

Purchasing Division Finance Department

Room 120 411 West First Street Duluth, Minnesota 55802



# Addendum 2 Solicitation 20-99380 Keene Creek Park Improvements

This addendum serves to notify all bidders of the following changes to the solicitation documents:

- 1. Contractors shall substitute three White Pine trees for three Alleghany Serviceberry trees.
- 2. Updates have been made to the existing utility information.
- 3. The bid form in the BidExpress solicitation has been updated to reflect changes per this addendum.
- 4. A revised planset is attached with changes per this addendum.

Please acknowledge receipt of this Addendum by checking the acknowledgment box within the <a href="https://www.bidexpress.com">www.bidexpress.com</a> solicitation.

Posted: July 2, 2020

# **EXISTING**

**PROPOSED** 

MAJOR CONTOUR (5') MINOR CONTOUR (1') **EXISTING TRAIL** CENTERLINE **EXISTING STORM SEWER** CREEK

# CONSTRUCTION PLANS FOR:

# KEENE CREEK PARK UPDATES CITY OF DULUTH

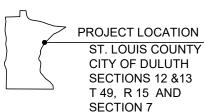
CONSTRUCTION PLANS FOR DOG PARK UPDATES, TRAIL PAVING, TOILET SCREEN AND DRINKING FOUNTAIN INSTALLATION AND CLEANING UP DEBRIS

### SPECIFICATION REFERENCES

- 1. THE 2019 CITY OF DULUTH. MINNESOTA CONSTRUCTION STANDARDS SHALL APPLY.
- 2. THE MINNESOTA DEPARTMENT OF NATURAL RESOURCES "TRAIL PLANNING, DESIGN, AND DEVELOPMENT GUIDELINES" SHALL APPLY.
- THE 2018 MNDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION SHALL APPLY.

SHEET INDEX								
Sheet Number	Sheet Title							
001	TITLE SHEET							
002	STATEMENT OF ESTIMATED QUANTIITES							
003	PATHWAY TYPICAL SECTIONS							
004-013	DETAILS							
014-015	SWPPP							
016	SWPPP 1 OF 2							
017	EXISTING CONDITIONS							
018-019	PLAN & PROFILE - CROSS CITY TRAIL							
020-021	PLAN & PROFILE - DOG PARK PATH							
022	STATION 0+00 - 6+00							
023	DOG PARK LAYOUT							
024	EROSION CONTROL							
	Number 001 002 003 004-013 014-015 016 017 018-019 020-021 022 023							

THIS PLAN SET CONTAINS 24 SHEETS



**CONTRACTOR TO NOTIFY 911 PERSONNEL** PRIOR TO ALL ROAD CLOSURES.

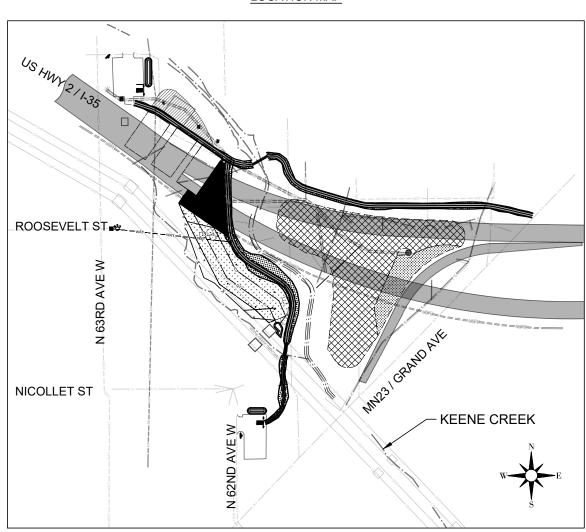
# ALL CONTRACTORS AND SUBCONTRACTORS SHALL VERIFY ALL DIMENSIONS BY MEASUREMENT AT THE BUILDING AND/OR SITE

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TITLE SHEET

T 49, R 14

# **LOCATION MAP**



# **EXISTING UTILITY LOCATIONS**

PROPOSED CONTOUR - MAJOR (5') PROPOSED CONTOUR - MINOR (1')

FILTER LOG TYPE COMPOST

RIP RAP/ ROCK ARMORING

**ROCK STABILIZED ENTRANCE** 

STORM SEWER

SEEDING

THE CONTRACTOR SHALL VERIFY ALL EXISTING UNDERGROUND UTILITY LOCATIONS AND ELEVATIONS PRIOR TO CONSTRUCTION. ALL INPLACE UTILITIES MAY NOT BE SHOWN ON THIS PLAN & THOSE THAT ARE SHOWN, MAY NOT BE SHOWN IN THE EXACT LOCATIONS.

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



**GOPHER STATE ONE CALL** 651.454.0002 800.252.1166 1.866.640.3637 (EMERGENCY LOCATES ONLY) http://www.gopherstateonecall.org/submit

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

> DATE 06/18/20 54757 LIC. NO.

INNESOTA DE DE DEL DEL DEL



Duluth, MN 55802 218.724.8578 tkda.com

ГЕМ	NOTE					CROSS CITY	DOG PARK
NO	NO	SPEC NO	DESCRIPTION	UNIT	BASE BID	TRAIL - ALT #1	EXPANSION - ALT #
1		2012.602	TRAFFIC CONTROL SPECIAL	EACH	1		
2		2021.501	MOBILIZATION	LUMP SUM	0.75	0.25	
3		2104.503	REMOVE PIPE CULVERT	LIN FT	60		
4		2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	40		
5	1,5	2104.503	SALVAGE FENCE - 5' CHAINLINK	LIN FT	841		
Z	11	2104.503	REMOVE WOOD RETAINING WALL	LIN FT	150		
7	2	2104.504	REMOVE BITUMINOUS PAVEMENT	SQ YD	1862		
8		2104.601	REMOVE MISCELLANEOUS DEBRIS	LUMP SUM	1		
9	3	2104.602	RELOCATE BENCH	EACH	7		
10	4	2105.507	COMMON EXCAVATION	CU YD	468	658	
11		2105.507	COMMON BORROW (CV)	CU YD	179	126	
12		2211.507	AGGREGATE BASE (CV) CLASS 5	CU YD	143	296	
13		2360.509	TYPE SP 9.5 WEAR CRS MIX (3,C)	TON	181	228	
14		2501.502	18" CS PIPE ARPON	EACH	4		
15		2501.503	18" CP PIPE CULVERT (SMOOTH)	LIN FT	24		
16		2502.503	4" PERF TP PIPE DRAIN	LIN FT	920		150
17	7	2504.602	WATER SERVICE TAP & HOOKUP	EACH	1		
18		2504.603	WATER SERVICE (3/4" - DIRECTIONAL DRILLED)	LIN FT	310		25
19		2504.607	SAND COVER (LV)	CU YD 89			139
20		2511.507	RANDOM RIPRAP CLASS II	CU YD			100
21		2540.602	DRINKING FOUNTAIN	EACH 1			
22	15	2557.502	PEDESTRIAN GATE	EACH I			1
23	13	2557.502	VEHICULAR GATE-DOUBLE - 12' WIDTH	EACH	2		1
24	8						ı
	-		ENCLOSURE SCREEN - PORT A POTTY INSTALL CHAIN LINK FENCE - (SALVAGED 5')	LUMP SUM			
25	9	2557.603	,	LIN FT	858		
26	10	2557.603	CHAIN LINK ENCLOSURE 5'	LIN FT	14		
27	10	2557.603	CHAIN LINK ENCLOSURE 6' (DOG PARK EXPANSION)	LIN FT	155		79
28		2564.618	METAL INFORMATIONAL SIGN TYPE C	EACH	4		4
29		2571.524	CONIFEROUS TREE 6" HT B&B	TREE	3		
30		2571.524	DECIDUOUS TREE 6' HT BR	TREE	7		
31	6	2571.524	TRANSPLANT TREE (SPADE SIZE 60")	TREE	7		
32		2573.503	SEDIMENT CONTROL LOG TYPE COMPOST	LIN FT	1350	200	
33		2574.507	FILTER TOPSOIL BORROW (LV)	CU YD	45		
34		2575.505	SEEDING	ACRE	0.8	0.1	
35	14	2575.508	SEED MIXTURE 25-151	LB	100	12.0	
36	14	2575.508	SEED WETLAND MIX 33-361	LB	1.0		
37	12	2582.503	4" SOLID LINE PAINT - LATEX	LIN FT	100.0		
38	12	2582.518	PAVT MSSG PAINT - LATEX	SQ FT	446.0		
39		2757.604	ROLLED EROSION PREVENTION CATEGORY 25	SQ YD	1489	1356	

