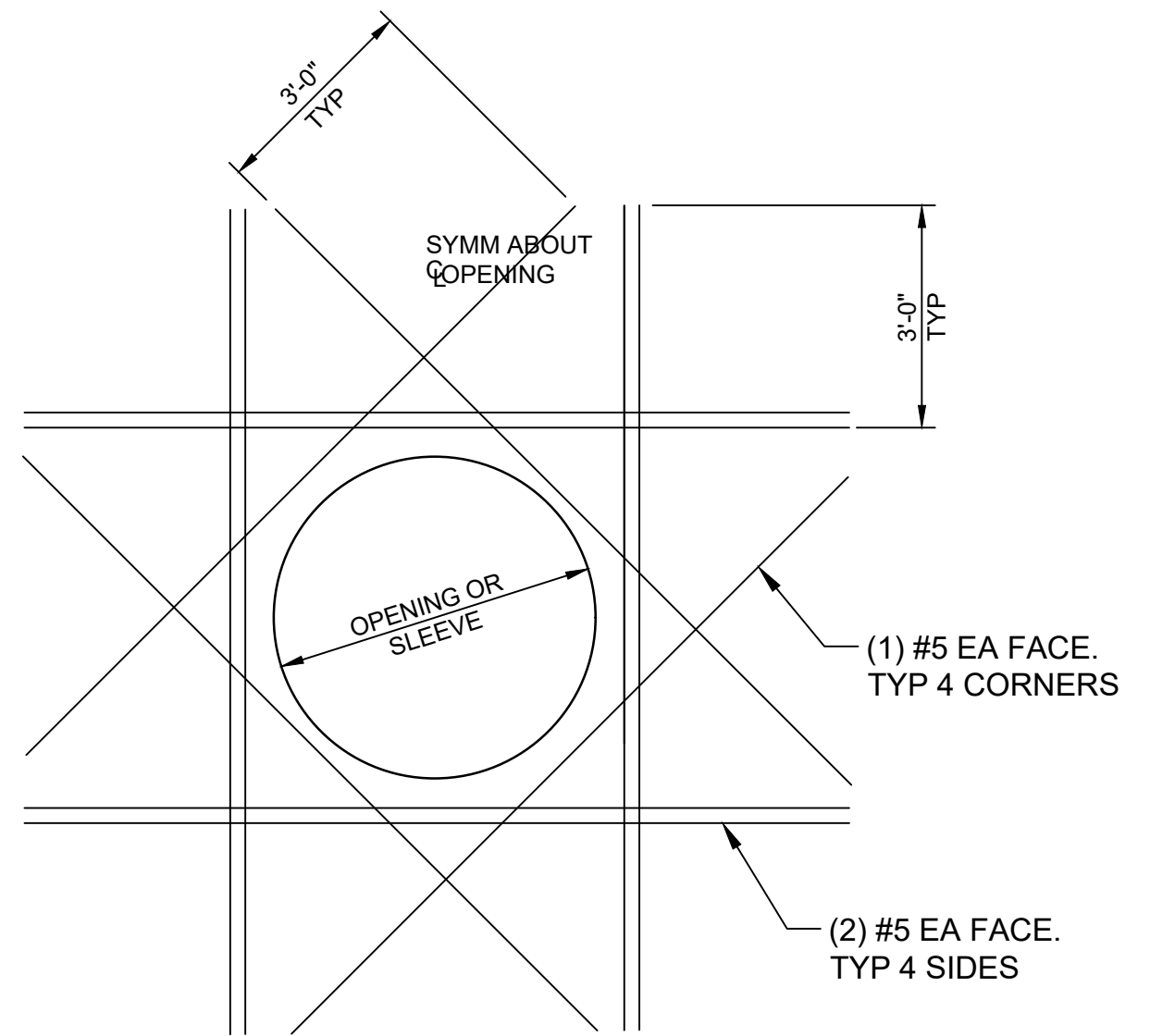
- NOTES:**
1. LADDER RUNGS TO BE 1"Ø SERRATED ALUMINUM.
 2. SPACE RUNGS AT 12" MAXIMUM (VERTICALLY).

9 TYPICAL WALL SUPPORTED LADDER @ ACCESS DOOR
NOT TO SCALE

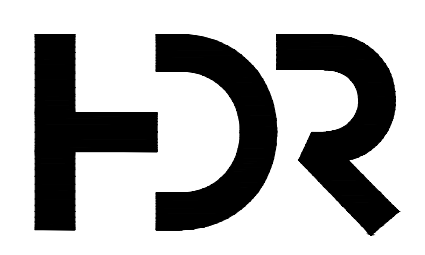
- NOTES:**
1. ALL HOOKS SHALL BE STD 90 DEGREE HOOKS.
 2. SEE ADJACENT DETAIL FOR ADDITIONAL HORIZONTAL BARS. STAGGER BETWEEN TYPICAL REINF SPACING, EXTEND TO 1/5 OF DISTANCE TO NEAREST ADJACENT WALL IN EACH DIRECTION, UNO.
 3. OPTIONAL LAP LOCATION. APPLIES TO BOTH DOUBLE AND SINGLE LAYER CONDITIONS TYP.



7 REINFORCING SUPPORT DETAIL
NOT TO SCALE



8 REINFORCING AROUND OPENINGS
NOT TO SCALE



MINNEHAHA CREEK WATERSHED DISTRICT

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PROJECT MANAGER	ANDREW F. JUDD
DESIGNED BY	J. MULVIHILL
CHECKED BY	G. STEKOVIC
DRAWN BY	G. STEKOVIC
PROJECT NUMBER	10268112

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JEROME W. MULVIHILL, PE
DATE 03/28/2023 LICENSE # 41241

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

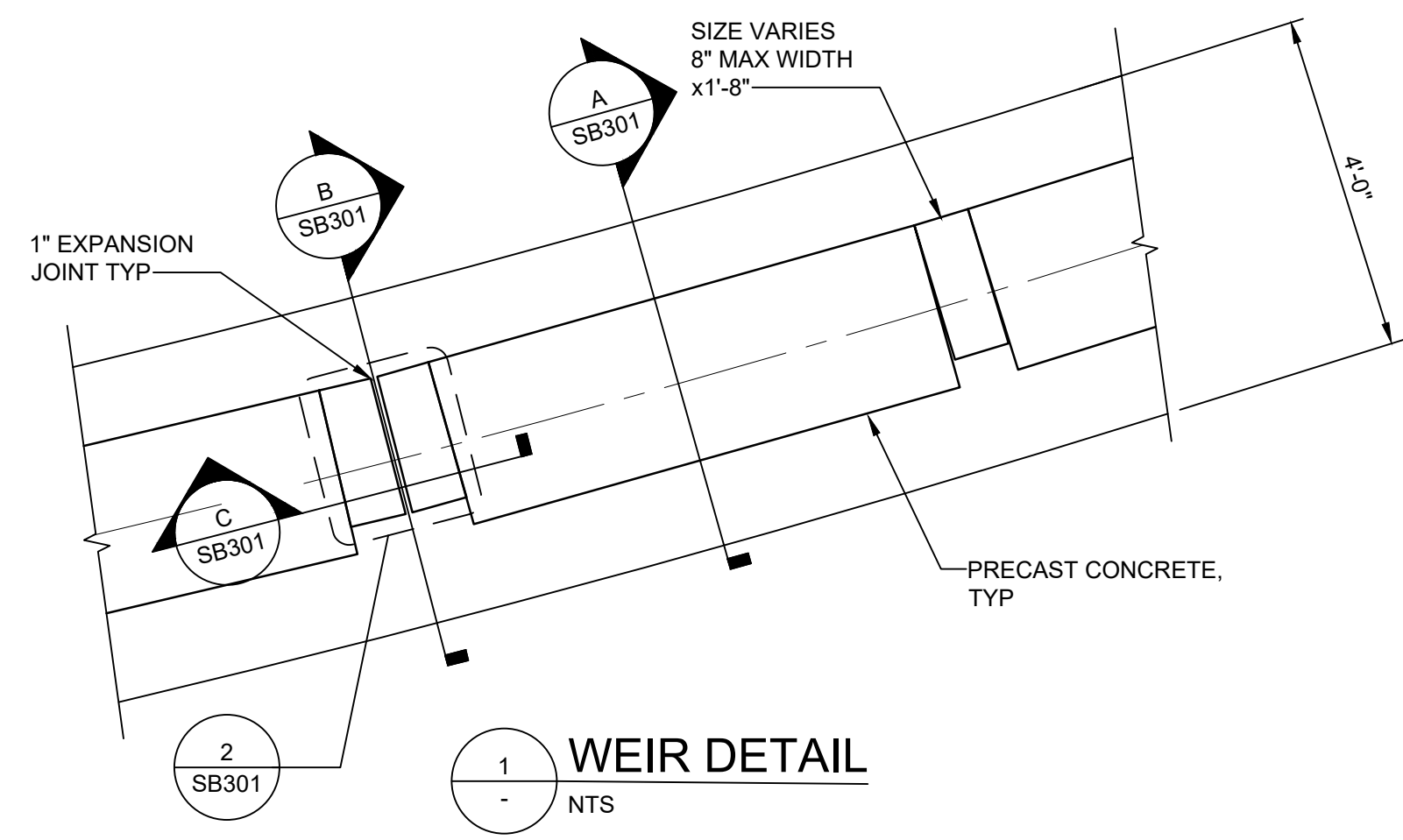
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

OUTLET STRUCTURE STANDARD DETAILS

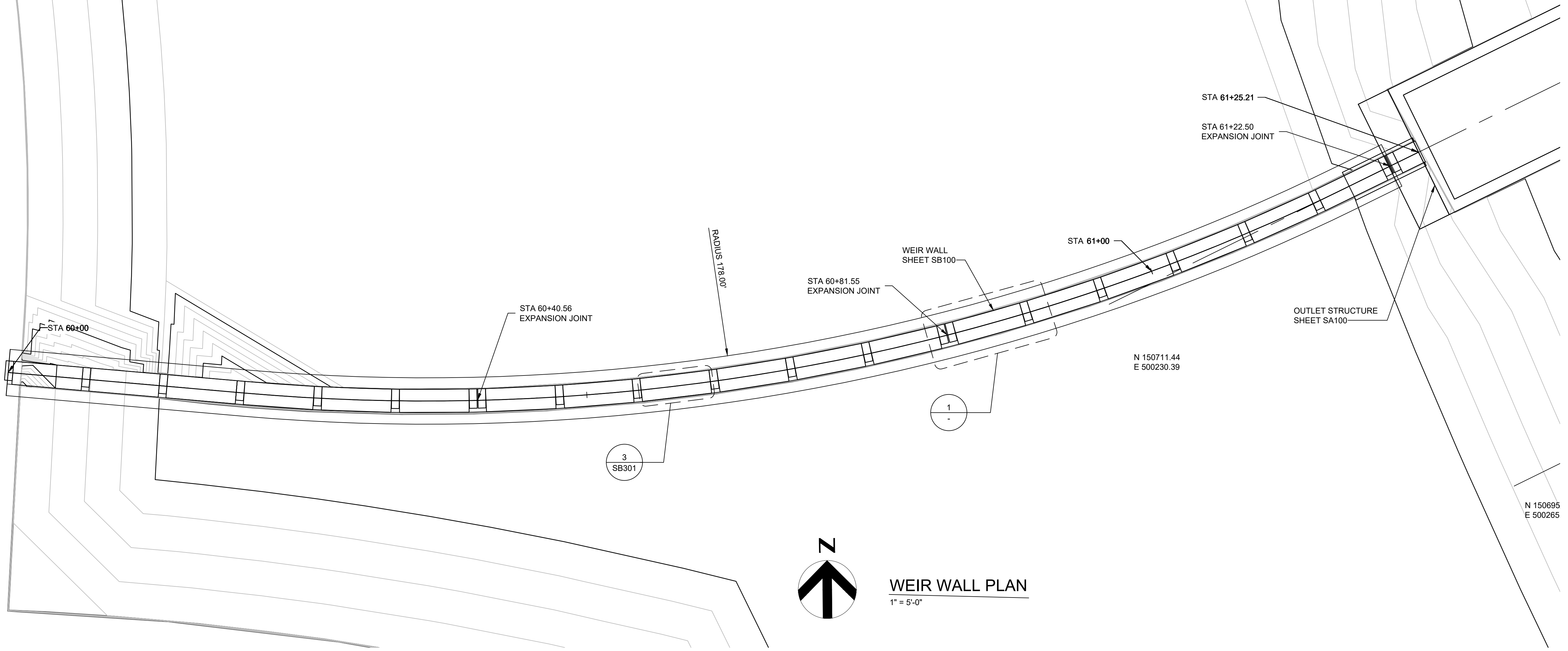


FILENAME SA502.DWG
SCALE AS NOTED

SHEET SA502



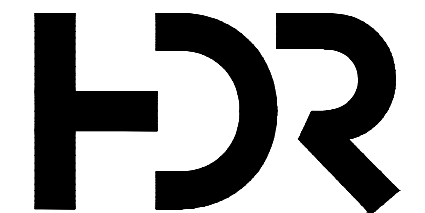
- GENERAL NOTES:**
- DRAWINGS SHALL NOT BE SCALED.
 - CONTRACTOR SHALL VERIFY WEIR WALL LOCATION, INCLUDING STATIONING, WITH CIVIL DRAWINGS.
 - THE SHEET PILE ESTIMATED TIP ELEVATIONS SHALL BE AT DEPTH 20 FEET BELOW THE BOTTOM OF THE POND. IF DRIVING REFUSAL IS ENCOUNTERED ABOVE THIS ELEVATION, THE SHEET PILES CAN BE STOPPED AS LONG AS THEY DRIVEN AT LEAST 5 FEET INTO THE BEDROCK.
 - THE SHEET PILES SHALL HAVE A MINIMUM SECTION MODULUS OF 30.2 IN³ PER LINEAL FOOT OF SHEET PILE.
 - FOR ALL INTERLOCKS, SHEET PILES SHALL BE SEALED USING A PRODUCT THAT IS DESIGNED TO REDUCE SEEPAGE AND IS HYDROPHILIC.
 - FOR WALL DETAILS AND CONNECTIONS SEE SHEET SB301.
 - CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION.
 - ENGINEER OF RECORD SHALL BE IMMEDIATELY NOTIFIED OF ANY DISCREPANCIES FOUND IN THE FIELD.
 - PROVIDE CONCRETE CONSTRUCTION JOINT. SEE DETAIL 5/SB301.
 - CONSTRUCTION JOINTS IN THE CAST-IN-PLACE PORTION OF WEIR WALL SHALL NOT EXCEED 60 FT ON CENTER. CONTRACTOR TO FIELD LOCATE.



WEIR WALL PLAN
1" = 5'-0"



MINNEHAHA CREEK WATERSHED DISTRICT



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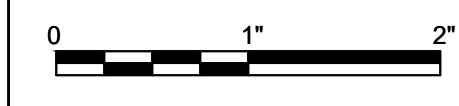
PROJECT MANAGER	ANDREW F. JUDD
DESIGNED BY	J. MULVIHILL
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DRAWN BY	G. STEKOVIC
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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

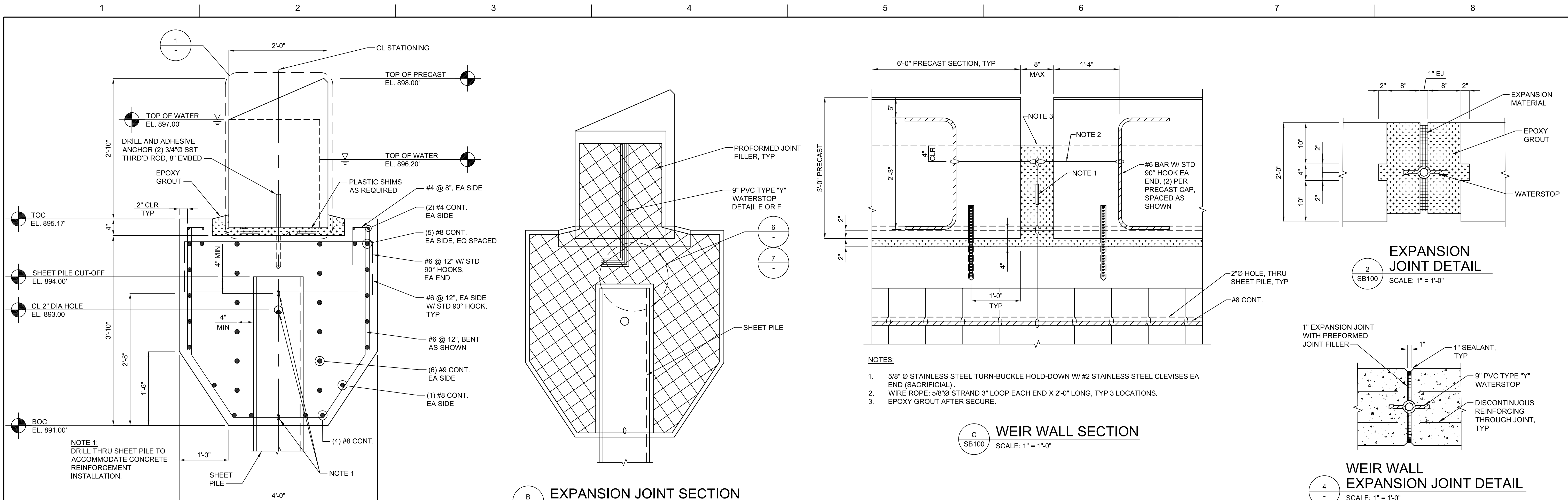
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343



WEIR WALL PLAN

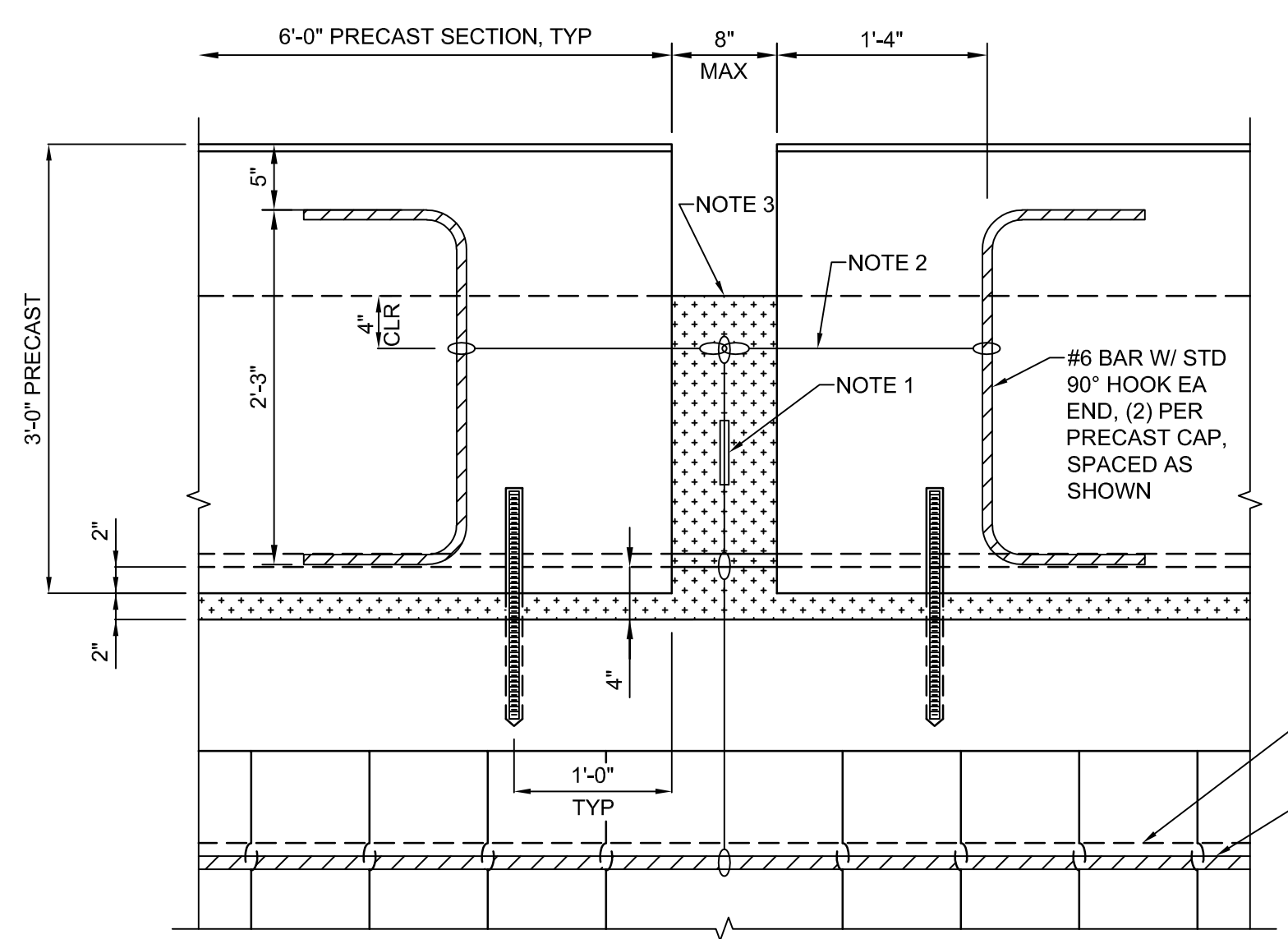
FILENAME SB100.DWG
SCALE 1" = 5'

SHEET
SB100



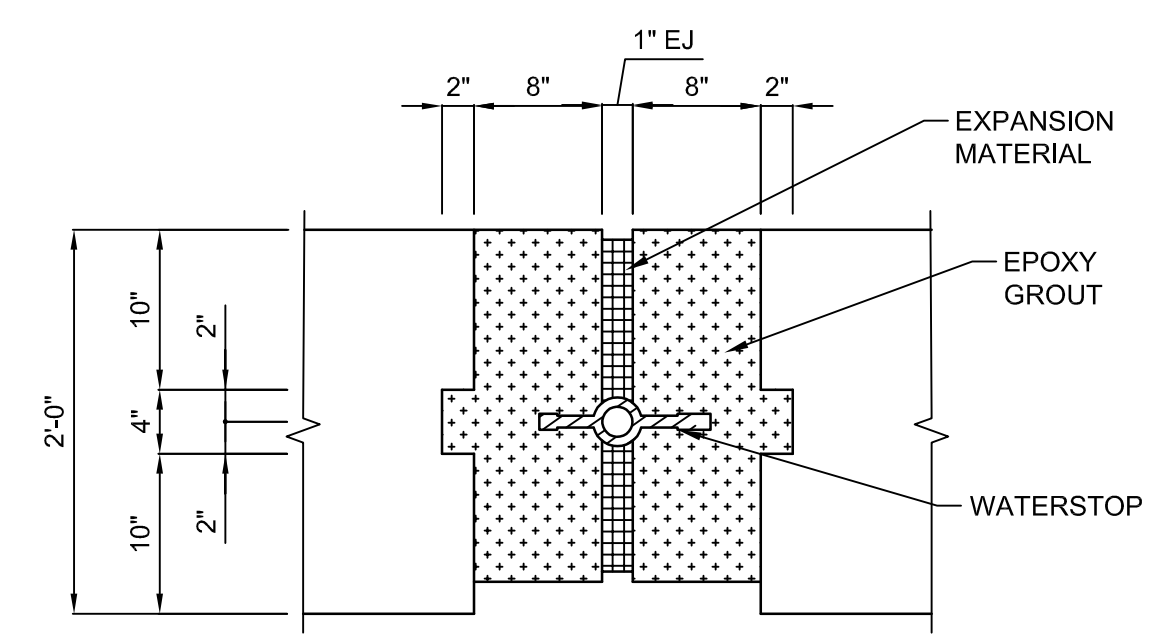
A WEIR SECTION
SB100 SCALE: 1" = 1'-0"

B EXPANSION JOINT SECTION
SB100 SCALE: 1" = 1'-0"

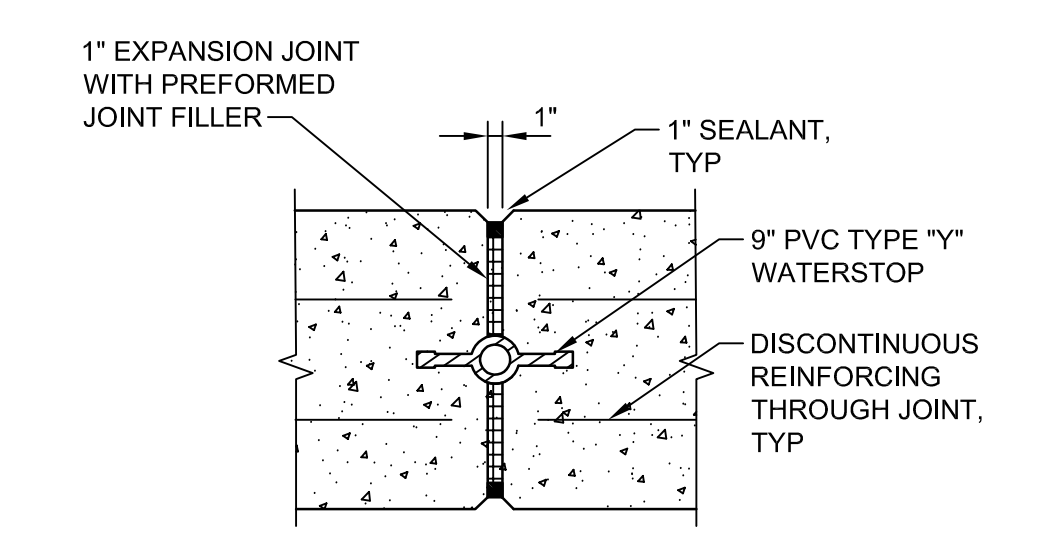


- NOTES:**
- 5/8" Ø STAINLESS STEEL TURN-BUCKLE HOLD-DOWN W/ #2 STAINLESS STEEL CLEAVISES EA END (SACRIFICIAL).
 - WIRE ROPE: 5/8" Ø STRAND 3" LOOP EACH END X 2'-0" LONG, TYP 3 LOCATIONS.
 - EPOXY GROUT AFTER SECURE.

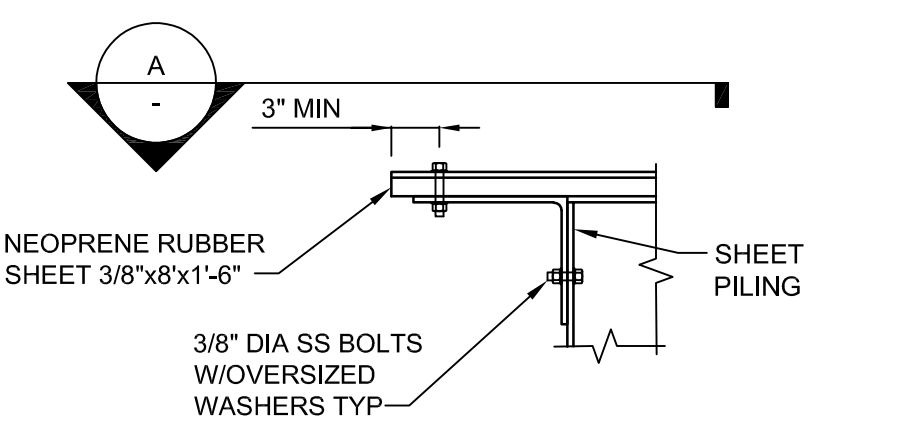
C WEIR WALL SECTION
SB100 SCALE: 1" = 1'-0"



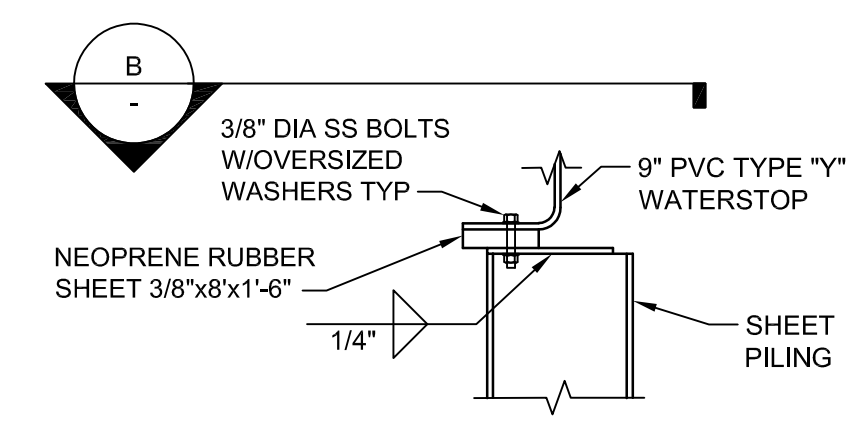
2 EXPANSION JOINT DETAIL
SB100 SCALE: 1" = 1'-0"



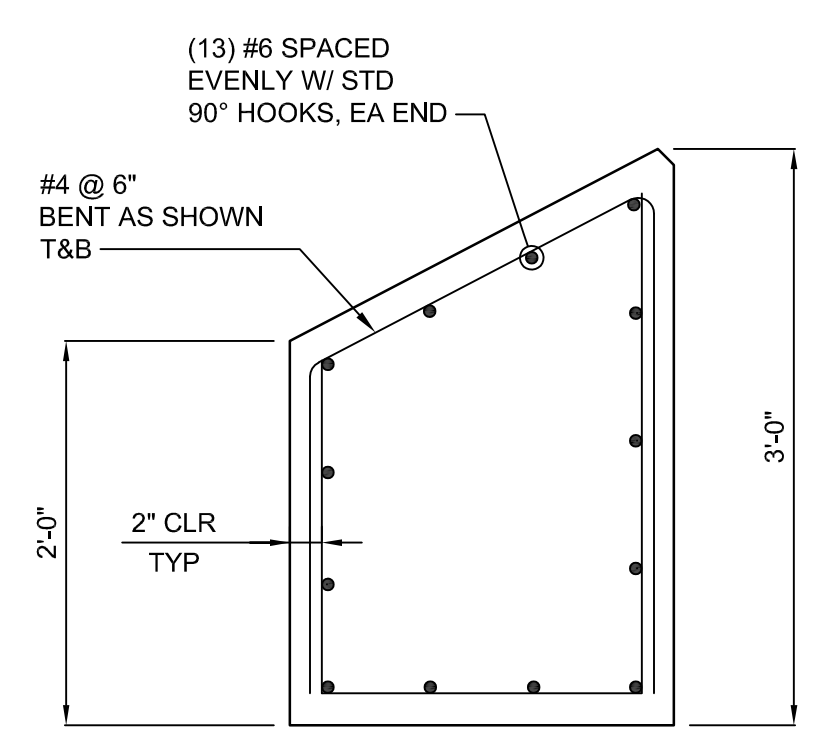
4 WEIR WALL EXPANSION JOINT DETAIL
SCALE: 1" = 1'-0"



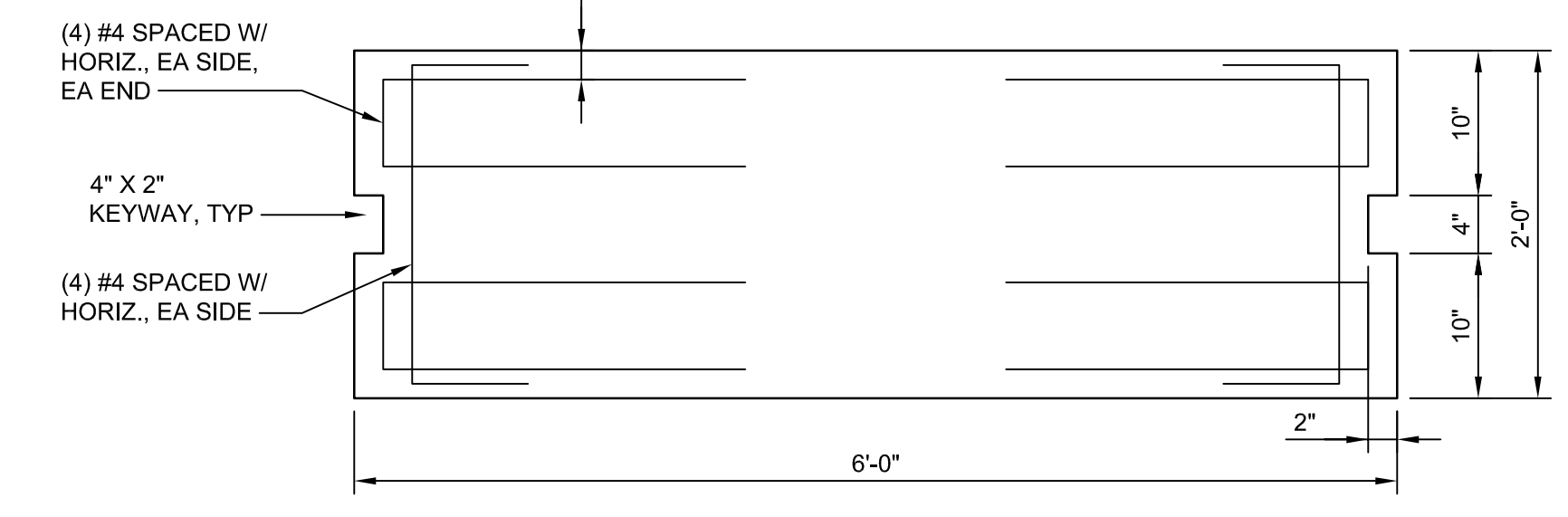
6 SHEET PILE INTERLOCK ALIGNED WITH JOINT
NTS



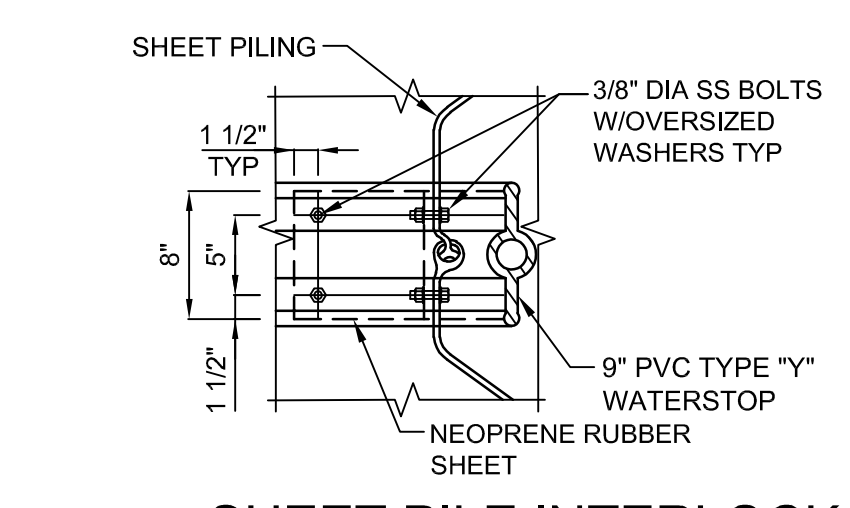
7 SHEET PILE INTERLOCK MISALIGNED WITH JOINT
NTS



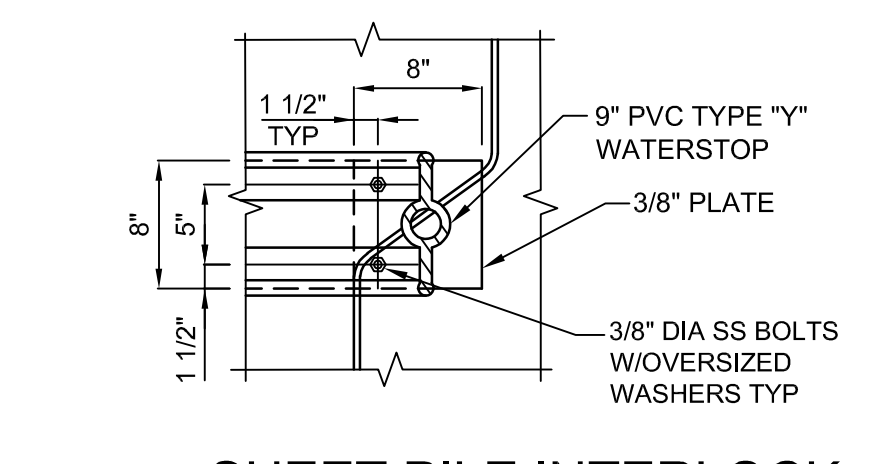
1 DETAIL
SCALE: 1" = 1'-0"



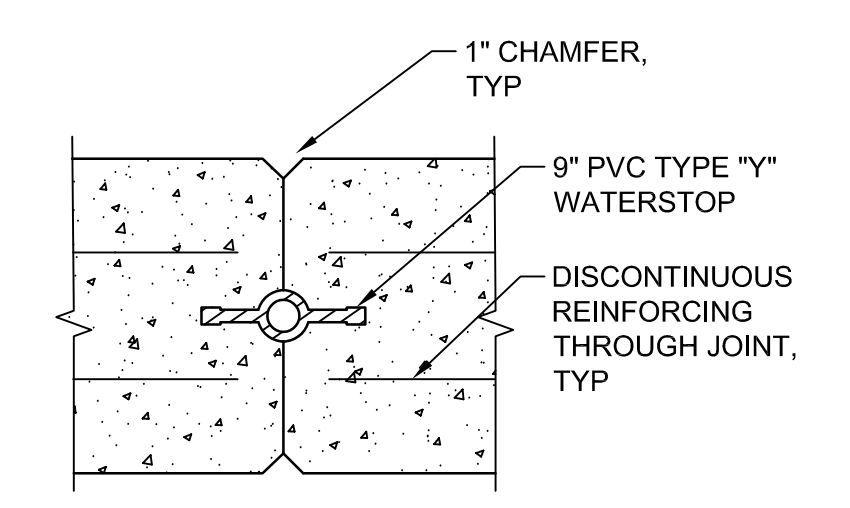
3 DETAIL
SB100 SCALE: 1" = 1'-0"



A SHEET PILE INTERLOCK ALIGNED WITH JOINT
NTS



B SHEET PILE INTERLOCK MISALIGNED WITH JOINT
NTS



5 WEIR WALL CONTRACTION JOINT DETAIL
SCALE: 1" = 1'-0"



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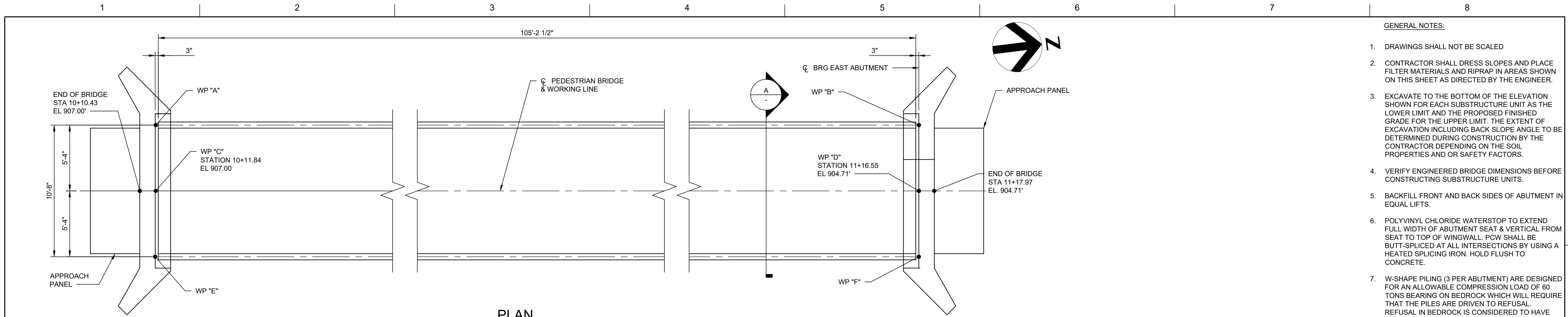
325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