### **CONSTRUCTION NOTES:**

- 1. SALVAGE FENCING PAY ITEM TO INCLUDE ALL LABOR. MATERIALS AND EQUIPMENT NECESSARY TO SALVAGE EXISTING CHAINLINK FENCING AND POSTS FOR RE-USE ONSITE, CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING SALVAGED MATERIALS AHEAD OF RE-INSTALLATION
- BITUMINOUS REMOVALS ADJACENT TO REMAINING BITUMINOUS SHALL BE SAW CUT JUST PRIOR TO PATCHING TO MAINTAIN A CLEAN PATCH JOINT.
- RELOCATE BENCH PAY ITEM SHALL INCLUDE ALL MATERIALS, LABOR AND EQUIPMENT NECESSARY TO SALVAGE AND REINSTALL BENCH ASSEMBLY WITHIN THE NEW FENCED BOUNDARY. THE BENCH ASSEMBLY INCLUDES THE BENCH, FRAME, FOUNDATION AND NEW CONCRETE PAD, OLD CONCRETE PAD SHALL BE REMOVED AND PROPERLY DISPOSED OF.
- COMMON EXCAVATION SHALL INCLUDE ALL MATERIALS, LABOR AND EQUIPMENT NECESSARY TO CUT AND COMPACT THE SUBGRADE IN GRADED AREAS. THIS INCLUDES SITE GRADING AND TRAIL SUBGRADE PREPARATION. EXCAVATED MATERIAL MAY BE STOCKPILED ONSITE IN DESIGNATED LOCATIONS, SEEDED AND BLANKETED. MATERIAL WILL BE USED BY OTHERS FOR PREPARATION OF THE BIKE SKILLS AREA.
- TO THE MAXIMUM EXTENT PRACTICAL, CONTRACTOR TO STAGE WORK TO MAINTAIN A FENCED ENCLOSURE FOR DOG PARK USERS.
- CONTRACTOR SHALL RELOCATE DESIGNATED TREES AHEAD OF FENCE SALVAGING OPERATION. RELOCATED TREES TO BE PROTECTED AND REINSTALLED WITHIN THE NEW FENCED BOUNDARY.
- WATER SERVICE TAP AND HOOKUP PAY ITEM SHALL INCLUDE ALL MATERIALS, LABOR AND EQUIPMENT TO PROVIDE A NEW WATER SERVICE, CURB STOP AND HOOKUP FOR A SINGLE DRINKING FOUNTAIN IN THE PARK. THE PAY ITEM SHALL ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO BACKFILL AND REBUILD THE ROADWAY SECTION SHALL BE CONSIDERED INCIDENTAL TO THE WATER SERVICE TAP AND HOOKUP PAY ITEM.
- ENCLOSURE SCREEN PORT A POTTY PAY ITEM SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO FURNISH AND INSTALL AN ENCLOSURE PER SHEETS 008 - 011 (OR APPROVED EQUAL). CONTRACTOR TO PROVIDE SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO ORDERING MATERIALS.
- INSTALL CHAIN LINK FENCE PAY ITEM SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO INSTALL THE SALVAGED CHAINLINK FENCE. REPLACEMENT POSTS NECESSARY FOR REPLACEMENT OF CONCRETED OR DAMAGED POSTS SHALL BE CONSIDERED INCIDENTAL TO THE PAY ITEM.
- 10. CHAINLINK FENCE PAY ITEM SHALL INCLUDE ALL LABOR. MATERIALS AND EQUIPMENT NECESSARY TO FURNISH AND INSTALL NEW CHAINLINK FENCE. NEW FENCING SHALL MATCH THE COLOR, HEIGHT AND GAUGE OF EXISTING FENCE.
- 11. REMOVE WOOD RETAINING WALL PAY ITEM SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO EXCAVATE WOODEN STRUCTURE, PROPERLY DISPOSE OF MATERIALS AND REGRADE SLOPE TO BE 1:5 OR LESS. ALL DISTURBED AREAS TO BE SEEDED AND BLANKETED. SEED AND BLANKET MATERIAL IS PAID FOR AS A SEPARATE BID ITEM.
- 12. PAINT TO BE MNDOT APPROVED WHITE LATEX. SEE MNDOT LIST OF APPROVED PRODUCTS FOR PAVEMENT MARKING MATERIALS.
- TRAFFIC CONTROL PAY ITEM SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO BARRICADE WORK SITES AND ACCESS POINTS TO WARN AND DISCOURAGE PUBLIC USAGE DURING PERIODS OF ACTIVE WORK.
- 14. SEED MIX 25-151 USES 120 LBS/ACRE AND SEED WETLAND MIX 33-361 USED 35 LBS/ACRE.
- INSTALL 36" WIDE PEDESTRIAN GATE IN EXISTING SPORTS COURT FENCE LINE.

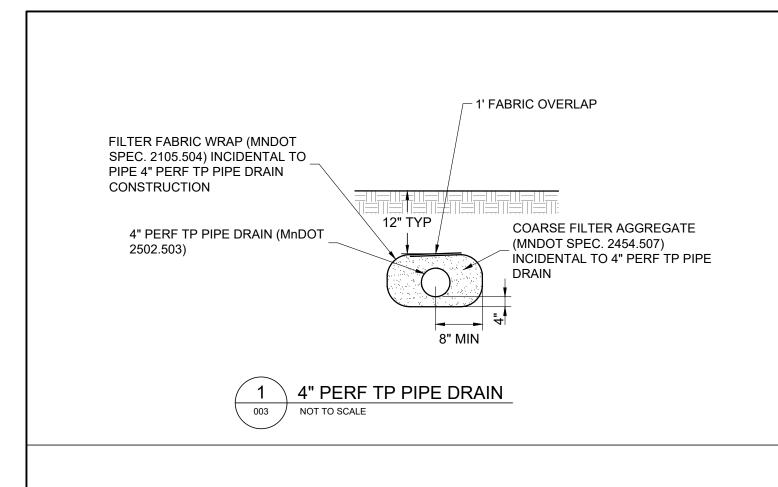
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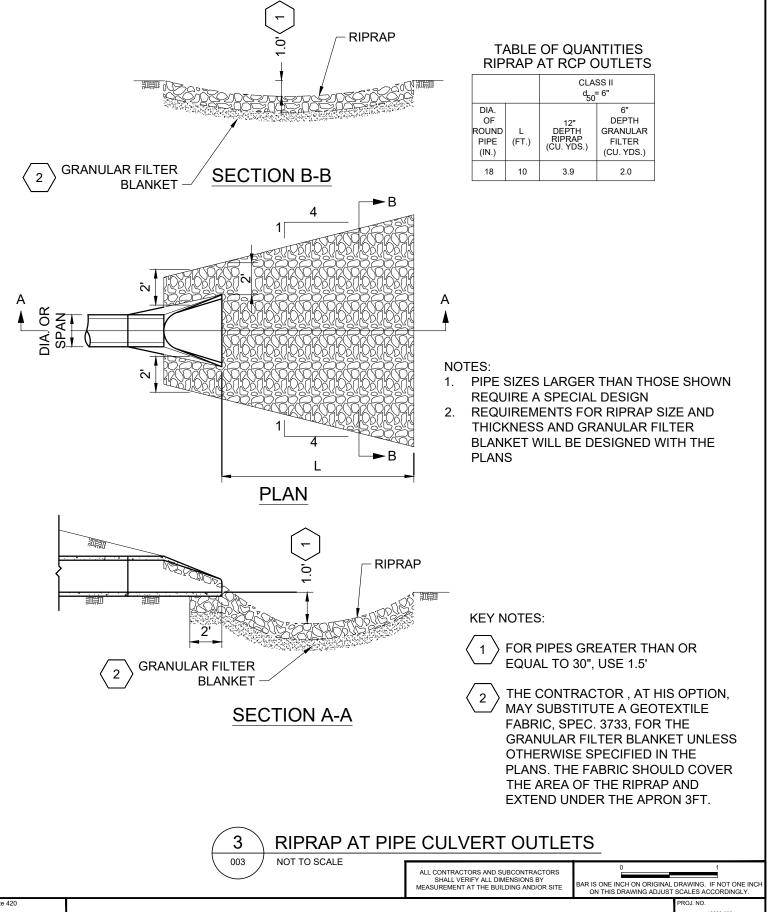
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STATEMENT OF ESTIMATED QUANTIITES

INNESOTA DATE: 06/18/2

TKDA





LO DATE: Juli VZ, 2020 - 1 ZSPM LENAME: K/λa-fiDuluth\_City/16893000/04\_Production/01\_CAD/02\_Sheets/16893000 - Keene

FILENAME: K:\a-\D

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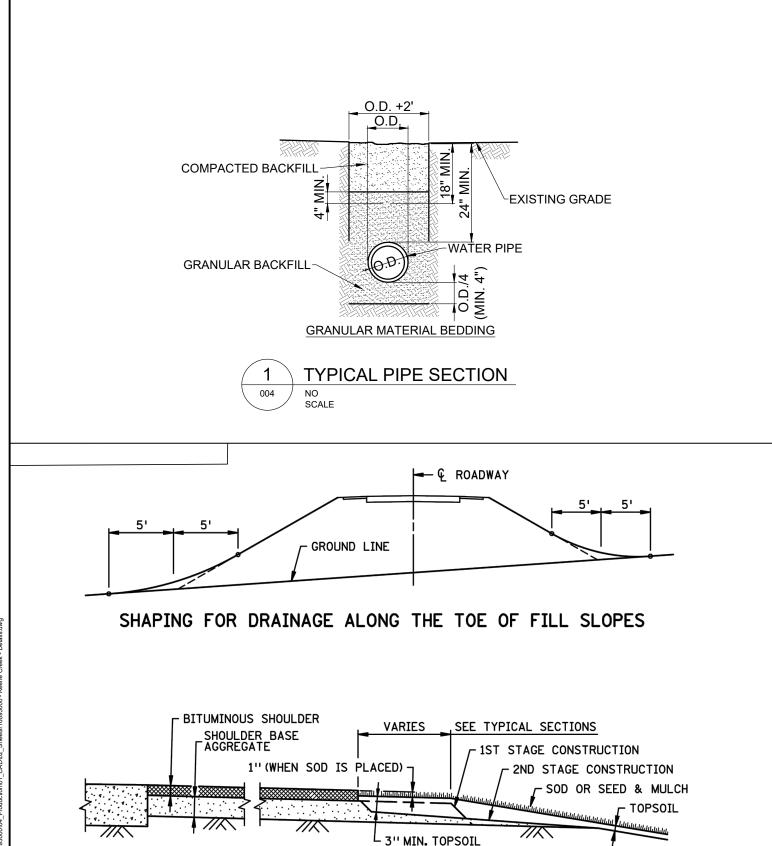
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TYPICAL SECTION FOR MAINTENANCE PATH

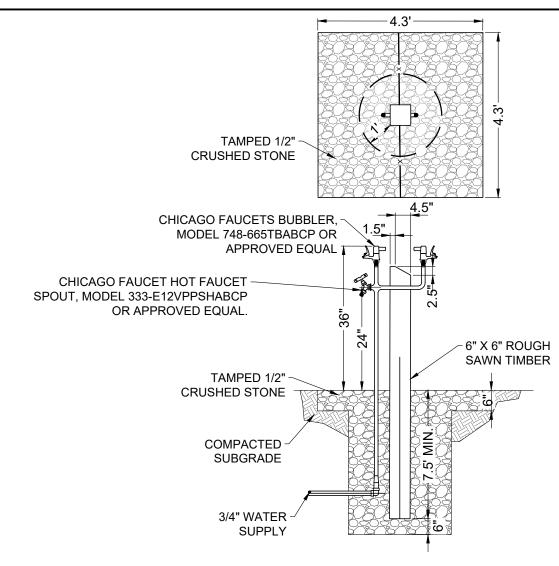
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16893.000

DRAWING NO.



SHAPING AND TOPSOILING INSLOPES



### **CONSTRUCTION NOTES:**

- 1. WATER FLOW. THE SPOUT SHALL PROVIDE A FLOW OF WATER 4 INCHES (100 MM) HIGH MINIMUM AND SHALL BE LOCATED 5 INCHES (125 MM) MAXIMUM FROM THE FRONT OF THE UNIT. THE ANGLE OF THE WATER STREAM SHALL BE MEASURED HORIZONTALLY RELATIVE TO THE FRONT FACE OF THE UNIT. WHERE SPOUTS ARE LOCATED LESS THAN 3 INCHES (75 MM) OF THE FRONT OF THE UNIT, THE ANGLE OF THE WATER STREAM SHALL BE 30 DEGREES MAXIMUM. WHERE SPOUTS ARE LOCATED BETWEEN 3 INCHES (75 MM) AND 5 INCHES (125 MM) MAXIMUM FROM THE FRONT OF THE UNIT, THE ANGLE OF THE WATER STREAM SHALL BE 15 DEGREES MAXIMUM
- 2. BUBBLERS, FAUCET, AGGREGATE AND SUPPORT SHALL BE CONSIDERED INCIDENTAL TO THE DRINKING FOUNTAIN PAY ITEM.
- BUBBLERS AND FAUCET SHALL AUTOMATICALLY SHUT OFF
- DRINKING FOUNTAIN TO BE INSTALLED ON THE DOG PARK FENCE LINE.
- SINGLE BUBBLER TO BE INSTALLED FACING THE PATHWAY.
- BUBBLER AND FAUCET TO BE INSTALLED FACING INWARD TO THE DOG PARK.