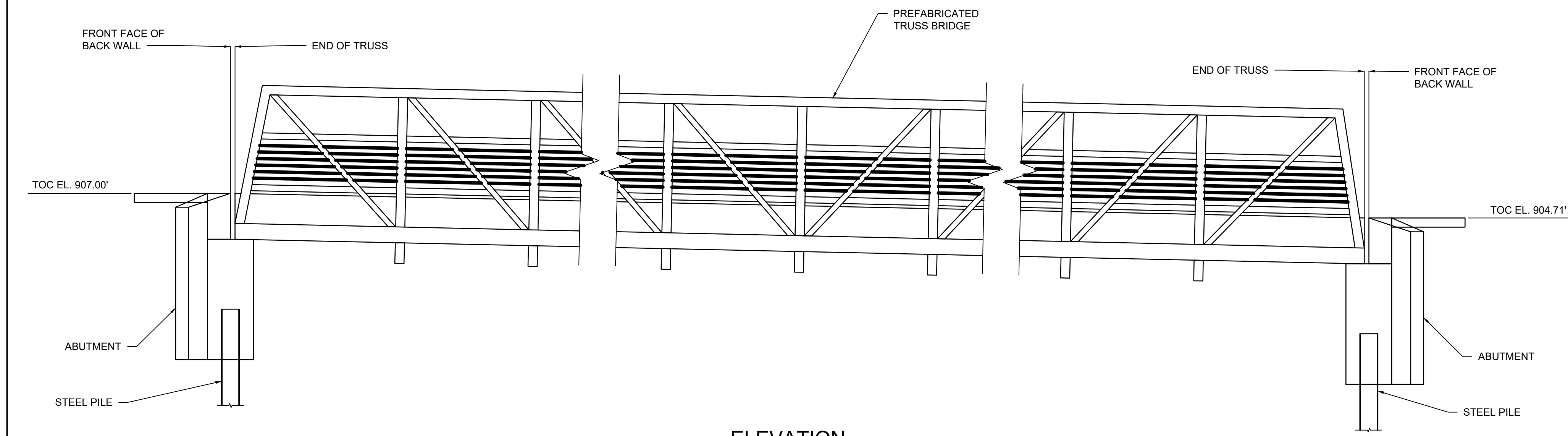
WEIR WALL SECTIONS AND DETAILS

0 1" 2" SCALE AS NOTED

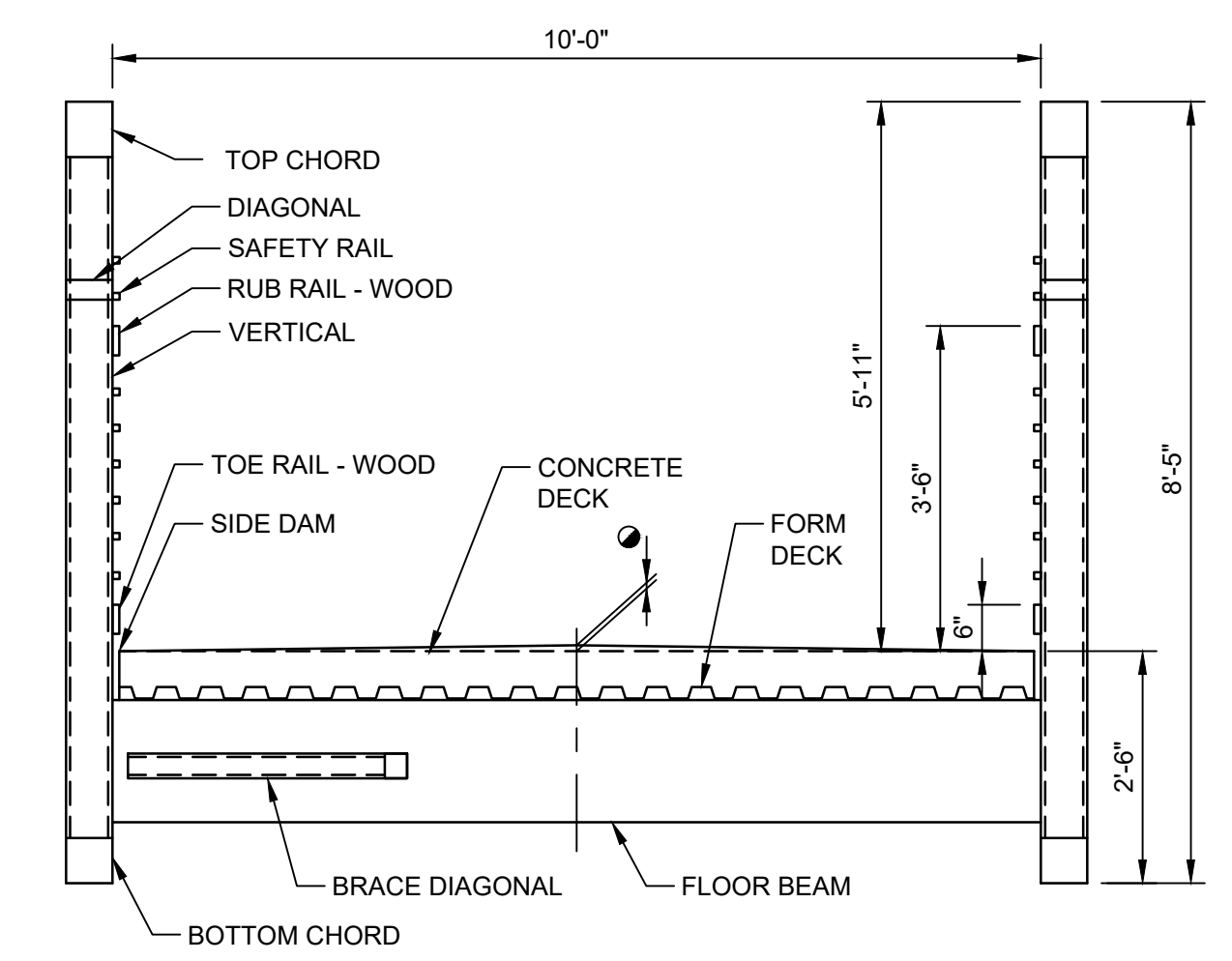
FILENAME SB301.DWG SHEET SB301



PLAN
SCALE: 1/4" = 1'-0"



ELEVATION
SCALE: 1/4" = 1'-0"



NOTE:
● TYPICAL BRIDGE DECK CROWN SHALL TRANSITION TO A LEVEL DECK OVER A DISTANCE OF 8'-0" AT EACH END OF THE BRIDGE. EDGE OF DECK THICKNESS SHALL REMAIN CONSTANT ALONG ENTIRE LENGTH OF BRIDGE.

SECTION
SCALE: 1/2" = 1'-0"

- GENERAL NOTES:**
- DRAWINGS SHALL NOT BE SCALED
 - CONTRACTOR SHALL DRESS SLOPES AND PLACE FILTER MATERIALS AND RIPRAP IN AREAS SHOWN ON THIS SHEET AS DIRECTED BY THE ENGINEER.
 - EXCAVATE TO THE BOTTOM OF THE ELEVATION SHOWN FOR EACH SUBSTRUCTURE UNIT AS THE LOWER LIMIT AND THE PROPOSED FINISHED GRADE FOR THE UPPER LIMIT. THE EXTENT OF EXCAVATION INCLUDING BACK SLOPE ANGLE TO BE DETERMINED DURING CONSTRUCTION BY THE CONTRACTOR DEPENDING ON THE SOIL PROPERTIES AND OR SAFETY FACTORS.
 - VERIFY ENGINEERED BRIDGE DIMENSIONS BEFORE CONSTRUCTING SUBSTRUCTURE UNITS.
 - BACKFILL FRONT AND BACK SIDES OF ABUTMENT IN EQUAL LIFTS.
 - POLYVINYL CHLORIDE WATERSTOP TO EXTEND FULL WIDTH OF ABUTMENT SEAT & VERTICAL FROM SEAT TO TOP OF WINGWALL. PCW SHALL BE BUTT-SPLICED AT ALL INTERSECTIONS BY USING A HEATED SPLICING IRON. HOLD FLUSH TO CONCRETE.
 - W-SHAPE PILING (3 PER ABUTMENT) ARE DESIGNED FOR AN ALLOWABLE COMPRESSION LOAD OF 60 TONS BEARING ON BEDROCK WHICH WILL REQUIRE THAT THE PILES ARE DRIVEN TO REFUSAL. REFUSAL IN BEDROCK IS CONSIDERED TO HAVE OCCURRED WHEN THE DRIVING PENETRATION RATE REACHES 10 BLOWS PER INCH AND THE PILE TIP IS NEAR THE ESTIMATED BEDROCK ELEVATION OF 832.00.

PREFABRICATED PEDESTRIAN TRUSS SPAN NOTES:

DESIGN SPECIFICATIONS:

- PREFABRICATED PEDESTRIAN BRIDGE TRUSS SPAN SHALL BE IN ACCORDANCE WITH SECTION 2471 OF THE MINNESOTA D.O.T. STANDARD SPECIFICATIONS AND BE DESIGNED TO CONFORM WITH THE AASHTO LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES, DECEMBER 2009 WITH INTERIMS AND THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.
- SPECIFICATIONS AND MATERIALS:
 - TYPE: PRATT STYLE CONNECTOR WITH SLOPED END VERTICALS AND TYPICAL H-SECTION FLOOR BEAM.
 - DECK: CONCRETE DECK SHALL BE IN ACCORDANCE WITH TRUSS MANUFACTURER'S RECOMMENDATIONS AND SHALL BE EPOXY COATED.
 - FINISH: ALL PRINCIPAL TRUSS MEMBERS, FLOOR BEAMS, LATERAL BRACING MEMBERS, BEARING PLATES, AND EDGE FORM PLATES FOR CONCRETE DECK SHALL UTILIZE GALVANIZED STEEL.
 - SAFETY SYSTEM LOCATION: HORIZONTAL SAFETY RAILS - INSIDE MOUNTED.
 - TOE PLATE & RUB RAIL: WOOD.
 - VEHICLE ACCESS: VEHICLE NOT PREVENTED.
 - VEHICLE RATING: MAINTENANCE VEHICLE - 20,000 LBS (8,000 LBS FRONT AXLE & 12,000 LBS REAR AXLE) WITH MAXIMUM 10 FT WHEEL BASE.
 - STEEL SURFACE CLEANING: SSPC-SP1.

DEFLECTIONS:

- THE VERTICAL DEFLECTION OF THE BRIDGE DUE TO THE UNFACTORED PEDESTRIAN LIVE LOADING SHALL NOT EXCEED 1/360 OF THE SPAN LENGTH.
- THE HORIZONTAL DEFLECTION OF THE BRIDGE UNDER UNFACTORED WIND LOADING SHALL NOT EXCEED 1/360 OF THE SPAN LENGTH.

GENERAL:

- PREFABRICATED PEDESTRIAN BRIDGE TRUSS SPAN SHALL BE A LOW PROFILE HALF THROUGH TRUSS DESIGN WITH PRATT STYLE TRUSSES. PANEL LENGTHS SHALL BE APPROXIMATELY EQUAL. A SINGLE DIAGONAL SHALL BE UTILIZED PER PANEL EXCEPT IN THE CASE WHERE THERE IS AN ODD NUMBER OF PANELS, IN WHICH CASE THE CENTER PANEL SHALL HAVE TWO DIAGONALS.
- PREFABRICATED PEDESTRIAN BRIDGE TRUSS SPAN SHALL BE CAMBERED AS REQUIRED TO PROVIDE A LEVEL GRADE BETWEEN BEARING LINES IN THE FINAL CONDITION UNDER ALL SELF-WEIGHT LOADS.
- STRUCTURAL ELEMENTS CONTAINED WITHIN THESE PLANS HAVE BEEN DESIGNED ASSUMING MAXIMUM SERVICE LEVEL TRUSS REACTIONS PER BEARING OF 26.1 KIPS DEAD LOAD, 24.4 KIPS LIVE LOAD, AND 21 KIPS WIND LOAD. THE WIND LOAD REACTION WAS CONSIDERED IN BOTH THE UPWARD AND DOWNWARD DIRECTION. STRUCTURAL ELEMENTS WERE ALSO DESIGNED FOR A HORIZONTAL SERVICE LEVEL REACTION OF 27.4 KIPS FROM WIND (APPLIED PERPENDICULAR TO CL BRIDGE) AND 22 KIPS FROM THERMAL (APPLIED PARALLEL TO CL BRIDGE). IF ACTUAL VALUES EXCEED THOSE SHOWN HERE, THE TRUSS MANUFACTURER SHALL NOTIFY THE CONTRACTING OFFICER UPON SUBMITTAL OF THE SHOP DRAWINGS.

DESIGN LOADS:

- PEDESTRIAN LIVE LOAD: 90 PSF
- MAINTENANCE VEHICLE: VEHICLE (20,000 LBS.)

DIMENSIONAL CONSTRAINTS:

- THE BRIDGE SPAN LENGTH SHALL BE AS SHOWN (HORIZONTAL STRAIGHT-LINE DIMENSION) AND MEASURED FROM END TO END OF THE BRIDGE TRUSS, NOT INCLUDING THE END DAM, ANY DECK EXTENSION OR BEARING THAT EXTENDS BEYOND THE END OF THE TRUSS.
- PREFABRICATED PEDESTRIAN BRIDGE TRUSS SPAN SHALL PROVIDE A 10'-0" MINIMUM CLEAR WIDTH MEASURED BETWEEN INSIDE FACES OF RAILINGS.
- MEMBER SIZES FOR PRINCIPAL TRUSS MEMBERS (TOP CHORD, BOTTOM CHORD, VERTICALS AND DIAGONALS) SHALL BE UNIFORM THROUGHOUT THE SPAN. IF SMALLER MEMBER SIZES ARE DESIRED FOR DIAGONAL AND VERTICAL MEMBERS, THE SAME SIZE DIAGONALS AND VERTICALS SHALL BE USED THROUGHOUT THE SPAN (END POST VERTICALS EXCLUDED).
- THE BRIDGE MANUFACTURER SHALL DETERMINE ALL DISTANCES FROM THE TOP OF THE DECK (MEASURED FROM THE HIGHEST POINT OF THE DECK) TO THE BOTTOM OF ANY STEEL MEMBER NOT SHOWN IN THIS DRAWING.
- THE NUMBER OF BAYS AND THE DIMENSION OF THE PANEL POINTS SHALL BE DETERMINED BY THE BRIDGE MANUFACTURER.

APPROVED MANUFACTURERS:

- CONTECH ENGINEERING SOLUTIONS LLC OR APPROVED EQUAL.

PROJECT MANAGER ANDREW F. JUDD

DESIGNED BY J. MULVIHILL
CHECKED BY G. STEKOVIC
DRAWN BY G. STEKOVIC

ISSUE	DATE	DESCRIPTION
3	03/28/2023	100% DESIGN
2	09/14/2022	90% DESIGN
1	06/13/2022	PFA GRANT PACKAGE

PROJECT NUMBER 10268112

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

JEROME W. MULVIHILL, PE
DATE 03/28/2023 LICENSE # 41241

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

PEDESTRIAN BRIDGE PLAN, SECTION AND NOTES

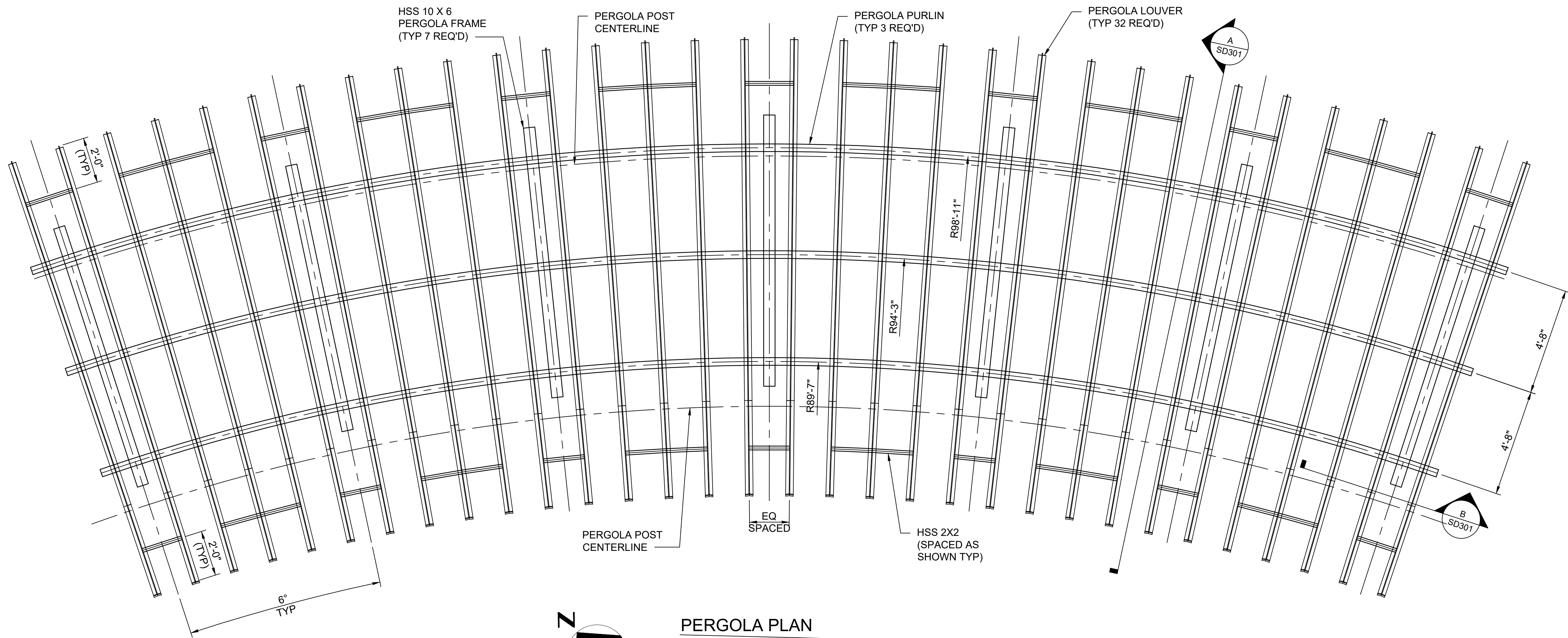


FILENAME SC100.DWG
SCALE AS NOTED

SHEET
SC100



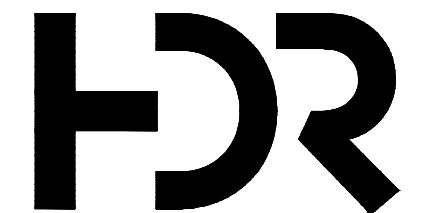
- GENERAL NOTES:**
1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION.
 2. ENGINEER-OF-RECORD SHALL BE NOTIFIED OF ANY DISCREPANCIES FOUND PRIOR TO CONTINUING CONSTRUCTION.
 3. REFERENCE LS SHEETS FOR PERGOLA FINISH.
 4. FOR MATERIAL TYPES REFER TO SHEET S001.



PERGOLA PLAN
SCALE: 3/8" = 1'-0"



MINNEHAHA CREEK
WATERSHED DISTRICT



ISSUE	DATE	DESCRIPTION
3	03/28/2023	100% DESIGN
2	09/14/2022	90% DESIGN
1	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER	ANDREW F. JUDD
DESIGNED BY	J. MULVIHILL
CHECKED BY	G. STEKOVIC
DRAWN BY	G. STEKOVIC
PROJECT NUMBER	10268112

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JEROME W. MULVIHILL, PE
DATE 03/28/2023 LICENSE # 41241

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

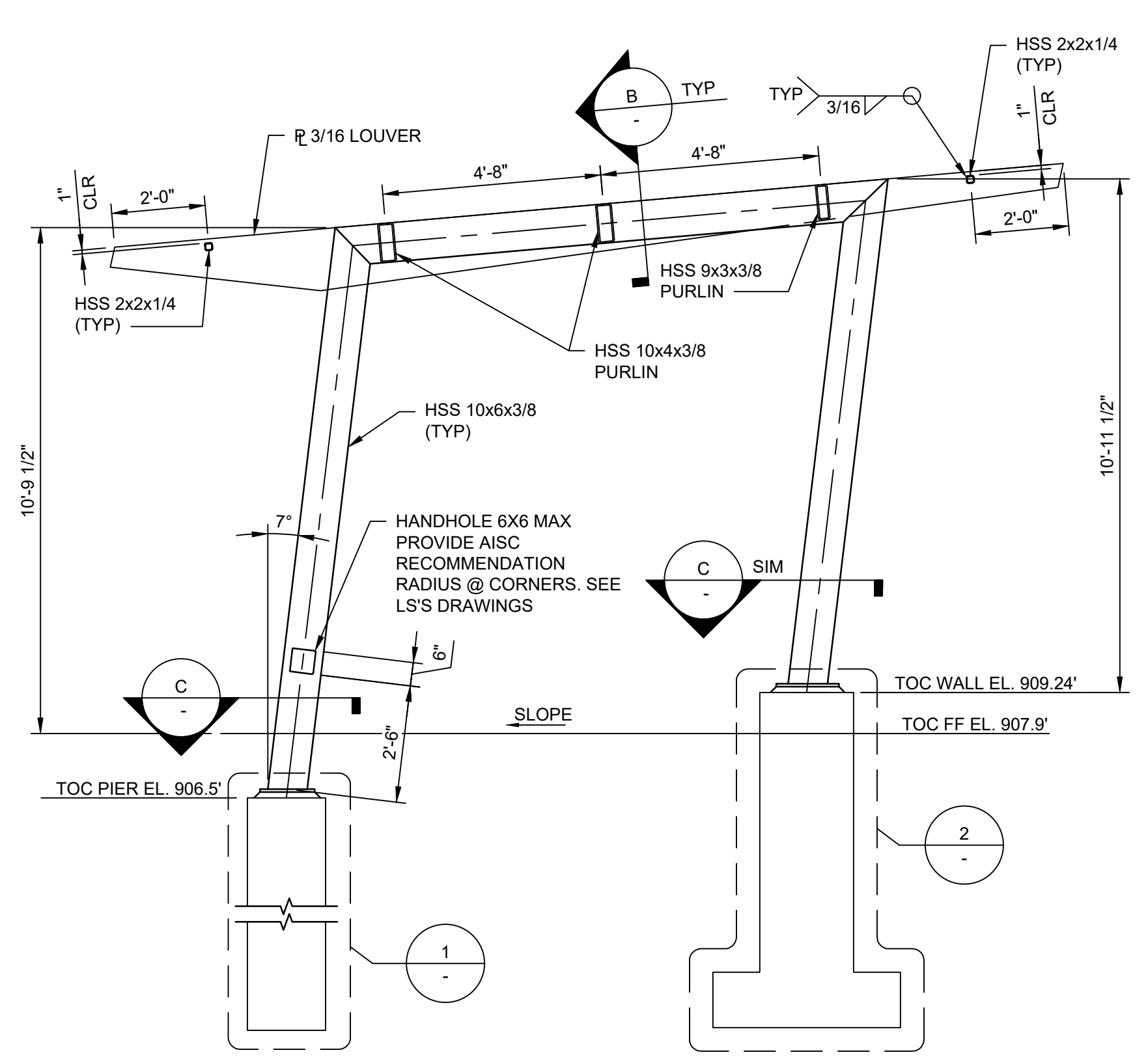
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

PERGOLA STRUCTURAL FRAMING PLAN

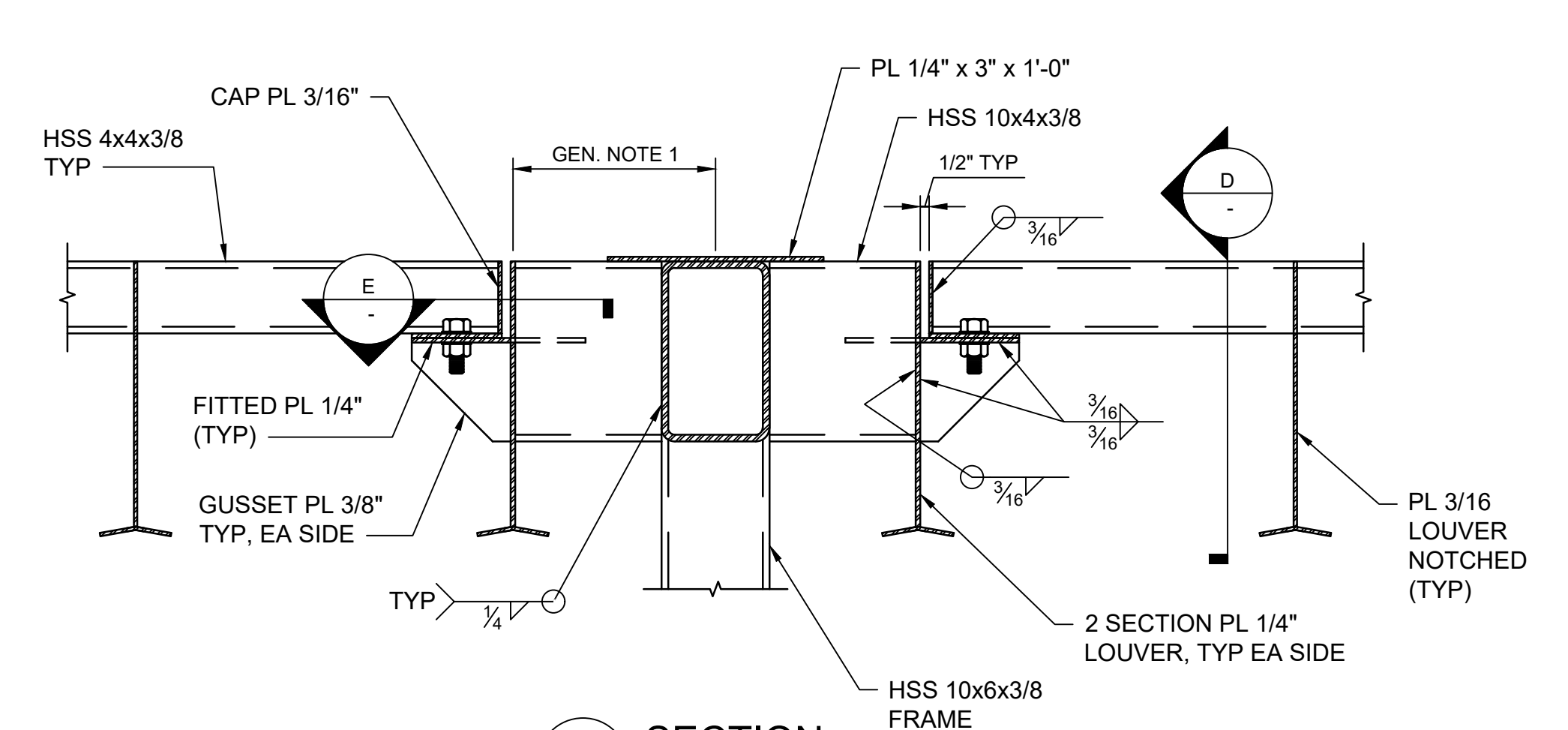
0 1" 2"

FILENAME | SD100.DWG
SCALE | AS SHOWN

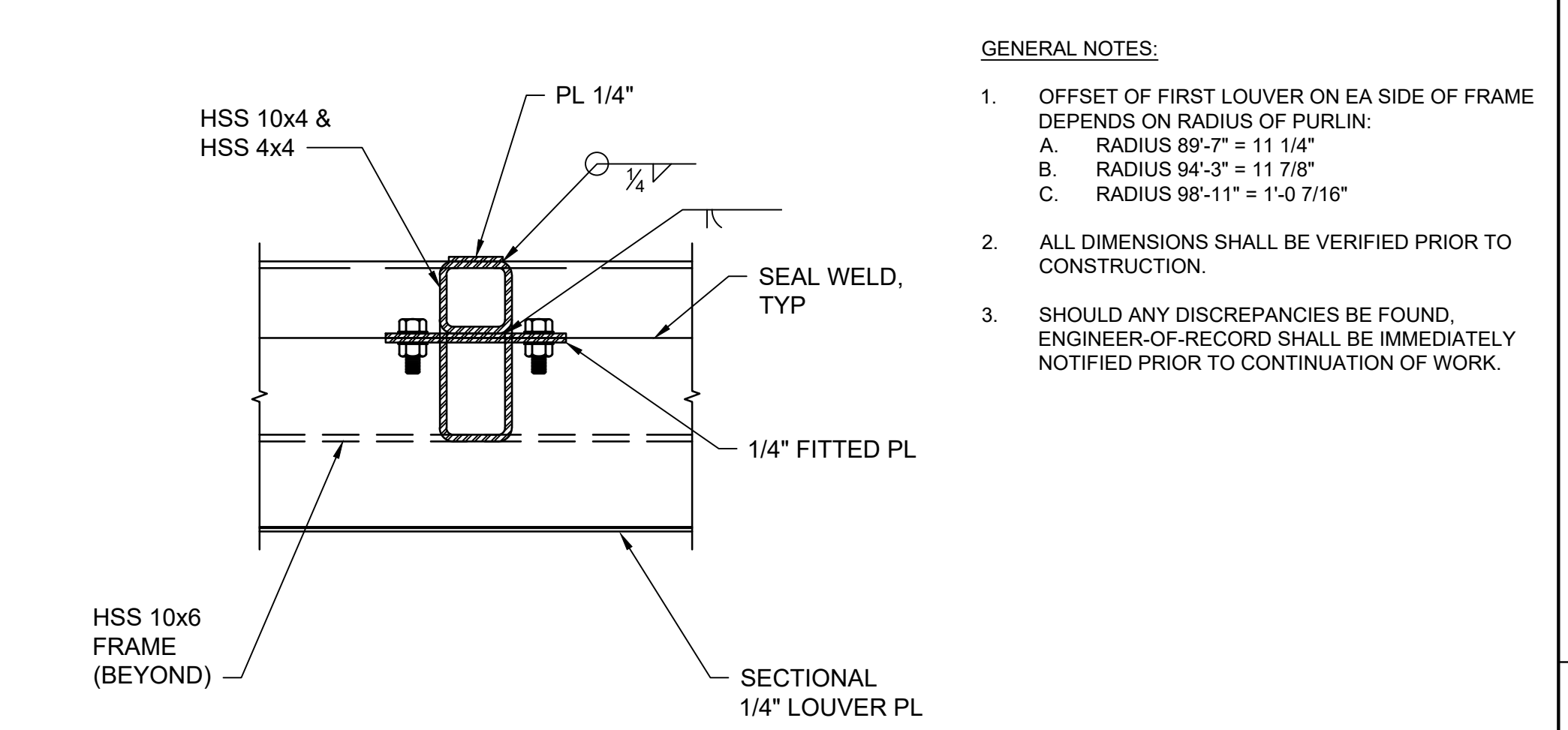
SHEET
SD100



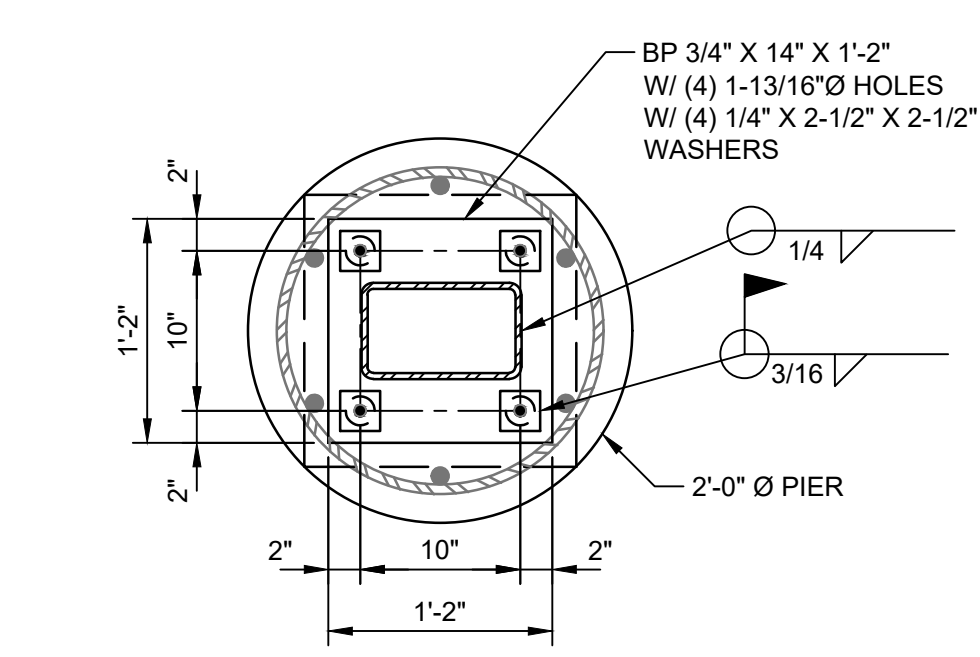
SECTION A
SD100
SCALE: 3/8" = 1'-0"



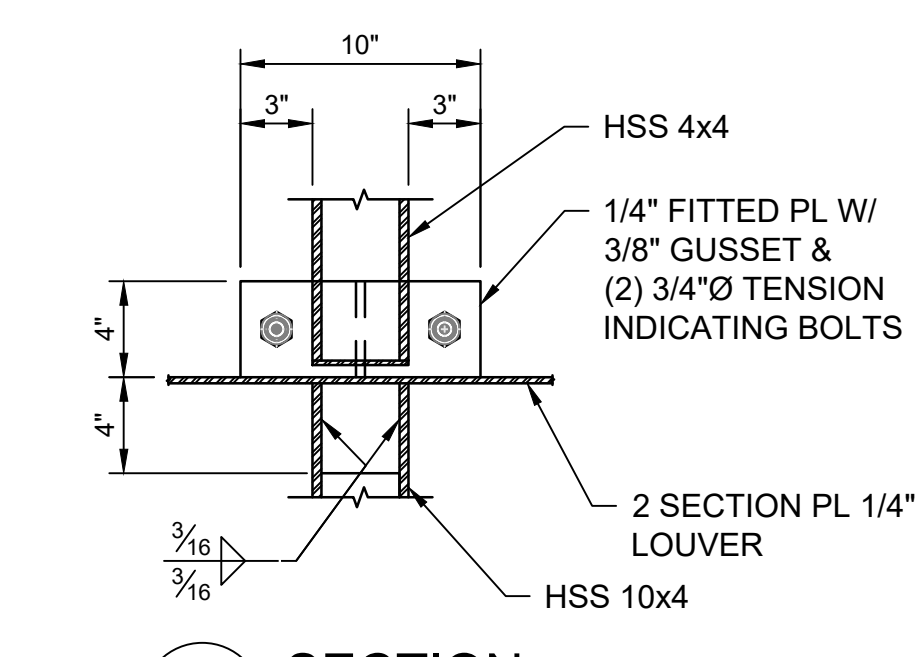
SECTION B
SCALE: 1-1/2" = 1'-0"



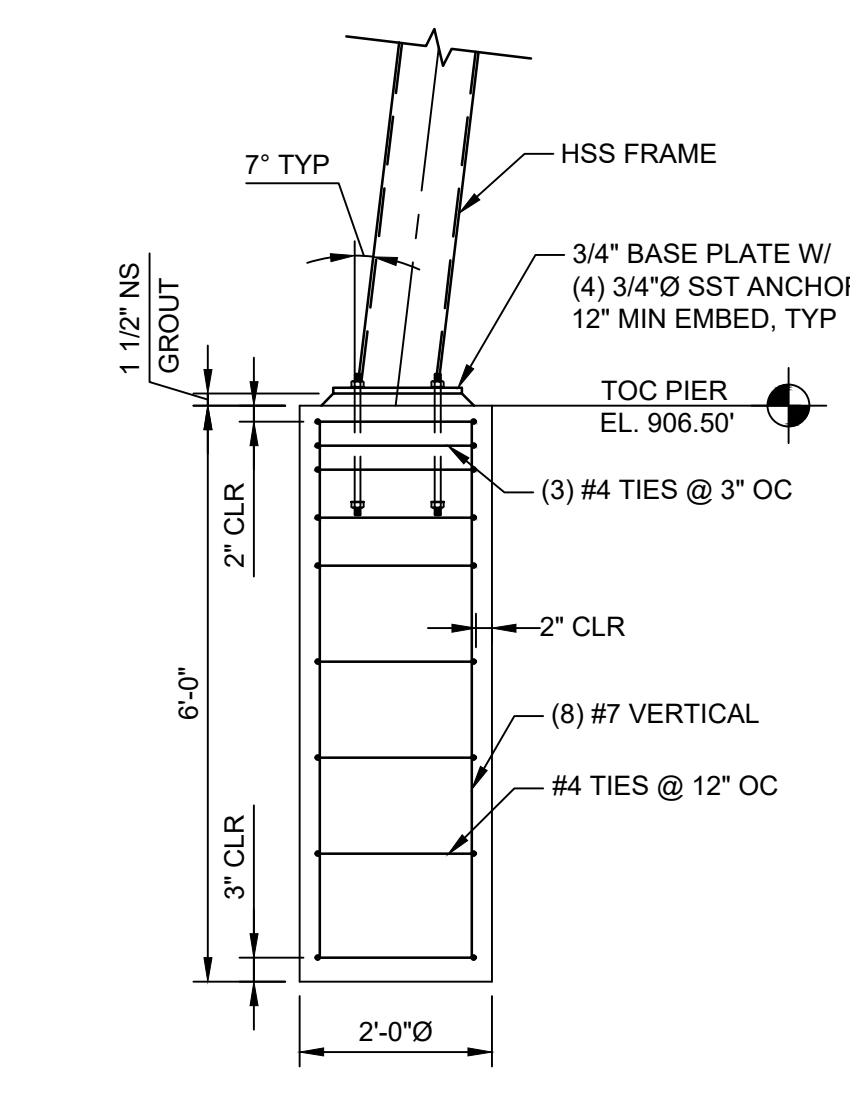
SECTION D
SCALE: 1-1/2" = 1'-0"



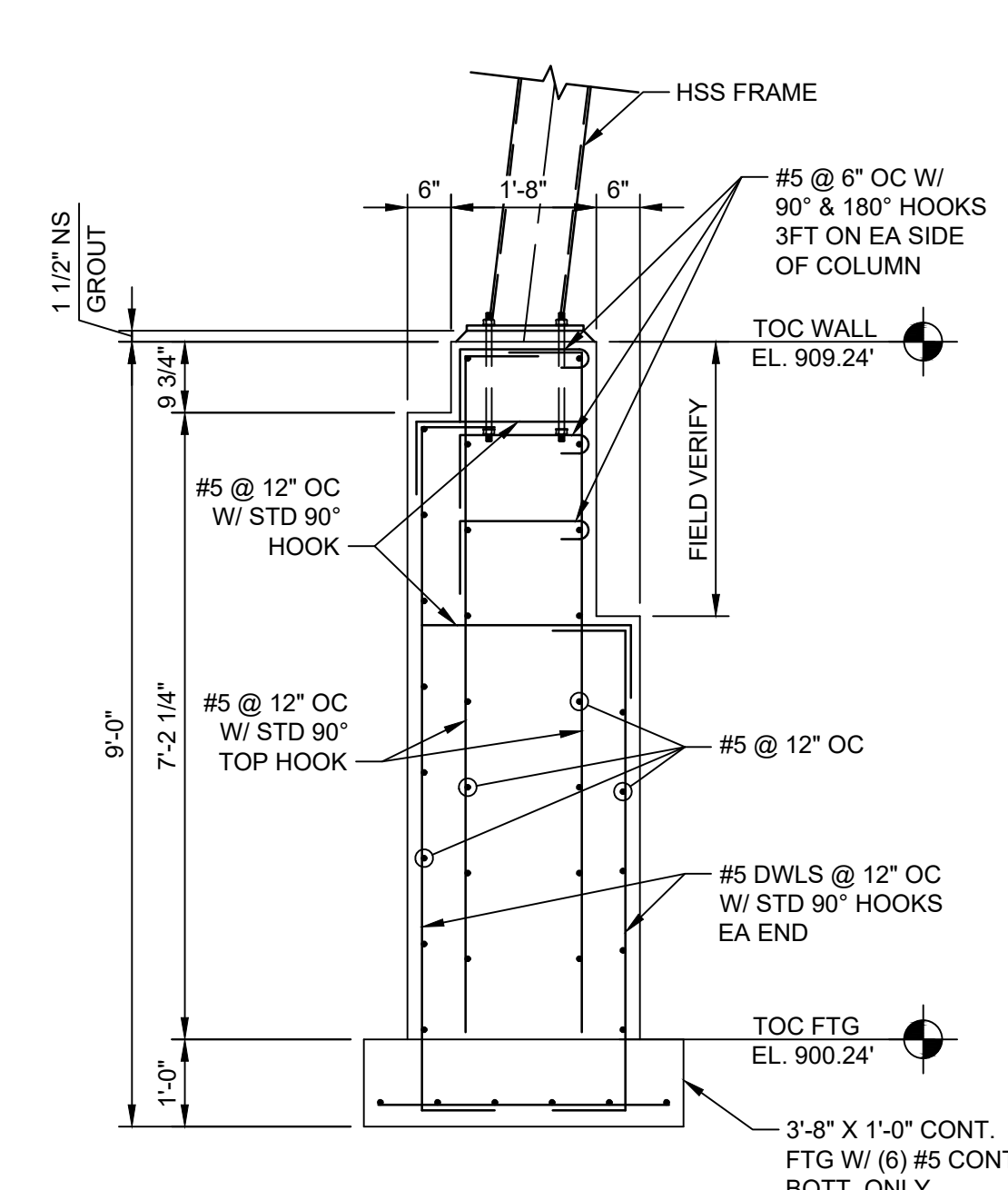
SECTION C
SCALE: 1-1/2" = 1'-0"



SECTION E
SCALE: 1-1/2" = 1'-0"



DETAIL 1
SCALE: 1/2" = 1'-0"



DETAIL 2
SCALE: 1/2" = 1'-0"

NOTE:
WALL REINFORCEMENT AT COLUMN/FRAME LOCATION

- GENERAL NOTES:**
- OFFSET OF FIRST LOUVER ON EA SIDE OF FRAME DEPENDS ON RADIUS OF PURLIN:
A. RADIUS 89'-7" = 11 1/4"
B. RADIUS 94'-3" = 11 7/8"
C. RADIUS 98'-11" = 1'-0 7/16"
 - ALL DIMENSIONS SHALL BE VERIFIED PRIOR TO CONSTRUCTION.
 - SHOULD ANY DISCREPANCIES BE FOUND, ENGINEER-OF-RECORD SHALL BE IMMEDIATELY NOTIFIED PRIOR TO CONTINUATION OF WORK.