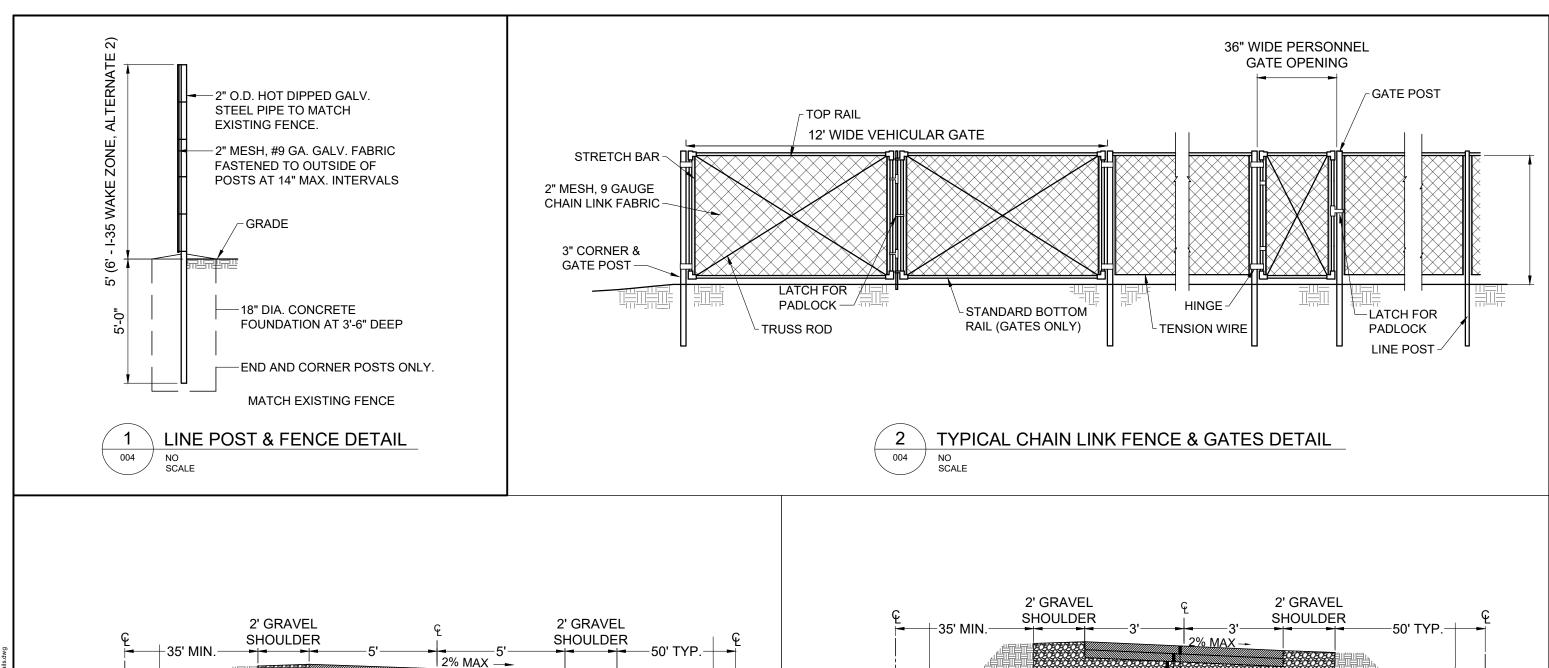


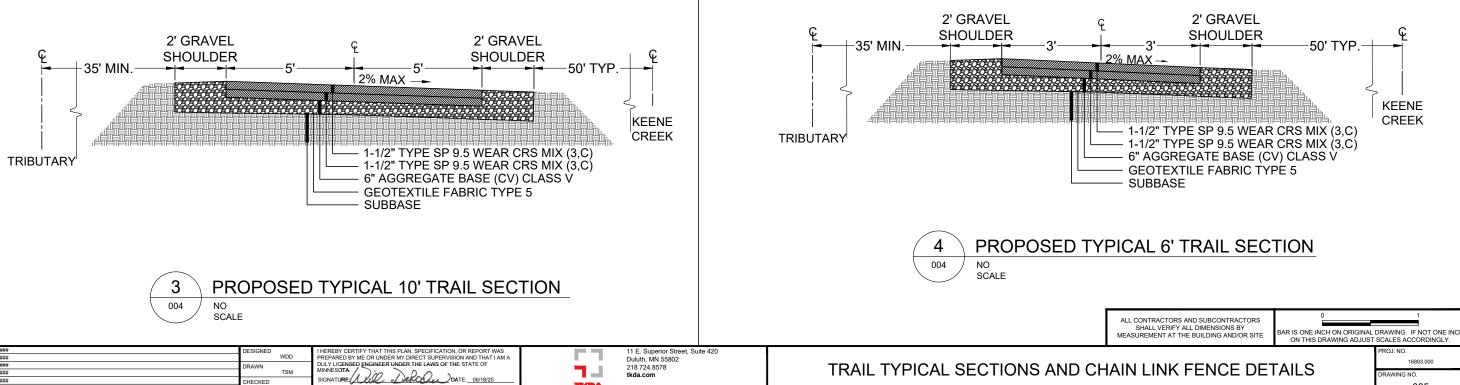
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WATER SERVICE DETAILS

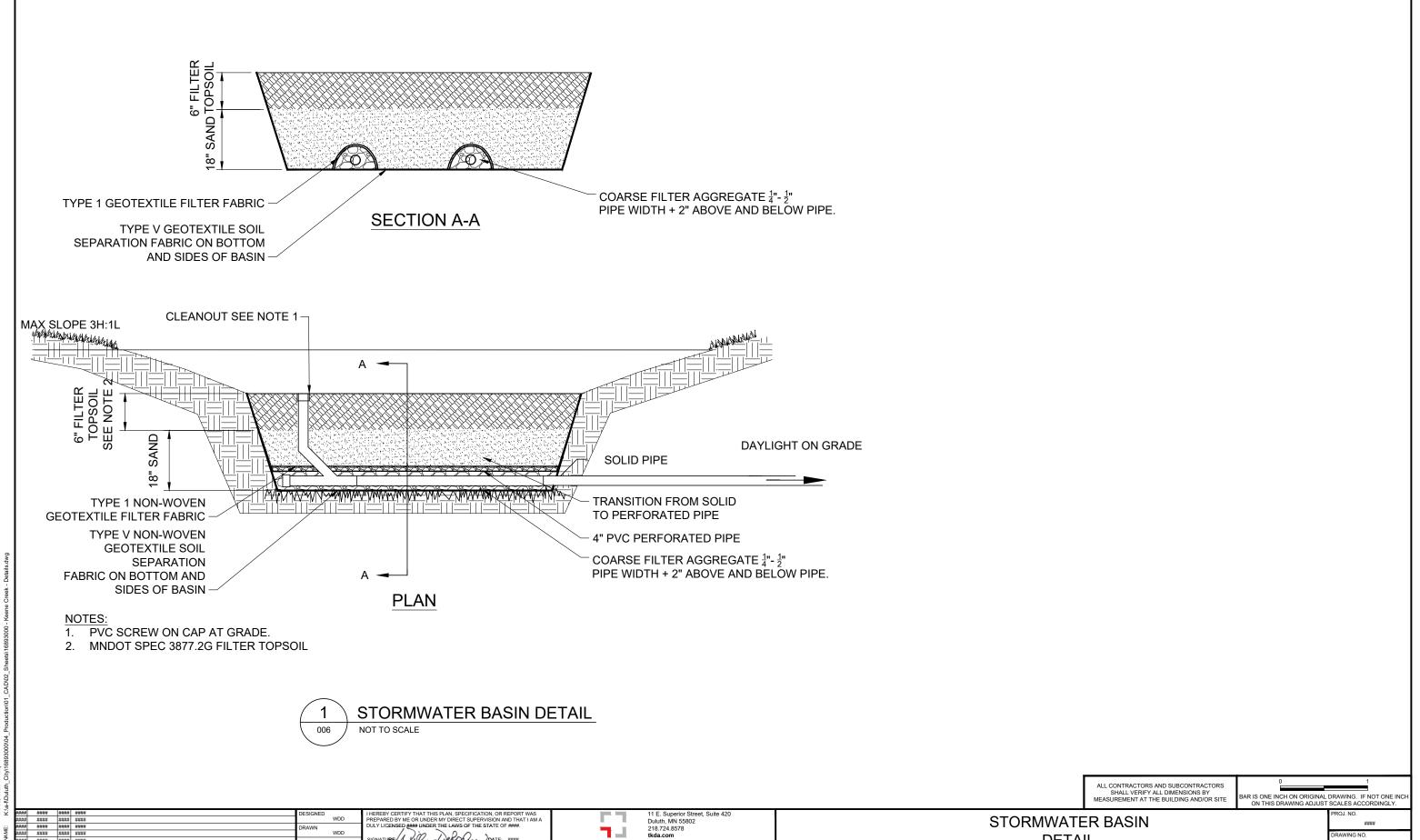






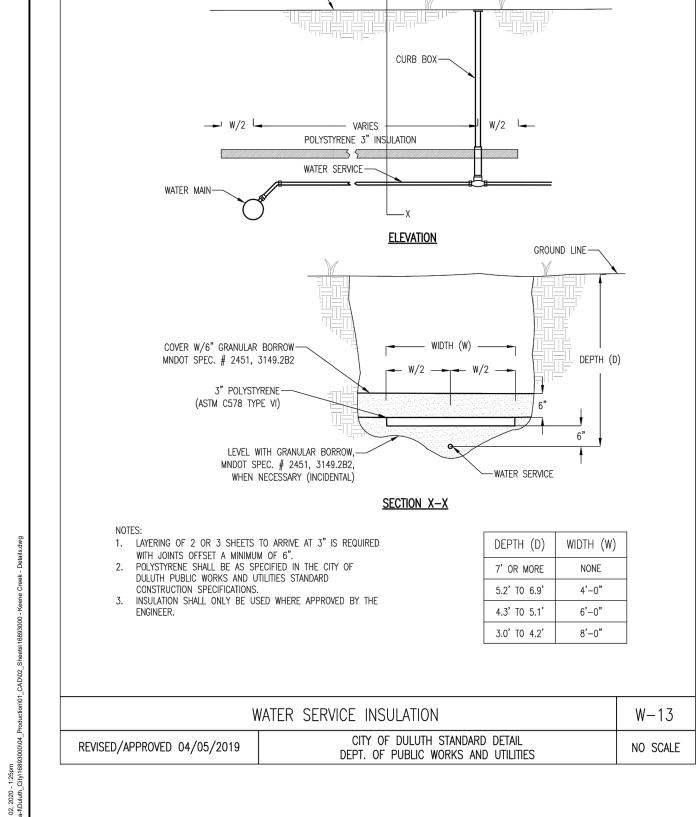
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TRAIL TYPICAL SECTIONS AND CHAIN LINK FENCE DETAILS



DETAIL

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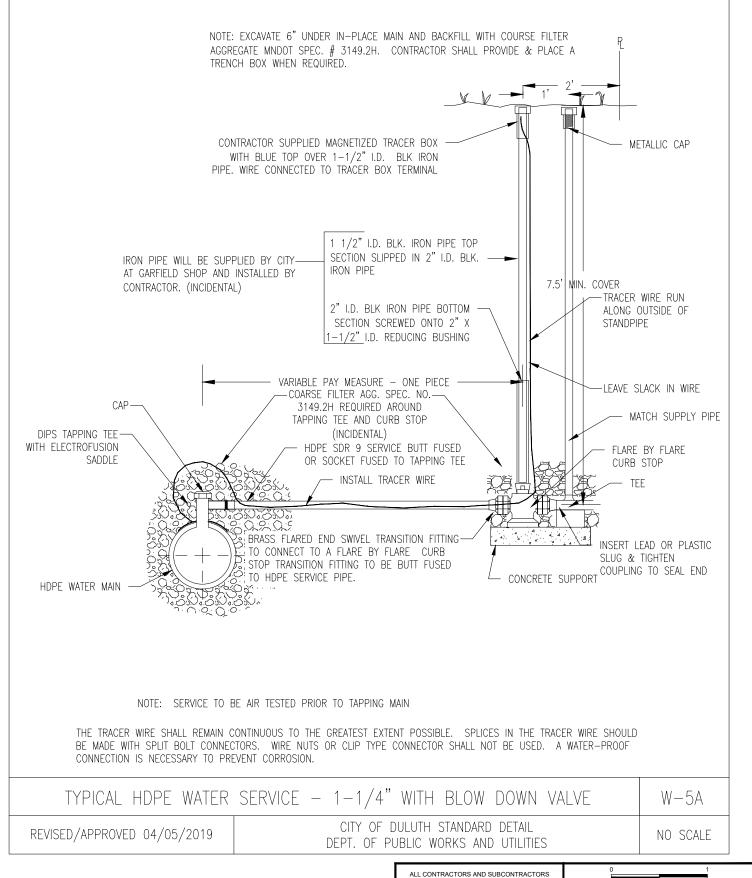
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SIGNATURE.

DATE: 06/18/20

GROUND LINE-



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TOILET SCREEN DETAILS 1 OF 5

**BUILDING TYPE: PRV-H** 

**MULTI-RIB ROOF TYPE:** 



SHEET NUMBER	DRAWING DESCRIPTION					
CS	COVER SHEET					
1	ARCHITECTURAL ELEVATIONS					
2	STRUCTURAL FRAMING PLAN					
3	COLUMN LAYOUT					

**FABRICATOR APPROVALS:** 

CITY OF PHOENIX, AZ APPROVED FABRICATOR #C08-2010 CITY OF LOS ANGELES, CA APPROVED FABRICATOR #1596 CITY OF RIVERSIDE, CA APPROVED FABRICATOR #SP06-0033 CITY OF HOUSTON, TX APPROVED FABRICATOR #470 CLARK COUNTY, NV APPROVED FABRICATOR #264 STATE OF UTAH APPROVED FABRICATOR 02008-14

CERTIFICATES:
MIAMI-DADE COUNTY CERTIFICATE OF COMPETENCY NO. 16-1025.01 PCI (POWDER COATING INSTITUTE) 4000 CERTIFIED

### **MATERIALS:**

**DESCRIPTION** TUBE STEEL SCHEDULE PIPE RMT PIPE LIGHT GAGE COLD FORMED STRUCTURAL STEEL PLATE ROOF PANELS (STEEL)

ASTM DESIGNATION A500 (GRADE B) A53 (GRADE B) A519 A1003 (GRADE 50) A36 A653

**GENERAL NOTES:** 

UNLESS NOTED OTHERWISE, THIS STRUCTURE WAS DESIGNED TO ONLY SUPPORT WHAT IS SHOWN ON THESE DRAWINGS, POLIGON MUST BE CONTACTED IF ANYTHING ELSE IS TO BE ATTACHED TO THIS STRUCTURE (WALLS, COLUMN WRAPS, RAILINGS, ETC.) SO THE DESIGN OF THIS STRUCTURE CAN BE REVIEWED AND POSSIBLY

UNLESS NOTED OTHERWISE, THIS STRUCTURE WAS DESIGNED ASSUMING A 20' SEPARATION BETWEEN ANY ADJACENT STRUCTURE WITH AN EAVE HEIGHT EQUAL TO OR GREATER THAN THE EAVE HEIGHT OF THIS STRUCTURE. IF THAT SEPARATION DOES NOT EXIST, POLIGON MUST BE CONTACTED SO THE DESIGN OF THIS STRUCTURE CAN BE REVIEWED AND POSSIBLY REVISED.

STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) SPECIFICATION MANUAL.

ALL WELDING IS PERFORMED BY AMERICAN WELDING SOCIETY CERTIFIED WELDERS AND CONFORMS TO THE LATEST EDITION OF AWS D1.1 OR D1.3 AS REQUIRED.

PARTS SHOWN MAY BE UPGRADED DUE TO STANDARDIZED FABRICATION. REFER TO THE SHIPPING BILL OF MATERIALS FOR POSSIBLE SUBSTITUTIONS.

FOR PROPER FIELD INSTALLATION OF THE BUILDING IT IS RECOMMENDED THAT THE PRIMARY FRAME INSTALLER AND THE ROOF INSTALLER HAVE A MINIMUM FIVE (5) YEARS DOCUMENTED EXPERIENCE INSTALLING THIS TYPE OF PRODUCT.

FOR PROPER FIELD INSTALLATION OF THE BUILDING IT IS RECOMMENDED THAT ELECTRIC WIRING, IF REQUIRED, BE RUN THROUGH THE STRUCTURAL MEMBERS BEFORE THE BUILDING IS

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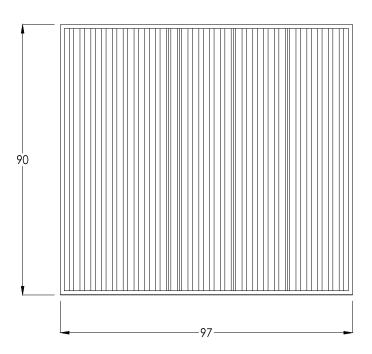
#### #### ####
DATE BY DESCRIPTION OF REVISIONS





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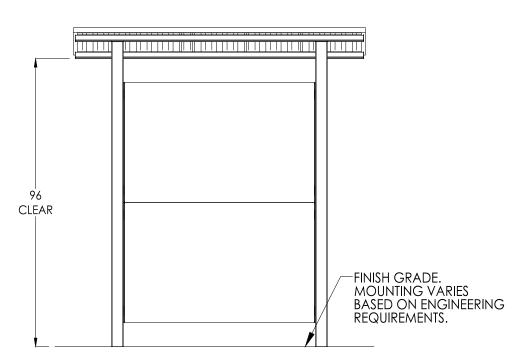
**TOILET SCREEN DETAIL 2 OF 5** 

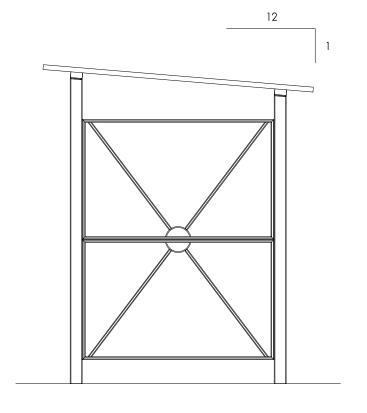




# **GENERAL ROOF NOTES:**

- METAL ROOFING:
   24 GAUGE
- GALVALUME COATED
   KYNAR 500 PAINTED
   TRIM COLOR MATCHES ROOF
   SEE POLIGON.COM FOR
   COLOR OPTIONS