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1	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER	ANDREW F. JUDD
DESIGNED BY	J. MULVIHILL
CHECKED BY	G. STEKOVIC
DRAWN BY	G. STEKOVIC
PROJECT NUMBER	10268112

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JEROME W. MULVIHILL, PE
DATE 03/28/2023 LICENSE # 41241

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

STRUCTURAL SECTIONS

0 1" 2"

FILENAME | SD301.DWG
SCALE | AS SHOWN

SHEET
SD301

ONE LINE, POWER AND LIGHTING SYMBOLOGY

SITE SYMBOLOGY

LOW VOLTAGE CIRCUIT BREAKER (CB). RATING AND NO. OF POLES AS SHOWN. WHEN SPECIFIC TYPE, OTHER THAN MCCB, IS REQUIRED, X INDICATES TYPE.

TYPES:
 MCCB - MOLDED CASE
 ICCB - INSULATED CASE
 LVP - LOW VOLTAGE POWER
 MCP - MOTOR CIRCUIT PROTECTOR (RATING PER CONNECTED LOAD)

TRIP UNIT:
 L - LONG TIME PICKUP
 S - SHORT TIME PICKUP
 I - INSTANTANEOUS PICKUP
 G - GROUND FAULT PICKUP
 A - ARC FLASH MAINTENANCE

LP100 208/120V 3Ø, 4W
 SWITCHBOARD OR PANELBOARD; NAME, VOLTAGE, PHASE, NUMBER OF WIRES WHEN INDICATED

100 KVA
 NON-MOTOR LOAD WITH DESIGN KVA, KW, OR AMP

VOLTAGE TRANSFORMER (VT, PT, OR CPT)

CURRENT TRANSFORMER (CT)

UTILITY WATT-HOUR METER PER UTILITY REQUIREMENTS

GROUND

WALL MOUNTED LUMINAIRE, LAMP TYPE AS SPECIFIED

CEILING/IN-GROUND UPLIGHT LUMINAIRE, LAMP TYPE AS SPECIFIED

POLE/STANCHION MOUNTED LUMINAIRE, LAMP TYPE AS SPECIFIED

CEILING/PENDANT MOUNTED LUMINAIRE, LAMP TYPE AS SPECIFIED

WALL MOUNTED LUMINAIRE, LAMP TYPE AS SPECIFIED

LIGHTING FIXTURE SUBSCRIPTS:
 X - INDICATES LUMINAIRE TYPE PER LUMINAIRE SCHEDULE
 Y - INDICATES CIRCUIT NUMBER FROM PANELBOARD
 Z - INDICATES CONTROLLING SWITCH (IF REQUIRED)
 NL - NIGHT LIGHT UNSWITCHED

WALL SWITCH

SUBSCRIPTS:
 X - INDICATES TYPE
 NONE - SINGLE POLE
 2 - DOUBLE POLE
 3 - THREE-WAY
 4 - FOUR-WAY
 K - KEY SWITCH
 P - PILOT LIGHT
 L - LIGHTED HANDLE
 DM - DIMMING
 MC - MOMENTARY CONTACT
 T - TIMER

Y - INDICATES CONTROLLING SWITCH (IF REQUIRED)

PHOTOCELL

TIME CLOCK

LIGHTING CONTROL OCCUPANCY SENSOR, WALL MOUNTED, X INDICATES SPECIFIC TYPE AS SPECIFIED

PANELBOARD (LESS THAN 250V)

TWO RECEPTACLES IN 2-GANG BOX UNDER COMMON COVER PLATE

DUPLEX RECEPTACLE

SIMPLEX RECEPTACLE

CONDUIT TURNING UP

CONDUIT TURNING DOWN

HOMERUN TO PANEL
 SINGLE PHASE: 2#12, 1#12G IN 3/4" C
 THREE PHASE: 3#12, 1#12G IN 3/4" C
 UNLESS OTHERWISE NOTED, CONDUCTOR SIZE IS FOR ENTIRE CIRCUIT

CONDUIT CONNECTION TO EQUIPMENT

CIRCUIT RUN BETWEEN DEVICES EXPOSED IN NON-ARCHITECTURALLY FINISHED AREAS; CONCEALED IN ARCHITECTURALLY FINISHED AREAS. CONDUIT AND CONDUCTOR SIZES SHALL BE THE SAME AS THE HOMERUN FOR THE CIRCUIT.

CONDUIT RUN BETWEEN DEVICES CONCEALED IN NON-ARCHITECTURALLY FINISHED AREAS OR UNDER FLOOR SLAB. CONDUIT AND CONDUCTOR SIZES SHALL BE THE SAME AS THE HOMERUN FOR THE CIRCUIT.

CIRCUIT HASH MARKS (WHEN INDICATED); LONG, SHORT, SINGLE DOT, AND DOUBLE DOT REPRESENT PHASE, NEUTRAL, EQUIPMENT GROUND, AND ISOLATED EQUIPMENT GROUND, RESPECTIVELY. #12 IN 3/4" CONDUIT UNLESS OTHERWISE INDICATED.

CIRCUIT CONTINUATION

CONDUIT STUBBED OUT AND CAPPED

GENERAL NOTES:

- THIS IS A STANDARD ELECTRICAL SYMBOLOGY SHEET. NOT ALL SYMBOLS MAY BE USED ON THIS PROJECT.
- SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE.

POWER POLE

DOWNGUY

UNDERGROUND ELECTRICAL AND COMMUNICATIONS SYSTEMS PATHWAY

OHE OVERHEAD ELECTRICAL AND COMMUNICATION SYSTEMS PATHWAY

CONTROL SYMBOLOGY

ELECTRICAL CONNECTION

NO ELECTRICAL CONNECTION

CONTROL/RELAY COIL; X INDICATES TYPE, Y INDICATES LOOP NO. WHEN USED

TYPES:
 CR - CONTROL RELAY
 DP - DEFINITE PURPOSE RELAY
 LC - LIGHTING CONTACTOR
 M - MOTOR STARTER

PC - PHOTOCELL
 TC - TIME CLOCK
 TR - TIMING RELAY

NORMALLY OPEN CONTACT (N.O.)

NORMALLY CLOSED CONTACT (N.C.)



ISSUE	DATE	DESCRIPTION
C	03/28/2023	100% DESIGN
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PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER	10268112
----------------	----------

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ANDREW KANER, PE
 DATE XX/XX/XXXX LICENSE # XXXXX

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

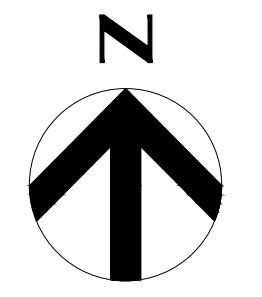
MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

ELECTRICAL LEGEND

0 1" 2"

FILENAME | E001.DWG
 SCALE | NA

SHEET
E001



GENERAL NOTES

1. CONDUIT ROUTING IS SHOWN DIAGRAMMATICALLY. FIELD ADJUST CONDUIT ROUTING BASED ON FIELD CONDITIONS AND COORDINATION WITH OTHER EXISTING AND NEW UTILITIES, STRUCTURES, AND EQUIPMENT.
2. INSTALL ALL UNDERGROUND CONDUCTORS IN DIRECT BURIED CONDUIT. SEE DETAIL SHEET E602.

KEY NOTES

1. PROVIDE 2 #10, #10G IN 1" C (FOR LIGHTING CIRCUIT). LOOP CIRCUIT IN AND OUT OF LIGHT POLE HANDHOLES.
2. PROVIDE 3#1, #4G IN 1-1/4" C. (P-3 FEEDER).
3. PROVIDE 3#6 #12G IN 1" C (P-4 FEEDER).
4. PROVIDE 2#12, #12G, 1" C (JB-1 REC. CIRCUIT).
5. METERED PEDESTAL. MOUNT ON CONCRETE HOUSEKEEPING PAD. SEE SPECIFICATION SECTION 26 05 00.
6. COORDINATE WITH XCEL ENERGY FOR METERED SUPPLY AND FINAL LOCATION.
7. UN-METERED PEDESTAL. MOUNT ON CONCRETE HOUSEKEEPING PAD. SEE SPECIFICATION SECTION 26 05 00.
8. MONITORING EQUIPMENT ENCLOSURE. MOUNT ON CONCRETE HOUSEKEEPING PAD. SEE SPECIFICATION SECTION 26 05 00.
9. SUSPEND CONDUITS BELOW THE PREFABRICATED BRIDGE DECK ON HANGER SYSTEM. PROVIDE PVC COATED RIGID STEEL CONDUIT AND GALVANIZED STEEL HANGERS AND SUPPORTS.
10. PROVIDE COMBINATION EXPANSION/DEFLECTION FITTINGS BETWEEN THE BRIDGE ABUTMENT AND THE FIRST ANCHORING HANGAR.
11. COORDINATE CONDUIT SLEEVES THROUGH BRIDGE ABUTMENT WITH STRUCTURAL.
12. PROVIDE WATERPROOF SPLICES IN HANDHOLE AS REQUIRED. SIZE HANDHOLE PER NEC.
13. PROVIDE 1" C WITH PULL WIRE TO STORM MANHOLE FOR OWNER FURNISHED SENSOR CABLES. COORDINATE FINAL ROUTING WITH OWNER.

PROJECT MANAGER ANDREW F. JUDD

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 60% DRAFT
 SUBMITTAL FOR CLIENT REVIEW

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

ELECTRICAL SITE PLAN 01

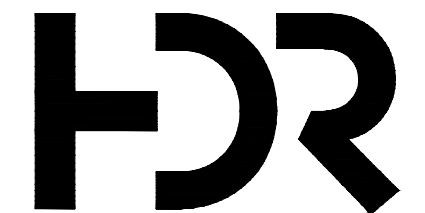


FILENAME | E101.DWG
 SCALE | 1" = 30'

SHEET
E101



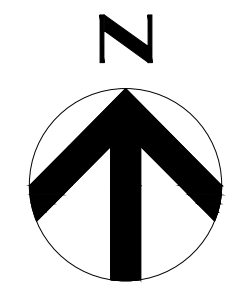
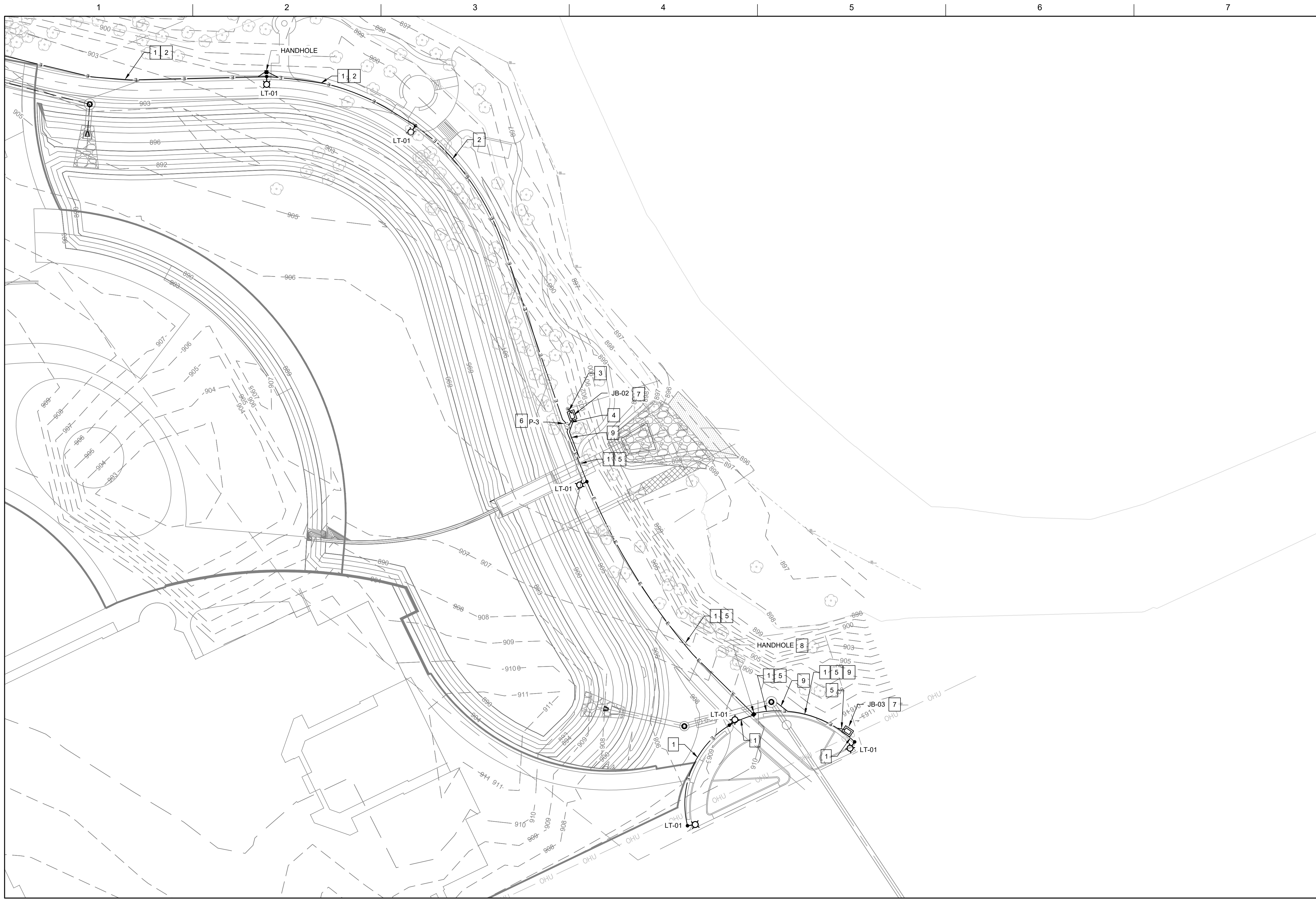
MINNEHAHA CREEK WATERSHED DISTRICT



ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
1	06/13/2022	PFA GRANT PACKAGE

PROJECT NUMBER	10268112
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DATE XX/XX/XXXX LICENSE # XXXXX



GENERAL NOTES

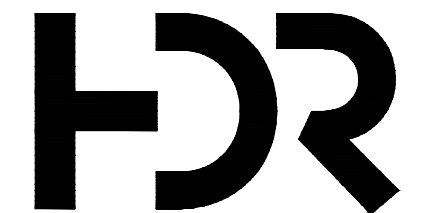
1. CONDUIT ROUTING IS SHOWN DIAGRAMMATICALLY. FIELD ADJUST CONDUIT ROUTING BASED ON FIELD CONDITIONS AND COORDINATION WITH OTHER EXISTING AND NEW UTILITIES, STRUCTURES, AND EQUIPMENT.
2. INSTALL ALL UNDERGROUND CONDUCTORS IN DIRECT BURIED CONDUIT. SEE DETAIL SHEET E602.

KEY NOTES

1. PROVIDE 2 #10, #10G IN 1" C (FOR LIGHTING CIRCUIT). LOOP CIRCUIT IN AND OUT OF LIGHT POLE HANDHOLES.
2. PROVIDE 3#1, #4G IN 1 1/4" C (FOR P-3 FEEDER). ROUTE THROUGH HANDHOLES AS INDICATED ON PLAN.
3. PROVIDE 1" C WITH PULL WIRE TO MONITORING WELL. FOR OWNER FURNISHED SENSOR CABLES. COORDINATE FINAL ROUTING WITH OWNER.
4. PROVIDE 2 #12, #12G IN 1" C (JB-2 REC. CIRCUIT).
5. PROVIDE 2#10, #10G, 1" C (JB-3 REC. CIRCUIT).
6. UN-METERED PEDESTAL. MOUNT ON CONCRETE HOUSEKEEPING PAD SEE SPECIFICATION SECTION 26 05 00.
7. MONITORING EQUIPMENT ENCLOSURE. MOUNT ON CONCRETE HOUSEKEEPING PAD. SEE SPECIFICATION SECTION 26 05 00.
8. PROVIDE WATERPROOF SPLICES IN HANDHOLE AS REQUIRED. SIZE HANDHOLE PER NEC.
9. PROVIDE 1" C WITH PULL WIRE TO STORM MANHOLE & CULVERT FOR OWNER FURNISHED SENSOR CABLES. COORDINATE FINAL ROUTING WITH OWNER.



**MINNEHAHA CREEK
WATERSHED DISTRICT**



ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
1	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER ANDREW F. JUDD	
PROJECT NUMBER	10268112

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60% DRAFT
SUBMITTAL FOR CLIENT REVIEW

DATE XX/XX/XXXX LICENSE # XXXXX

**325 BLAKE RD REGIONAL STORMWATER
AND GREENWAY**

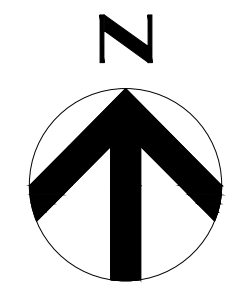
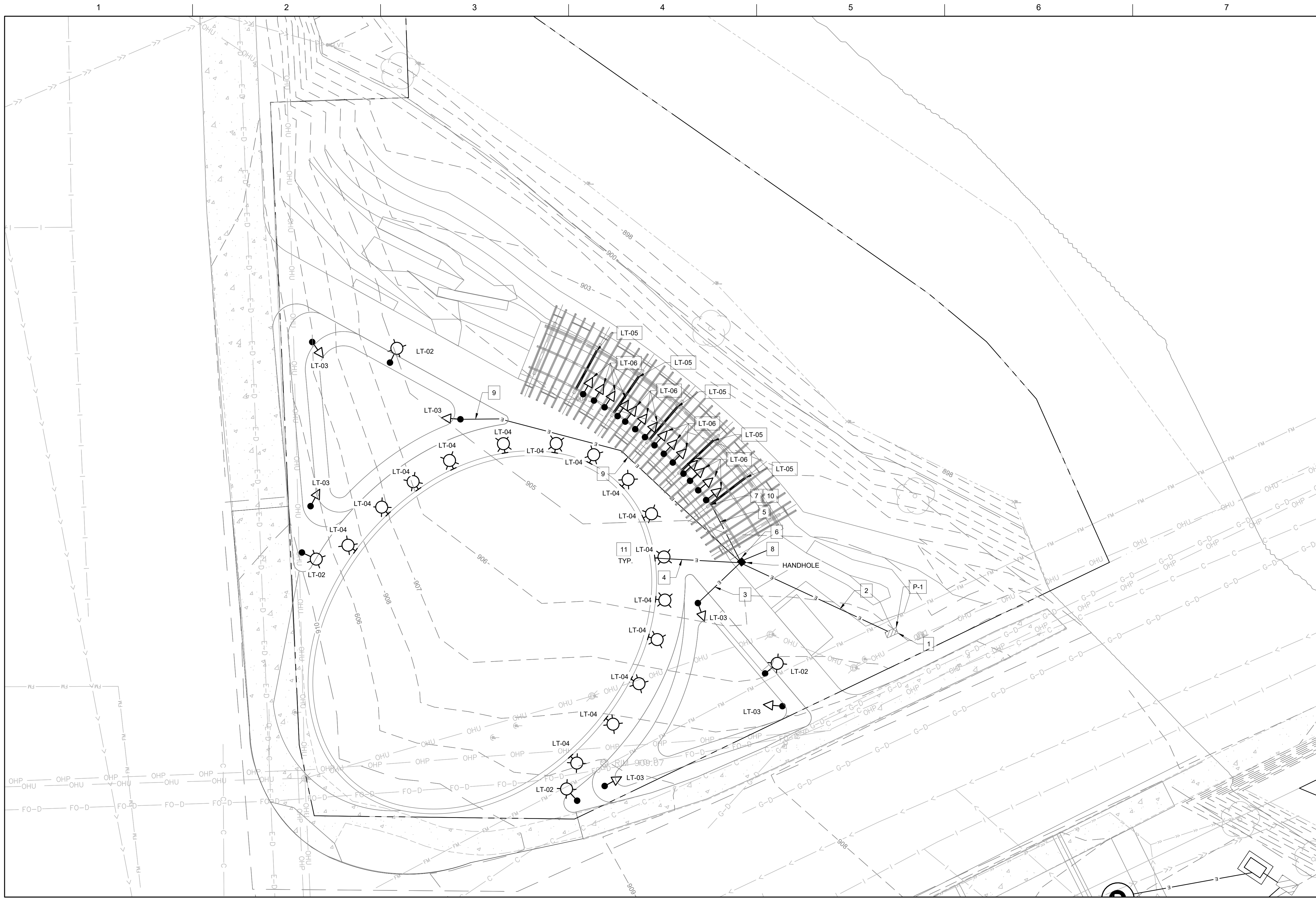
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

ELECTRICAL SITE PLAN 02



FILENAME | E102.DWG
SCALE | 1" = 30'

SHEET
E102



GENERAL NOTES

1. CONDUIT ROUTING IS SHOWN DIAGRAMMATICALLY. FIELD ADJUST CONDUIT ROUTING BASED ON FIELD CONDITIONS AND COORDINATION WITH OTHER EXISTING AND NEW UTILITIES, STRUCTURES, AND EQUIPMENT.
2. INSTALL ALL UNDERGROUND CONDUCTORS IN DIRECT BURIED CONDUIT. SEE DETAIL SHEET E602.

KEY NOTES

1. COORDINATE WITH XCEL ENERGY FOR METERED SUPPLY AND FINAL LOCATION.
2. PROVIDE 4 SETS 2#10, #10G IN 1" C TO HH-1.
3. PROVIDE 2#10, #10G IN 1" C, CIRCUIT ALL TYPE LT-03 & LT-04 IN SOUTH-EAST AREA SITE TOGETHER AND ROUTE TO P-1 VIA HH-1
4. PROVIDE 2#10, #10G IN 1" C, CIRCUIT ALL TYPE LT-04 TOGETHER AND ROUTE TO P-1 VIA HH-1
5. PROVIDE 2#10, #10G IN 1" C, CIRCUIT ALL TYPE LT-05 AND LT-06 TOGETHER AND ROUTE TO P-1 VIA HH-1
6. PROVIDE WATERPROOF SPLICES IN HANDHOLE AS REQUIRED. SIZE HANDHOLE PER NEC.
7. REFER TO LANDSCAPE DRAWING DETAIL SHEETS L540 SERIES. ROUTE LT-05 CIRCUIT CONDUCTORS IN CONDUIT UP THROUGH HSS POST FOUNDATION TO HANDHOLE IN POST. ROUTE CONDUCTORS IN LIQUIDTIGHT FLEXIBLE METAL CONDUIT TO TOP OF POST, PENETRATE POST AND CONTINUE TO LIGHT FIXTURE. FROM POST HANDHOLE, ROUTE CONDUCTORS IN CONDUIT DOWN THROUGH POST FOUNDATION AND CONTINUE TO THE NEXT POST.
8. ROUTE CONDUIT TO IRRIGATION CONTROLLER IF CONTROLLER IS REQUIRED. LOCATION SHOWN IS NOMINAL. COORDINATE WITH LANDSCAPE CONTRACTOR FOR FINAL LOCATION.
9. PROVIDE 2#10, #10G IN 1" C, CIRCUIT ALL TYPE LT-03 & LT-04 IN NORTHWEST SITE AREA TOGETHER AND ROUTE TO P-1 VIA HH-1
10. ROUTE LT-06 FIXTURE CIRCUIT CONDUCTORS IN LIQUID-TIGHT FLEXIBLE METAL CONDUIT UP THOUGH HSS POST FOUNDATION. EXIT AT TOP OF COLUMN AND ROUTE IN CONDUIT ALONG TOP OF PURLIN TO TYPE LT-06 FIXTURES. SEE SHEET L542.
11. COORDINATE RECESSED BOX MOUNTING AND CONDUIT WITHIN CONCRETE WALL. SEE DETAIL ON SHEET L521.

PROJECT MANAGER ANDREW F. JUDD

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 60% DRAFT
 SUBMITTAL FOR CLIENT REVIEW

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

ELECTRICAL ENLARGED SITE PLAN GATEWAY TO GREENWAY

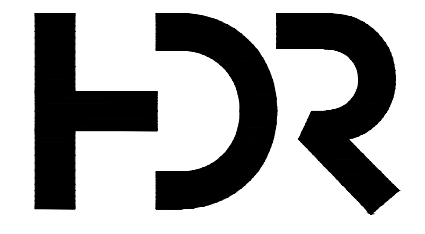


FILENAME | E401.DWG
 SCALE | 1" = 10'

SHEET
E401



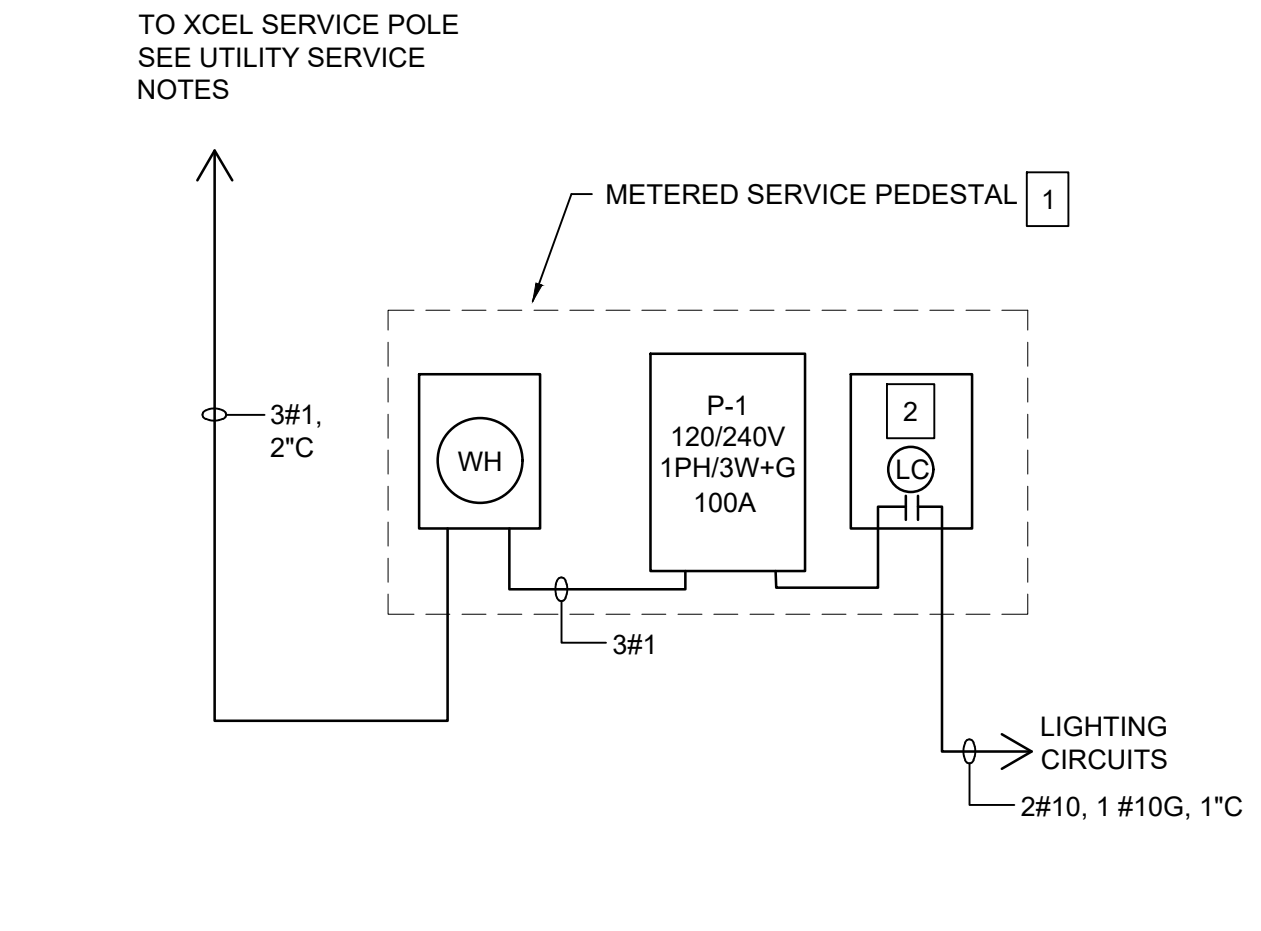
MINNEHAHA CREEK WATERSHED DISTRICT



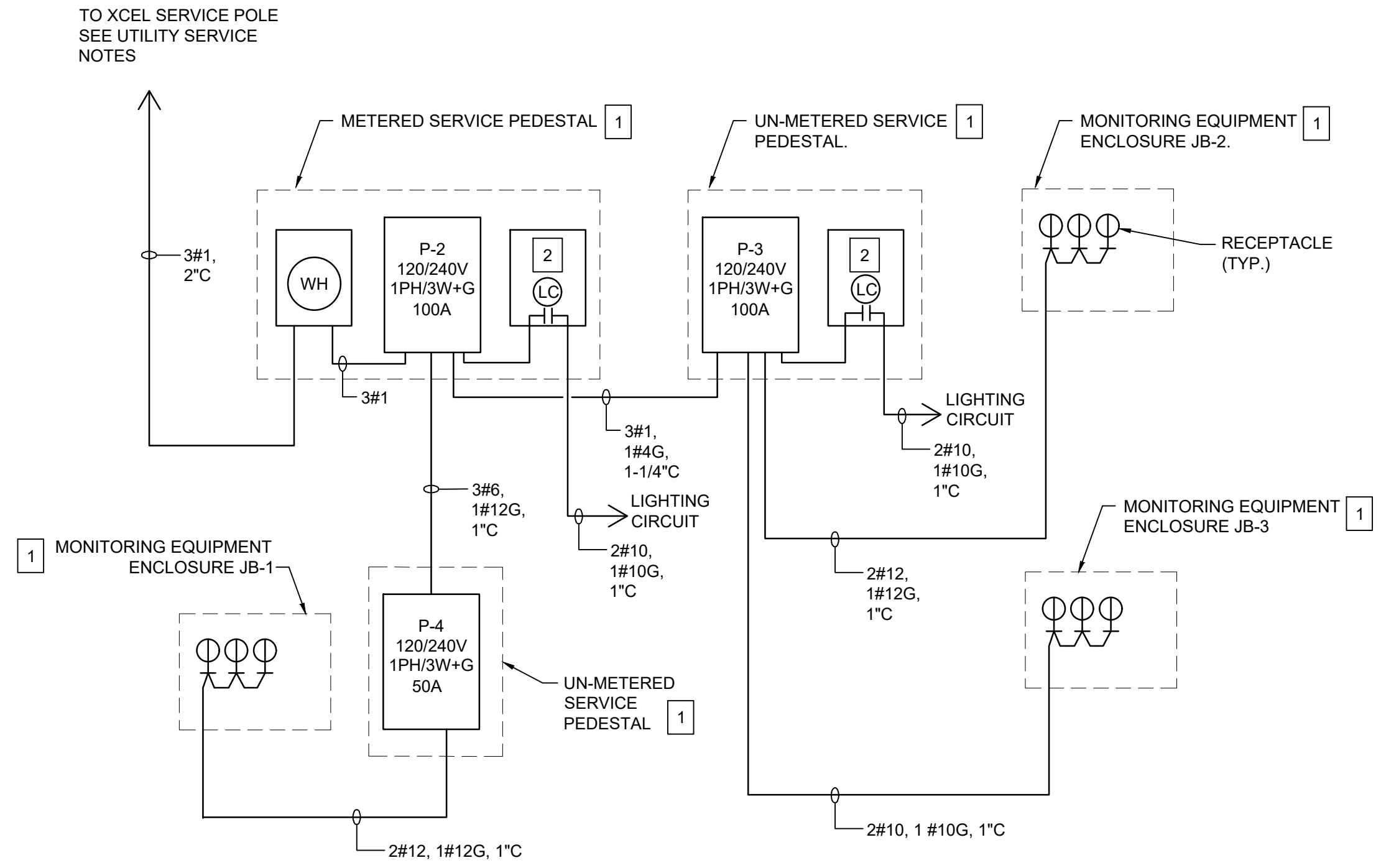
ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
1	06/13/2022	PFA GRANT PACKAGE

PROJECT NUMBER	10268112
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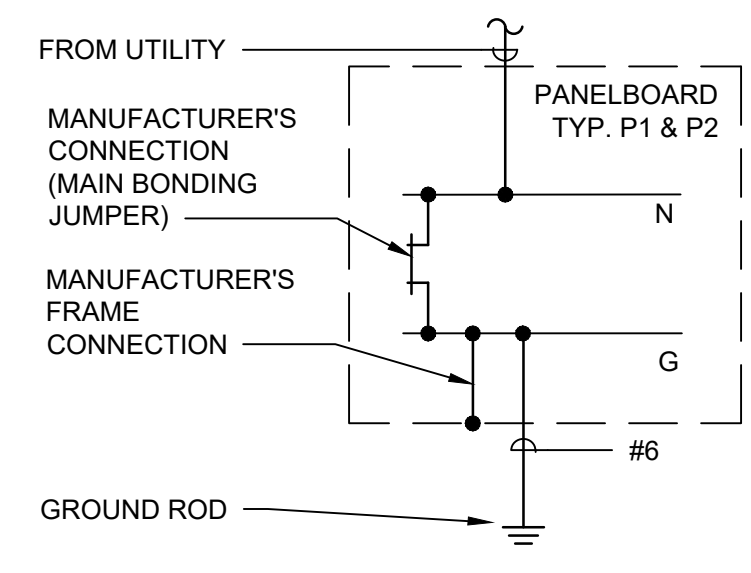
DATE XX/XX/XXXX LICENSE # XXXXX



P-1 RISER DIAGRAM (GATEWAY PLAZA)



P-2 RISER DIAGRAM (NATURE PLAY AREA AND TRAIL)



GROUNDING DIAGRAM (TYPICAL) METERED SERVICE PEDESTAL NOT TO SCALE

UTILITY SERVICE NOTES

1. MAKE SERVICE APPLICATION, VERIFY POINT OF SERVICE LOCATION AND COORDINATE METER LOCATIONS WITH XCEL ENERGY.
2. PROVIDE NRTL LISTED METER SOCKET CONFORMING TO XCEL STANDARDS, BILLING METER PROVIDED BY XCEL
3. UNDERGROUND SERVICE CONDUIT SHALL BE SCHEDULE 80 PVC.
4. PROVIDE SERVICE ENTRANCE CONDUIT, CONDUCTORS AND OVERHEAD POINT OF ATTACHMENT TO XCEL STANDARDS.
5. INSTALL ELBOW AT XCEL POLE TO MAX 6" ABOVE GRADE AND COIL 32 FEET OF CABLE AT BASE OF XCEL POLE.

GENERAL NOTES

1. CONDUCTOR SIZES HAVE BEEN INCREASED FOR VOLTAGE DROP.

KEY NOTES

1. SEE SPEC 26 05 00 FOR PEDESTAL AND MONITORING EQUIPMENT ENCLOSURE REQUIREMENTS.
2. ROUTE LIGHTING CIRCUITS THROUGH LIGHTING CONTACTOR. PROVIDE LIGHTING CONTACTOR, TIME CLOCK AND HOA SWITCH WITHIN THE PEDESTAL. PROVIDE AN EXTERIOR MOUNTED PHOTOCELL FOR P-1. SEE LIGHTING CONTROL DETAILS ON SHEET E602.