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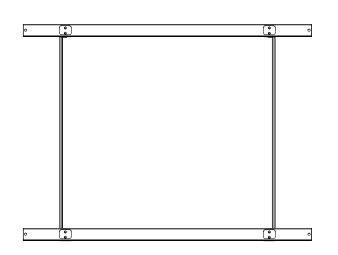
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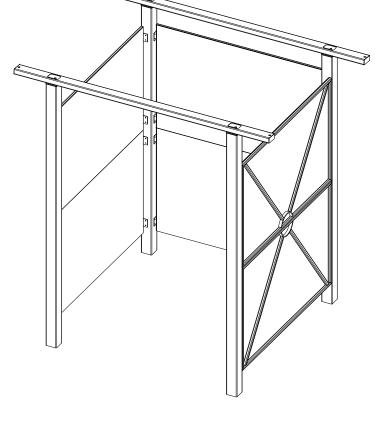


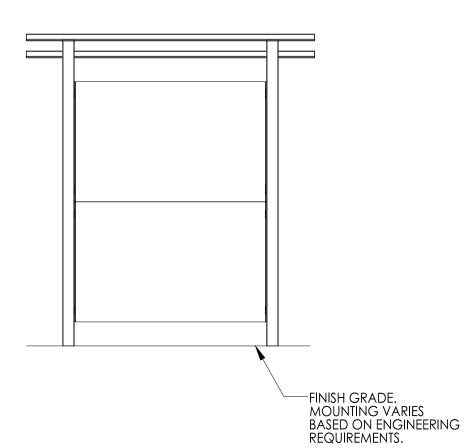
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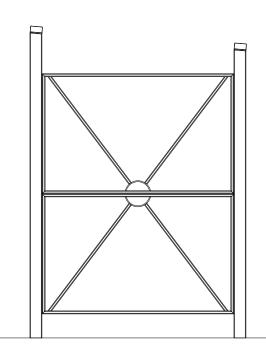
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TOILET SCREEN DETAIL 3 OF 5









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TOILET SCREEN DETAIL 4 OF 5

# **BASEPLATE NOTES:**

- 1. POLIGON ENGINEERING WILL DETERMINE REQUIRED BASEPLATE DESIGN AFTER ENGINEERING PACKAGE IS ORDERED.
- 2. CUSTOMER MAY SUGGEST PREFERRED BASEPLATE DESIGN.

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BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSEE
ENGINEER UNDER THE LIVES OF THE STATE OF MINNESOTA.

SIGNATURE:

PRINTED NAME:

WILL D. DEROCHER

LIC. NO.:

54757

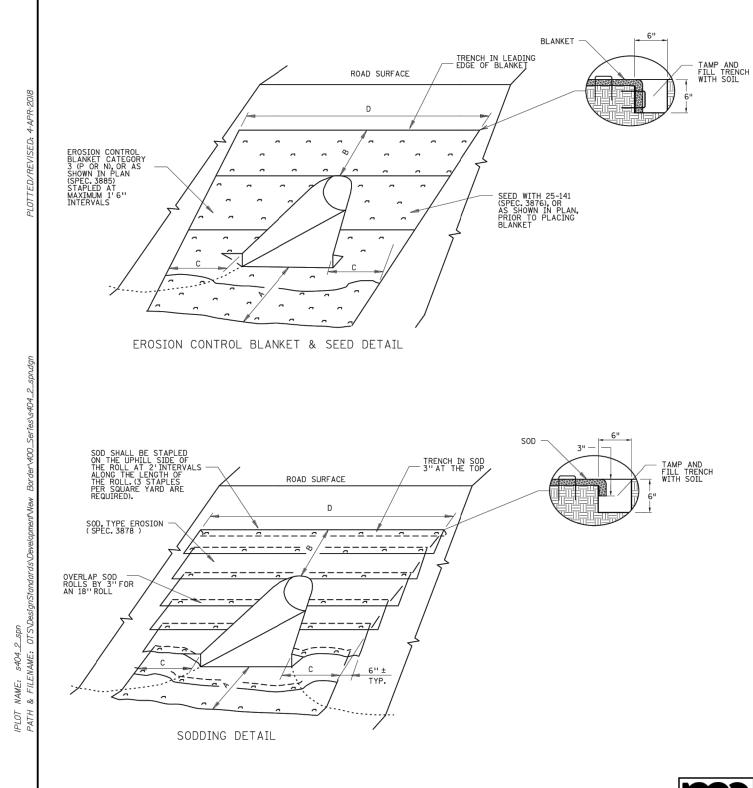
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16893,000

DRAWING NO.

011



CULVERT INLET APRON ①										
	SOD OR EROSION CONTROL BLANKET (SQ. YDS.)									
CULVERT DIAMETER	CIRCULAR AND ARCH PIPE METAL APRON (PLATE 3123, PLATE 3122)	ARCH PIPE	CIRCULAR AND ARCH PIPE METAL SAFETY APRON 1:4 SLOPE (PLATE 3148)	CIRCULAR AND ARCH PIPE METAL SAFETY APRON 1:6 SLOPE (PLATE 3148)	CORRUGATED	CIRCULAR CORRUGATED METAL PIPE SAFETY APRON 1:4 SLOPE (PLATE 3128)		"B"	''C''	ייםיי
15''	9	9	8	8	N/A	N/A	3'	1.5'	31	13'
18''	13	12	12	14	16	N/A	31	31	3'	16'
21"	14	14	14	16	18	14	31	31	3'	17'
24"	16	15	16	19	21	17	3'	31	3'	18'
27''	N/A	20	N/A	N/A	N/A	N/A	3'	4.51	3'	20'
30"	23	22	25	30	32	N/A	3'	4.51	3'	22'
36"	34	34	39	48	51	37	4.5'	4.51	4.5'	27'
42"	43	40	51	64	N/A	N/A	4.5'	6'	4.5'	301
48''	54	50	66	82	N/A	N/A	4.5'	7.51	4.51	34'
54''	65	58	81	102	N/A	N/A	4.5'	91	4.51	37'
60''	69	59	91	115	N/A	N/A	4.5'	91	4.51	391
66"	69	63	N/A	N/A	N/A	N/A	4.5'	91	4.51	391
72''	78	72	99	122	N/A	N/A	4.5'	10.5'	4.51	41'

	CULVERT OUTLET APRON①									
	SOD OR EROSION CONTROL BLANKET (SQ. YDS.)									1 1
CULVERT DIAMETER	CIRCULAR AND ARCH PIPE METAL APRON (PLATE 3123, PLATE 3122)	CIRCULAR AND ARCH PIPE CONCRETE APRON (PLATE 3100, PLATE 3110)	ARCH PIPE METAL SAFETY APRON	ARCH PIPE METAL SAFETY APRON	CORRUGATED METAL PIPE SAFETY APRON 1:6 SLOPE	1:4 SLOPE		''B''	''C''	ייםיי
15''	10	10	9	10	N/A	N/A	4.51	1.5'	31	13'
18''	13	13	12	14	15	N/A	6'	1.5'	31	14'
21''	16	14	16	18	19	15	6'	1.5'	31	15
24''	18	18	18	21	22	18	7.5'	1.5'	3'	16'
27''	N/A	19	N/A	N/A	N/A	N/A	7.5'	1.5'	31	17'
30''	23	23	24	28	29	N/A	91	1.5'	31	181
36''	36	35	38	47	48	37	10.5'	1.5'	4.51	231
42''	43	40	47	58	N/A	N/A	12'	1.5'	4.51	25'
48''	50	46	57	70	N/A	N/A	13.5'	1.5'	4.51	27'
54''	57	50	67	84	N/A	N/A	15'	1.5'	4.51	291
60''	74	63	90	113	N/A	N/A	16.5'	1.5'	6'	33'
66''	75	67	N/A	N/A	N/A	N/A	16.5'	1.5'	6'	33'
72''	77	70	92	114	N/A	N/A	16.5'	1.5'	6'	341

NOTES:

AREA SHOWN IN SQUARE YARDS IS FOR ONE CULVERT END.