SERVICE PANEL: P-1

LOCATION: GATEWAY PLAZA DWG E401 VOLTS: 240/120 A.I.C. RATING: 22KA
 SUPPLY FROM: UTILITY METER PHASE: 1 MAINS TYPE: MCB
 MOUNTING: PEDESTAL WIRE: 3+GND MAINS RATING: 100A
 ENCLOSURE: NEMA 3R INTEGRAL SPD: YES SERVICE ENTRANCE LABEL: YES

CKT NO.	DESCRIPTION	CONNECTED LOAD (VA)				OCP		CONNECTED LOAD (VA)				DESCRIPTION	CKT NO.
		LTS	REC	MECH	MISC	AMPS	P	LTS	REC	MECH	MISC		
1	POLE AND UPLIGHTS NW	212				20	1	75				RECESSED WALL LIGHTS	2
3	POLE AND UPLIGHTS SW	212				20	1					LIGHTING CONTROL	4
5	PERGOLA STRIP LIGHTS	158				20	1					IRRIGATION CONTROLLER	6
7	PERGOLA SIGN LIGHTING	42				20	1					SPARE	8
9	SPARE					20	1					SPD	10
11	SPARE					20	1					SPARE	12

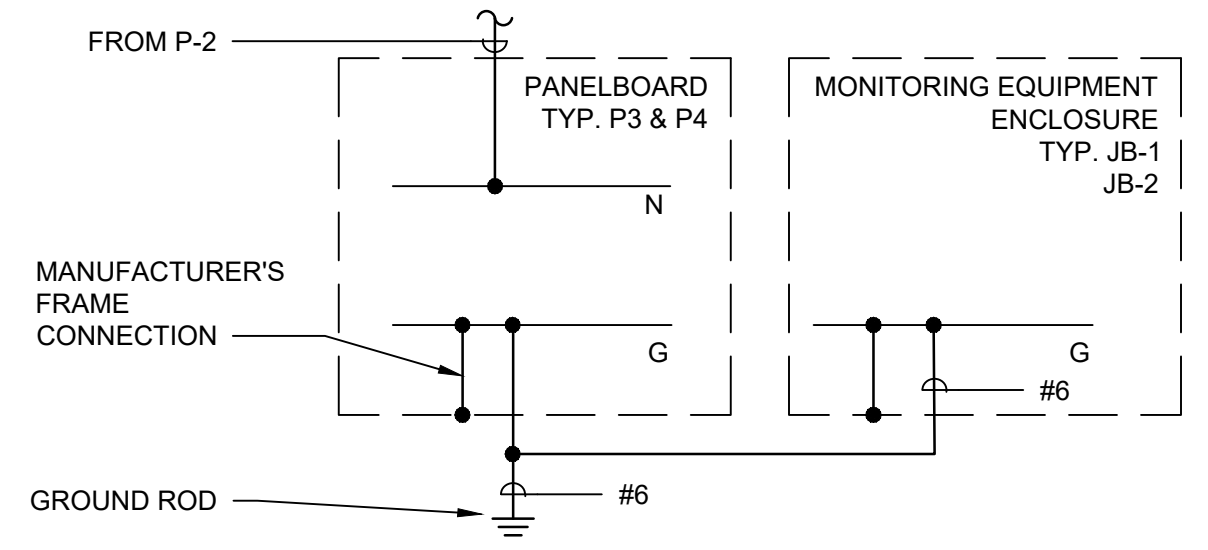
LOAD SUMMARY							PHASE BALANCE			
CONNECTED LOAD (KVA)	LTS	REC	MECH	MISC	SPARE	TOTAL	240 LINE-TO-LINE VOLTS	PHASE A (KVA)	0	
0.7	0.7	0.0	0.0	0.1	—	0.8	240	PHASE A (KVA)	0	
DEMAND FACTOR	1.25	NEC	1.00	1.00	20%	—	3	CONNECTED AMPS	PHASE B (KVA)	0
DESIGN LOAD (KVA)	0.9	0.0	0.0	0.1	0.2	1.1	5	DESIGN AMPS		

BRANCH PANEL: P-3

LOCATION: SEE DWG E102 VOLTS: 240/120 A.I.C. RATING: 10KA
 SUPPLY FROM: P-2 PHASE: 1 MAINS TYPE: MCB
 MOUNTING: PEDESTAL WIRE: 3+GND MAINS RATING: 50A
 ENCLOSURE: NEMA 3R INTEGRAL SPD: NO SERVICE ENTRANCE LABEL: NO

CKT NO.	DESCRIPTION	CONNECTED LOAD (VA)				OCP		CONNECTED LOAD (VA)				DESCRIPTION	CKT NO.
		LTS	REC	MECH	MISC	AMPS	P	LTS	REC	MECH	MISC		
1	POLE LIGHTS	176				20	2					LIGHTING CONTROL	2
3		176										JB-2 JOB BOX REC.	4
5	SPARE					20	1					JB-3 JOB BOX REC.	6
7	SPARE											SPARE	8
9	SPARE											SPARE	10
11	SPARE											SPARE	12

LOAD SUMMARY							PHASE BALANCE			
CONNECTED LOAD (KVA)	LTS	REC	MECH	MISC	SPARE	TOTAL	240 LINE-TO-LINE VOLTS	PHASE A (KVA)	1	
0.4	0.4	1.1	0.0	0.1	—	1.5	240	PHASE A (KVA)	1	
DEMAND FACTOR	1.25	NEC	1.00	1.00	20%	—	6	CONNECTED AMPS	PHASE B (KVA)	1
DESIGN LOAD (KVA)	0.4	1.1	0.0	0.1	0.3	1.9	8	DESIGN AMPS		



GROUNDING DIAGRAM (TYPICAL) UNMETERED SERVICE PEDESTAL NOT TO SCALE

SERVICE PANEL P-2

LOCATION: SEE DWG E101 VOLTS: 240/120 A.I.C. RATING: 22KA
 SUPPLY FROM: UTILITY METER PHASE: 1 MAINS TYPE: MCB
 MOUNTING: PEDESTAL WIRE: 3+GND MAINS RATING: 100A
 ENCLOSURE: NEMA 3R INTEGRAL SPD: YES SERVICE ENTRANCE LABEL: YES

CKT NO.	DESCRIPTION	CONNECTED LOAD (VA)				OCP		CONNECTED LOAD (VA)				DESCRIPTION	CKT NO.
		LTS	REC	MECH	MISC	AMPS	P	LTS	REC	MECH	MISC		
1	POLE LIGHTS	264				20	2					LIGHTING CONTROL	2
3		264										SPARE	4
5	PANEL P-4					50	2					SPARE	6
7			540									SPARE	8
9	PANEL P-3	176	540		50	50	2					SPD	10
11		176	540									SPARE	12

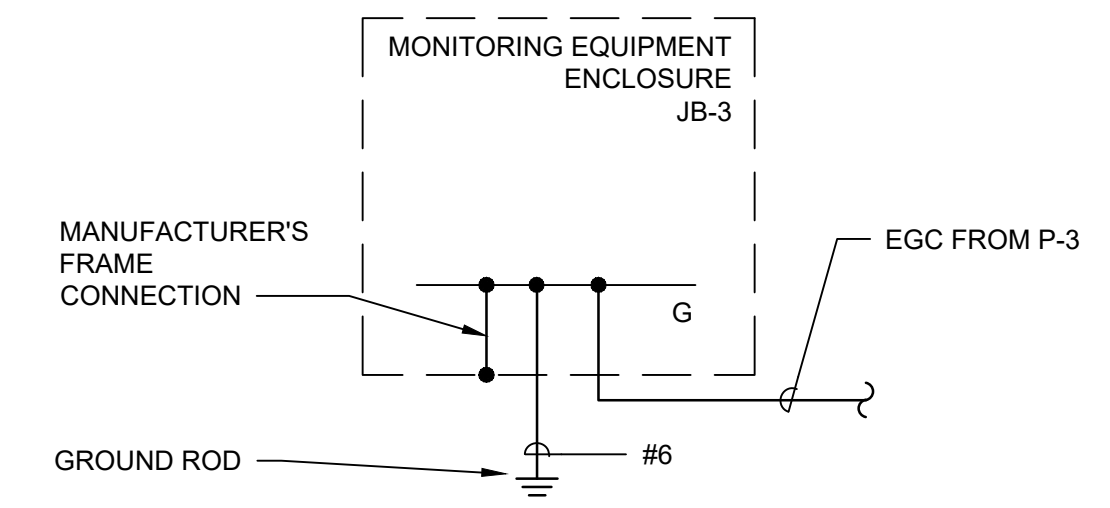
LOAD SUMMARY							PHASE BALANCE			
CONNECTED LOAD (KVA)	LTS	REC	MECH	MISC	SPARE	TOTAL	240 LINE-TO-LINE VOLTS	PHASE A (KVA)	1	
0.9	0.9	1.6	0.0	0.1	—	2.6	240	PHASE A (KVA)	1	
DEMAND FACTOR	1.25	NEC	1.00	1.00	20%	—	11	CONNECTED AMPS	PHASE B (KVA)	2
DESIGN LOAD (KVA)	1.1	1.6	0.0	0.1	0.5	3.3	14	DESIGN AMPS		

BRANCH PANEL: P-4

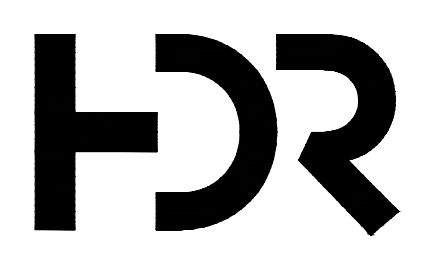
LOCATION: SEE DWG E101 VOLTS: 240/120 A.I.C. RATING: 10KA
 SUPPLY FROM: P-2 PHASE: 1 MAINS TYPE: MCB
 MOUNTING: PEDESTAL WIRE: 3+GND MAINS RATING: 50A
 ENCLOSURE: NEMA 3R INTEGRAL SPD: NO SERVICE ENTRANCE LABEL: NO

CKT NO.	DESCRIPTION	CONNECTED LOAD (VA)				OCP		CONNECTED LOAD (VA)				DESCRIPTION	CKT NO.
		LTS	REC	MECH	MISC	AMPS	P	LTS	REC	MECH	MISC		
1	SPARE					20	1					SPACE	2
3	JB-1 JOB BOX REC.					20	1					SPACE	4
5	SPARE					20	1					SPACE	6

LOAD SUMMARY							PHASE BALANCE			
CONNECTED LOAD (KVA)	LTS	REC	MECH	MISC	SPARE	TOTAL	240 LINE-TO-LINE VOLTS	PHASE A (KVA)	0	
0.0	0.0	0.5	0.0	0.0	—	0.5	240	PHASE A (KVA)	0	
DEMAND FACTOR	1.25	NEC	1.00	1.00	20%	—	2	CONNECTED AMPS	PHASE B (KVA)	1
DESIGN LOAD (KVA)	0.0	0.5	0.0	0.0	0.1	0.6	3	DESIGN AMPS		



GROUNDING DIAGRAM MONITORING ENCLOSURE JB-3 NOT TO SCALE



MINNEHAHA CREEK WATERSHED DISTRICT

ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
1	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER	10268112
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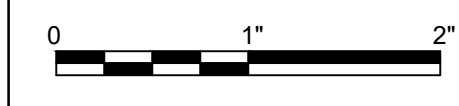
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 60% DRAFT
 SUBMITTAL FOR CLIENT REVIEW

DATE XX/XX/XXXX LICENSE # XXXXX

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

ELECTRICAL ONE LINE DIAGRAMS AND SCHEDULES

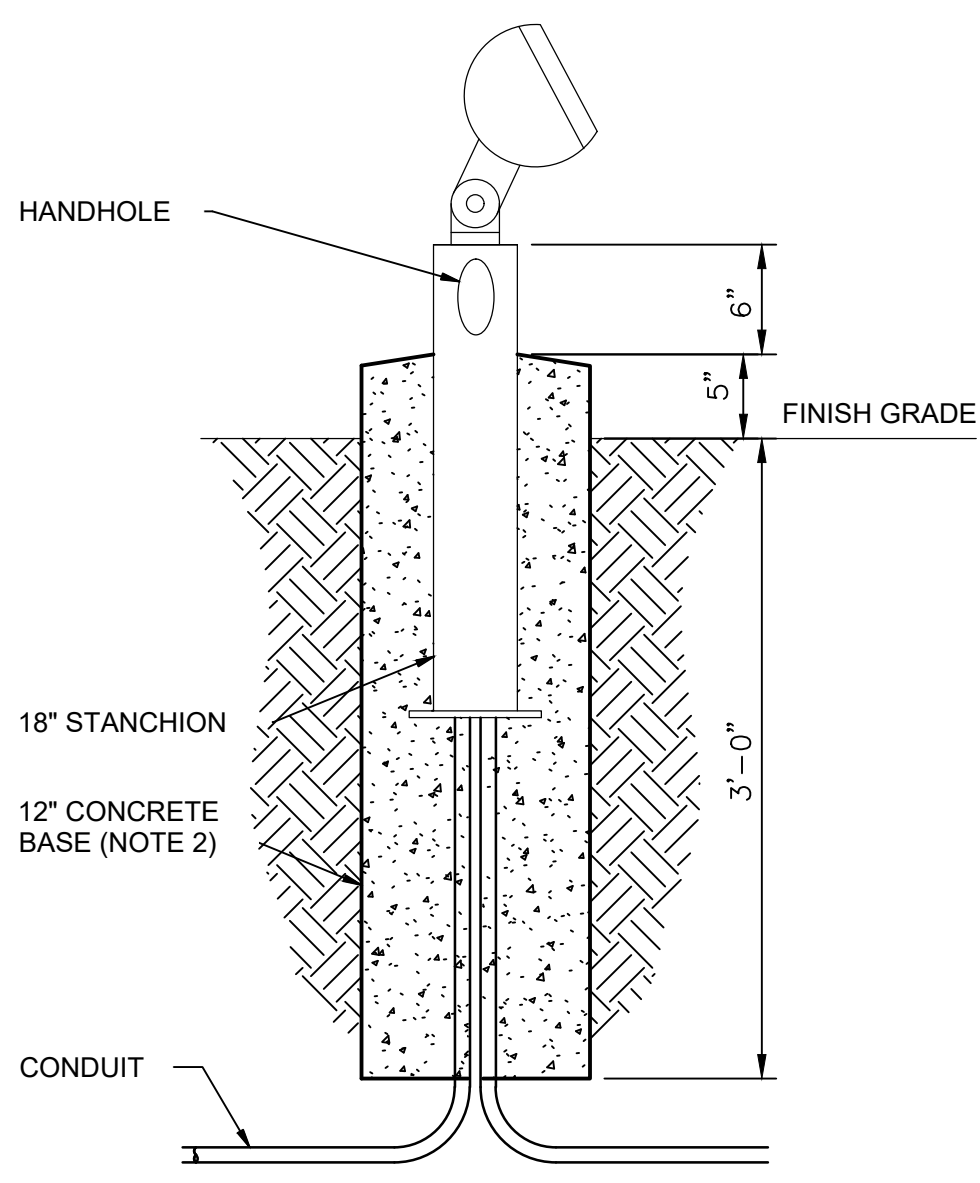


FILENAME | E601.DWG
 SCALE | NA

SHEET
E601

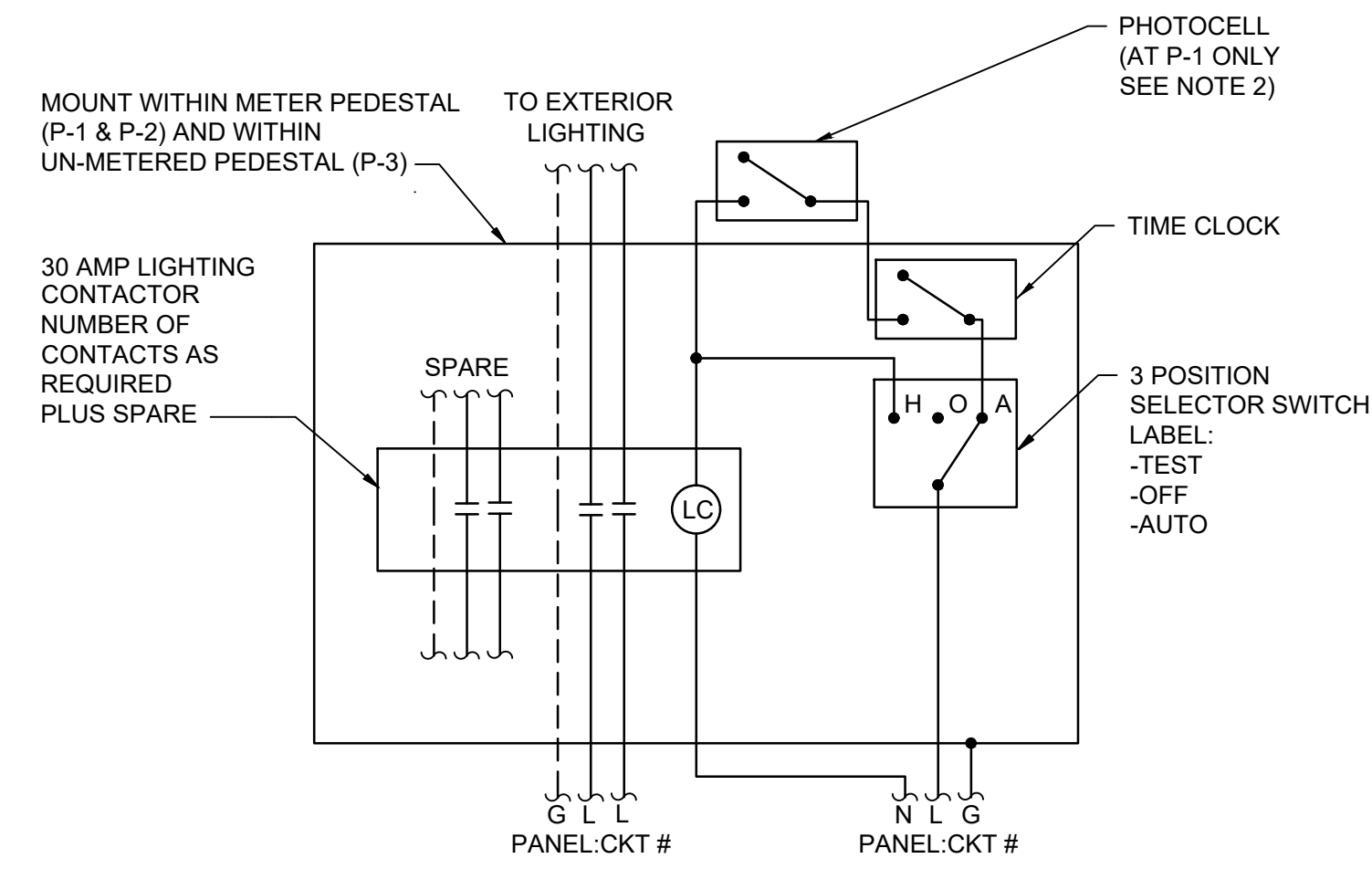
LUMINAIRE SCHEDULE										
DWG ID	MANUFACTURER AND SERIES	DESCRIPTION	WATTS (MAX)	VOLTAGE	COLOR TEMP (K)	CRI (MIN)	LUMENS	MOUNTING		NOTES
								TYPE	HEIGHT	
LT-01	STERNBERG LIGHTING SOLANA SL660 SERIES	POST TOP LED AREA LIGHT. FOR INSTALLATION ALONG PEDESTRIAN PATHS. TYPE II DISTRIBUTION, CLEAR ACRYLIC LENS, ALUMINUM HOUSING. INTEGRAL TWIST LOCK PHOTOCONTROL. 10' - 0" POLE, ROUND ALUMINUM MANUFACTURER'S STANDARD, WITH MATTE SILVER FINISH. WET LOCATION RATED.	26	240	3000	70	2931	POLE	10' - 0"	1
LT-01A	STERNBERG LIGHTING SOLANA SL660 SERIES	SAME AS LT-01, WITH BACK LIGHT OPTICAL CONTROL.	26	240	3000	70	2931	POLE	10' - 0"	1
LT-02	STERNBERG LIGHTING SOLANA SL660 SERIES	SAME AS LT-01, WITHOUT INTEGRAL PHOTOCELL AND SUPPLIED AT 120V	26	120	3000	70	2931	POLE	10' - 0"	1
LT-03	KIM LIGHTING SCARAB SERIES	MINI PROJECTOR/FLOOD LED. FOR TREE UPLIGHTING. NARROW FLOOD DISTRIBUTION (26 DEGREES). WET LOCATION RATED. BLACK FINISH. INTEGRAL DRIVER. C/W STANCHION MOUNT.	14	120	3000	70	1400	STANCHION MOUNT	AT GRADE	1, 2, 6
LT-04	LIGMAN VIOS 2 UVI-40296 SERIES	RECESSED FAÇADE LED LIGHT. CIRCULAR SHAPE. WET LOCATION RATED. ALUMINUM FRAME. WIDE BEAM DISTRIBUTION. INTEGRAL DRIVER. DARK GREY FINISH. C/W RECESSING BOX.	5	120	3000	70	825	WALL RECESS	8" ABOVE GRADE	1, 5
LT-05	PRIMUS ELEMENTS 3 - LED WET SERIES	SURFACE MOUNT LINEAR LED. FOR PERGOLA DOWNLIGHTING. EXTRUDED ALUMINUM HOUSING. 3" WIDE X 2-1/16" DEEP X 9" LONG CONTINUOUS RUN. WET LOCATION RATED. FLAT LENS. SATIN FINISH. INTEGRAL DRIVER.	3.5/FT	120	3000	70	530/FT	SURFACE	UNDERSIDE OF BEAM	1, 3
LT-06	LIGMAN LADOR (LD-50001) SERIES	MINIATURE OUTDOOR LED PROJECTOR LIGHT. FOR PERGOLA SIGN LIGHTING. WET LOCATION RATED. WIDE BEAM OPTIC (32 DEGREE). WHITE FINISH. INTEGRAL DRIVER.	3	120	3000	70	188	SURFACE	ABOVE PURLIN	1, 4

- NOTES:
1. PROVIDE COLOR MATERIAL SAMPLES TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO ORDER
 2. ANGLE PROJECTOR LIGHT AT 30 DEGREES TO ILLUMINATE TREE TRUNK AND CANOPY.
 3. SEE MOUNTING DETAILS ON LANDSCAPE DRAWING SHEET L541.
 4. ANGLE PROJECTOR LIGHT AT CENTER OF SIGNAGE LETTER. ONE PROJECTOR LIGHT PER LETTER. SEE DETAIL ON LANDSCAPE DRAWING SHEET L542.
 5. SEE RECESSED WALL MOUNTING DETAIL ON LANDSCAPING DRAWING SHEET L521.
 6. SEE STANCHION MOUNTING FOUNDATION DETAIL ON SHEET E602.



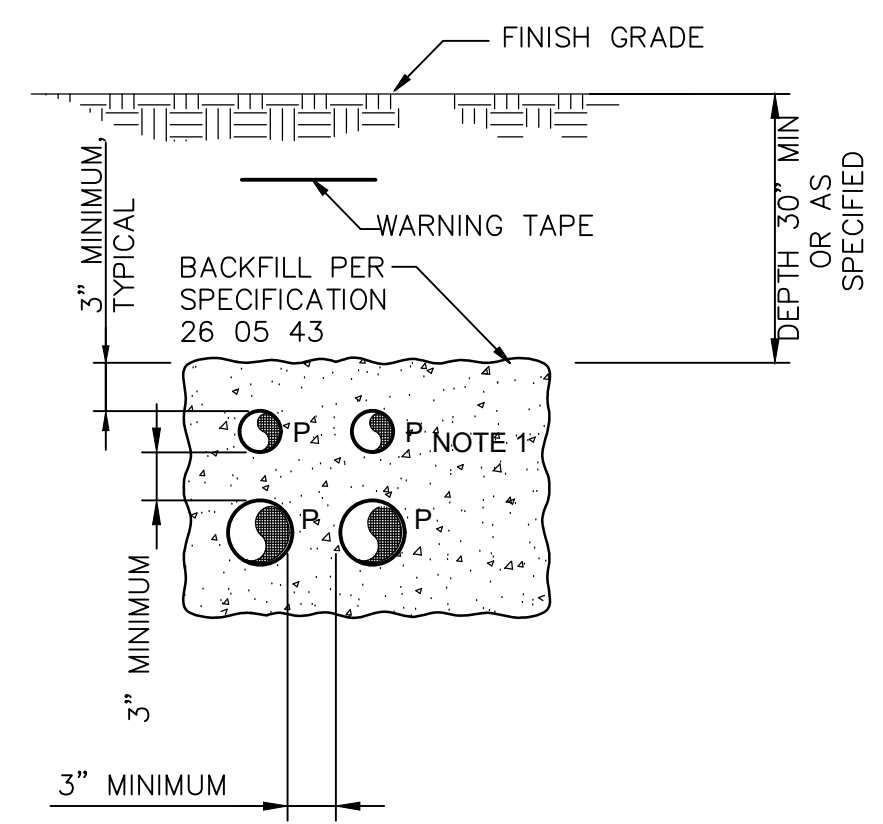
- NOTES:
1. CONCRETE AND REINFORCING STEEL: SEE DIVISION 3.
 2. ROUND FOUNDATION IN UNPAVED AREAS.

STANCHION MOUNTING FOUNDATION
NOT TO SCALE



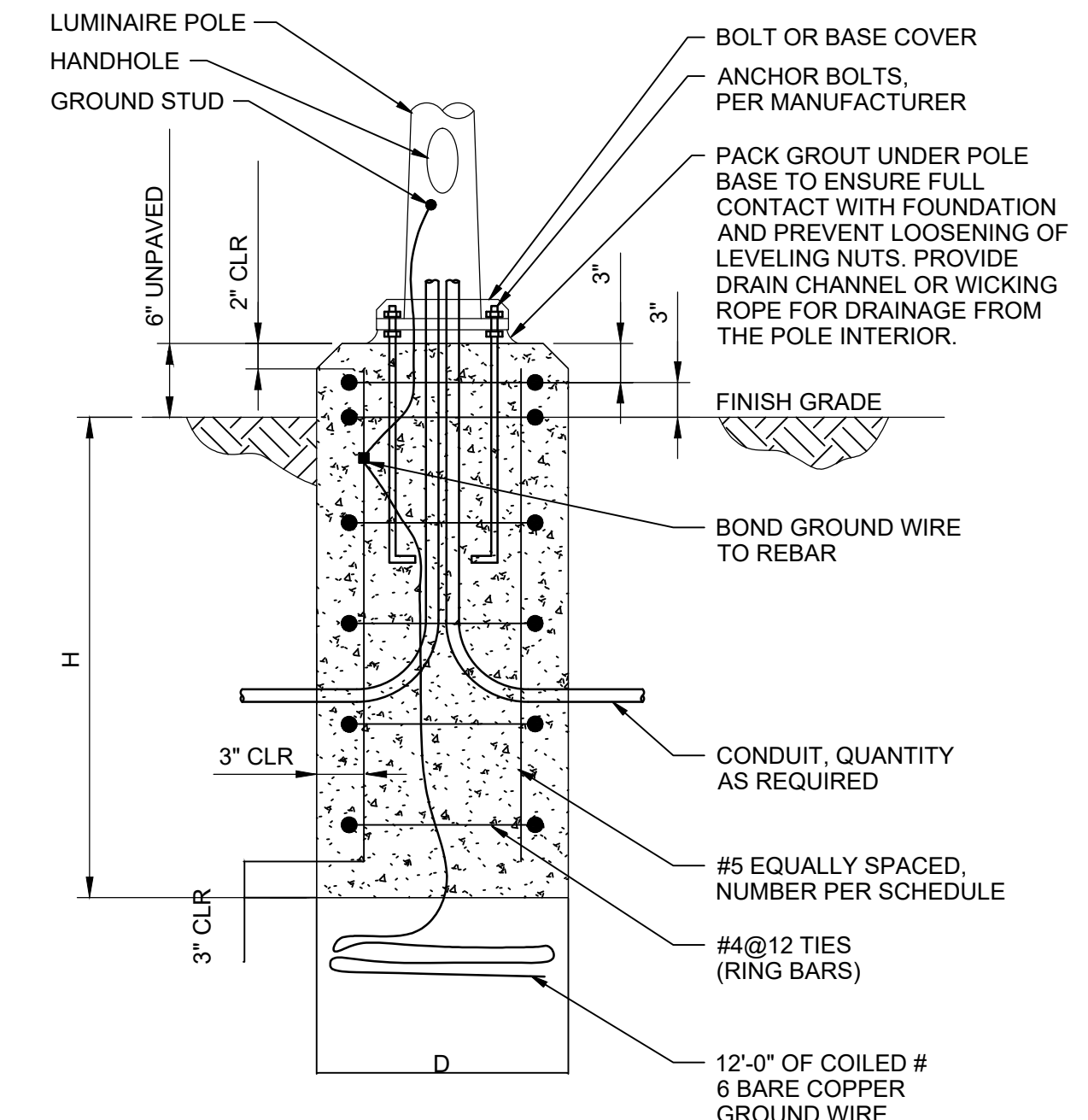
P-1, P-2 & P-3 LIGHTING CONTROL DETAIL
NOT TO SCALE

- LIGHTING CONTROL NOTES:**
1. SET INITIAL TIME CLOCK CONTROLS TO SWITCH OFF LIGHTS BETWEEN THE HOURS OF 11PM TO 5AM.
 2. POLE MOUNT LIGHTS SUPPLIED FROM P-2 & P-3 HAVE INTEGRAL PHOTOCELL.



- NOTES:
1. NUMBER OF CONDUITS AS REQUIRED FOR THE APPLICATION.
 2. P SUBSCRIPT ELECTRICAL POWER CONDUIT.

DIRECT BURIED CONDUIT SECTION
NOT TO SCALE



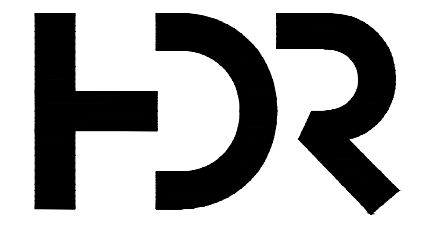
DIMENSION SCHEDULE			
POLE HEIGHT	MINIMUM D	MINIMUM H	VERTICAL REBAR EACH
UP TO 10'	2'-0"	4'-6"	6
11' TO 20'	2'-0"	6'-6"	6

- NOTES:
1. CONCRETE AND REINFORCING STEEL: SEE DIVISION 3.

LIGHT POLE FOUNDATION
NOT TO SCALE



MINNEHAHA CREEK WATERSHED DISTRICT



ISSUE	DATE	DESCRIPTION
2	09/14/2022	90% DESIGN
1	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
60% DRAFT
SUBMITTAL FOR CLIENT REVIEW

DATE XX/XX/XXXX LICENSE # XXXXX

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

ELECTRICAL DETAILS AND LUMINAIRE SCHEDULE



FILENAME | E601.DWG
SCALE | 1" = XX'

SHEET
E602

SITE AND LANDSCAPE NOTES

SITE PREPARATION NOTES

- CONTRACTOR SHALL INSPECT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS RELATING TO THE NATURE AND SCOPE OF WORK.
- CONTRACTOR SHALL VERIFY PLAN LAYOUT AND BRING TO THE ATTENTION OF THE LANDSCAPE ARCHITECT DISCREPANCIES WHICH MAY COMPROMISE THE DESIGN OR INTENT OF THE LAYOUT.
- CONTRACTOR SHALL ASSURE COMPLIANCE WITH APPLICABLE CODES AND REGULATIONS GOVERNING THE WORK AND MATERIALS SUPPLIED.
- CONTRACTOR SHALL PROTECT EXISTING ROADS, CURBS/GUTTERS, TRAILS, TREES, LAWNS AND SITE ELEMENTS DURING CONSTRUCTION OPERATIONS. DAMAGE TO SAME SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL VERIFY ALIGNMENT AND LOCATION OF UNDERGROUND AND ABOVE GRADE UTILITIES AND PROVIDE THE NECESSARY PROTECTION FOR SAME BEFORE CONSTRUCTION BEGINS (MINIMUM 10' CLEARANCE).
- CONTRACTOR SHALL COORDINATE THE PHASES OF CONSTRUCTION AND PLANTING INSTALLATION WITH OTHER CONTRACTORS WORKING ON SITE.
- UNDERGROUND UTILITIES SHALL BE INSTALLED SO THAT TRENCHES DO NOT CUT THROUGH ROOT SYSTEMS OF EXISTING TREES TO REMAIN.
- EXISTING CONTOURS, TRAILS, VEGETATION, CURB/GUTTER AND OTHER ELEMENTS ARE BASED UPON INFORMATION SUPPLIED TO THE LANDSCAPE ARCHITECT BY OTHERS. CONTRACTOR SHALL VERIFY DISCREPANCIES PRIOR TO CONSTRUCTION AND NOTIFY LANDSCAPE ARCHITECT OF SAME.
- HORIZONTAL AND VERTICAL ALIGNMENT OF PROPOSED WALKS, TRAILS OR ROADWAYS ARE SUBJECT TO FIELD ADJUSTMENT REQUIRED TO CONFORM TO LOCALIZED TOPOGRAPHIC CONDITIONS AND TO MINIMIZE TREE REMOVAL AND GRADING. CHANGES IN ALIGNMENT AND GRADES MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO IMPLEMENTATION.
- CONTRACTOR SHALL REVIEW THE SITE FOR DEFICIENCIES IN SITE CONDITIONS WHICH MIGHT NEGATIVELY AFFECT PLANT ESTABLISHMENT, SURVIVAL OR WARRANTY. UNDESIRABLE SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO COMMENCEMENT OF WORK.
- CONTRACTOR IS RESPONSIBLE FOR ONGOING MAINTENANCE OF NEWLY INSTALLED MATERIALS UNTIL TIME OF SUBSTANTIAL COMPLETION. REPAIR OF ACTS OF VANDALISM OR DAMAGE WHICH MAY OCCUR PRIOR TO SUBSTANTIAL COMPLETION SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
- EXISTING TREES OR SIGNIFICANT SHRUB MASSINGS FOUND ON SITE SHALL BE PROTECTED AND SAVED UNLESS NOTED TO BE REMOVED OR ARE LOCATED IN AN AREA TO BE GRADED. QUESTIONS REGARDING EXISTING PLANT MATERIAL SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO REMOVAL.
- EXISTING TREES TO REMAIN, UPON DIRECTION OF LANDSCAPE ARCHITECT, SHALL BE FERTILIZED AND PRUNED TO REMOVE DEAD WOOD, DAMAGED AND RUBBING BRANCHES.
- CONTRACTOR SHALL PREPARE AND SUBMIT A WRITTEN REQUEST FOR THE SUBSTANTIAL COMPLETION INSPECTION OF LANDSCAPE AND SITE IMPROVEMENTS PRIOR TO SUBMITTING FINAL PAY REQUEST.
- CONTRACTOR SHALL PREPARE AND SUBMIT REPRODUCIBLE AS-BUILT DRAWING(S) OF LANDSCAPE INSTALLATION, IRRIGATION AND SITE IMPROVEMENTS UPON COMPLETION OF CONSTRUCTION INSTALLATION AND PRIOR TO SUBSTANTIAL COMPLETION.
- SYMBOLS ON PLAN DRAWING TAKE PRECEDENCE OVER SCHEDULES IF DISCREPANCIES IN QUANTITIES EXIST. SPECIFICATIONS AND DETAILS TAKE PRECEDENCE OVER NOTES.

SOIL TESTING

- CONTRACTOR SHALL OBTAIN A SOIL SAMPLE(S) FROM PROJECT SITE AND/OR SALVAGED TOPSOIL STOCKPILE AND SUBMIT TO INDEPENDENT TESTING AGENCY. ANALYSIS AND RECOMMENDATIONS FOR (INCLUDING BUT NOT LIMITED TO) MACRONUTRIENTS, MICRONUTRIENTS, COMPOSITION AND SOLUBLE SALTS SHALL BE PROVIDED.
- CONTRACTOR SHALL PROVIDE TWO SERIES OF TESTS: FIRST, PRIOR

- TO CONSTRUCTION; SECOND, AFTER SOIL IS AMENDED, PRIOR TO PLANTING.
- CONTRACTOR SHALL PROVIDE ANALYSIS RESULTS AND RECOMMENDATIONS TO THE LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO SOIL AMENDMENT AND PRIOR TO PLANTING.

GRADING

- ROUGH GRADING AND FINISHED GRADING TO BE DONE BY OTHERS EXCEPT WHERE NOTED.
- GRADING LIMITS ARE DEFINED AS THE JUNCTURE OF PROPOSED GRADE WITH EXISTING GRADE UNLESS NOTED OTHERWISE.
- GRADING LIMITS AND LIMITS OF WORK SHOWN ON PLAN ARE ONLY APPROXIMATE AND MAY BE ADJUSTED IN FIELD BY LANDSCAPE ARCHITECT. WORK OUTSIDE OF THESE LIMITS WILL BE DONE AT LANDSCAPE CONTRACTORS EXPENSE UNLESS DIRECTED BY LANDSCAPE ARCHITECT OR OWNER IN WRITING.
- FILL/CUT AS NECESSARY TO PROVIDE A 1% MINIMUM GRADE AWAY FROM BUILDINGS WITHIN LIMITS OF CONSTRUCTION.
- SALVAGE TOPSOIL FROM THE EARTHWORK AREAS AS APPROPRIATE OR AS INDICATED ON PLANS AND STOCKPILE FOR REUSE.
- MAINTAIN A UNIFORM GRADE BETWEEN CONTOURS IN AREAS TO BE GRADED UNLESS NOTED OTHERWISE.
- ELEVATIONS, IF SHOWN ARE FINISHED ELEVATIONS. SPOT ELEVATIONS TAKE PRECEDENCE OVER CONTOURS.
- ADD EROSION CONTROL MEASURES IF GRADES GREATER THAN 3:1 OR IF CONDITIONS WARRANT. REFER TO MNDOT SPECIFICATIONS FOR EROSION CONTROL.
- CONTRACTOR SHALL CONTACT PUBLIC UTILITIES FOR LOCATION OF UNDERGROUND WIRES, CABLES, CONDUITS, PIPES, MANHOLES, VALVES OR OTHER BURIED STRUCTURES BEFORE DIGGING. LANDSCAPE CONTRACTOR SHALL REPAIR OR REPLACE THE ABOVE IF DAMAGED DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL PROVIDE PROPER EROSION CONTROL MEASURES AS REQUIRED TO ENSURE THAT EROSION IS KEPT TO AN ABSOLUTE MINIMUM.
- PROVIDE TEMPORARY COVERING FOR CATCH BASINS AND MAN HOLES UNTIL FINISHED GRADING IS COMPLETE.
- CONTRACTOR SHALL CONSTRUCT DRAINAGE BASINS AS NEEDED.
- PERIMETER SILT FENCE AND ROCK CONSTRUCTION ENTRANCES SHALL BE INSTALLED PRIOR TO CONSTRUCTION. REFER TO STATE SPECIFICATIONS FOR AGGREGATE BASE AND SILT FENCE.
- CONTRACTOR SHALL INSTALL CATCH BASIN EROSION CONTROL MEASURES PER LOCAL POLLUTION CONTROL AGENCY AND SPECIFICATIONS.
- WITHIN TWO WEEKS OF FINISHED SITE GRADING, DISTURBED AREAS SHALL BE STABILIZED WITH SEED, SOD, MULCH OR ROCK BASE.
- CONTRACTOR SHALL MAINTAIN EROSION CONTROL MEASURES, INCLUDING THE REMOVAL OF ACCUMULATED SILT IN FRONT OF SILT FENCES AND EXCESS SEDIMENT IN PROPOSED CATCH BASINS, FOR THE DURATION OF CONSTRUCTION.
- CONTRACTOR SHALL REMOVE EROSION CONTROL MEASURES AFTER VEGETATION IS ESTABLISHED AND DISPOSE OF OFF SITE.
- CONTRACTOR SHALL ENSURE THAT SOIL CONDITIONS AND COMPACTION ARE ADEQUATE TO ALLOW FOR PROPER DRAINAGE AROUND THE CONSTRUCTION SITE. UNDESIRABLE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING OF WORK. IT SHALL BE THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY TO ENSURE PROPER SURFACE AND SUBSURFACE DRAINAGE IN PLANTING AREAS.

PLANTING

- SPRING PLANT MATERIAL INSTALLATION IS FROM APRIL 15 TO JUNE 15.
- FALL CONIFEROUS PLANTING IS ACCEPTABLE FROM AUGUST 21 TO SEPTEMBER 30.
- FALL DECIDUOUS PLANTING IS ACCEPTABLE FROM AUGUST 15 UNTIL NOVEMBER 15.
- ADJUSTMENTS TO PLANTING DATES MUST BE APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT.
- STAKE PROPOSED PLANTING LOCATIONS PER PLAN FOR REVIEW

- AND APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO INSTALL.
- PLANT MATERIAL SHALL COMPLY WITH THE CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, ANSI Z60.1. UNLESS NOTED OTHERWISE, DECIDUOUS SHRUBS SHALL HAVE AT LEAST 5 CANES AT THE SPECIFIED HEIGHT. ORNAMENTAL TREES SHALL HAVE NO 'V' CROTCHES AND SHALL BEGIN BRANCHING NO LOWER THAN 3' FEET ABOVE THE ROOT BALL. STREET AND BOULEVARD TREES SHALL BEGIN BRANCHING NO LOWER THAN 6' ABOVE PAVED SURFACE.
 - INSTALL PLANT MATERIAL AFTER FINAL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
 - INSTALL PLANT MATERIALS PER PLANTING DETAILS.
 - SUBSTITUTION REQUESTS FOR PLANT MATERIAL TYPE & SIZE SHALL BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR CONSIDERATION PRIOR TO BIDDING. SUBSTITUTIONS AFTER BIDDING MUST BE APPROVED BY LANDSCAPE ARCHITECT AND ARE SUBJECT TO CONTRACT ADJUSTMENTS.
 - ADJUSTMENTS IN LOCATION OF PROPOSED PLANT MATERIALS MAY BE NEEDED IN FIELD. LANDSCAPE ARCHITECT MUST BE NOTIFIED PRIOR TO ADJUSTMENT OF PLANTS.
 - FERTILIZE PLANT MATERIALS IN ACCORDANCE WITH SOIL TEST RECOMMENDATIONS.
 - INSTALL 18" DEPTH OF PLANTING SOIL IN AREAS RECEIVING GROUND COVER, PERENNIALS, AND ANNUALS. PLANTING SOIL SHALL CONSIST OF MNDOT 3877-B MODIFIED TO CONTAIN A MAXIMUM OF 30% SAND, A PH OF 7.1 MAX, OR AS OTHERWISE SPECIFIED IN THE PROJECT SPECIFICATIONS MANUAL.
 - TREE WRAPPING MATERIAL SHALL BE PAPER APPLIED FROM TRUNK FLARE TO FIRST BRANCH. WRAP SMOOTH-BARKED DECIDUOUS TREES PLANTED IN THE FALL PRIOR TO DECEMBER 1 AND REMOVE WRAPPING AFTER MAY 1.] DO NOT WRAP TREES.

MULCHING

- INSTALL 4" DEEP FINELY SHREDDED HARDWOOD MULCH RINGS AT CONIFEROUS & DECIDUOUS TREES WITH NO MULCH IN DIRECT CONTACT WITH TREE TRUNK. WHERE TREES ARE PLANTED IN NATURAL RIPARIAN AREA, INSTALL MULCH RINGS.
- INSTALL 3" DEEP FINELY SHREDDED HARDWOOD MULCH RINGS AT SHRUB PLANTING AREAS WITH NO MULCH IN DIRECT CONTACT WITH SHRUB STEMS. WHERE MASSED SHRUBS ARE PLANTED IN NATURALIZED/SEEDED AREAS, MULCH AS A CONTINUOUS MASS.
- INSTALL 3" DEEP FINELY SHREDDED MULCH IN PERENNIAL PLANTING BEDS. REMOVE ALL MULCH FROM STEMS OF PERENNIALS; PLANT STEMS SHOULD NOT BE IN DIRECT CONTACT WITH MULCH.
- WHERE PLUGS ARE PLANTED INTO SEEDED AREAS, NO SHREDDED HARDWOOD MULCH IS REQUIRED.

WATERING

- PLANTED MATERIALS SHALL BE WATERED BY TEMPORARY MEANS UNTIL PLANTS ARE ESTABLISHED.
- TEMPORARY WATERING MEANS, METHODS, AND SCHEDULING SHALL BE THE CONTRACTOR'S RESPONSIBILITY. REMOVE TEMPORARY WATERING EQUIPMENT UPON PLANT ESTABLISHMENT.
- PROVIDE AND FILL WATERING BAGS FOR TREE PLANTINGS.

WARRANTY

- WARRANTY NEW PLANT MATERIAL THROUGH TWO CALENDAR YEARS FROM THE DATE OF SUBSTANTIAL COMPLETION. NO PARTIAL ACCEPTANCE WILL BE CONSIDERED.
- PROVIDE ESTABLISHMENT MAINTENANCE (3 YEARS), MAINTENANCE REPORTING, AND WARRANTY TO NATIVE SEEDING AREAS. REFER TO SPECIFICATIONS.

IRRIGATION NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AN IRRIGATION LAYOUT PLAN AND SPECIFICATION THAT MEETS THE REQUIREMENTS OF THE PROVIDED PERFORMANCE SPECIFICATION AS PART OF THE SCOPE OF WORK. SUBMIT LAYOUT PLAN AND SPECIFICATIONS FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO ORDER AND/OR CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT SODDED/SEEDED AND PLANTED AREAS ARE IRRIGATED PROPERLY, INCLUDING THOSE AREAS DIRECTLY AROUND AND ABUTTING BUILDING FOUNDATION.
- CONTRACTOR SHALL FIELD VERIFY WATER SUPPLY, VOLUME, PRESSURE AND LOCATION FOR SYSTEM TAP PRIOR TO SYSTEM DESIGN.
- CONTRACTOR SHALL CONFIRM COMPLETE LIMITS OF IRRIGATION WITH LANDSCAPE ARCHITECT PRIOR TO SUPPLYING SHOP DRAWINGS.
- CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT FOR INSPECTION AND APPROVAL OF AREAS RECEIVING DRIP IRRIGATION PRIOR TO INSTALLATION OF MULCH.
- CONTRACTOR SHALL PROVIDE THE OWNER AND LANDSCAPE ARCHITECT WITH AS-BUILT DRAWINGS, DETAILED SYSTEM OPERATION INSTRUCTIONS AND AN IRRIGATION SCHEDULE APPROPRIATE TO THE PROJECT SITE CONDITIONS AND PLANTED MATERIAL GROWTH REQUIREMENTS.

PROJECT MANAGER ANDREW F. JUDD

ISSUE	DATE	DESCRIPTION
C	03/28/2023	100% DESIGN
B	09/14/2022	90% DESIGN
A	06/13/2022	PFA GRANT PACKAGE

PROJECT NUMBER	10268112
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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

LANDSCAPE GENERAL NOTES

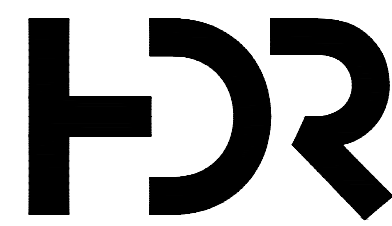


FILENAME
SCALE N/A

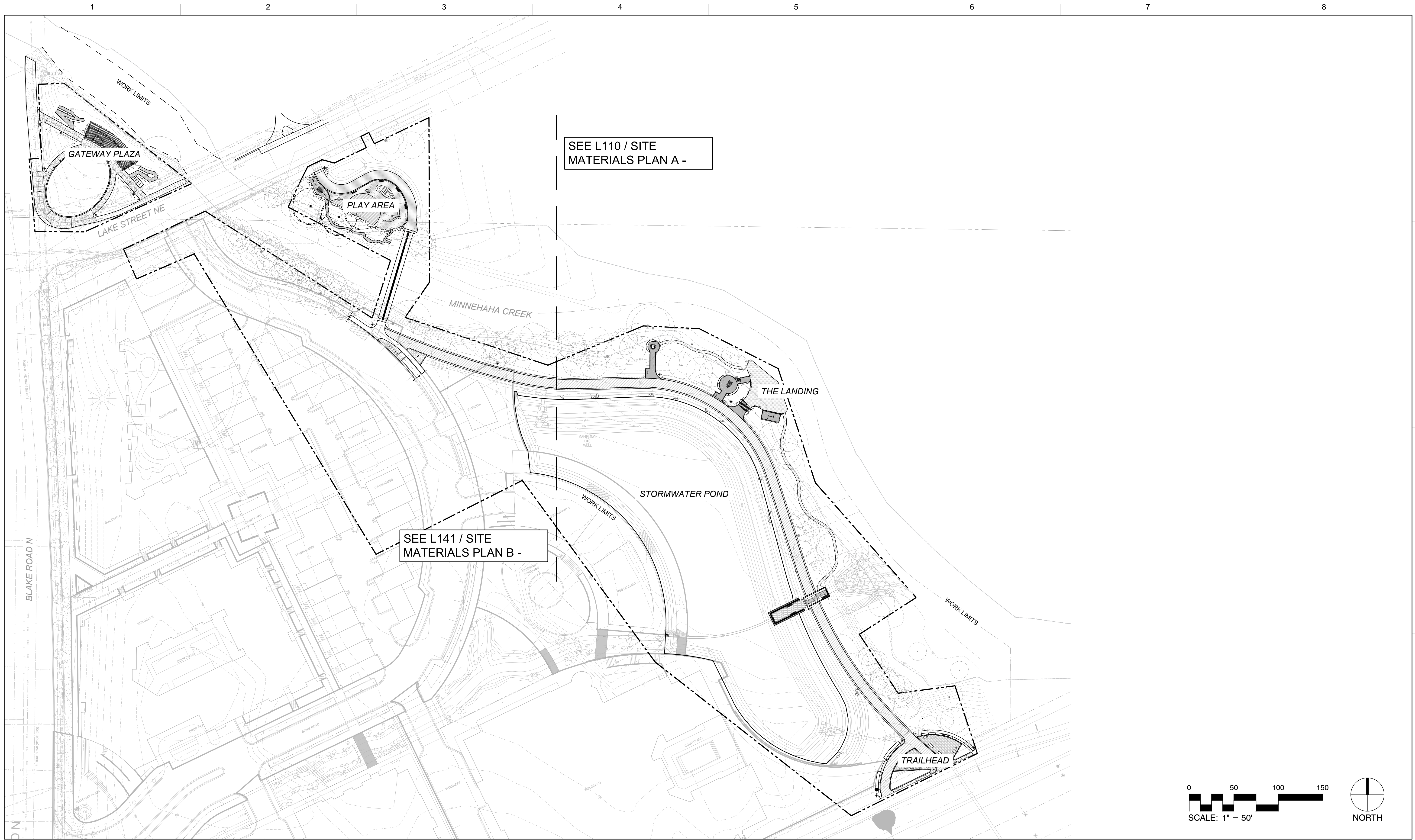
SHEET
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MINNEHAHA CREEK
WATERSHED DISTRICT



DF/
DAMON FARBEN
LANDSCAPE ARCHITECTS
401 North 2nd Avenue, Suite 410
Minneapolis, MN 55401 p. 612.332.7522



PROJECT MANAGER ANDREW F. JUDD

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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

SITE ORIENTATION PLAN



FILENAME
SCALE AS SHOWN

SHEET
L001



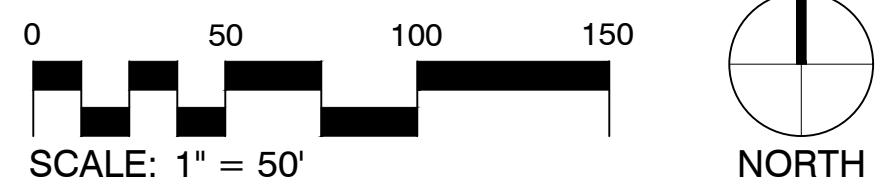
ISSUE	DATE	DESCRIPTION
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PROJECT NUMBER	10268112
----------------	----------

DATE XX/XX/XXXX LICENSE # 26292



CONSTRUCTION BID ALTERNATES				
#	DESCRIPTION	BASE BID	ALTERNATE BID	SHEET REFERENCE
1	P-12 PAVING BELOW PERGOLA	ENGRAVED GRANITE PAVERS (PAVING TYPE 12)	SAND BLASTED DECORATIVE CIP CONCRETE (PAVING TYPE 07 W/ SANDBLAST FINISH)	L011, L214, L543, L544
2	PLANT WARRANTY WARRANTY EXTENSION ON PLANT MATERIAL BY 1 YEAR	2 YEAR PLANT WARRANTY	3 YEAR PLANT WARRANTY (1 YEAR ADDITIONAL)	SEE PLANTING SPEC



ISSUE	DATE	DESCRIPTION
C	03/28/2023	100% DESIGN
B	09/14/2022	90% DESIGN
A	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

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THOMAS J WHITLOCK, PLA
 DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

CONSTRUCTION ALTERNATES

SCALE AS SHOWN

SHEET
L002

TREE PRESERVATION SCHEDULE

SYMBOL	DESCRIPTION	SPECIES	CAL/SIZE	STATUS
T-01	PRESERVE	QUERCUS MACROCARPA	4 DBH	HIGH
T-02	PRESERVE	FRAXINUS PENNSYLVANICA	10 DBH	HIGH
T-03	PRESERVE	ACER NEGUNDO	7 DBH	HIGH
T-04	PRESERVE	ACER NEGUNDO	6 DBH	HIGH
T-05	PRESERVE	ACER NEGUNDO	7 DBH	HIGH
T-06	PRESERVE	ACER NEGUNDO	10 DBH	MEDIUM
T-07	PRESERVE	ACER NEGUNDO	6 DBH	MEDIUM
T-08	PRESERVE	ACER NEGUNDO	6 DBH	LOW
T-09	PRESERVE	ACER NEGUNDO	18 DBH	MEDIUM
T-10	PRESERVE	ACER NEGUNDO	13 DBH	LOW
T-11	PRESERVE	ACER NEGUNDO	9 DBH	LOW
T-12	PRESERVE	ACER NEGUNDO	11 DBH	HIGH
T-13	PRESERVE	ACER NEGUNDO	16 DBH	MEDIUM
T-14	PRESERVE	FRAXINUS PENNSYLVANICA	8 DBH	MEDIUM
T-15	PRESERVE	ACER NEGUNDO	13 DBH	MEDIUM
T-16	PRESERVE	POPULUS GRANDIDENTATA	9 DBH	MEDIUM
T-17	PRESERVE	ACER NEGUNDO	11 DBH	MEDIUM
T-18	DEMO	POPULUS GRANDIDENTATA	9 DBH	LOW
T-19	PRESERVE	ACER NEGUNDO	22 DBH	MEDIUM
T-20	PRESERVE	JUGLANS NIGRA	20 DBH	MEDIUM
T-21	DEMO	POPULUS GRANDIDENTATA	4 DBH	LOW
T-22	DEMO	POPULUS GRANDIDENTATA	6 DBH	LOW
T-23	DEMO	POPULUS GRANDIDENTATA	5 DBH	MEDIUM
T-24	DEMO	POPULUS GRANDIDENTATA	5 DBH	MEDIUM
T-25	DEMO	POPULUS GRANDIDENTATA	6 DBH	MEDIUM
T-26	DEMO	POPULUS GRANDIDENTATA	5 DBH	MEDIUM
T-27	DEMO	ACER NEGUNDO	5 DBH	MEDIUM
T-28	DEMO	FRAXINUS PENNSYLVANICA	6 DBH	MEDIUM
T-29	DEMO	POPULUS DELTOIDES	25 DBH	MEDIUM
T-30	PRESERVE	POPULUS DELTOIDES	19 DBH	HIGH
T-31	PRESERVE	ACER NEGUNDO	4 DBH	HIGH
T-32	DEMO - CLEAR ONLY	ACER NEGUNDO	4 DBH	MEDIUM
T-33	DEMO	POPULUS DELTOIDES	22 DBH	MEDIUM
T-34	DEMO	POPULUS DELTOIDES	22 DBH	MEDIUM
T-35	PRESERVE	ACER NEGUNDO	8 DBH	MEDIUM
T-36	PRESERVE	PRUNUS SEROTINA	12 DBH	HIGH
T-37	DEMO	POPULUS DELTOIDES	13 DBH	MEDIUM
T-38	DEMO	POPULUS DELTOIDES	13 DBH	HIGH
T-39	DEMO	POPULUS DELTOIDES	17 DBH	MEDIUM
T-40	DEMO	ACER NEGUNDO	8 DBH	MEDIUM
T-41	DEMO	POPULUS DELTOIDES	25 DBH	MEDIUM
T-42	PRESERVE	POPULUS DELTOIDES	38 DBH	HIGH
T-43	DEMO	ULMUS AMERICANA	8 DBH	MEDIUM

TREE PRESERVATION SCHEDULE

SYMBOL	DESCRIPTION	SPECIES	CAL/SIZE	STATUS
T-44	PRESERVE	ACER NEGUNDO	9 DBH	MEDIUM
T-45	PRESERVE	ACER NEGUNDO	5 DBH	MEDIUM
T-46	PRESERVE	ACER NEGUNDO	9 DBH	MEDIUM
T-47	DEMO	ULMUS AMERICANA	8 DBH	HIGH
T-48	DEMO	ULMUS AMERICANA	10 DBH	HIGH
T-49	PRESERVE	FRAXINUS PENNSYLVANICA	10 DBH	HIGH
T-50	DEMO	POPULUS GRANDIDENTATA	5 DBH	HIGH
T-51	DEMO	ULMUS PUMILA	7 DBH	MEDIUM
T-52	DEMO	ULMUS AMERICANA	8 DBH	HIGH
T-53	DEMO	ACER NEGUNDO	7 DBH	LOW
T-54	PRESERVE	ACER NEGUNDO	6 DBH	MEDIUM
T-55	DEMO	ACER NEGUNDO	13 DBH	HIGH
T-56	DEMO	FRAXINUS PENNSYLVANICA	5 DBH	MEDIUM
T-57	DEMO	POPULUS DELTOIDES	4 DBH	LOW
T-58	DEMO	ACER NEGUNDO	14 DBH	MEDIUM
T-59	PRESERVE	ACER NEGUNDO	9 DBH	LOW
T-60	PRESERVE	SALIX NIGRA	19 DBH	LOW
T-61	PRESERVE	ACER NEGUNDO	4 DBH	MEDIUM
T-62	PRESERVE	ACER NEGUNDO	13 DBH	HIGH
T-63	DEMO	ACER NEGUNDO	15 DBH	HIGH
T-64	DEMO	POPULUS DELTOIDES	6 DBH	MEDIUM
T-65	DEMO	ULMUS PUMILA	14 DBH	MEDIUM
T-66	DEMO	ULMUS PUMILA	17 DBH	MEDIUM
T-67	DEMO	FRAXINUS PENNSYLVANICA	6 DBH	HIGH
T-68	DEMO	ULMUS PUMILA	5 DBH	MEDIUM
T-69	DEMO	POPULUS GRANDIDENTATA	5 DBH	HIGH
T-70	DEMO	ACER NEGUNDO	7 DBH	MEDIUM
T-71	DEMO	ACER NEGUNDO	8 DBH	MEDIUM
T-72	PRESERVE	ACER NEGUNDO	13 DBH	MEDIUM
T-73	DEMO	ACER NEGUNDO	9 DBH	HIGH
T-74	DEMO	ACER NEGUNDO	11 DBH	MEDIUM
T-75	DEMO	ACER NEGUNDO	9 DBH	MEDIUM
T-76	DEMO	POPULUS GRANDIDENTATA	11 DBH	MEDIUM
T-77	DEMO	ACER NEGUNDO	8 DBH	LOW
T-78	DEMO	ACER NEGUNDO	19 DBH	HIGH
T-79	DEMO	POPULUS GRANDIDENTATA	10 DBH	MEDIUM
T-80	DEMO	ACER NEGUNDO	8 DBH	MEDIUM
T-81	DEMO	FRAXINUS PENNSYLVANICA	6 DBH	HIGH
T-82	DEMO	FRAXINUS PENNSYLVANICA	4 DBH	MEDIUM
T-83	DEMO	FRAXINUS PENNSYLVANICA	4 DBH	LOW
T-84	PRESERVE	FRAXINUS PENNSYLVANICA	5 DBH	HIGH
T-85	PRESERVE	FRAXINUS PENNSYLVANICA	5 DBH	HIGH
T-86	PRESERVE	PRUNUS SEROTINA	10 DBH	HIGH

TREE PRESERVATION SCHEDULE

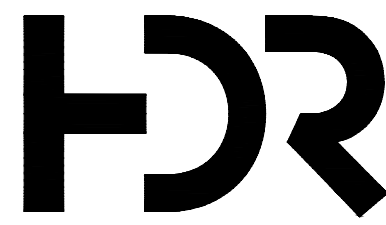
SYMBOL	DESCRIPTION	SPECIES	CAL/SIZE	STATUS
T-87	PRESERVE	ACER NEGUNDO	14 DBH	MEDIUM
T-88	PRESERVE	ACER NEGUNDO	4 DBH	MEDIUM
T-89	PRESERVE	JUNIPERUS VIRGINIANA	7 DBH	MEDIUM
T-90	DEMO	JUGLANS NIGRA	18 DBH	HIGH
T-91	DEMO	ULMUS PUMILA	11 DBH	LOW
T-92	DEMO	ACER NEGUNDO	14 DBH	LOW
T-93	DEMO	ACER NEGUNDO	12 DBH	MEDIUM
T-94	DEMO	ACER NEGUNDO	12 DBH	MEDIUM
T-95	DEMO	ACER NEGUNDO	13 DBH	LOW
T-96	PRESERVE	JUNIPERUS VIRGINIANA	11 DBH	HIGH
T-97	PRESERVE	JUNIPERUS VIRGINIANA	13 DBH	MEDIUM
T-98	PRESERVE	PICEA PUNGENS	15 DBH	HIGH
T-99	PRESERVE	PICEA PUNGENS	17 DBH	MEDIUM
T-100	PRESERVE	POPULUS DELTOIDES	41 DBH	MEDIUM
T-101	PRESERVE	POPULUS DELTOIDES	28 DBH	MEDIUM
T-102	PRESERVE	PRUNUS SEROTINA	6 DBH	LOW
T-103	PRESERVE	PICEA PUNGENS	18 DBH	MEDIUM
T-104	PRESERVE	PICEA PUNGENS	12 DBH	MEDIUM
T-105	PRESERVE	PICEA PUNGENS	15 DBH	LOW
T-106	PRESERVE	ULMUS AMERICANA	25 DBH	MEDIUM
T-107	PRESERVE	PICEA PUNGENS	16 DBH	HIGH
T-108	PRESERVE	JUGLANS NIGRA	8 DBH	MEDIUM
T-109	PRESERVE	ACER NEGUNDO	9 DBH	LOW
T-110	PRESERVE	PICEA PUNGENS	16 DBH	LOW
T-111	PRESERVE	MORUS ALBA	10 DBH	MEDIUM
T-112	PRESERVE	ACER NEGUNDO	14 DBH	MEDIUM
T-113	PRESERVE	ACER NEGUNDO	9 DBH	MEDIUM
T-114	PRESERVE	PICEA PUNGENS	17 DBH	LOW
T-115	PRESERVE	ACER NEGUNDO	5 DBH	MEDIUM
T-116	PRESERVE	ACER NEGUNDO	13 DBH	MEDIUM
T-117	PRESERVE	PICEA PUNGENS	16 DBH	MEDIUM
T-118	PRESERVE	ACER NEGUNDO	13 DBH	MEDIUM
T-119	PRESERVE	ACER NEGUNDO	14 DBH	MEDIUM
T-120	PRESERVE	ACER NEGUNDO	9 DBH	MEDIUM
T-121	PRESERVE	MORUS ALBA	5 DBH	LOW
T-122	PRESERVE	MORUS ALBA	17 DBH	MEDIUM
T-123	PRESERVE	MORUS ALBA	4 DBH	MEDIUM

GENERAL NOTES

- TREE REMOVALS SUBJECT TO MNDNR BAT HIBERNACULA/ROOST AND OAK WILT REMOVAL TIMEFRAMES. WINTER TREE REMOVALS ON FROZEN GROUND IS RECOMMENDED TO PREVENT DISEASE, ROOT DAMAGE, AND HABITAT DAMAGE. DO NOT REMOVE TREES WITHIN THE FOLLOWING TIME FRAMES:
-JUNE 1- JULY 31 (NLEB REMOVAL RESTRICTION WINDOW), OR;
-APRIL 1- JULY 31 (OAK WILT RESTRICTION WINDOW)
- CONTRACTOR MAY ELECT TO MULCH (DOUBLE SHRED) & STOCKPILE ON SITE MULCHED LIMBS & BRANCHES SALVAGED FROM TREE REMOVALS. SALVAGED MULCH APPROVED FOR USE IN NATURAL AREAS AROUND TREE AND SHRUB PLANTINGS.
- REFER TO TREE PROTECTION PLANS AND DETAILS FOR TREE PROTECTION MEASURES & LOCATIONS.



MINNEHAHA CREEK WATERSHED DISTRICT



DF/ DAMON FARBER LANDSCAPE ARCHITECTS
401 North 2nd Avenue, Suite 410
Minneapolis, MN 55401 p: 612.332.7522

ISSUE	DATE	DESCRIPTION
C	03/28/2023	100% DESIGN
B	09/14/2022	90% DESIGN
A	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER	DESCRIPTION
10268112	

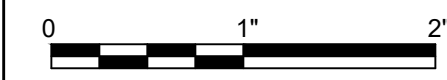
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

TREE PROTECTION SCHEDULE



FILENAME
SCALE N/A

SHEET
L005

TREE PRESERVATION SCHEDULE

Table with 5 columns: SYMBOL, DESCRIPTION, SPECIES, CAL/SIZE, STATUS. Rows 1-166.

TREE PRESERVATION SCHEDULE

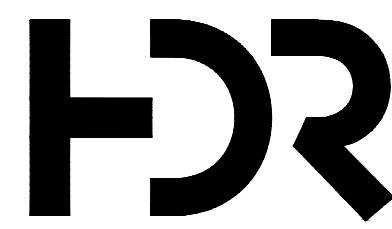
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TREE PRESERVATION SCHEDULE

Table with 5 columns: SYMBOL, DESCRIPTION, SPECIES, CAL/SIZE, STATUS. Rows 329-654.

GENERAL NOTES

- 1. TREE REMOVALS SUBJECT TO MNDNR BAT HIBERNACULA/ROOST AND OAK WILT REMOVAL TIMEFRAMES. WINTER TREE REMOVALS ON FROZEN GROUND IS RECOMMENDED TO PREVENT DISEASE, ROOT DAMAGE, AND HABITAT DAMAGE. DO NOT REMOVE TREES WITHIN THE FOLLOWING TIME FRAMES: -JUNE 1- JULY 31 (NLEB REMOVAL RESTRICTION WINDOW), OR; -APRIL 1- JULY 31 (OAK WILT RESTRICTION WINDOW) 2. CONTRACTOR MAY ELECT TO MULCH (DOUBLE SHRED) & STOCKPILE ON SITE MULCHED LIMBS & BRANCHES SALVAGED FROM TREE REMOVALS. SALVAGED MULCH APPROVED FOR USE IN NATURAL AREAS AROUND TREE AND SHRUB PLANTINGS. 3. REFER TO TREE PROTECTION PLANS AND DETAILS FOR TREE PROTECTION MEASURES & LOCATIONS.



DF/ DAMON FARBER LANDSCAPE ARCHITECTS

MINNEHAHA CREEK WATERSHED DISTRICT

Table with 3 columns: ISSUE, DATE, DESCRIPTION. Rows C, B, A.

PROJECT MANAGER ANDREW F. JUDD

Table with 2 columns: PROJECT NUMBER, 10268112

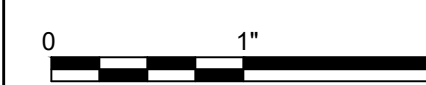
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THOMAS J WHITLOCK, PLA DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT 325 BLAKE RD HOPKINS, MN 55343

TREE PROTECTION SCHEDULE



FILENAME SCALE N/A

SHEET L006

MATERIALS SCHEDULE

QUANTITIES DEPICTED BELOW ARE ESTIMATES AND REQUIRE CONTRACTOR VERIFICATION

AMENITY									
CODE	DESCRIPTION	QTY	DETAIL	MATERIAL PROFILE/ASSEMBLY	MANUFACTURER	PRODUCT/MODEL	COLOR/FINISH	COMMENTS	SPEC #
AM-01	AMENITY TYPE 01 - PEDESTRIAN BRIDGE	102 LF		SEE CIVIL	SEE CIVIL	SEE CIVIL		SEE CIVIL	SEE CIVIL
AM-02	AMENITY TYPE 02 - PERGOLA	1	2/L542	HSS FRAME WITH WOOD PERLINS OVER CONCRETE FOOTINGS	CUSTOM	CUSTOM	WHITE POWDERCOAT FINISH, SUBMIT COLOR SAMPLES		05-5001
AM-03	AMENITY TYPE 03 - KAYAK RACK	1	2/L581	GALVANIZED STEEL STRUCTURE OVER CONCRETE FOOTINGS	CUSTOM	CUSTOM	CUSTOM	PROVIDE ENGINEERED SHOP DRAWINGS FOR FOOTING DESIGN	05-5001
AM-04	AMENITY TYPE 04 - FIRE PIT	1	1/L580	NATURAL CUT LIMESTONE	CUSTOM OR APPROVED PRODUCT	CUSTOM OR APPROVED PRODUCT	WEATHERING STEEL		05 5001
AM-05	AMENITY TYPE 05 - BAT ROCKET BOX	1	1/L582	NON-TREATED WOOD BAT HOUSE	CUSTOM OR APPROVED PRODUCT	CUSTOM OR APPROVED PRODUCT	NO DARK PAINT, NO OIL-BASED STAINS OR PAINTS.		06 1000
AM-06	AMENITY TYPE 06 - BLUEBIRD HOUSE	3	2/L582	NON-TREATED WOOD	CUSTOM OR APPROVED PRODUCT	CUSTOM OR APPROVED PRODUCT	NEUTRAL COLOR, NO OIL-BASED FINISHES		06 1000
AM-07	AMENITY TYPE 07 - WOOD DUCK BOX	3	3/L582	NON-TREATED WOOD	CUSTOM OR APPROVED PRODUCT	CUSTOM OR APPROVED PRODUCT	NO OIL BASED OR BRIGHT COLORED FINISHES		06 1000
AM-08	AMENITY TYPE 08 - WOOD ENGRAVING	6	2/L583	SANDBLASTED GRAPHICS WITH PAINT INFILL	CUSTOM	CUSTOM	BLACK PAINT INFILL		09 0000
AM-09	AMENITY TYPE 09 - STONE ENGRAVING	4	3/L583	SANDBLASTED GRAPHICS WITH PAINT INFILL	CUSTOM	CUSTOM	BLACK PAINT INFILL		09 0000
AM-10	AMENITY TYPE 10 - CONCRETE ENGRAVING	1	1/L584	SANDBLASTED GRAPHICS WITH PAINT INFILL	CUSTOM	CUSTOM	BLACK PAINT INFILL		09 0000
AM-11	AMENITY TYPE 11 - STAFF GAUGE	2	2/L580	STAINLESS STEEL STAFF GAUGE ATTACHED TO OUTLET STRUCTURE	CUSTOM	CUSTOM	BRUSHED STAINLESS STEEL		05 5001

CURB									
CODE	DESCRIPTION	QTY	DETAIL	MATERIAL PROFILE/ASSEMBLY	MANUFACTURER	PRODUCT/MODEL	COLOR/FINISH	COMMENTS	SPEC #
CB-01	CURB TYPE 01 - 8" CIP CONCRETE PLANTER CURB	210 LF	1/L510	8" W X 6" H REINFORCED CONCRETE CURB, OVER COMPACTED AGGREGATE, COMPACTED SUBGRADE	STANDARD CONCRETE	STANDARD CONCRETE	BROOM FINISH PARALLEL WITH TRAFFIC FLOW		03 0005
CB-02	CURB TYPE 02 - 8" CIP CONCRETE RIBBON CURB	236 LF	2/L510	8" WIDTH AT GRADE REINFORCED CONCRETE CURB OVER COMPACTED AGGREGATE BASE, COMPACTED SUBGRADE	STANDARD CONCRETE	STANDARD CONCRETE	BROOM FINISH PARALLEL WITH TRAFFIC FLOW		03 0005
CB-03	CURB TYPE 03 - 12" CIP CONCRETE PLAY AREA CURB	158 LF	3/L510	12" WIDTH AT GRADE REINFORCED CONCRETE CURB OVER COMPACTED AGGREGATE BASE, COMPACTED SUBGRADE	STANDARD CONCRETE	STANDARD CONCRETE	BROOM FINISH PARALLEL WITH TRAFFIC FLOW		03 0005
CB-04	CURB TYPE 04 - 12" CIP CONCRETE PLANTER CURB	91 LF	4/L510	12" X 8" H REINFORCED CONCRETE CURB OVER COMPACTED AGGREGATE BASE, COMPACTED SUBGRADE	STANDARD CONCRETE	STANDARD CONCRETE	BROOM FINISH PARALLEL WITH TRAFFIC FLOW		03 0005

EDGING									
CODE	DESCRIPTION	QTY	DETAIL	MATERIAL PROFILE/ASSEMBLY	MANUFACTURER	PRODUCT/MODEL	COLOR/FINISH	COMMENTS	SPEC #
ED-01	EDGING TYPE 01 - STONE EDGING	254 LF	1/L511	LIMESTONE EDGING, 4" WIDTH X 18" LENGTHS, OVER COMPACTED AGGREGATE BASE FIELD CUT TO 8" LENGTHS WHEN SET ON RADIUS	BIESANZ, VETTER, KASOTA, OR APPROVED EQUAL	LIMESTONE	SPLIT FACES, LIMESTONE TYPE TO MATCH OTHER STONE ELEMENTS		32 3224
ED-02	EDGING TYPE 02 - STEEL EDGING	136 LF	3/L511	3/16" GALVANIZED STEEL EDGING W/ 15" STAKE	SEE SPEC		GALV STEEL		32 9300

FENCE & GUARDRAIL									
CODE	DESCRIPTION	QTY	DETAIL	MATERIAL PROFILE/ASSEMBLY	MANUFACTURER	PRODUCT/MODEL	COLOR/FINISH	COMMENTS	SPEC #
FE-01A	GUARDRAIL TYPE 01A - WALL MOUNT GUARDRAIL	84 LF	1/L551	42" HEIGHT CUSTOM GALVANIZED STEEL GUARDRAIL MOUNTED TO CONCRETE WALL	CUSTOM	CUSTOM	HOT-DIPPED GALVANIZED: SEE SPEC		05-5001
FE-01B	GUARDRAIL TYPE 01B - PLATE MOUNT GUARDRAIL	27 LF	2/L551	42" HEIGHT CUSTOM GALVANIZED STEEL GUARDRAIL MOUNTED TO CONCRETE WALK WITH THICKENED CONCRETE EDGE	CUSTOM	CUSTOM	HOT-DIPPED GALVANIZED: SEE SPEC		05-5001
FE-02	FENCE TYPE 02 - WOOD POST & ROPE FENCE	82 LF	1/L552	8" DIA TIMBER POSTS WITH GALVANIZED STEEL SHOE MOUNTED TO CONCRETE CURB, 2" HEAVY-DUTY POLYPROPYLENE ROPE	CUSTOM	CUSTOM	CEDAR POST, HOT-DIPPED GALVANIZED SHOE		06 1000

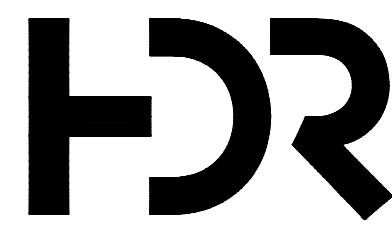
GATE									
CODE	DESCRIPTION	QTY	DETAIL	MATERIAL PROFILE/ASSEMBLY	MANUFACTURER	PRODUCT/MODEL	COLOR/FINISH	COMMENTS	SPEC #
GA-01	GATE TYPE 01 - PLAY AREA TIMBER GATE	2	2/L552	4' X 4' TIMBER FRAME GATE, CEDAR WITH GALV STEEL POST SHOE SET OVER SONOTUBE FOOTING	CUSTOM	CUSTOM	CEDAR FRAME WITH METAL MESH INTERIOR	SHOP DRAWINGS TO BE PROVIDED AND APPROVED BY LANDSCAPE ARCHITECT	06 1000

LIGHTING									
CODE	DESCRIPTION	QTY	DETAIL	MATERIAL PROFILE/ASSEMBLY	MANUFACTURER	PRODUCT/MODEL	COLOR/FINISH	COMMENTS	SPEC #
LT-01	LIGHT TYPE 01 - PEDESTRIAN SCALE POLE LIGHT	13	2/L584	PEDESTRIAN SCALE POLE LIGHT	SEE ELECTRICAL	SEE ELECTRICAL	SUBMIT SAMPLES, IN SILVER COLOR FAMILY	SEE ELECTRICAL PLANS	26 50 00
LT-02	LIGHT TYPE 02 - WALL PACK	26		RECESSED WALL LIGHT SET INTO CONCRETE CIP WALL	SEE ELECTRICAL	SEE ELECTRICAL	SUBMIT SAMPLES, IN GRAY COLOR FAMILY	SEE ELECTRICAL PLANS	26 50 00
LT-03	LIGHT TYPE 03 - TREE UPLIGHTS	16		FLOOD LIGHT SET ON GROUND SPIKE	SEE ELECTRICAL	SEE ELECTRICAL	SUBMIT SAMPLES, IN GRAY COLOR FAMILY	SEE ELECTRICAL PLANS	26 50 00
LT-04	LIGHT TYPE 04 - PERGOLA LETTERING UPLIGHTS	14		MINI FLOOD LIGHT	SEE ELECTRICAL	SEE ELECTRICAL	SUBMIT SAMPLES, IN WHITE COLOR FAMILY	SEE ELECTRICAL PLANS	26 50 00
LT-05	LIGHT TYPE 05 - PERGOLA DOWN LIGHT	50 LF		LED SURFACE MOUNT LIGHT TO BOTTOM OF PERGOLA BEAM	SEE ELECTRICAL	SEE ELECTRICAL	SUBMIT SAMPLES, IN WHITE COLOR FAMILY	SEE ELECTRICAL PLANS	26 50 00

MINERAL MULCH									
CODE	DESCRIPTION	QTY	DETAIL	MATERIAL PROFILE/ASSEMBLY	MANUFACTURER	PRODUCT/MODEL	COLOR/FINISH	COMMENTS	SPEC #
MM-01	MINERAL MULCH TYPE 1 - 6-9" TRAP ROCK	188 SF	/	6-9" ANGULAR TRAP ROCK	DRESSER TRAP ROCK	6-9" WASHED	CLEAN WASHED		32 1540



**MINNEHAHA CREEK
WATERSHED DISTRICT**



**DF/ DAMON FARBER
LANDSCAPE ARCHITECTS**
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ISSUE	DATE	DESCRIPTION
C	03/28/2023	100% DESIGN
B	09/14/2022	90% DESIGN
A	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER	10268112
----------------	----------

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE XX/XX/XXXX LICENSE # 26292

**325 BLAKE RD REGIONAL STORMWATER
AND GREENWAY**

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

SITE MATERIALS SCHEDULE



FILENAME
SCALE N/A

SHEET
L010

MATERIALS SCHEDULE (CONT'D)

QUANTITIES DEPICTED BELOW ARE ESTIMATES AND REQUIRE CONTRACTOR VERIFICATION

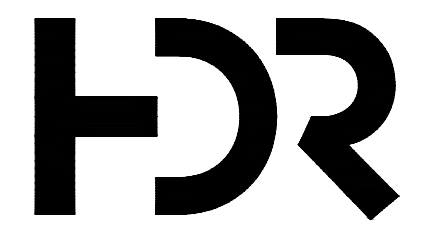
PAVING									
CODE	DESCRIPTION	QTY	DETAIL	MATERIAL PROFILE/ASSEMBLY	MANUFACTURER	PRODUCT/MODEL	COLOR/FINISH	COMMENTS	SPEC #
P-01	PAVING TYPE 01 - BITUMINOUS PAVING (SEE CIVIL)	11,017 SF		SEE CIVIL	SEE CIVIL	SEE CIVIL	SEE CIVIL	SEE CIVIL	SEE CIVIL
P-02	PAVING TYPE 02 - PERMEABLE CONCRETE UNIT PAVERS	1,919 SF	3/L500	PERMEABLE PAVERS OVER PERMEABLE AGGREGATE BASE OVER COMPACTED SUBGRADE	ENDICOTT	2-1/4" X 4" X 8" PERMEABLE	MANGANESE IRONSPOT		32 1443
P-03	PAVING TYPE 03 - CONCRETE PAVING	540 SF	1/L502	SEE CIVIL	SEE CIVIL	SEE CIVIL	GRAY, MEDIUM BROOM FINISH	REFER TO LA DETAIL FOR TYP JOINTING, SEE CIVIL FOR DEPTH / BASE MATERIALS	
P-04A	PAVING TYPE 04A - CRUSHED STONE SURFACING	1,477 SF	4/L501	3/8" LIMESTONE AGGREGATE WITH FINES, 4" DEPTH, INSTALLED IN TWO LIFTS, SET OVER COMPACTED AGGREGATE BASE, OVER COMPACTED SUBGRADE	REGIONALLY SOURCED, PROVIDE SUBMITTAL	LIMESTONE TRAIL MIX - 3/8" MINUS	NATURAL		32 1540
P-05	PAVING TYPE 05 - LANDING MIX (SEE CIVIL)	1,697 SF		SEE CIVIL	SEE CIVIL	SEE CIVIL	SEE CIVIL	SEE CIVIL	SEE CIVIL
P-06	PAVING TYPE 6 - LIMESTONE FLAGGING	15 SF	1/L580	"1.5" THICK LIMESTONE FLAGGING, LIMESTONE AGGREGATE SEPARATION LAYER, COMPACTED AGGREGATE BASE OVER COMPACTED SUBGRADE"	"BIESANZ, VETTER, KASOTA, OR APPROVED EQUAL"		NATURAL CLEFT		32 3224, 32 1400
P-07	PAVING TYPE 07 - DECORATIVE CONCRETE PAVING	924 SF	2/L543	4" REINFORCED INTEGRAL COLORED CONCRETE PAVING WITH SEEDED AGGREGATE FINISH, SET OVER COMPACTED AGGREGATE BASE, OVER COMPACTED SUBGRADE	BULACH OR APPROVED EQUAL	INTEGRAL COLORED CONCRETE WITH GRANITE TOP CAST	CHARCOAL INTEGRAL COLOR WITH BLACK GRANITE SEEDED AGGREGATE	MOCKUP REQ.	32 1316
P-08	PAVING TYPE 08 - METAL GRATING (SEE STRUCTURAL)	383 SF		SEE STRUCTURAL	SEE STRUCTURAL	SEE STRUCTURAL	SEE STRUCTURAL	SEE STRUCTURAL	SEE STRUCTURAL
P-09A	PAVING TYPE 09A - WOOD FIBER SURFACING (EWF)	1,717 SF	1/L501	ENGINEERED WOOD FIBER, 9" DEPTH WITH SUBSURFACE DRAINAGE SYSTEM	SEE SPEC	SEE SPEC			32 1816
P-09B	PAVING TYPE 09B - WOOD FIBER SURFACING (EWF)	1,057 SF	2/L501	ENGINEERED WOOD FIBER, 4" DEPTH WITH SUBSURFACE DRAINAGE SYSTEM	SEE SPEC	SEE SPEC			32 1816
P-10	PAVING TYPE 10 - AGGREGATE SHOULDER (SEE CIVIL)	2,312 SF		SEE CIVIL	SEE CIVIL	SEE CIVIL	SEE CIVIL	SEE CIVIL	SEE CIVIL
P-11	PAVING TYPE 11 - HARDWOOD MULCH PATH	16.56 CY	3/L502	HARDWOOD MULCH	SITE SOURCED OR SUBMIT PRODUCT FOR APPROVAL		NATURAL		32 9300
P-12	PAVING TYPE 12 - ENGRAVED GRANITE PAVERS	654 SF	4/L500	12" L X 12" W X 2" THICK GRANITE PAVERS, COMPACTED AGGREGATE BASE, COMPACTED SUBCUT	ORIJIN STONE, OR APPROVED EQUAL		MESABI BLACK, SANDBLAST FINISH FOR SLIP-RESISTANCE, WITH ETCHED INTERPRETIVE MAP	MOCKUP REQ. BASE BID: ENGRAVED GRANITE PAVERS, DEDUCT ALTERNATE: DECORATIVE CONCRETE WITH WATERSHED GRAPHIC SANDBLASTED FINISH	32 1400