QUANTITIES ARE CALCULATED TO INCLUDE SOD REQUIRED TO PROVIDE A 3"OVERLAP ON ALL 18"WIDE ROLLS. THIS ALLOWS FOR SHRINKAGE OF THE SOD.

FOR PIPE ARCHES USE EQUIVALENT PIPE DIAMETER TO APPROXIMATE AREA.

FOR CORRUGATED POLYETHYLENE PIPE METAL APRON (PLATE 3129), USE THE METAL APRON COLUMN (PLATE 3123).

AREAS AND DIMENSIONS ARE APPROXIMATE AND ARE BASED ON APRON SIDE SLOPES OF NO STEEPER THAN 1:2, UNLESS INDICATED AS FOR SAFETY APRONS.

CARE SHOULD BE TAKEN IN SELECTING SOD TO STABILIZE THE APRON. RIP-RAP SHOULD BE USED FOR FLOW VELOCITIES GREATER THAN 6 FPS.

- $\ensuremath{\textcircled{1}}$  ADDITIONAL QUANTITIES MAY BE SHOWN IN THE PLAN OR REQUIRED BY THE ENGINEER.
- ② FOR ARCH PIPE USE CLOSEST CIRCULAR PIPE DIAMETER AND APRON SLOPE. (DIAMETERS LARGER THAN 72" REQUIRE SPECIAL DESIGNS.)

m	STANDARD PLAN	5–297.404	2 OF 3	PFRM	ΔNFI	NT EROSION C	ONTRO	1
MINNESOTA	APPROVED: 2-28-2017 REVISED:				IMENT DETAIL AT (		_	
DEPARTMENT OF TRANSPORTATION	STATE DESIGN ENGINEER	STATE	PROJ. NO.	(T.H.	)	SHEET NO.	0F	SHEETS

ALL CONTRACTORS AND SUBCONTRACTORS SHALL VERIFY ALL DIMENSIONS BY MEASUREMENT AT THE BUILDING AND/OR SITE

BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCI ON THIS DRAWING ADJUST SCALES ACCORDINGLY.

APPROVED: 2-28-2017

LUT - CHIEF ENVIRONMENTAL OFFICER

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

SIGNATURE

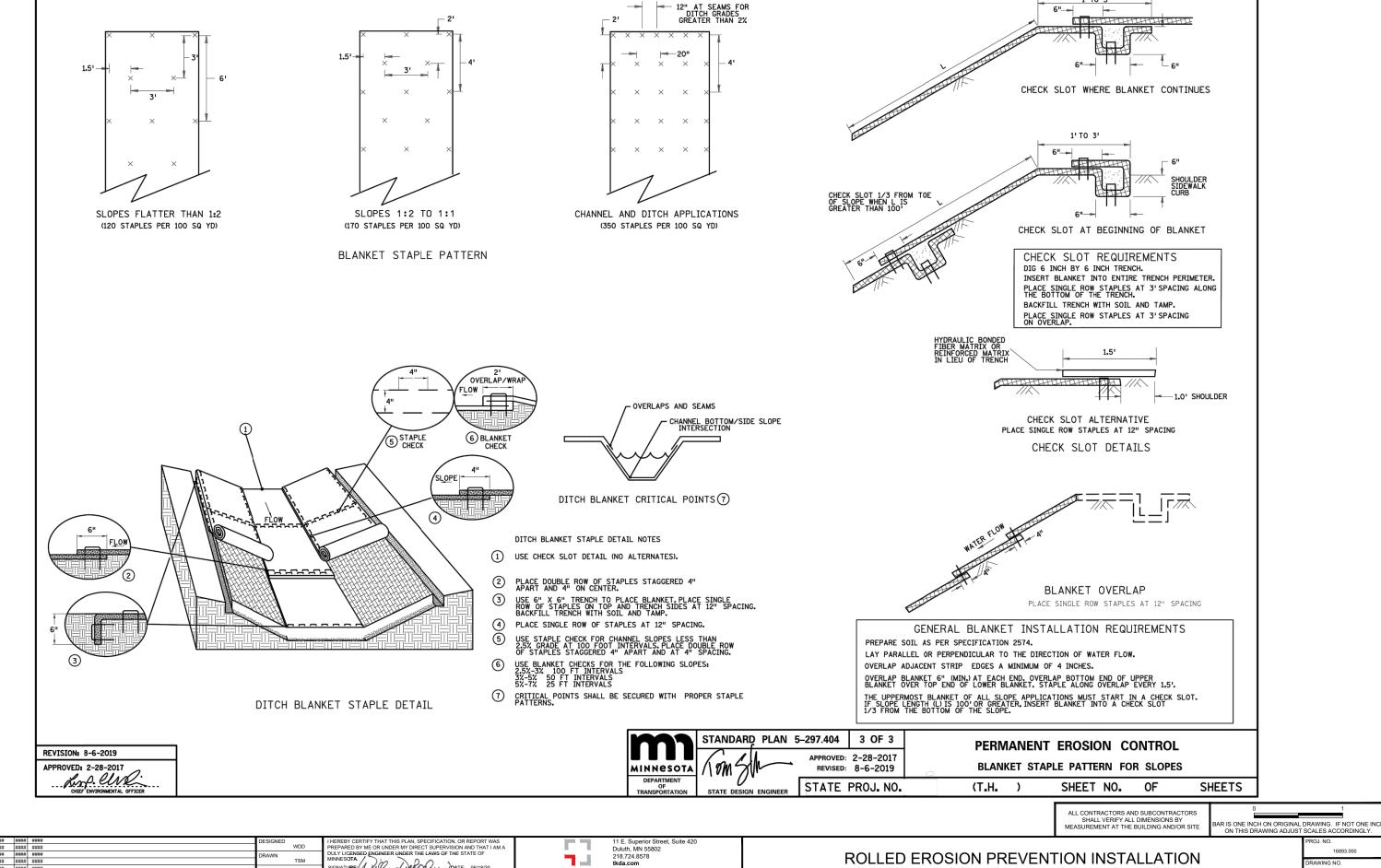
PRINTED NAME:

WILL D. DEROCHER

LIC. NO.: 54757



11 E. Superior Street, Suite 420 Duluth, MN 55802 218.724.8578 tkda.com PROJ. NO. 16893.000 DRAWING NO.



TKDA **ROLLED EROSION PREVENTION INSTALLATION** 

THIS PROJECTED WILL IMPROVE STORMWATER CONTROL AND TREATMENT IN KEENE CREEK PARK IN DULUTH, MN. GROUND DISTURBING ACTIVITIES ASSOCIATED WITH THIS PROJECT WILL INCLUDE GRADING, DRAINAGE IMPROVEMENTS, UTILITY IMPROVEMENTS AND PATHWAY CONSTRUCTION. THE TOTAL LAND AREA ANTICIPATED TO BE DISTURBED BY THE PROJECT (EXCLUSIVE OF BORROW AND DISPOSAL AREAS) IS 2.33 ACRES.

SWPPP IMPLEMENTATION CONTACTS								
AGENCY	PERMIT	NAME	PHONE/ EMAIL					
PROJECT MANAGER	N/A	T.B.D.	PHONE EMAIL					
CONTRACTOR'S EROSION CONTROL SUPERVISOR	N/A	T.B.D.	PHONE EMAIL					
CITY OF DULUTH	CONSTRUCTION AND GRADING	JIM SHOBERG	218.730.4316 jshoberg@duluthmn.gov					
PROJECT ENGINEER	N/A	WILL DEROCHER, PE	218.491.7384 will.derocher@tdka.com					
MPCA	NPDES	JIM DEXTER	218.302.6632 james.dexter@state.mn.us					

# CALCULATIONS

TOTAL DISTURBED AREA = 2.33 ACRES
POST CONSTRUCTION IMPERVIOUS AREA = 0.40 ACRES
EXISTING IMPERVIOUS AREA = 0.77 ACRES
IMPERVIOUS NET = 0.37 ACRES (DECREASE)

### TIMING OF BMP INSTALLATION

THE EROSION AND SEDIMENTATION CONTROL BMPS SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITY TO MINIMIZE EROSION FROM DISTURBED SURFACES AND CAPTURE SEDIMENT ON SITE, AND SHALL MEET THE NPDES PERMIT PART IV CONSTRUCTION ACTIVITY REQUIREMENTS.