PLAY EQUIPMENT									
CODE	DESCRIPTION	QTY	DETAIL	MATERIAL PROFILE/ASSEMBLY	MANUFACTURER	PRODUCT/MODEL	COLOR/FINISH	COMMENTS	SPEC #
PE-01	PLAY EQUIPMENT TYPE 01 - LOG STACK	1	1/L585	LOG STACK ANCHORED IN PLACE OVER CONCRETE FOOTINGS	CUSTOM, ROBINIA	CUSTOM			11 6815
PE-02	PLAY EQUIPMENT TYPE 02 - PLAY MOUND	278 SF	2/L586	ARTIFICIAL TURF OVER CUSION BASEMAT LAYER OVER SHOTCRETE BASE WITH TUNNEL	CUSTOM, XGRASS	CUSTOM	XGRASS ULTRA		32 1813, 03 3713
PE-03A	PLAY EQUIPMENT TYPE 03A - PRECAST CONCRETE ACORN TOP	1	1/L587	PRECAST CONCRETE ACORNS OVER AGGREGATE BASE	ARTSTONE, WAUSAU TILE, OR APPROVED EQUAL	CUSTOM	ACID WASHED FINISH, INTEGRAL COLOR - GRAY, SUBMIT COLOR SAMPLES FOR APPROVAL. APPLY ACL 'HIDROLIT' OR APPROVED EQUAL COATING	MOCKUP REQ.	03 4500
PE-03B	PLAY EQUIPMENT TYPE 03B - PRECAST CONCRETE ACORN NUT	1	1/L587	PRECAST CONCRETE ACORNS OVER AGGREGATE BASE	ARTSTONE, WAUSAU TILE, OR APPROVED EQUAL	CUSTOM	ACID WASHED FINISH, INTEGRAL COLOR - GRAY, SUBMIT COLOR SAMPLES FOR APPROVAL. APPLY ACL 'HIDROLIT' OR APPROVED EQUAL COATING	MOCKUP REQ.	03 4500
PE-03C	PLAY EQUIPMENT TYPE 03C - PRECAST CONCRETE ACORN	1	1/L587	PRECAST CONCRETE ACORNS OVER AGGREGATE BASE	ARTSTONE, WAUSAU TILE, OR APPROVED EQUAL	CUSTOM	ACID WASHED FINISH, INTEGRAL COLOR - GRAY, SUBMIT COLOR SAMPLES FOR APPROVAL. APPLY ACL 'HIDROLIT' OR APPROVED EQUAL COATING	MOCKUP REQ.	03 4500

ROCK									
CODE	DESCRIPTION	QTY	DETAIL	MATERIAL PROFILE/ASSEMBLY	COMMENTS	MANUFACTURER	PRODUCT	COLOR/FINISH	SPEC #
RO-01	ROCK TYPE 01 - LANDSCAPE BOULDER	88	3/L584	"LIMESTONE OUTCROPPING, 12"-48" SIZES, OVER COMPACTED AGGREGATE BASE, OVER	VARIED SIZES	"BIESANZ, VETTER, KASOTA, OR APPROVED EQUAL"	LIMESTONE	SPLIT FACES, LIMESTONE TYPE TO MATCH OTHER STONE ELEMENTS	32 3224



MINNEHAHA CREEK WATERSHED DISTRICT



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PROJECT MANAGER ANDREW F. JUDD

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DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

SITE MATERIALS SCHEDULE



FILENAME
SCALE N/A

SHEET
L011

MATERIALS SCHEDULE (CONT'D)

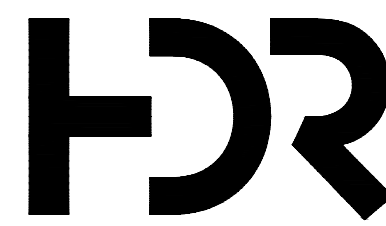
QUANTITIES DEPICTED BELOW ARE ESTIMATES AND REQUIRE CONTRACTOR VERIFICATION

SITE FURNITURE									
CODE	DESCRIPTION	QTY	DETAIL	MATERIAL PROFILE/ASSEMBLY	MANUFACTURER	PRODUCT/MODEL	COLOR/FINISH	COMMENTS	SPEC #
SF-01A	SITE FURNITURE TYPE 01A - CANTILEVER BENCH	2	3/L560	2' X 6' LINEAR BENCH ATTACHED TO GUARDRAIL POST WITH CUSTOM MOUNTING BRACKET	LANDSCAPE FORMS MODIFIED STANDARD	LINK, BACKLESS	WOOD SLATS SEATING, GALV STEEL FRAME	WALL TOP MOUNT	32 3300
SF-01B	SITE FURNITURE TYPE 01B - BACKED BENCH	1	1/L560	2' X 6' LINEAR BENCH SURFACE MOUNTED TO CONCRETE WALK	LANDSCAPE FORMS	LINK, BACKED	WOOD SLATS SEATING, GALV STEEL FRAME	SURFACE MOUNT	32 3300
SF-02	SITE FURNITURE TYPE 02 - HAMMOCK POLE	4	1/L562	10" DIA. 5'-6" HEIGHT WOODEN POST, EMBEDDED IN WASHED AGGREGATE	SALVAGE FROM SITE				06 1000
SF-03	SITE FURNITURE TYPE 03 - ROLLING BIKE RACK	3	4/L562	BIKE RACK EMBEDDED IN CIP CONCRETE FOOTING	DERO	ROLLING RACK	GALVANIZED STEEL		32 3300
SF-04	SITE FURNITURE TYPE 04 - HOOP BIKE RACK	11	5/L562	BIKE RACK EMBEDDED IN CIP CONCRETE FOOTING	DERO	HOOP RACK	GALVANIZED STEEL		32 3300
SF-05	SITE FURNITURE TYPE 05 - TIMBER BENCH	2	2/L560	RECLAIMED TIMBER BENCH OVER COMPACTED AGGREGATE BASE	CUSTOM, SALVAGE FROM SITE				06 1000
SF-06	SITE FURNITURE TYPE 06 - PICNIC TABLE	2	1/L561	ACCESSIBLE PICNIC TABLE WITH SEATS	COLUMBIA CASCADE COMPANY	2165-6	GALVANIZED STEEL FRAME		32 3300
SF-07	SITE FURNITURE TYPE 07 - WASTE RECEPTACLE	3	2/L562	STEEL WASTE RECEPTACLE	DUMOR	MODEL 157-32 FTO SIDE OPENING RECEPTACLE	HEAVY DUTY STEEL COATED WITH ZINC-RICH EPOXY AND POWDER COATED FINISH, PROVIDE MATERIAL SAMPLES IN SILVER COLOR FAMILY	PROVIDE BLACK 32-GALLON FORMED POLYETHYLENE LINER AND HINGED SIDE DOOR FOR EASY EMPTYING. 14 GA SPUN STEEL COVER. PROVIDE WITH SURFACE MOUNT HOLE.	32 3300
SF-08	SITE FURNITURE TYPE 08 - BACKED BENCH	4	1/L563	6' SURFACE MOUNTED BENCH	COLUMBIA CASCADE	2140 CONTOUR BENCH	WOOD SLATS SEATING, POWDER COATED STEEL FRAME		32 3300
SF-09A	SITE FURNITURE TYPE 09A - LIMESTONE BLOCK ON AGGREGATE SPLIT FACE	12	1/L564	LIMESTONE BLOCK SET OVER COMPACTED AGGREGATE BASE	BIESANZ, VETTER, KASOTA, OR APPROVED EQUAL	6' X 2' X 2' LIMESTONE	LIMESTONE TYPE TO MATCH OTHER STONE ELEMENTS		32 3224
SF-09B	SITE FURNITURE TYPE 09B - LIMESTONE BLOCK ON PAVEMENT SPLIT FACE	2	/	LIMESTONE BLOCK SET ON GRADE	BIESANZ, VETTER, KASOTA, OR APPROVED EQUAL	6' X 2' X 18" LIMESTONE	LIMESTONE TYPE TO MATCH OTHER STONE ELEMENTS		32 3224
SF-09C	SITE FURNITURE TYPE 09C - LIMESTONE BLOCK ON AGGREGATE SAWN FACE	6	3/L560	LIMESTONE BLOCK SET OVER COMPACTED AGGREGATE BASE	BIESANZ, VETTER, KASOTA, OR APPROVED EQUAL	6' X 2' X 2' LIMESTONE	LIMESTONE TYPE TO MATCH OTHER STONE ELEMENTS		32 3224
SF-10	SITE FURNITURE TYPE 10 - SWING BENCH	2	2/L563	72" AUSTIN BACKED SWING BENCH WITH WOOD SLATS AND ARMRESTS	LANDSCAPE FORMS	AU9991C-CUS	WOOD SEATING, END ARMS		32 3300
SF-11	SITE FURNITURE TYPE 11 - BIKE FIX-IT STATION	1	1/L565	FIX IT STATION WITH AIR KIT 2, SURFACE MOUNT TO CONC FOOTING	DERO	FIX IT + AIR KIT	STAINLESS STEEL SATIN FINISH		32 3300
SF-12	SITE FURNITURE TYPE 12 - DRINKING FOUNTAIN	1	2/L565	DRINKING FOUNTAIN SET OVER CONCRETE SONOTUBE FOOTING, WITH INTERNAL SURFACE MOUNT AND JUG FILLER OPTION.	MOST DEPENDABLE FOUNTAIN	440 SMFA	STAINLESS STEEL		32 3300

SIGNAGE									
CODE	DESCRIPTION	QTY	DETAIL	MATERIAL PROFILE/ASSEMBLY	MANUFACTURER	PRODUCT/MODEL	COLOR/FINISH	COMMENTS	SPEC #
SN-01	SIGN TYPE 01 - DIRECTIONAL	3	1/L572	1/2" THK GALV STEEL PLATE SIGN ANCHORED TO SONOTUBE FOOTING OVER COMPACTED AGGREGATE BASE OVER COMPACTED SUBGRADE.	CUSTOM	GALV STEEL	GALV STEEL	SUBMIT SHOP DRAWINGS, INCLUDING ENGINEERED DRAWINGS FOR FOOTING DESIGN	10 1423, 05-5001
SN-02A	SIGN TYPE 02A - WAYFINDING KIOSK	1	2/L570	ONE SIDED GALVANIZED STEEL FRAME W/ 3FORM SIGN AND ACRYLIC MAP PANEL, SET ON LIMESTONE BASE, OVER CIP FOOTINGS OVER COMPACTED AGGREGATE BASE, COMPACTED SUBGRADE.	CUSTOM	BIESANZ, VETTER, KASOTA, OR APPROVED EQUAL LIMESTONE BASE, 3FORM 1/2" CHROMA XT CAULDRON CNC ETCH - FACE - PAINTED ETCHING	GALV STEEL	SUBMIT SHOP DRAWINGS, INCLUDING ENGINEERED DRAWINGS FOR FOOTING DESIGN	10 1423
SN-02B	SIGN TYPE 02B - WAYFINDING KIOSK	1	2/L570	TWO SIDED GALVANIZED STEEL FRAME W/ 3FORM SIGN AND ACRYLIC MAP PANEL, SET ON LIMESTONE BASE, OVER CIP FOOTINGS OVER COMPACTED AGGREGATE BASE, COMPACTED SUBGRADE.	CUSTOM	BIESANZ, VETTER, KASOTA, OR APPROVED EQUAL LIMESTONE BASE, 3FORM 1/2" CHROMA XT CAULDRON CNC ETCH - FACE - PAINTED ETCHING	GALV STEEL	SUBMIT SHOP DRAWINGS, INCLUDING ENGINEERED DRAWINGS FOR FOOTING DESIGN	10 1423
SN-03	SIGN TYPE 03 - STOP SIGN	3	2/L575	TRAIL SIZED STOP SIGN MOUNTED TO STEEL POST SIGN OVER SONOTUBE FOOTING TO FROST			GALV STEEL		10 1423
SN-04	SIGN TYPE 04 - TRAIL & REGULATION	6	2/L572	1/2" THK GALV STEEL PLATE SIGN ANCHORED TO SONOTUBE FOOTING OVER COMPACTED AGGREGATE BASE OVER COMPACTED SUBGRADE.	CUSTOM	GALV STEEL	GALV STEEL		10 1423
SN-05A	SIGNTYPE 05A - INTERPRETIVE SIGN	1	1/L576	GALVANIIZED STEEL PLATE W/ APPLIED GRAPHIC INTERPRETIVE PANEL ATTACHED TO LIMESTONE WALL	CUSTOM	CUSTOM	GALV STEEL		10-1423, 05 5001
SN-05B	SIGN TYPE 05B - INTERPRETIVE SIGN	2	2/L576	GALVANIIZED STEEL PLATE W/ APPLIED GRAPHIC INTERPRETIVE PANEL ATTACHED TO GUARDRAIL	CUSTOM	CUSTOM	GALV STEEL		10-1423, 05 5001
SN-06	SIGN TYPE 06 - THREE RIVERS DIRECTIONAL	1	1/L573	SIGNAGE OVER SONOTUBE FOOTING TO FROST	BY OTHERS	PROVIDE FOOTINGS AS SHOWN IN DETAILS, THREE RIVERS PARK DISTRICT STANDARD SIGN BY OTHERS			03 0005
SN-07	SIGN TYPE 07 - THREE RIVERS TRAIL KIOSK	1	1/L574	THREE RIVERS PARK DISTRICT TRAIL KIOSK, PROVIDE FOOTINGS, SIGN BY OTHERS	BY OTHERS	PROVIDE FOOTINGS AS SHOWN IN DETAILS, THREE RIVERS PARK DISTRICT STANDARD SIGN BY OTHERS			03 0005
SN-08	SIGN TYPE 08 - THREE RIVERS SYSTEM KIOSK	1	1/L575	THREE RIVERS PARK DISTRICT SYSTEM KIOSK, PROVIDE FOOTINGS, SIGN BY OTHERS	BY OTHERS	PROVIDE FOOTINGS AS SHOWN IN DETAILS, THREE RIVERS PARK DISTRICT STANDARD SIGN BY OTHERS			03 0005



MINNEHAHA CREEK WATERSHED DISTRICT



DF/ DAMON FARBER LANDSCAPE ARCHITECTS

401 North 2nd Avenue, Suite 410 Minneapolis, MN 55401 p: 612.332.7822

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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT 325 BLAKE RD HOPKINS, MN 55343

SITE MATERIALS SCHEDULE

0 1" 2" FILENAME SCALE AS SHOWN

SHEET L012

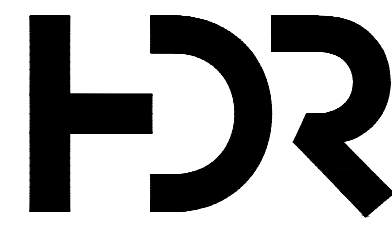
MATERIALS SCHEDULE (CONT'D)

QUANTITIES DEPICTED BELOW ARE ESTIMATES AND REQUIRE CONTRACTOR VERIFICATION

STAIRS									
CODE	DESCRIPTION	QTY	DETAIL	MATERIAL PROFILE/ASSEMBLY	MANUFACTURER	PRODUCT/MODEL	COLOR/FINISH	COMMENTS	SPEC #
ST-01	STAIR TYPE 01 - STONE STEPPER	18	1/L530	4' L X 1' W X 1' H STONE STEPPER OVER COMPACTED AGGREGATE BASE	BIESANZ, VETTER, KASOTA, OR APPROVED EQUAL	LIMESTONE TREAD UNITS	CUT TOP AND BOTTOM, SPLIT FACES. LIMESTONE TYPE TO MATCH OTHER STONE ELEMENTS		32 3224
WALL									
CODE	DESCRIPTION	QTY	DETAIL	MATERIAL PROFILE/ASSEMBLY	MANUFACTURER	PRODUCT/MODEL	COLOR/FINISH	COMMENTS	SPEC #
WL-01	WALL TYPE 01 - LIMESTONE SEATWALL @ TRAILHEAD	110 LF	1/L520	2' WIDTH X 1.5' HEIGHT X 4' LENGTH, STRAIGHT SEGMENTS PLACED IN RADIAL LAYOUT PER PLAN, OVER COMPACTED AGGREGATE BASE OVER COMPACTED SUBGRADE	BIESANZ, VETTER, KASOTA, OR APPROVED EQUAL	LIMESTONE BLOCK	SAWN ALL FACES		32 3224
WL-02	WALL TYPE 02 - LIMESTONE SEATWALL @ PLAY AREA	130 LF	2/L520	1.5' HEIGHT X RANDOM WIDTHS & LENGTHS LIMESTONE OUTCROPPINGS OVER AGGREGATE BASE	BIESANZ, VETTER, KASOTA, OR APPROVED EQUAL	LIMESTONE BLOCK	NATURAL TOP AND FACES		32 3224
WL-03	WALL TYPE 03 - LIMESTONE SEATWALL @ PICNIC AREA	50 LF	1/L521	2' WIDTH X 2' HEIGHT X 5' LENGTH LIMESTONE CUT ON A RADIUS OVER AGGREGATE BASE OVER COMPACTED SUBGRADE	BIESANZ, VETTER, KASOTA, OR APPROVED EQUAL	LIMESTONE BLOCK	SAWN ALL FACES		32 3224
WL-04	WALL TYPE 04 - CIP CONCRETE WALL	140 LF	2/L521	1' WIDTH CIP CONCRETE WALL, 3' TALL MAX, OVER COMPACTED AGGREGATE BASE OVER COMPACTED SUBGRADE, WITH INTEGRATED WALL LIGHT	STANDARD CONCRETE	STANDARD CONCRETE	RUBBED FINISH		03 0005
WL-05	WALL TYPE 05 - CIP CONCRETE SEATWALL WITH STONE MASONRY VENEER	90 LF	1/L543	CIP RETAINING WALL WITH LIMESTONE MASONRY AND PRECAST CAP	STANDARD CONCRETE, BIESANZ, VETTER, KASOTA, OR APPROVED EQUAL	STANDARD CONCRETE WITH LIMESTONE BRICK FACING	SAWN ALL FACES LIMESTONE MASONRY. PRECAST CAP ACID WASHED FINISH, COLOR LIGHT GRAY, SUBMIT COLOR SAMPLES FOR APPROVAL	MOCKUP REQ.	03 0005, 04 40 00



MINNEHAHA CREEK WATERSHED DISTRICT



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PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER	DESCRIPTION
10268112	

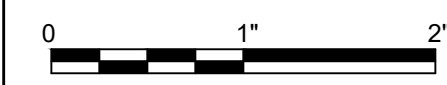
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

SITE MATERIALS SCHEDULE



FILENAME
SCALE AS SHOWN

SHEET
L013

PLANT SCHEDULE						
TREES	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	CONT.	DETAIL
	AS	3	ACER SACCHARUM SUGAR MAPLE	2" CAL.	B&B	
DECIDUOUS TREES	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	CONT.	DETAIL
	AAU	5	ACER RUBRUM 'AUTUMN FLAME' AUTUMN FLAME RED MAPLE	2.5" CAL.	B&B	
	AH	2	ACER SACCHARINUM SILVER MAPLE	2" CAL.	B&B	
	BN	8	BETULA NIGRA 'CULLY' TM HERITAGE RIVER BIRCH	8' HT. MULTI-STEM	B&B	
	CS	3	CATALPA SPECIOSA NORTHERN CATALPA	2" CAL.	B&B	
	CO	2	CELTIS OCCIDENTALIS COMMON HACKBERRY	2.5" CAL.	B&B	
	GD	3	GYMNOCLADUS DIOICA KENTUCKY COFFEETREE	3.5" CAL.	B&B	
	OV	4	OSTRYA VIRGINIANA AMERICAN HOPHORNBEAM	2.5" CAL.	B&B	
	PX	4	POPULUS DELTOIDES 'SIOUXLAND' EASTERN COTTONWOOD SIOUXLAND	2" CAL.	B&B	
	PT2	13	POPULUS TREMULOIDES 'NE ARB' PRAIRIE GOLD ASPEN	2.5" CAL.	B&B	
	PW	3	PRUNUS SEROTINA BLACK CHERRY	2" CAL.	B&B	
	QB	10	QUERCUS BICOLOR SWAMP WHITE OAK	2.5" CAL.	B&B	
	QS	1	QUERCUS ELLIPSOIDALIS 'MAJESTIC SKIES' MAJESTIC SKIES NORTHERN PIN OAK	3" CAL.	B&B	
	QM	7	QUERCUS MACROCARPA BUR OAK	2.5" CAL.	B&B	
	QH	1	QUERCUS X 'HERITAGE' HERITAGE ENGLISH OAK	2.5" CAL.	B&B	
	UP	1	ULMUS AMERICANA 'PRINCETON' AMERICAN ELM	2.5" CAL.	B&B	
	US	3	ULMUS AMERICANA 'ST. CROIX' ST. CROIX AMERICAN ELM	2.5" CAL.	B&B	
ORNAMENTAL TREES	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	CONT.	DETAIL
	AA	9	AMELANCHIER X GRANDIFLORA APPLE SERVICEBERRY	8' HT. MULTI-STEM	B&B	
	CC	7	CARPINUS CAROLINIANA AMERICAN HORNBEAM	8' HT. MULTI-STEM	B&B	
	CA	1	CORNUS ALTERNIFOLIA PAGODA DOGWOOD	8' HEIGHT CLUMP	B&B	

PLANT SCHEDULE							
SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONT.	DETAIL
	AM3	427	ACHILLEA X 'MOONSHINE'	MOONSHINE YARROW	#2	CONT.	
	AR	3	AMELANCHIER ALNIFOLIA 'REGENT'	REGENT SERVICEBERRY	#10	CONT.	
	AM4	6	ARONIA MELANOCARPA 'MORTON'	IROQUOIS BEAUTY™ BLACK CHOKEBERRY	#5	CONT.	
	AM	33	ARONIA MELANOCARPA 'MORTON' TM	IROQUOIS BEAUTY BLACK CHOKEBERRY	#5	CONT.	
	BA2	18	BAPTISIA ALBA	WHITE WILD INDIGO	#1	CONT.	
	BA3	13	BAPTISIA AUSTRALIS	BLUE WILD INDIGO	#1	CONT.	
	CO2	3	CEPHALANTHUS OCCIDENTALIS	BUTTONBUSH	#5	CONT.	
	CP3	316	COREOPSIS PALMATA	STIFF TICKSEED	#2	CONT.	
	CO3	15	CORNUS RACEMOSA 'MUSZAM'	MUSKINGUM® GRAY DOGWOOD	#2	CONT.	
	CA3	2	CORYLUS AMERICANA	AMERICAN HAZELNUT	#5	CONT.	
	DL2	7	DIERVILLA LONICERA	DWARF BUSH HONEYSUCKLE	#2	CONT.	
	HA	176	HELENIUM AUTUMNALE SALUD YELLOW	SNEEZEWEED	#2	CONT.	
	JO	7	JUNIPERUS VIRGINIANA 'GREY OWL'	GREY OWL JUNIPER	#5	CONT.	
	RG	23	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	#5	CONT.	
	RT	25	RHUS TYPHINA	STAGHORN SUMAC	#5	CONT.	
	RG3	504	RUDBECKIA FULGIDA SULLIVANTII 'GOLDSTURM'	GOLDSTURM CONEFLOWER	#2	CONT.	
	SA2	3	SALIX CANDIDA 'JEFBERG' TM	ICEBERG ALLEY SAGELEAF WILLOW	#2	CONT.	
	SE	13	SAMBUCUS CANADENSIS	AMERICAN ELDERBERRY	#5	CONT.	
	SC	21	SILPHIUM PERFOLIATUM	CUP PLANT	#1	CONT.	
	SS2	305	SOLIDAGO SPECIOSA 'LITTLE MELON'	SHOWY GOLDENROD	#2	CONT.	
	SM	4	SPIRAEA ALBA	MEADOWSWEET	#5	CONT.	
	ST	9	STAPHYLEA TRIFOLIA	AMERICAN BLADDERNUT	#5	CONT.	
	TD	13	THALICTRUM DIOICUM	EARLY MEADOW RUE	#2	CONT.	
	TT	11	THUJA OCCIDENTALIS 'TECHNY'	TECHNY ARBORVITAE	#15	CONT.	
	VL	2	VIBURNUM LENTAGO	NANNYBERRY	#5	CONT.	
	VB	6	VIBURNUM TRILOBUM 'BAILEY COMPACT'	BAILEY'S COMPACT AMERICAN CRANBERRY BUSH	#5	CONT.	
	ZA2	388	ZIZIA AUREA	GOLDEN ALEXANDER	#2	CONT.	



ISSUE	DATE	DESCRIPTION
C	03/28/2023	100% DESIGN
B	09/14/2022	90% DESIGN
A	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER	ANDREW F. JUDD
PROJECT NUMBER	10268112

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THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

TREE & SHRUB PLANTING SCHEDULE

0 1" 2" SCALE N/A

FILENAME N/A

SHEET **L020**

SHRUB AREAS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CON T.	NOTES	SPACING	REMARKS
		2,953 SF	FORB ENHANCEMENT						PLUG INTO SEEDED AREAS. PLANT IN DRIFTS. EACH DRIFT SHALL CONTAIN 3 INTERMIXED SPECIES. PLANT EACH DRIFT IN MINIMUM 50SF MASSES FOR LEGIBILITY.
	D2	455	DRIFT 1			PLUG	SPECIES IN DRIFT TO BE DISTRIBUTED EVENLY (EACH SPECIES PLANTED AT 1/3 TOTAL AREA)	33% @ 18" o.c.	DRIFT TYPE 1: LIATRIS PYCNOSTACHYA, ECHINACEA PALLIDA, BAPTISIA ALBA
	D3	455	DRIFT 2			PLUG	SPECIES IN DRIFT TO BE DISTRIBUTED EVENLY (EACH SPECIES PLANTED AT 1/3 TOTAL AREA)	33% @ 18" o.c.	TRADESCANTIA BRACTEATA, VERBENA STRICTA, SYMPHOTRICHUM LAEVE
	D4	455	DRIFT 3			PLUG	SPECIES IN DRIFT TO BE DISTRIBUTED EVENLY (EACH SPECIES PLANTED AT 1/3 TOTAL AREA)	33% @ 18" o.c.	(PLANTED AT ELEV 898 AND BELOW) VERBENA HASTATA, LOBELIA SIPHILITICA, HELENIUM AUTUMNALE
		4,228 SF	ENTRY FEATURE PLANTING						NATIVE GRASS MASSES W/ INTERSPERSED SEASONAL NATIVE FORB FORMAL PLANTING
	AT	440	ASCLEPIAS TUBEROSA	BUTTERFLY MILKWEED	1 GAL	CON T.		10% @ 12" o.c.	DISTRIBUTE EVENLY THROUGHOUT PLANTING BED. LOCATE BETWEEN SS
	SL	633	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	1 GAL	CON T.		90% @ 30" o.c.	
		985 SF	LOW GROWING SHRUB						
	AO	29	ARONIA MELANOCARPA 'UCCONNAM165' TM	LOW SCAPE MOUND CHOKEBERRY	#2	CON T.		25% @ 36" o.c.	
	DL	16	DIERVILLA LONICERA	DWARF BUSH HONEYSUCKLE	#5	CON T.		25% @ 48" o.c.	
	JO	16	JUNIPERUS VIRGINIANA 'GREY OWL'	GREY OWL JUNIPER	#5	CON T.		25% @ 48" o.c.	
	RG	16	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	#5	CON T.		25% @ 48" o.c.	
		61 SF	WET MEADOW ENHANCEMENT PLANTINGS						
	CEF	6	CORNUS SERICEA 'ARCTIC FIRE'	ARCTIC FIRE RED TWIG DOGWOOD	2 GAL	CON T.		50% @ 30" o.c.	MULCH IN MASS
	IVE	8	IRIS VERSICOLOR	BLUE FLAG	1 GAL	CON T.		50% @ 24" o.c.	PLANT INTO SEEDED AREA
		2,651 SF	RAIN GARDEN PLANTING						
	AP	184	ASTER NOVAE-ANGLIAE 'PURPLE DOME'	PURPLE DOME NEW ENGLAND ASTER	1 GAL	CON T.		15% @ 18" o.c.	
	CV	207	CAREX VULPINOIDEA	FOX SEDGE	1 GAL	CON T.		30% @ 24" o.c.	
	LC	45	LOBELIA CARDINALIS	CARDINAL FLOWER	1 GAL	CON T.		10% @ 30" o.c.	
	LB	45	LOBELIA SIPHILITICA 'BIG BLUE'	BIG BLUE GREAT LOBELIA	1 GAL	CON T.		10% @ 30" o.c.	
	MDI	69	MONARDA DIDYMA	BEE BALM	1 GAL	CON T.		10% @ 24" o.c.	
	RGO	173	RUDBECKIA FULGIDA SULLIVANTII 'GOLDSTURM'	GOLDSTURM CONEFLOWER	1 GAL	CON T.		25% @ 24" o.c.	
GROUND COVERS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CON T.	NOTES	SPACING	REMARKS
		13.50 2 SF	SEED MIX - WET MEADOW						MNDOT - 34-272 WET MEADOW SOUTH & WEST. SEED AND NATIVE STRAW OR CATEGORY 3 EROSION CONTROL BLANKET ON SLOPES 3:1 AND GREATER.
		13.50 2 SF	-						
		2,787 SF	SEED MIX - WOODLAND EDGE						MNDOT 36-211 WOODLAND EDGE SOUTH & WEST. SEED AND NATIVE STRAW OR CATEGORY 3 EROSION CONTROL BLANKET.
		2,787 SF	-						

SHRUB AREAS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CON T.	NOTES	SPACING	REMARKS
		19,46 8 SF	SEED MIX - MESIC PRAIRIE						BWSR PILOT MIXES: "LITTLE BLUESTEM URBAN PRAIRIE". PLANT EACH DRIFT IN MINIMUM 50SF MASSES FOR LEGIBILITY. SEED AND NATIVE STRAW OR CATEGORY 3 EROSION CONTROL BLANKET.
		19,46 8 SF	-						
		3,409 SF	SEED MIX & PLUG- MEADOW						SEED & PLUG SEDGE & FESCUE MEADOW
	AC2	170 SF	ALLIUM CERNUUM	NODDING ONION		PLUG			
	AU	273 SF	ANEMONE PATENS	PASQUEFLOWER		PLUG			
	AC	68 SF	AQUILEGIA CANADENSIS	EASTERN COLUMBINE		PLUG			
	AV	170 SF	ASCLEPIAS VERTICILLATA	WHORLED MILKWEED		PLUG			
	CB	170 SF	CAREX BLANDA	WOODLAND SEDGE		PLUG			
	CP	170 SF	CAREX PENNSYLVANICA	PENNSYLVANIA SEDGE		PLUG			
	CS2	170 SF	CAREX SPRENGELII	SPRENGEL'S SEDGE		PLUG			
	TL	3,409 SF	TURF SEED NO MOW FESCUE MIX			SEED			
		596 SF	WOODLAND PERENNIAL MIX						
	AC3	24	AQUILEGIA CANADENSIS	EASTERN COLUMBINE	1 GAL	CON T.		15% @ 24" o.c.	
	CP4	16	CAREX PENNSYLVANICA	PENNSYLVANIA SEDGE	1 GAL	CON T.		10% @ 24" o.c.	
	GM	47	GERANIUM MACULATUM	SPOTTED GERANIUM	1 GAL	CON T.		30% @ 24" o.c.	
	MR	24	MAIANTHEMUM RACEMOSUM	FALSE SOLOMON'S SEAL	1 GAL	CON T.		15% @ 24" o.c.	
	MS	47	MATTEUCCIA STRUTHIOPTERIS	OSTRICH FERN	1 GAL	CON T.		30% @ 24" o.c.	
	AL2	56	ARONIA MELANOCARPA 'UCCONNAM165'	LOW SCAPE MOUND® BLACK CHOKEBERRY	1 GAL	CON T.		24" o.c.	
	DM	23	DODECATHEON MEADIA	SHOOTING STAR		PLUG	PLUG	18" o.c.	
	IRI VER	42	IRIS VERSICOLOR	BLUE FLAG		PLUG	PLUG	18" o.c.	
	LG	55	LIATRIS PYCNOSTACHYA	GAYFEATHER	1 GAL	CON T.		18" o.c.	
	RG4	339	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	1 GAL	CON T.		24" o.c.	

PROJECT MANAGER ANDREW F. JUDD

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325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

UNDERSTORY PLANTING SCHEDULE

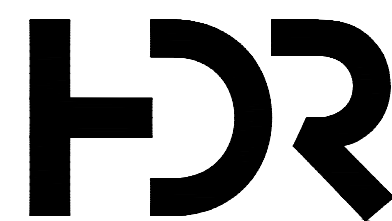


FILENAME
SCALE N/A

SHEET
L021



MINNEHAHA CREEK WATERSHED DISTRICT



DF/ DAMON FARBER LANDSCAPE ARCHITECTS
401 North 2nd Avenue, Suite 410
Minneapolis, MN 55401 p: 612.332.7522

ISSUE	DATE	DESCRIPTION
C	03/28/2023	100% DESIGN
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PROJECT NUMBER 10268112

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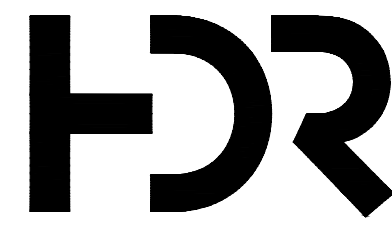
SOIL PROFILE SCHEDULE

SYMBOL	DESCRIPTION	QTY	DEPTH	COMPOSITION	IRRIGATION	NOTES	SUBGRADE PREPARATION
SP-01A	SOIL TYPE 01A - NATIVE/TURF SEEDING SOIL SPEC DF-329113	32,243 SF	4"-6"	INSITU/IMPORTED SOILS AMENDED TO MEET REQUIREMENTS OF MNDOT COMMON TOPSOIL BORROW	SPRAY/NONE	EROSION CONTROL BLANKET, HYDROMULCH, OR TYPE 3 WEED FREE STRAW, PROVIDE ECB ON SLOPES 3:1 OR STEEPER. WHERE SEEDING OCCURS BELOW DRIPLINE OF TREE, HAND RAKE SOIL SURFACE ONLY, DO NOT TILL. IF AREA BELOW A DRIPLINE HAS BEEN COMPACTED BY CONSTRUCTION, PREPARE SOIL USING AIR SPADE.	SEE SPECIFICATIONS, TILL TO 4"
SP-01B	SOIL TYPE 01B - AIR SPADE PREP BELOW EXISTING TREES SPEC DF- 329113, 015639	6,060 SF	4"-6", 6"-8"	INSITU SOIL PREPARATION: ADD 1/2" LAYER OF COMPOST & BIOCHAR. LOOSEN SOIL AND INTEGRATE USING AIR SPADE	SRAY/NONE	SOIL PREP & PLANTING BY HAND MEANS ONLY. PLANTINGS WILL REQUIRE FIELD ADJUSTMENT TO WORK AROUND EXISTING ROOTS. DO NOT SEVER/CUT ROOTS. FOR SEEDING ZONES, LOOSEN ONLY TOP 4". FOR PLANTING, LOOSEN SOIL TO DEPTH OF 6"-8" TO RECIEVE ROOT BALL DEPTH. APPLY MULCH/EROSION CONTROL BY PLANTING TYPE.	AIR SPADE ONLY
SP-02A	SOIL TYPE 02A - 18" PLANTING SOIL PERENNIAL/SHRUB IMPORT SPEC DF- 329113	424.57 CY	18"	IMPORTED SOILS MEETING REQUIREMENTS OF MNDOT LOAM TOPSOIL BORROW	DRIP	3" THICK FINELY SHREDDED HARDWOOD MULCH. INSTALL MULCH OVER JUTE ECB ON SLOPES ON 3:1 OR STEEPER	SEE SPECIFICAITONS, TILL TO 4"
SP-02B	SOIL TYPE 02B - 18" PLANTING SOIL (PERENNIAL/SHRUB) AMEND SPEC DF- 329113	6,387 SF	18"	INSITU AMENDED TO MEET REQUIREMENTS OF MNDOT LOAM TOPSOIL BORROW	NONE	3" THICK FINELY SHREDDED HARDWOOD MULCH, INSTALL MULCH OVER JUTE ECB ON SLOPES ON 3:1 OR STEEPER	SEE SPECIFICATIONS, DEEP TILL
SP-03	SOIL TYPE 03 - 24" RAIN GARDEN PLANTING SOIL SPEC DF- 329113	175.49 CY	24"	IMPORTED SOILS MEETING REQUIREMENTS OF MNDOT FILTER TOPSOIL BORROW	DRIP/NONE	3" THICK FINELY SHREDDED HARDWOOD MULCH. INSTALL MULCH OVER JUTE ECB ON SLOPES ON 3:1 OR STEEPER	SEE SPECIFICATIONS,
SP-04	SOIL TYPE 04 - 36" PLANTING SOIL (TREES) SPEC DF- 329113	373.15 CY	36"	INSITU WITH AMENDED BACKFILL MEETING REQUIREMENTS OF LOAM TOPSOIL BORROW ENHANCED WITH BIOCHAR. FOR TREE PLANTING IN SEEDER AREAS (AMEND PREPARED SOILS WITH ADDITIONAL COMPOST)	DRIP/WATERING BAGS	3" THICK FINELY SHREDDED HARDWOOD MULCH. INSTALL MULCH OVER JUTE ECB ON SLOPES ON 3:1 OR STEEPER. WHERE TREE PLANTING OCCURS WITHIN ROOT ZONE OF EXISTING TREES, HAND DIGGING WITH CAUTION AND ADJUST PLANTING AS NEEDED TO AVOID DAMAGE TO EXISTING ROOTS.	SEE SPECIFICATIONS & TREE PLANTING DETAIL

D
C
B
A



MINNEHAHA CREEK WATERSHED DISTRICT



DF/ DAMON FARBER LANDSCAPE ARCHITECTS
401 North 2nd Avenue, Suite 410
Minneapolis, MN 55401 p: 612.332.7522

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PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER	10268112
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THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

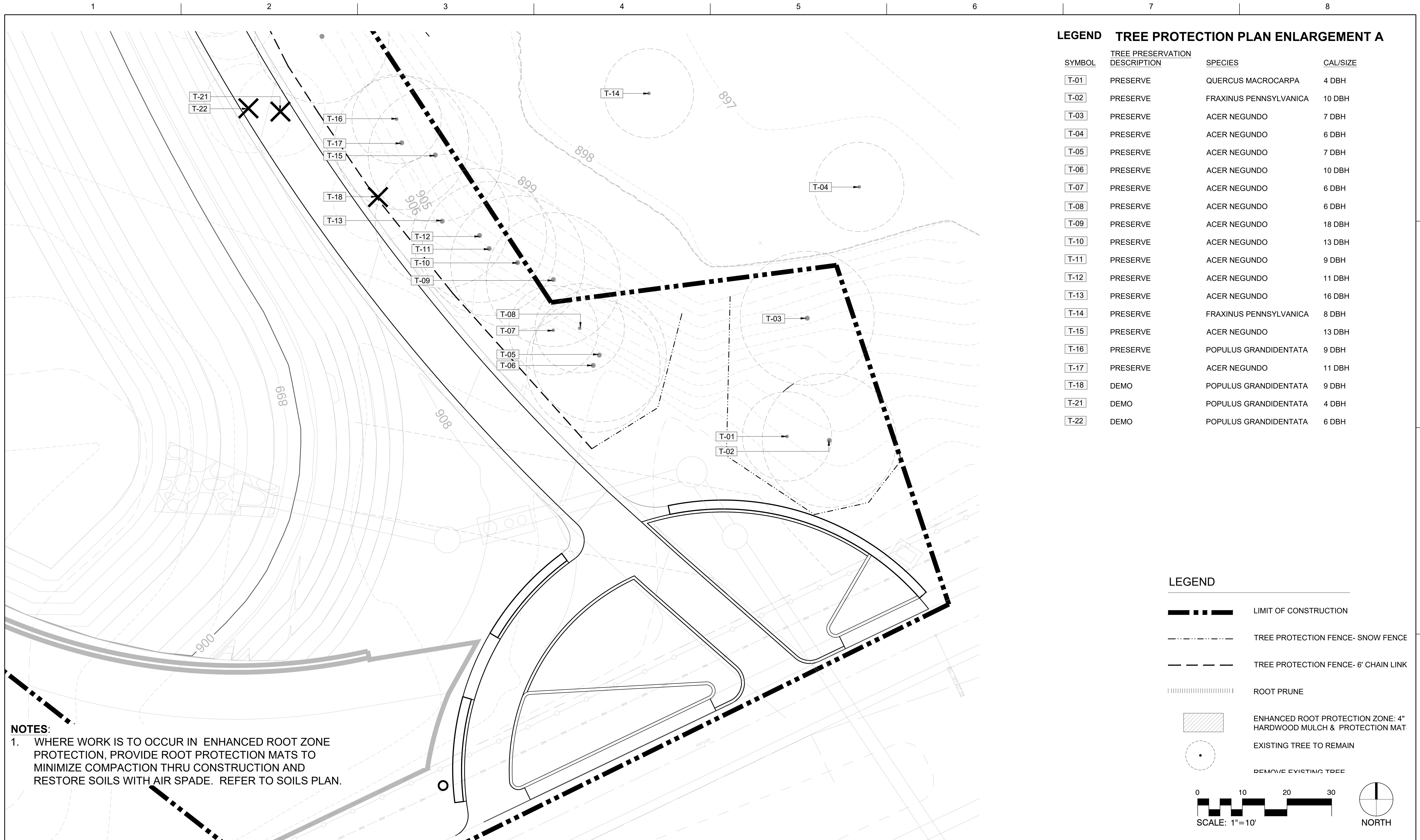
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

SITE SOIL SCHEDULE



FILENAME
SCALE N/A

SHEET
L030



LEGEND TREE PROTECTION PLAN ENLARGEMENT A

SYMBOL	TREE PRESERVATION DESCRIPTION	SPECIES	CAL/SIZE
T-01	PRESERVE	QUERCUS MACROCARPA	4 DBH
T-02	PRESERVE	FRAXINUS PENNSYLVANICA	10 DBH
T-03	PRESERVE	ACER NEGUNDO	7 DBH
T-04	PRESERVE	ACER NEGUNDO	6 DBH
T-05	PRESERVE	ACER NEGUNDO	7 DBH
T-06	PRESERVE	ACER NEGUNDO	10 DBH
T-07	PRESERVE	ACER NEGUNDO	6 DBH
T-08	PRESERVE	ACER NEGUNDO	6 DBH
T-09	PRESERVE	ACER NEGUNDO	18 DBH
T-10	PRESERVE	ACER NEGUNDO	13 DBH
T-11	PRESERVE	ACER NEGUNDO	9 DBH
T-12	PRESERVE	ACER NEGUNDO	11 DBH
T-13	PRESERVE	ACER NEGUNDO	16 DBH
T-14	PRESERVE	FRAXINUS PENNSYLVANICA	8 DBH
T-15	PRESERVE	ACER NEGUNDO	13 DBH
T-16	PRESERVE	POPULUS GRANDIDENTATA	9 DBH
T-17	PRESERVE	ACER NEGUNDO	11 DBH
T-18	DEMO	POPULUS GRANDIDENTATA	9 DBH
T-21	DEMO	POPULUS GRANDIDENTATA	4 DBH
T-22	DEMO	POPULUS GRANDIDENTATA	6 DBH

LEGEND

- LIMIT OF CONSTRUCTION
- TREE PROTECTION FENCE- SNOW FENCE
- TREE PROTECTION FENCE- 6' CHAIN LINK
- ROOT PRUNE
- ENHANCED ROOT PROTECTION ZONE: 4" HARDWOOD MULCH & PROTECTION MAT.
- EXISTING TREE TO REMAIN
- REMOVE EXISTING TREE

0 10 20 30
SCALE: 1"=10'

NORTH

NOTES:
 1. WHERE WORK IS TO OCCUR IN ENHANCED ROOT ZONE PROTECTION, PROVIDE ROOT PROTECTION MATS TO MINIMIZE COMPACTION THRU CONSTRUCTION AND RESTORE SOILS WITH AIR SPADE. REFER TO SOILS PLAN.



ISSUE	DATE	DESCRIPTION
C	03/28/2023	100% DESIGN
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PROJECT MANAGER ANDREW F. JUDD

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THOMAS J WHITLOCK, PLA
 DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

TREE PROTECTION PLAN ENLARGEMENT A

0 1" 2" FILENAME
 SCALE AS SHOWN

SHEET
L050

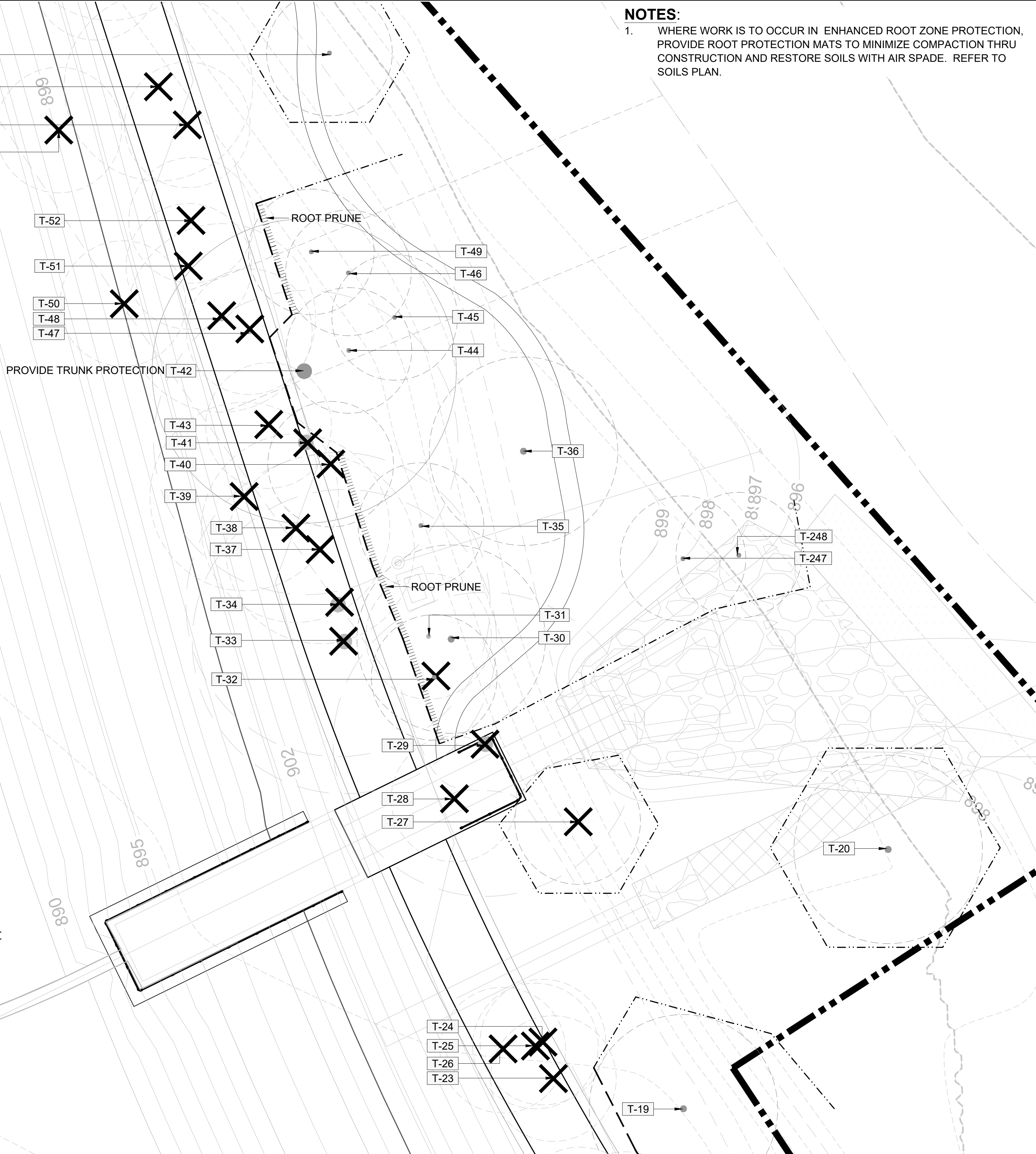
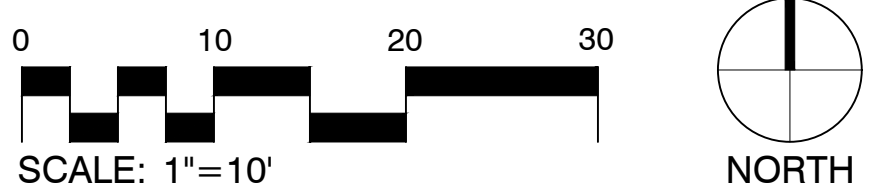
NOTES:
 1. WHERE WORK IS TO OCCUR IN ENHANCED ROOT ZONE PROTECTION, PROVIDE ROOT PROTECTION MATS TO MINIMIZE COMPACTION THRU CONSTRUCTION AND RESTORE SOILS WITH AIR SPADE. REFER TO SOILS PLAN.

LEGEND TREE PROTECTION PLAN ENLARGEMENT B

SYMBOL	TREE PRESERVATION DESCRIPTION	SPECIES	CAL/SIZE
T-19	PRESERVE	ACER NEGUNDO	22 DBH
T-20	PRESERVE	JUGLANS NIGRA	20 DBH
T-23	DEMO	POPULUS GRANDIDENTATA	5 DBH
T-24	DEMO	POPULUS GRANDIDENTATA	5 DBH
T-25	DEMO	POPULUS GRANDIDENTATA	6 DBH
T-26	DEMO	POPULUS GRANDIDENTATA	5 DBH
T-27	DEMO	ACER NEGUNDO	5 DBH
T-28	DEMO	FRAXINUS PENNSYLVANICA	6 DBH
T-29	DEMO	POPULUS DELTOIDES	25 DBH
T-30	PRESERVE	POPULUS DELTOIDES	19 DBH
T-31	PRESERVE	ACER NEGUNDO	4 DBH
T-32	DEMO - CLEAR ONLY	ACER NEGUNDO	4 DBH
T-33	DEMO	POPULUS DELTOIDES	22 DBH
T-34	DEMO	POPULUS DELTOIDES	22 DBH
T-35	PRESERVE	ACER NEGUNDO	8 DBH
T-36	PRESERVE	PRUNUS SEROTINA	12 DBH
T-37	DEMO	POPULUS DELTOIDES	13 DBH
T-38	DEMO	POPULUS DELTOIDES	13 DBH
T-39	DEMO	POPULUS DELTOIDES	17 DBH
T-40	DEMO	ACER NEGUNDO	8 DBH
T-41	DEMO	POPULUS DELTOIDES	25 DBH
T-42	PRESERVE	POPULUS DELTOIDES	38 DBH
T-43	DEMO	ULMUS AMERICANA	8 DBH
T-44	PRESERVE	ACER NEGUNDO	9 DBH
T-45	PRESERVE	ACER NEGUNDO	5 DBH
T-46	PRESERVE	ACER NEGUNDO	9 DBH
T-47	DEMO	ULMUS AMERICANA	8 DBH
T-48	DEMO	ULMUS AMERICANA	10 DBH
T-49	PRESERVE	FRAXINUS PENNSYLVANICA	10 DBH
T-50	DEMO	POPULUS GRANDIDENTATA	5 DBH
T-51	DEMO	ULMUS PUMILA	7 DBH
T-52	DEMO	ULMUS AMERICANA	8 DBH
T-53	DEMO	ACER NEGUNDO	7 DBH
T-54	PRESERVE	ACER NEGUNDO	6 DBH
T-55	DEMO	ACER NEGUNDO	13 DBH
T-56	DEMO	FRAXINUS PENNSYLVANICA	5 DBH
T-247	PRESERVE	ACER NEGUNDO	6 DBH
T-248	PRESERVE	FRAXINUS PENNSYLVANICA	10 DBH

LEGEND

- LIMIT OF CONSTRUCTION
- TREE PROTECTION FENCE- SNOW FENCE
- TREE PROTECTION FENCE- 6' CHAIN LINK
- ROOT PRUNE
- ENHANCED ROOT PROTECTION ZONE: 4" SHREDDED HARDWOOD MULCH & PROTECTION MATS, SEE SPEC
- EXISTING TREE TO REMAIN
- REMOVE EXISTING TREE



ISSUE	DATE	DESCRIPTION
C	03/28/2023	100% DESIGN
B	09/14/2022	90% DESIGN
A	06/13/2022	PFA GRANT PACKAGE

PROJECT NUMBER 10268112

PROJECT MANAGER ANDREW F. JUDD

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

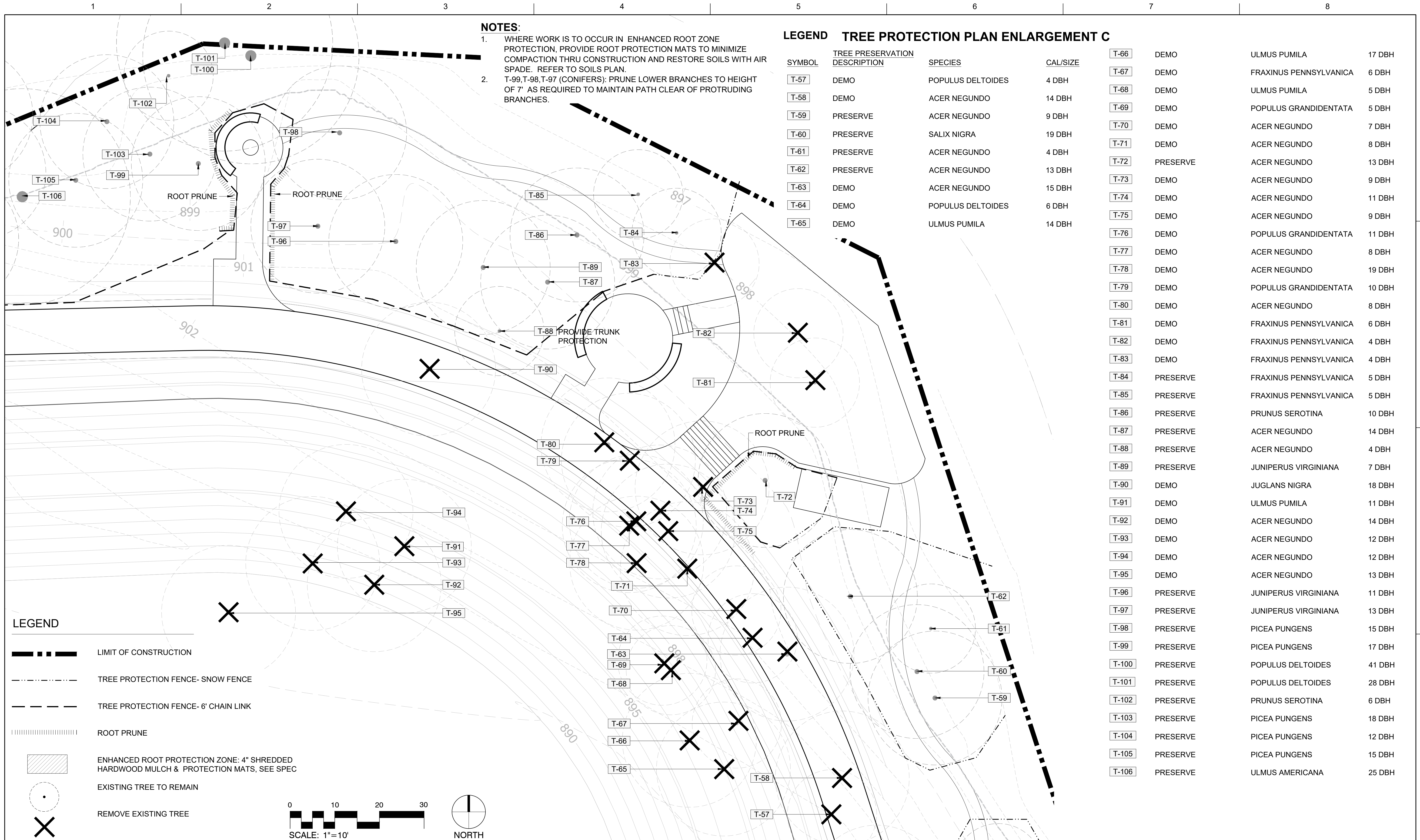
THOMAS J WHITLOCK, PLA
 DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

TREE PROTECTION PLAN ENLARGEMENT B

FILENAME AS SHOWN SCALE AS SHOWN SHEET L051



NOTES:

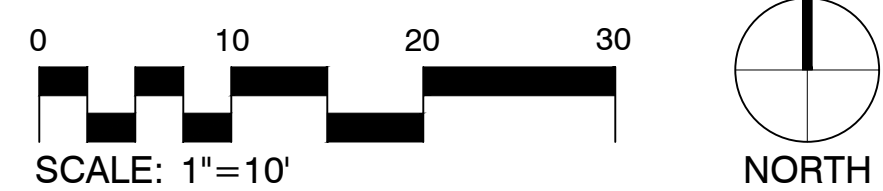
- WHERE WORK IS TO OCCUR IN ENHANCED ROOT ZONE PROTECTION, PROVIDE ROOT PROTECTION MATS TO MINIMIZE COMPACTION THRU CONSTRUCTION AND RESTORE SOILS WITH AIR SPADE. REFER TO SOILS PLAN.
- T-99, T-98, T-97 (CONIFERS): PRUNE LOWER BRANCHES TO HEIGHT OF 7' AS REQUIRED TO MAINTAIN PATH CLEAR OF PROTRUDING BRANCHES.

LEGEND TREE PROTECTION PLAN ENLARGEMENT C

SYMBOL	TREE PRESERVATION DESCRIPTION	SPECIES	CAL/SIZE	T-#	STATUS	SPECIES	DBH
T-57	DEMO	POPULUS DELTOIDES	4 DBH	T-66	DEMO	ULMUS PUMILA	17 DBH
T-58	DEMO	ACER NEGUNDO	14 DBH	T-67	DEMO	FRAXINUS PENNSYLVANICA	6 DBH
T-59	PRESERVE	ACER NEGUNDO	9 DBH	T-68	DEMO	ULMUS PUMILA	5 DBH
T-60	PRESERVE	SALIX NIGRA	19 DBH	T-69	DEMO	POPULUS GRANDIDENTATA	5 DBH
T-61	PRESERVE	ACER NEGUNDO	4 DBH	T-70	DEMO	ACER NEGUNDO	7 DBH
T-62	PRESERVE	ACER NEGUNDO	13 DBH	T-71	DEMO	ACER NEGUNDO	8 DBH
T-63	DEMO	ACER NEGUNDO	15 DBH	T-72	PRESERVE	ACER NEGUNDO	13 DBH
T-64	DEMO	POPULUS DELTOIDES	6 DBH	T-73	DEMO	ACER NEGUNDO	9 DBH
T-65	DEMO	ULMUS PUMILA	14 DBH	T-74	DEMO	ACER NEGUNDO	11 DBH
T-66	DEMO	ULMUS PUMILA	17 DBH	T-75	DEMO	ACER NEGUNDO	9 DBH
T-67	DEMO	FRAXINUS PENNSYLVANICA	6 DBH	T-76	DEMO	POPULUS GRANDIDENTATA	11 DBH
T-68	DEMO	ULMUS PUMILA	5 DBH	T-77	DEMO	ACER NEGUNDO	8 DBH
T-69	DEMO	POPULUS GRANDIDENTATA	5 DBH	T-78	DEMO	ACER NEGUNDO	19 DBH
T-70	DEMO	ACER NEGUNDO	7 DBH	T-79	DEMO	POPULUS GRANDIDENTATA	10 DBH
T-71	DEMO	ACER NEGUNDO	8 DBH	T-80	DEMO	ACER NEGUNDO	8 DBH
T-72	PRESERVE	ACER NEGUNDO	13 DBH	T-81	DEMO	FRAXINUS PENNSYLVANICA	6 DBH
T-73	DEMO	ACER NEGUNDO	9 DBH	T-82	DEMO	FRAXINUS PENNSYLVANICA	4 DBH
T-74	DEMO	ACER NEGUNDO	11 DBH	T-83	DEMO	FRAXINUS PENNSYLVANICA	4 DBH
T-75	DEMO	ACER NEGUNDO	9 DBH	T-84	PRESERVE	FRAXINUS PENNSYLVANICA	5 DBH
T-76	DEMO	POPULUS GRANDIDENTATA	11 DBH	T-85	PRESERVE	FRAXINUS PENNSYLVANICA	5 DBH
T-77	DEMO	ACER NEGUNDO	8 DBH	T-86	PRESERVE	PRUNUS SEROTINA	10 DBH
T-78	DEMO	ACER NEGUNDO	19 DBH	T-87	PRESERVE	ACER NEGUNDO	14 DBH
T-79	DEMO	POPULUS GRANDIDENTATA	10 DBH	T-88	PRESERVE	ACER NEGUNDO	4 DBH
T-80	DEMO	ACER NEGUNDO	8 DBH	T-89	PRESERVE	JUNIPERUS VIRGINIANA	7 DBH
T-81	DEMO	FRAXINUS PENNSYLVANICA	6 DBH	T-90	DEMO	JUGLANS NIGRA	18 DBH
T-82	DEMO	FRAXINUS PENNSYLVANICA	4 DBH	T-91	DEMO	ULMUS PUMILA	11 DBH
T-83	DEMO	FRAXINUS PENNSYLVANICA	4 DBH	T-92	DEMO	ACER NEGUNDO	14 DBH
T-84	PRESERVE	FRAXINUS PENNSYLVANICA	5 DBH	T-93	DEMO	ACER NEGUNDO	12 DBH
T-85	PRESERVE	FRAXINUS PENNSYLVANICA	5 DBH	T-94	DEMO	ACER NEGUNDO	12 DBH
T-86	PRESERVE	PRUNUS SEROTINA	10 DBH	T-95	DEMO	ACER NEGUNDO	13 DBH
T-87	PRESERVE	ACER NEGUNDO	14 DBH	T-96	PRESERVE	JUNIPERUS VIRGINIANA	11 DBH
T-88	PRESERVE	ACER NEGUNDO	4 DBH	T-97	PRESERVE	JUNIPERUS VIRGINIANA	13 DBH
T-89	PRESERVE	JUNIPERUS VIRGINIANA	7 DBH	T-98	PRESERVE	PICEA PUNGENS	15 DBH
T-90	DEMO	JUGLANS NIGRA	18 DBH	T-99	PRESERVE	PICEA PUNGENS	17 DBH
T-91	DEMO	ULMUS PUMILA	11 DBH	T-100	PRESERVE	POPULUS DELTOIDES	41 DBH
T-92	DEMO	ACER NEGUNDO	14 DBH	T-101	PRESERVE	POPULUS DELTOIDES	28 DBH
T-93	DEMO	ACER NEGUNDO	12 DBH	T-102	PRESERVE	PRUNUS SEROTINA	6 DBH
T-94	DEMO	ACER NEGUNDO	12 DBH	T-103	PRESERVE	PICEA PUNGENS	18 DBH
T-95	DEMO	ACER NEGUNDO	13 DBH	T-104	PRESERVE	PICEA PUNGENS	12 DBH
T-96	PRESERVE	JUNIPERUS VIRGINIANA	11 DBH	T-105	PRESERVE	PICEA PUNGENS	15 DBH
T-97	PRESERVE	JUNIPERUS VIRGINIANA	13 DBH	T-106	PRESERVE	ULMUS AMERICANA	25 DBH
T-98	PRESERVE	PICEA PUNGENS	15 DBH				
T-99	PRESERVE	PICEA PUNGENS	17 DBH				
T-100	PRESERVE	POPULUS DELTOIDES	41 DBH				
T-101	PRESERVE	POPULUS DELTOIDES	28 DBH				
T-102	PRESERVE	PRUNUS SEROTINA	6 DBH				
T-103	PRESERVE	PICEA PUNGENS	18 DBH				
T-104	PRESERVE	PICEA PUNGENS	12 DBH				
T-105	PRESERVE	PICEA PUNGENS	15 DBH				
T-106	PRESERVE	ULMUS AMERICANA	25 DBH				

LEGEND

- LIMIT OF CONSTRUCTION
- - - - TREE PROTECTION FENCE- SNOW FENCE
- - - - TREE PROTECTION FENCE- 6' CHAIN LINK
- ||||| ROOT PRUNE
- ▨ ENHANCED ROOT PROTECTION ZONE: 4" SHREDDED HARDWOOD MULCH & PROTECTION MATS, SEE SPEC
- EXISTING TREE TO REMAIN
- ✕ REMOVE EXISTING TREE



ISSUE	DATE	DESCRIPTION
C	03/28/2023	100% DESIGN
B	09/14/2022	90% DESIGN
A	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER 10268112

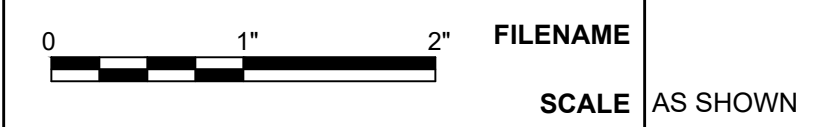
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THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

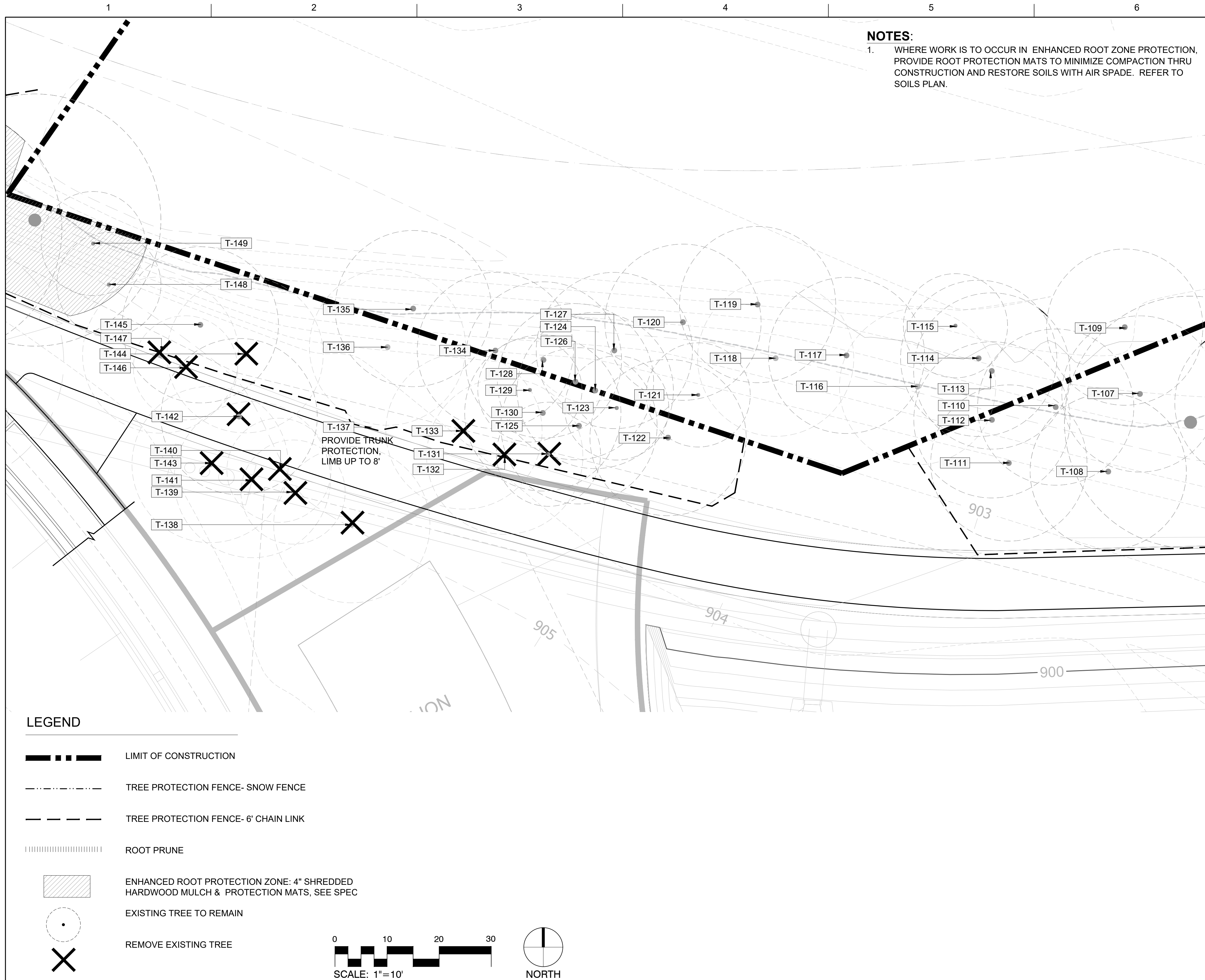
325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

TREE PROTECTION PLAN ENLARGEMENT C



SHEET
L052



NOTES:
 1. WHERE WORK IS TO OCCUR IN ENHANCED ROOT ZONE PROTECTION, PROVIDE ROOT PROTECTION MATS TO MINIMIZE COMPACTION THRU CONSTRUCTION AND RESTORE SOILS WITH AIR SPADE. REFER TO SOILS PLAN.

LEGEND TREE PROTECTION PLAN ENLARGEMENT D

SYMBOL	TREE PRESERVATION DESCRIPTION	SPECIES	CAL/SIZE
T-107	PRESERVE	PICEA PUNGENS	16 DBH
T-108	PRESERVE	JUGLANS NIGRA	8 DBH
T-109	PRESERVE	ACER NEGUNDO	9 DBH
T-110	PRESERVE	PICEA PUNGENS	16 DBH
T-111	PRESERVE	MORUS ALBA	10 DBH
T-112	PRESERVE	ACER NEGUNDO	14 DBH
T-113	PRESERVE	ACER NEGUNDO	9 DBH
T-114	PRESERVE	PICEA PUNGENS	17 DBH
T-115	PRESERVE	ACER NEGUNDO	5 DBH
T-116	PRESERVE	ACER NEGUNDO	13 DBH
T-117	PRESERVE	PICEA PUNGENS	16 DBH
T-118	PRESERVE	ACER NEGUNDO	13 DBH
T-119	PRESERVE	ACER NEGUNDO	14 DBH
T-120	PRESERVE	ACER NEGUNDO	9 DBH
T-121	PRESERVE	MORUS ALBA	5 DBH
T-122	PRESERVE	MORUS ALBA	17 DBH
T-123	PRESERVE	MORUS ALBA	4 DBH
T-124	PRESERVE	MORUS ALBA	7 DBH
T-125	PRESERVE	ACER NEGUNDO	11 DBH
T-126	PRESERVE	MORUS ALBA	8 DBH
T-127	PRESERVE	CELTIS OCCIDENTALIS	8 DBH
T-128	PRESERVE	CELTIS OCCIDENTALIS	10 DBH
T-129	PRESERVE	ACER NEGUNDO	5 DBH
T-130	PRESERVE	ACER NEGUNDO	8 DBH
T-131	DEMO	ACER NEGUNDO	5 DBH
T-132	DEMO - CLEAR ONLY	MORUS ALBA	10 DBH
T-133	DEMO - CLEAR ONLY	JUNIPERUS VIRGINIANA	16 DBH
T-134	PRESERVE	FRAXINUS PENNSYLVANICA	11 DBH
T-135	PRESERVE	ACER NEGUNDO	8 DBH
T-136	PRESERVE	ACER NEGUNDO	12 DBH
T-137	PRESERVE	PICEA PUNGENS	16 DBH
T-138	DEMO	ULMUS AMERICANA	13 DBH
T-139	DEMO	ACER NEGUNDO	4 DBH
T-140	DEMO	ACER NEGUNDO	6 DBH
T-141	DEMO	ACER NEGUNDO	7 DBH
T-142	DEMO	PICEA PUNGENS	18 DBH
T-143	DEMO	ACER NEGUNDO	7 DBH
T-144	DEMO - CLEAR ONLY	CELTIS OCCIDENTALIS	7 DBH
T-145	PRESERVE	ACER NEGUNDO	10 DBH
T-146	DEMO	ACER NEGUNDO	5 DBH
T-147	PRESERVE	ULMUS AMERICANA	18 DBH
T-148	PRESERVE	FRAXINUS PENNSYLVANICA	4 DBH
T-149	PRESERVE	FRAXINUS PENNSYLVANICA	5 DBH

LEGEND

- LIMIT OF CONSTRUCTION
- TREE PROTECTION FENCE- SNOW FENCE
- TREE PROTECTION FENCE- 6' CHAIN LINK
- ROOT PRUNE
- ENHANCED ROOT PROTECTION ZONE: 4" SHREDDED HARDWOOD MULCH & PROTECTION MATS, SEE SPEC
- EXISTING TREE TO REMAIN
- REMOVE EXISTING TREE

SCALE: 1"=10'

NORTH



ISSUE	DATE	DESCRIPTION
C	03/28/2023	100% DESIGN
B	09/14/2022	90% DESIGN
A	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER 10268112

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THOMAS J WHITLOCK, PLA
 DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

TREE PROTECTION PLAN ENLARGEMENT D

0 1" 2" SCALE AS SHOWN

FILENAME AS SHOWN

SHEET **L053**

NOTES:

- WHERE WORK IS TO OCCUR IN ENHANCED ROOT ZONE PROTECTION, PROVIDE ROOT PROTECTION MATS TO MINIMIZE COMPACTION THRU CONSTRUCTION AND RESTORE SOILS WITH AIR SPADE. REFER TO SOILS PLAN.
- T-151 SALVAGE CUT BRANCHES AND TRUNK, STOCKPILE CUT LIMBS AND TRUNK LARGER THAN 12" DIAMETER, CUT TO 6" MINIMUM LENGTH, STOCKPILE ON SITE FOR FUTURE REUSE. REVIEW IN FIELD WITH LANDSCAPE ARCHITECT TO DISCUSS SALVAGEABLE LUMBER.

LEGEND TREE PROTECTION PLAN ENLARGEMENT E

SYMBOL	TREE PRESERVATION DESCRIPTION	SPECIES	CAL/SIZE	T-172	PRESERVE	TILIA AMERICANA	5 DBH
T-150	PRESERVE	POPULUS DELTOIDES	22 DBH	T-173	PRESERVE	ULMUS AMERICANA	6 DBH
T-151	DEMO - SALVAGE	QUERCUS MACROCARPA	33 DBH	T-174	PRESERVE	TILIA AMERICANA	6 DBH
T-152	PRESERVE	POPULUS DELTOIDES	27 DBH	T-175	PRESERVE	TILIA AMERICANA	4 DBH
T-153	DEMO	TILIA AMERICANA	6 DBH	T-176	PRESERVE	POPULUS DELTOIDES	20 DBH
T-154	DEMO	MORUS ALBA	5 DBH	T-177	PRESERVE	POPULUS DELTOIDES	11 DBH
T-155	DEMO	ULMUS AMERICANA	4 DBH	T-178	PRESERVE	TILIA AMERICANA	4 DBH
T-156	DEMO	ULMUS AMERICANA	9 DBH	T-179	PRESERVE	TILIA AMERICANA	4 DBH
T-157	PRESERVE	TILIA AMERICANA	6 DBH	T-180	PRESERVE	POPULUS DELTOIDES	21 DBH
T-158	PRESERVE	POPULUS DELTOIDES	25 DBH	T-181	PRESERVE	TILIA AMERICANA	7 DBH
T-159	PRESERVE	POPULUS DELTOIDES	21 DBH	T-182	PRESERVE	TILIA AMERICANA	4 DBH
T-160	PRESERVE	POPULUS DELTOIDES	13 DBH	T-183	PRESERVE	POPULUS DELTOIDES	16 DBH
T-161	PRESERVE	TILIA AMERICANA	6 DBH	T-184	PRESERVE	TILIA AMERICANA	5 DBH
T-162	PRESERVE	ULMUS AMERICANA	6 DBH	T-185	PRESERVE	SORBUS AUCUPARIA	8 DBH
T-163	PRESERVE	POPULUS DELTOIDES	20 DBH	T-186	PRESERVE	TILIA AMERICANA	4 DBH
T-164	PRESERVE	ULMUS AMERICANA	5 DBH	T-187	PRESERVE	POPULUS DELTOIDES	14 DBH
T-165	PRESERVE	ULMUS AMERICANA	4 DBH	T-188	PRESERVE	POPULUS DELTOIDES	16 DBH
T-166	PRESERVE	ULMUS AMERICANA	9 DBH	T-189	PRESERVE	TILIA AMERICANA	6 DBH
T-167	PRESERVE	TILIA AMERICANA	4 DBH	T-190	PRESERVE	ULMUS AMERICANA	5 DBH
T-168	PRESERVE	TILIA AMERICANA	4 DBH	T-191	PRESERVE	ULMUS AMERICANA	4 DBH
T-169	PRESERVE	TILIA AMERICANA	4 DBH	T-192	PRESERVE	ULMUS AMERICANA	7 DBH
T-170	PRESERVE	TILIA AMERICANA	9 DBH	T-193	PRESERVE	ULMUS AMERICANA	4 DBH
T-171	PRESERVE	POPULUS DELTOIDES	15 DBH	T-194	PRESERVE	POPULUS DELTOIDES	17 DBH
				T-195	PRESERVE	POPULUS DELTOIDES	11 DBH
				T-196	PRESERVE	POPULUS DELTOIDES	20 DBH
				T-197	PRESERVE	ULMUS AMERICANA	7 DBH
				T-198	PRESERVE	ULMUS AMERICANA	6 DBH
				T-199	PRESERVE	TILIA AMERICANA	7 DBH
				T-200	PRESERVE	POPULUS DELTOIDES	15 DBH
				T-201	PRESERVE	ULMUS AMERICANA	5 DBH
				T-202	PRESERVE	POPULUS DELTOIDES	15 DBH
				T-203	PRESERVE	POPULUS DELTOIDES	32 DBH
				T-204	PRESERVE	FRAXINUS PENNSYLVANICA	4 DBH
				T-205	PRESERVE	TILIA AMERICANA	6 DBH
				T-206	PRESERVE	ULMUS AMERICANA	4 DBH
				T-207	PRESERVE	SALIX NIGRA	24 DBH
				T-208	PRESERVE	TILIA AMERICANA	4 DBH
				T-209	PRESERVE	TILIA AMERICANA	4 DBH
				T-210	PRESERVE	TILIA AMERICANA	8 DBH
				T-211	PRESERVE	TILIA AMERICANA	4 DBH
				T-212	PRESERVE	TILIA AMERICANA	5 DBH
				T-213	PRESERVE	TILIA AMERICANA	4 DBH
				T-214	PRESERVE	TILIA AMERICANA	8 DBH
				T-215	PRESERVE	FRAXINUS PENNSYLVANICA	4 DBH

LEGEND

- LIMIT OF CONSTRUCTION
- - - TREE PROTECTION FENCE- SNOW FENCE
- - - TREE PROTECTION FENCE- 6' CHAIN LINK
- ||||| ROOT PRUNE
- [Hatched Box] ENHANCED ROOT PROTECTION ZONE: 4" SHREDDED HARDWOOD MULCH & PROTECTION MATS, SEE SPEC
- (Circle with dot) EXISTING TREE TO REMAIN
- (Circle with X) REMOVE EXISTING TREE

SCALE: 1"=10'

NORTH



ISSUE	DATE	DESCRIPTION
C	03/28/2023	100% DESIGN
B	09/14/2022	90% DESIGN
A	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER	10268112
----------------	----------

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THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

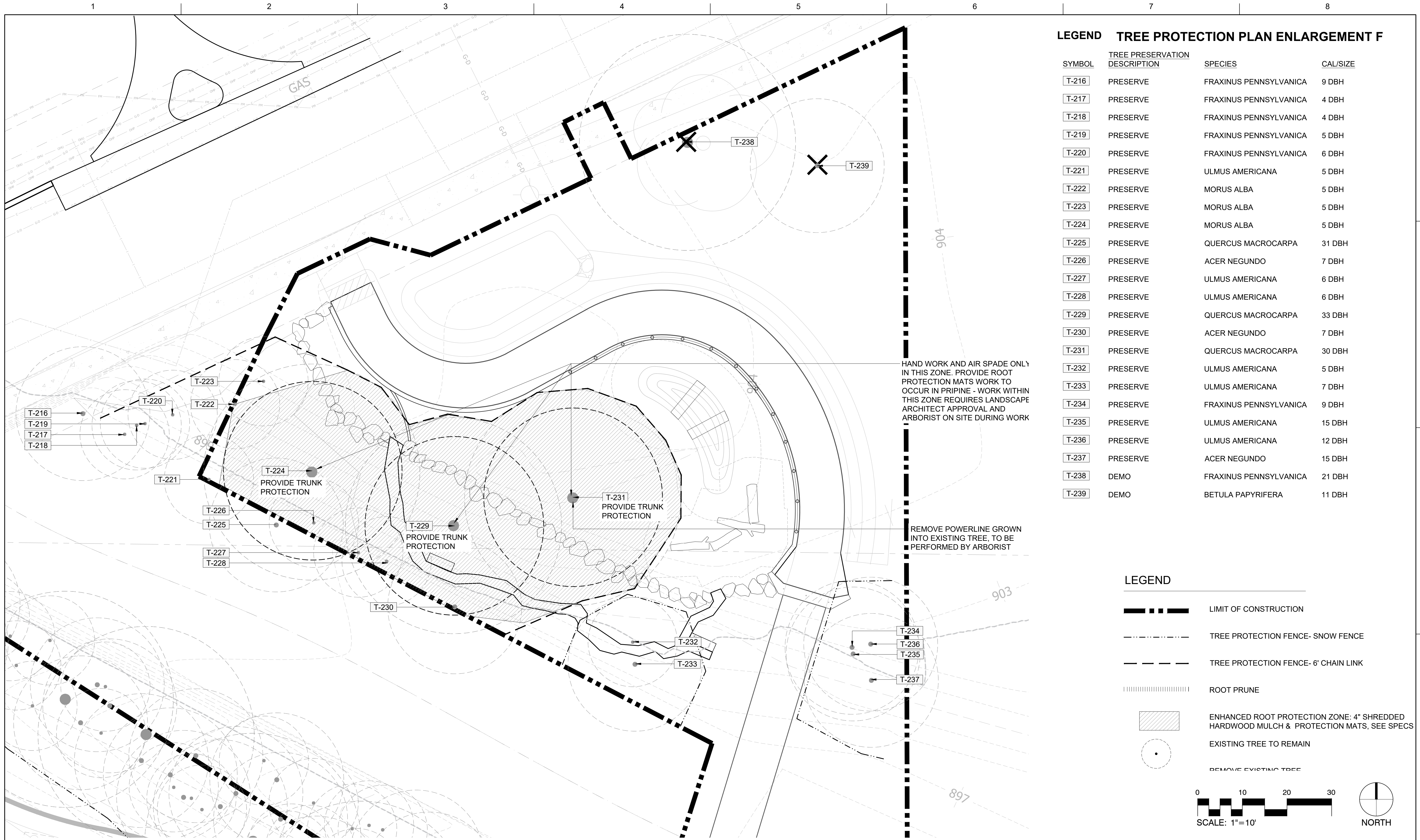
MINNEHAHA CREEK WATERSHED DISTRICT
325 BLAKE RD
HOPKINS, MN 55343

TREE PROTECTION PLAN ENLARGEMENT E

SCALE AS SHOWN

FILENAME

SHEET **L054**



LEGEND TREE PROTECTION PLAN ENLARGEMENT F

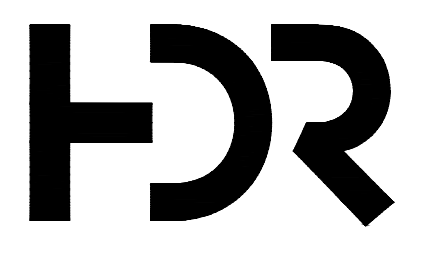
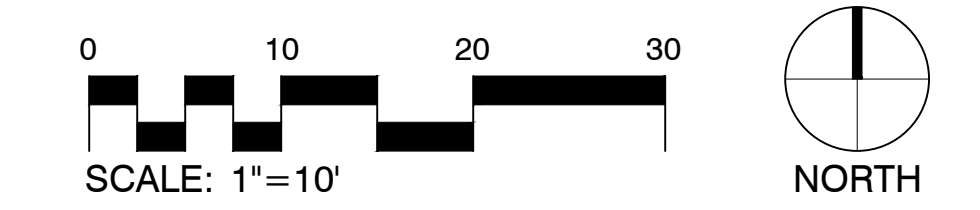
SYMBOL	TREE PRESERVATION DESCRIPTION	SPECIES	CAL/SIZE
T-216	PRESERVE	FRAXINUS PENNSYLVANICA	9 DBH
T-217	PRESERVE	FRAXINUS PENNSYLVANICA	4 DBH
T-218	PRESERVE	FRAXINUS PENNSYLVANICA	4 DBH
T-219	PRESERVE	FRAXINUS PENNSYLVANICA	5 DBH
T-220	PRESERVE	FRAXINUS PENNSYLVANICA	6 DBH
T-221	PRESERVE	ULMUS AMERICANA	5 DBH
T-222	PRESERVE	MORUS ALBA	5 DBH
T-223	PRESERVE	MORUS ALBA	5 DBH
T-224	PRESERVE	MORUS ALBA	5 DBH
T-225	PRESERVE	QUERCUS MACROCARPA	31 DBH
T-226	PRESERVE	ACER NEGUNDO	7 DBH
T-227	PRESERVE	ULMUS AMERICANA	6 DBH
T-228	PRESERVE	ULMUS AMERICANA	6 DBH
T-229	PRESERVE	QUERCUS MACROCARPA	33 DBH
T-230	PRESERVE	ACER NEGUNDO	7 DBH
T-231	PRESERVE	QUERCUS MACROCARPA	30 DBH
T-232	PRESERVE	ULMUS AMERICANA	5 DBH
T-233	PRESERVE	ULMUS AMERICANA	7 DBH
T-234	PRESERVE	FRAXINUS PENNSYLVANICA	9 DBH
T-235	PRESERVE	ULMUS AMERICANA	15 DBH
T-236	PRESERVE	ULMUS AMERICANA	12 DBH
T-237	PRESERVE	ACER NEGUNDO	15 DBH
T-238	DEMO	FRAXINUS PENNSYLVANICA	21 DBH
T-239	DEMO	BETULA PAPHYRIFERA	11 DBH

HAND WORK AND AIR SPADE ONLY IN THIS ZONE. PROVIDE ROOT PROTECTION MATS WORK TO OCCUR IN PRIPINE - WORK WITHIN THIS ZONE REQUIRES LANDSCAPE ARCHITECT APPROVAL AND ARBORIST ON SITE DURING WORK

REMOVE POWERLINE GROWN INTO EXISTING TREE, TO BE PERFORMED BY ARBORIST

LEGEND

- LIMIT OF CONSTRUCTION
- TREE PROTECTION FENCE- SNOW FENCE
- TREE PROTECTION FENCE- 6' CHAIN LINK
- ROOT PRUNE
- ENHANCED ROOT PROTECTION ZONE: 4" SHREDDED HARDWOOD MULCH & PROTECTION MATS, SEE SPECS
- EXISTING TREE TO REMAIN
- REMOVE EXISTING TREE



401 North 2nd Avenue, Suite 410
 Minneapolis, MN 55401 p: 612.332.7522

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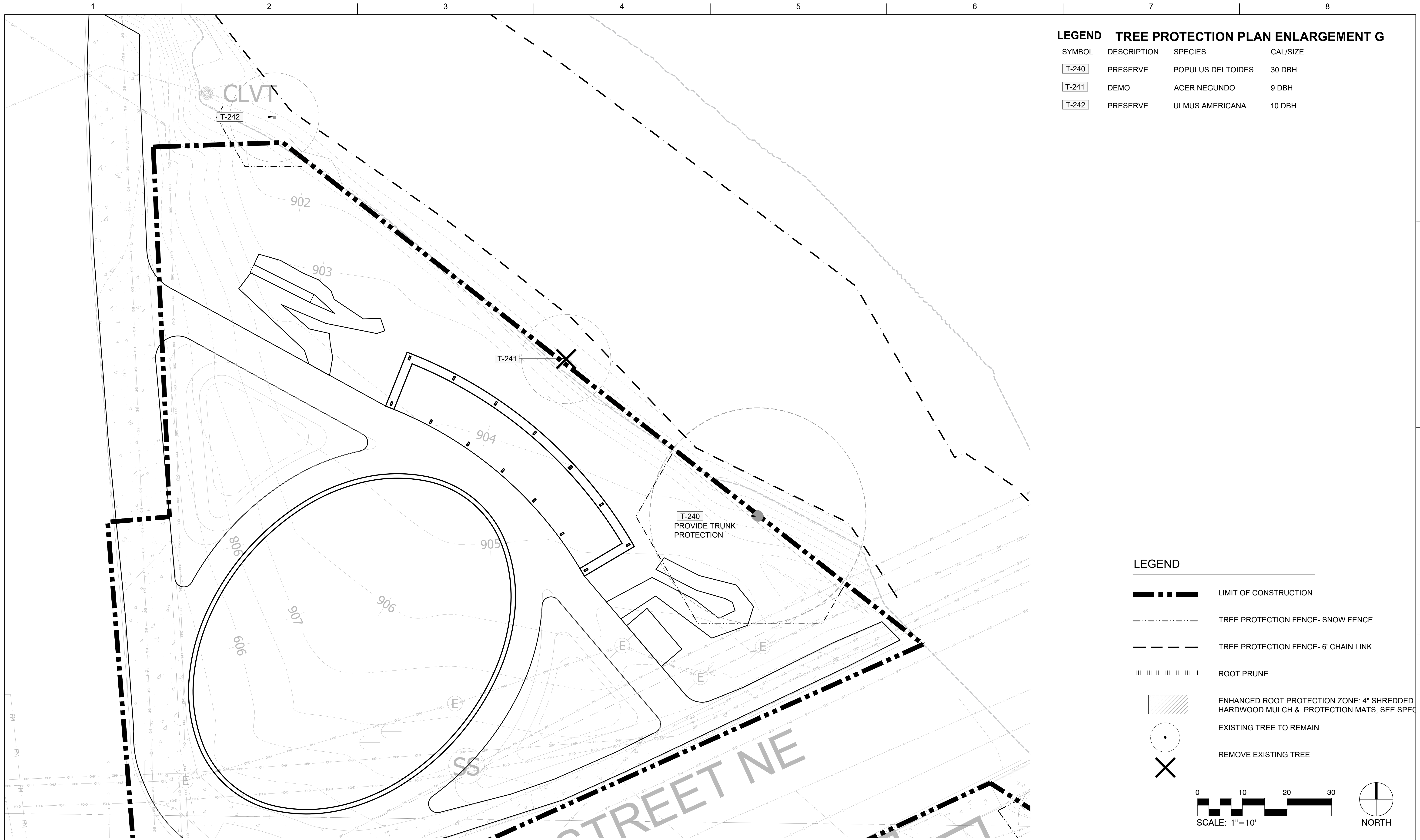
325 BLAKE RD REGIONAL STORMWATER AND GREENWAY

MINNEHAHA CREEK WATERSHED DISTRICT
 325 BLAKE RD
 HOPKINS, MN 55343

TREE PROTECTION PLAN ENLARGEMENT F

SCALE AS SHOWN

SHEET L055

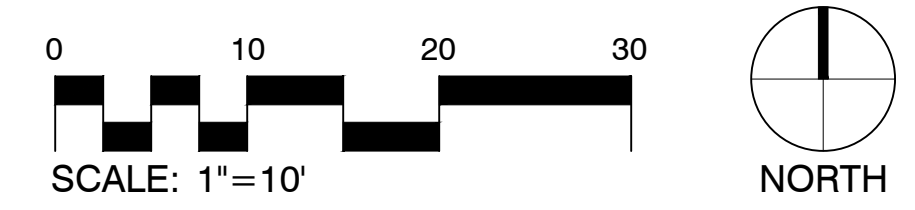


LEGEND TREE PROTECTION PLAN ENLARGEMENT G

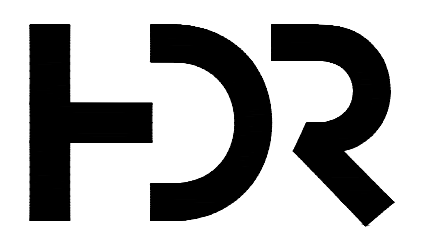
SYMBOL	DESCRIPTION	SPECIES	CAL/SIZE
T-240	PRESERVE	POPULUS DELTOIDES	30 DBH
T-241	DEMO	ACER NEGUNDO	9 DBH
T-242	PRESERVE	ULMUS AMERICANA	10 DBH

LEGEND

- LIMIT OF CONSTRUCTION
- TREE PROTECTION FENCE- SNOW FENCE
- TREE PROTECTION FENCE- 6' CHAIN LINK
- ROOT PRUNE
- ENHANCED ROOT PROTECTION ZONE- 4" SHREDDED HARDWOOD MULCH & PROTECTION MATS, SEE SPEC
- EXISTING TREE TO REMAIN
- REMOVE EXISTING TREE



MINNEHAHA CREEK WATERSHED DISTRICT



DF/ DAMON FARBER LANDSCAPE ARCHITECTS
401 North 2nd Avenue, Suite 410
Minneapolis, MN 55401 p: 612.332.7522

ISSUE	DATE	DESCRIPTION
C	03/28/2023	100% DESIGN
B	09/14/2022	90% DESIGN
A	06/13/2022	PFA GRANT PACKAGE

PROJECT MANAGER ANDREW F. JUDD

PROJECT NUMBER	10268112
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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

THOMAS J WHITLOCK, PLA
DATE XX/XX/XXXX LICENSE # 26292

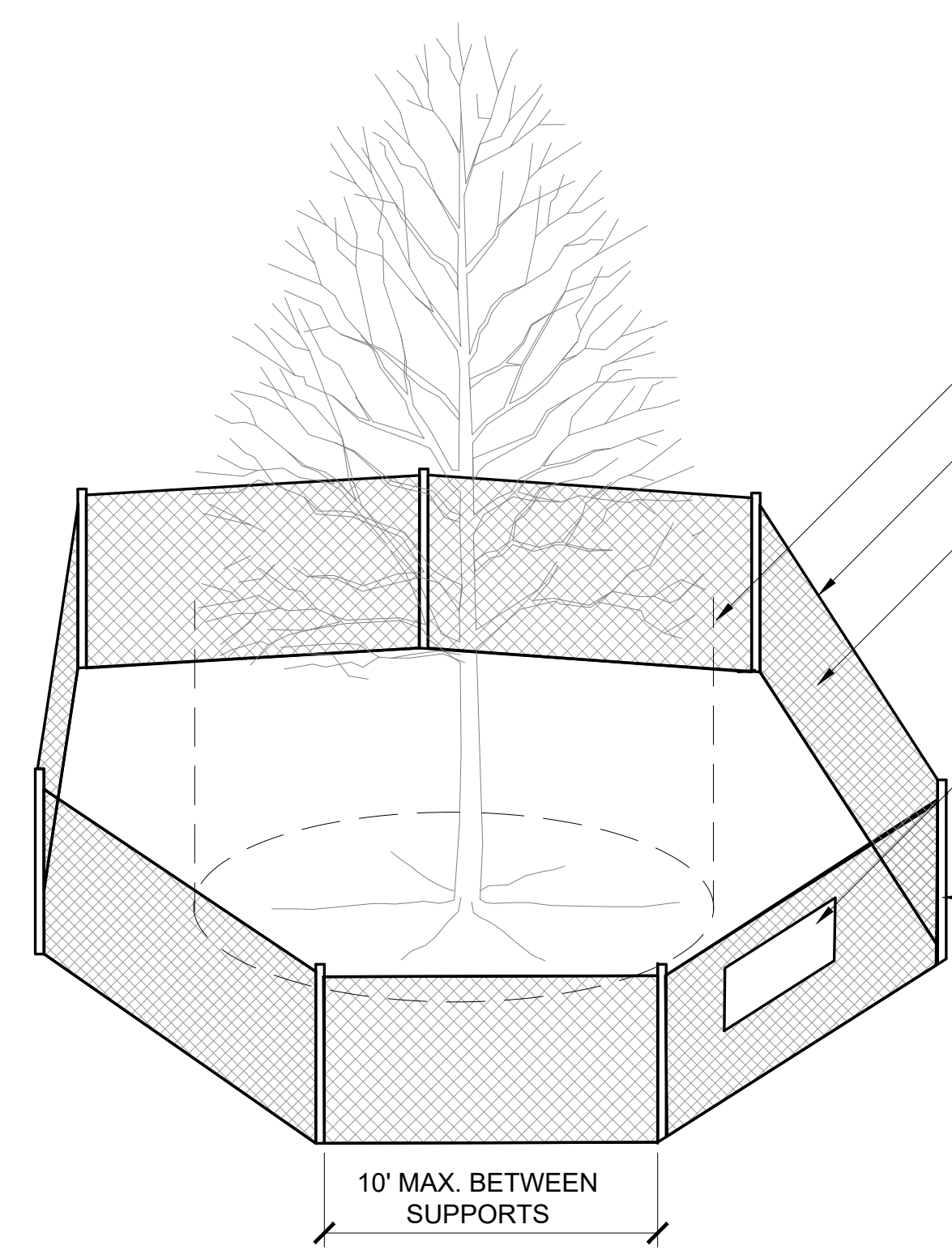
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TREE PROTECTION PLAN ENLARGEMENT G

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L056



DRIPLINE VARIES

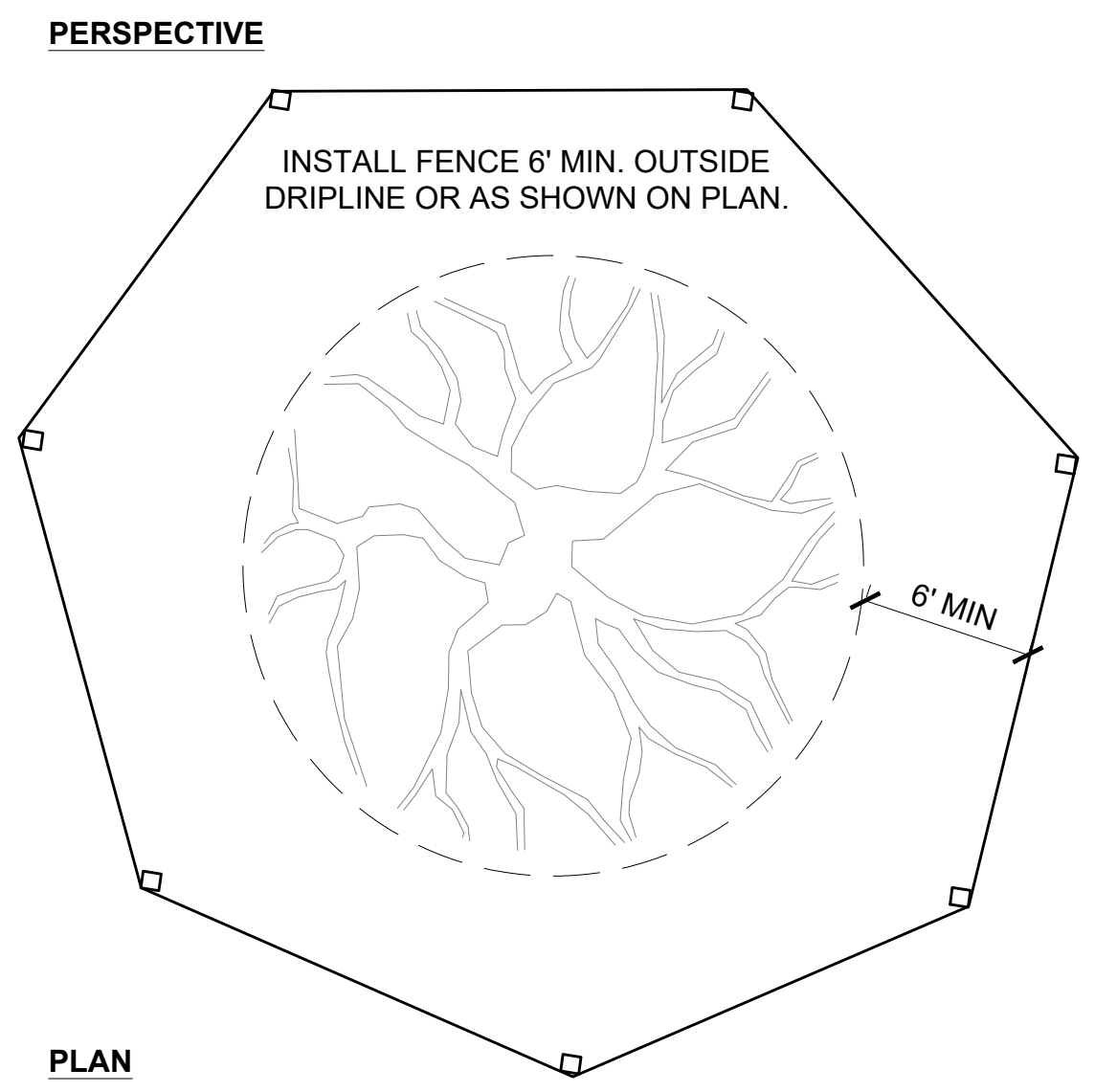
TENSIONER: COATED WIRE OR NYLON ROPE TO KEEP FENCE TAUGHT

TREE PROTECTION FENCING: 48" ORANGE SNOW FENCING OR CONSTRUCTION GRADE CHAIN LINK. FASTEN TO POSTS WITH GALVANIZED WIRE TIES. SEE PLAN FOR LOCATIONS OF CHAIN LINK VS SNOW FENCE.

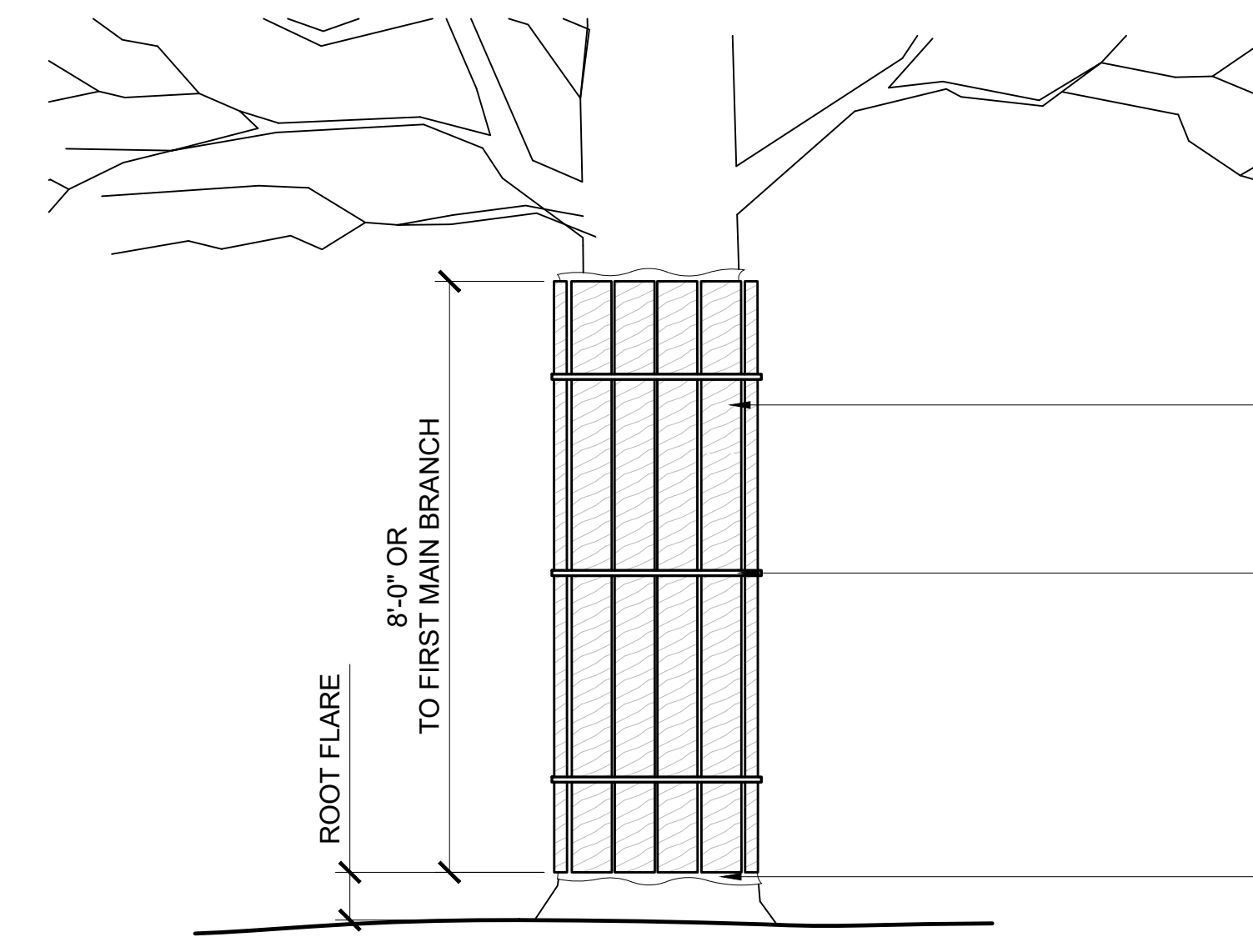
TREE PROTECTION SIGNAGE SPACED EVERY 50' ALONG FENCE. REFER TO SIGNAGE DETAIL

POSTS: 7" U-CHANNEL 1.12 LBS/FOOT STRENGTH PAINTED OR GALVANIZED

- NOTES:**
- TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO DEMOLITION IN LOCATIONS SHOWN ON PLANS AND SHALL BE MAINTAINED FOR THE DURATION OF THE CONSTRUCTION PERIOD. TREE PROTECTION FENCING MAY BE RELOCATED AS NECESSARY WITH APPROVAL FROM THE LANDSCAPE ARCHITECT.



4 DETAIL - TREE PROTECTION
1 1/2" = 1'-0"



3 TRUNK PROTECTION
1" = 1'-0"

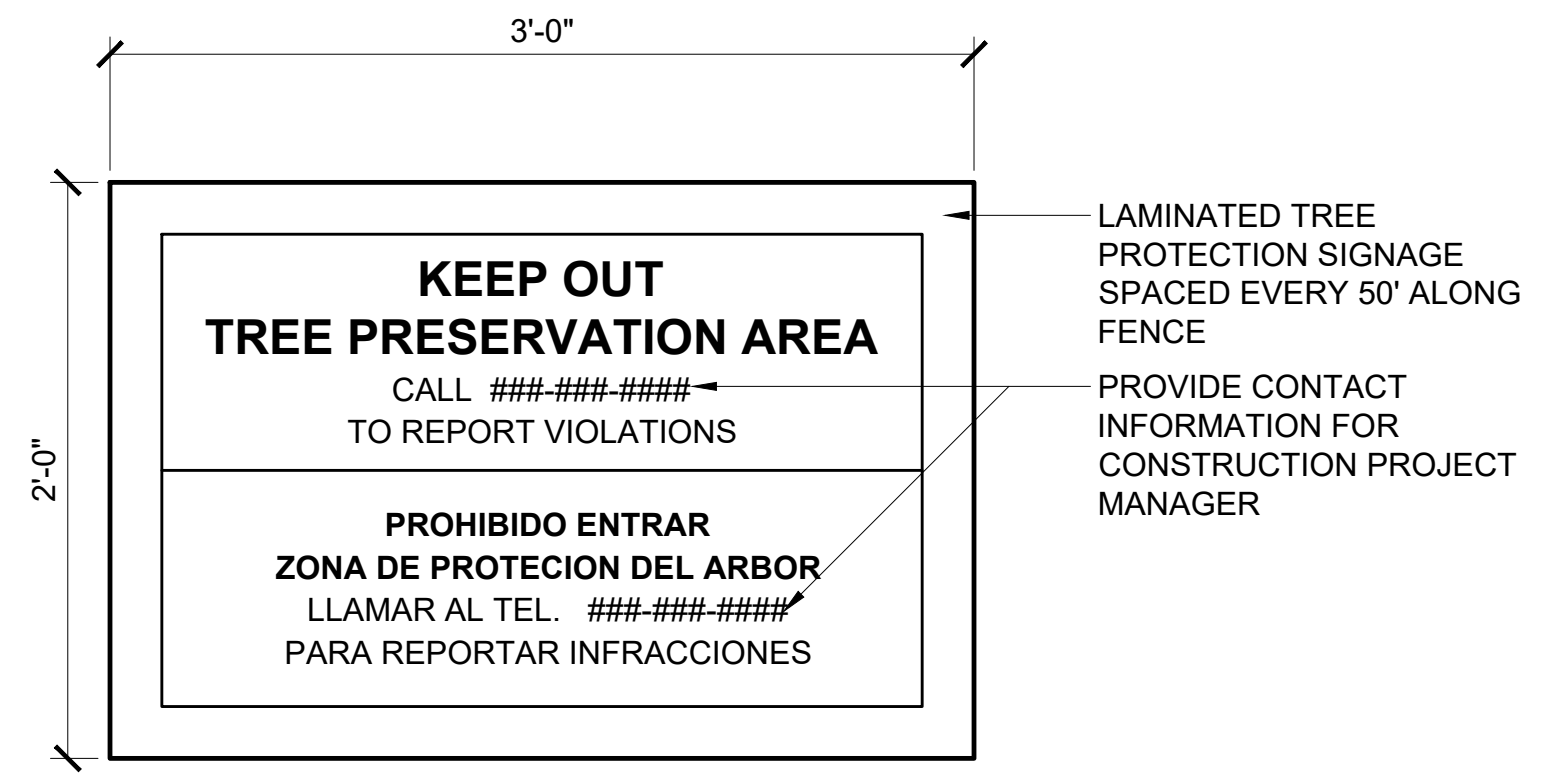
NOTES:

- DO NOT FASTEN PLANKING DIRECTLY TO TREE TRUNK.
- DO NOT INSTALL PLANKING ON ROOT FLARE.

PROTECTIVE PLANKING: 2x4x8 UNTREATED LUMBER, COMPLETELY AROUND TREE TRUNK.

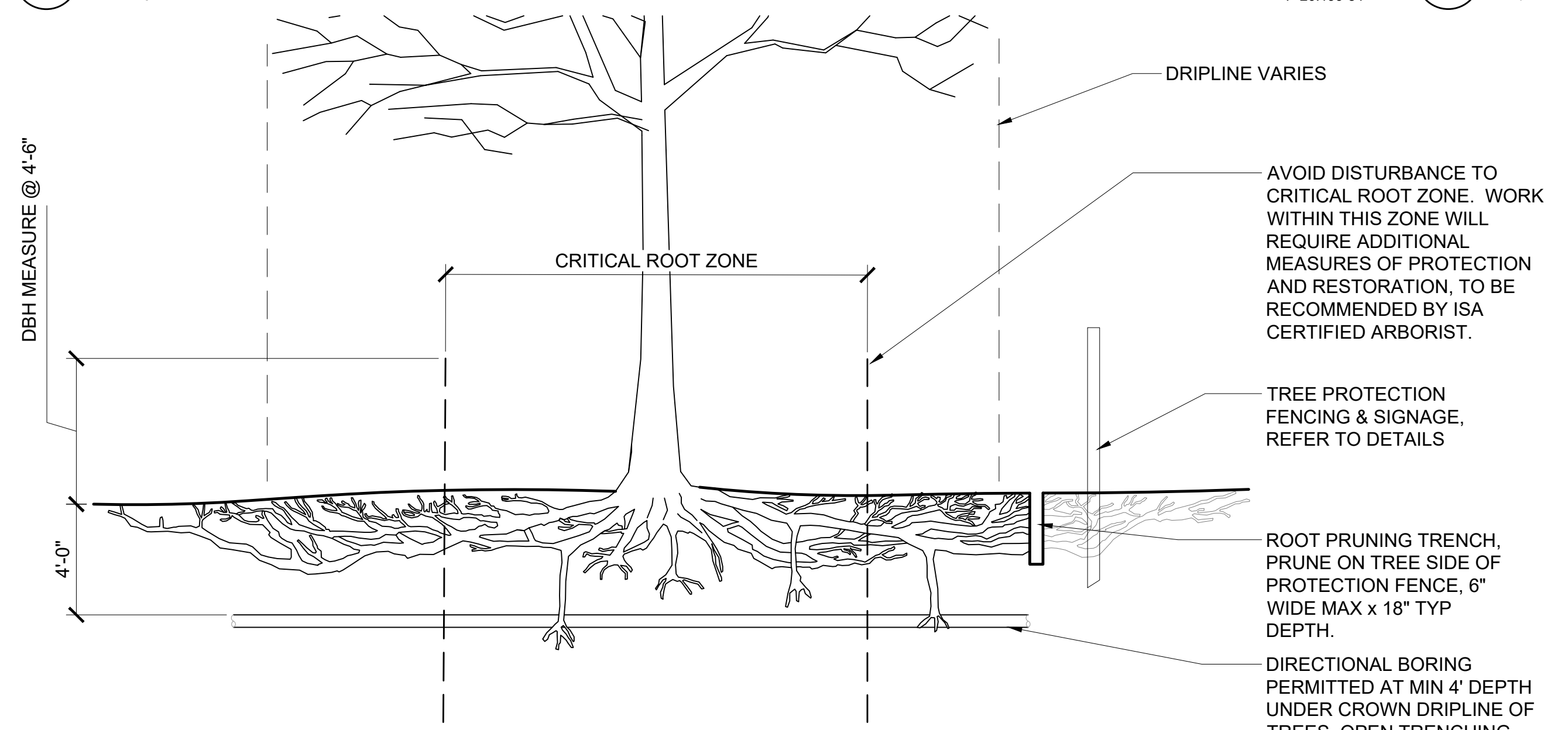
MIN. 1/2" DIAMETER NATURAL ROPE OR NYLON STRAPS, TIGHTENED AROUND BOARDS. STAPLE TO BOARDS TO PREVENT SLIPPAGE. 3 STRAPS PER TREE TRUNK.

WRAP TREE WITH 3-5 LAYERS BURLAP COMPLETELY UNDER TREE PROTECTION BOARDS. PROVIDE 5 LAYERS ON THIN-BARKED TREES (E.G. SUGAR MAPLES)



2 DETAIL - TREE PROTECTION SIGNAGE
1 1/2" = 1'-0"

- CONTRACTOR SHALL NOT STORE MATERIALS, EQUIPMENT OR PARK VEHICLES IN TREE PROTECTION ZONES. THE FENCE SHALL PREVENT TRAFFIC MOVEMENT AND THE PLACEMENT OF TEMPORARY FACILITIES, EQUIPMENT, STOCKPILES AND SUPPLIES FROM HARMING VEGETATION WITHIN THE LIMITS OF PROTECTION.
- PLACE 4" DEPTH ORGANIC WOOD MULCH WITHIN TREE PROTECTION FENCING FOR MOISTURE PRESERVATION. SEE PLAN FOR LOCATIONS
- PLACE TREE PROTECTION WITHIN DRIPLINE WHEN FULL DRIPLINE PROTECTION IS NOT FEASIBLE DUE TO EXISTING PAVEMENT OR OTHER OBSTACLES.
- WHERE TREE PROTECTION OCCURS WITHIN DRIPLINE OF TREE, WRAP TRUNK W/ 2X4X8 BOARDS SECURED TIGHTLY AROUND TRUNK WITH STRAP BINDINGS. SEE PLAN FOR LOCATIONS.
- NO PRUNING SHALL BE PERFORMED EXCEPT WHERE APPROVED BY APPROVED LANDSCAPE ARCHITECT AND PERFORMED BY ISA CERTIFIED ARBORIST.
- WHERE WORK OCCURS WITHIN DRIPLINE OF TREE, ROOT PRUNING TO BE PERFORMED BY ISA CERTIFIED ARBORIST PRIOR TO EXCAVATION OR TRENCHING.



1 ROOT PRUNING & DIRECTIONAL BORING DETAIL
1 1/2" = 1'-0"

- NOTES:**
- WHERE WORK IS TO OCCUR WITHIN THE DRIPLINE OF A TREE, CONTRACTOR TO USE AIR EXCAVATOR, DIRECTIONAL BORING, ROOT PRUNING, AND PRECAUTIONARY MEASURES AS DETAILED. ROOT PRUNING TO BE PERFORMED BY ISA CERTIFIED ARBORIST.
 - ROOT PRUNING SHALL BE DONE WITH A TRENCHER OR VIBRATORY FLOW TO A DEPTH OF 18". ROOTS OVER 1.5" DIA SHALL HAVE A CLEAN CUT MADE BY A CLEAN SAW ON SURFACE OF THE ROOT. DO NOT PAINT CUT ROOT ENDS.
 - FOR INSTALLATION OF UTILITIES WITHIN DRIPLINE OF TREE, LEAVE ROOTS IN TACT AND UTILIZE DIRECTIONAL BORING TO THREAD UTILITY LINES BENEATH.
 - ROOT PRUNING SHALL TAKE PLACE PRIOR TO CLEARING AND GRADING. STAKE LOCATIONS OF TREE PROTECTION PRIOR TO TRENCHING.
 - BACKFILL ROOT PRUNING TRENCHES WITH EXCAVATED SOIL AND MULCH. MARK LOCATIONS WITH STAKES FOR FUTURE REFERENCE. SILT FENCE MAY BE INSTALLED IN TRENCH PRIOR TO BACKFILLING AS LONG AS TRENCH IS NOT OPEN LONGER THAN 48HRS WITHOUT WATERING.
 - DO NOT PERFORM ROOT PRUNING WHEN SOIL IS WET OR WHEN TOP 1" OR MORE OF SOIL IS FROZEN.
 - AVOID DISTURBANCE WITHIN CRITICAL ROOT ZONE. CRITICAL ROOT ZONE SHALL BE MEASURED FROM TRUNK OUTWARD AND CALCULATED AS FOLLOWS:
 - DBH < 29.9" USE 1 FOOT RADIUS PER 1 INCH DBH, MIN 3' RADIUS
 - DBH > 30" USE 1.5 FOOT RADIUS PER 1 INCH DBH



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TREE PROTECTION DETAILS

SCALE AS SHOWN

FILENAME

SHEET **L057**