- 1. TEMPORARY PERIMETER CONTROL BMPS WILL BE INSTALLED BEFORE ANY UP GRADIENT SOIL DISTURBANCES OCCUR.
- 2. PERMANENT AND TEMPORARY SEDIMENT TRAPS AND BASINS (IF APPLICABLE) WILL BE CONSTRUCTED BEFORE ANY SITE DISTURBANCES ARE PERMITTED.
- 3. DITCHES/ WET SWALES SHALL BE EXCAVATED TO GRADING GRADE AND PROTECTED WITH BALE CHECKS AND SILT FENCE UNTIL ROAD AND UTILITY CONSTRUCTION HAS BEEN STABILIZED. FINAL DITCH GRADES AND FILTER MEDIUM SHALL BE PLACED AFTER TURF HAS BEEN ESTABLISHED.
- 4. TOPSOIL, SEED, EROSION CONTROL BLANKET AND NECESSARY ADDITIONAL TEMPORARY EROSION CONTROL BMPS (IF APPLICABLE) SHALL BE PLACED WITHIN 7 DAYS OF COMPLETION OF ANY EMBANKMENT.
- 5. PLACEMENT OF RIPRAP SHALL BE COMPLETED WITHIN 24 HOURS OF CULVERT PLACEMENT, AND DONE IN ONE CONTINUOUS OPERATION.
- 6. DISTURBED AREAS IN WHICH CONSTRUCTION ACTIVITIES HAVE CEASED OR WILL BE SUSPENDED FOR 7 DAYS OR MORE SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT BMPS FOR EROSION.

# CONSTRUCTION NOTES

CONSTRUCTION SHALL BE GOVERNED BY THE 2018 MNDOT STANDARD SPECIFICATIONS, CITY OF DULUTH - MINNESOTA STANDARD CONSTRUCTION SPECIFICATIONS AND SPECIAL PROVISIONS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF THE SWPPP AND THE INSTALLATION, INSPECTION AND MAINTENANCE OF THE EROSION AND SEDIMENT CONTROL BMPS FOR THE DURATION OF THE PROJECT.

THE CONTRACTOR SHALL KEEP THE INSPECTION AND MAINTENANCE LOGS IN ACCORDANCE WITH THIS SWPPP, ALL PERMITS, ALL INSPECTION AND MAINTENANCE RECORDS AND DESIGN CALCULATIONS. THE CONTRACTOR SHALL MAINTAIN A RESPONSIBLY SIZED STOCKPILE OF EROSION CONTROL DEVICES AVAILABLE FOR RAPID DEPLOYMENT WHEN NECESSARY.

### CONTACTS

THE SWPPP ENGINEER IS: PROJECT SUPERVISOR IS: (TBD) WILL DEROCHER, P.E. NAME

TKDA - ADDRESS
11 E. SUPERIOR ST. SUITE 420 PHONE
DULUTH, MN 55802 EMAIL

SWPPP 1 OF 2

218.491.7384 will.derocher@tkda.com

> ALL CONTRACTORS AND SUBCONTRACTORS SHALL VERIFY ALL DIMENSIONS BY MEASUREMENT AT THE BUILDING AND/OR SITE

BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCI ON THIS DRAWING ADJUST SCALES ACCORDINGLY.

#### #### #### #### #### #### #### #### NO. DATE

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

SIGNATURE

DATE: 08/18/20

PRINTEN MAUE: WILL D. DEPOCHER

LIC NO: 54757



11 E. Superior Street, Suite 420 Duluth, MN 55802 218.724.8578

# Jul 02, 2020 - 1'20pm K:\a-fiDuluth\_City/16893000\04\_Production\01\_CAD\02\_Sheets\16893000 - Keene Creek - SWP

# STORM WATER POLLUTION PREVENTION PLAN

- 1. The current City of Duluth Construction Standards, shall apply.
  - Contractor will be permittee for the MPCA NPDES stormwater construction permit for this project Contractor's signature on permit is required. Submit Initial Erosion Control (EC) schedule at or before the pre-construction meeting. Submit EC schedule alterations/adjustments weekly thereafter for Engineers approval.
- 2. The Contractor is responsible for EC Quality Control on this project. (MnDOT 1717.2 B)
  - Contractor shall phase/sequence the project to minimize exposure to erosion. Contractor shall place or otherwise construct erosion control and sediment containment devices to minimize the runoff, tracking and sediment loss from disturbed areas of the project site.
- 3. Sediment and erosion control devices shall be functional before ground disturbance activities begin.
- 4. Total disturbed area is 2.33 acres, beginning impervious area is 0.77 acres, and new impervious area is 0.40 acres.
- 5. Receiving water is Keene Creek
- 6. Disturbed slopes not actively worked shall be protected from soil erosion with temporary or permanent cover within permit requirements but in no case greater than 7 days of being worked.
  - Use erosion control blanket with soil staples, or engineer approved equal.
- 7. At minimum, the following controls will be implemented at the construction site:
  - Sediment control logs shall be used in conjunction with other erosion BMPs.
    Rock ditch checks or approved equal are to be used to reduce ditch velocities and reduce erosion.
  - \* Storm inlets and outlet area shall be protected with rip rap.
  - \* Stabilized construction entrance shall be used to reduce sediment tracking.
  - \* Storm inlets shall be continuously protected by rock filled socks or specified inlet protection devices.
  - \* Permanent vegetation will be established right after topsoil is re-spread.
  - \* Control all site waste, debris, material storage, concrete washout, to prevent impacts to any drainageway.
  - \* All exposed soil areas with a slope of 3:1 or steeper, that have a continuous positive slope to a special water must have temporary erosion protection or permanent cover within 3 days after the area is no longer actively being worked. All other slopes that have a continuous positive slope to a special water must have temporary erosion protection or permanent cover within 7 days after the area is no longer actively being worked.
- 8. All slopes and ditches shall be stabilized prior to opening new culverts into existing drainage ways.
- 9. If any stockpile is to remain in place for more than 3 days, sediment and erosion control devices shall be used.
- 10. Water pumped or otherwise discharged from the site during construction dewatering shall be directed through effective filtering device(s), and discharged to an energy dissipating device to eliminate erosion at the outlet.
- 11. Site dust generation must be controlled by application of water by spray trucks or similarly effective means of dust control.
- 12. The contractor shall take all possible precautions to prevent appreciable soil tracking onto roadways. Where sediment has been tracked-out from the site onto the surface of off-site streets, other paved areas or sidewalks, the deposited sediment must be removed by the end of the same work day in which the trackout occurs or by the end of the next work day if track-out occurs on a non-work day. The tracked sediment must be removed by sweeping, shoveling, vacuuming or by using other similarly effective means of sediment removal. Hosing or sweeping tracked out sediment into any stormwater conveyance (unless it is connected to a sediment basin, sediment trap, or similarly effective control), storm drain inlet or surface water is prohibited.
- 13. Stabilized construction entrance(s) shall be removed and area restored after grading is complete.
- 14. JAW MnDot 1717.2 B, the contractor QC program shall ensure that a competent individual shall inspect erosion and sediment control devices weekly and after each rain event. All nonfunctional devices shall be repaired/replaced/cleaned. Maintain NPDES Log of all weekly and rain event inspections include the corrective actions that were taken and update the SWPPP to reflect the amended plan. Inspection logs and a current SWPPP shall be maintained on site and available upon request.
- 15. Where not otherwise specified use Rolled Erosion Prevention Category 25 erosion control blanket (ECB) [N. American Green S150 or approved equal]. Use with seed mixture 36-311 @ 33.5 lbs per acre and fertilizer 10-10-10 @ 200 lbs per acre. The fertilizer, seed, and blanket shall be placed as per Mn/DOT 2575.5 and 2575.6. The upgrade end of each blanket strip shall be buried at least 6 inches in a vertical check slot. Staples shall be placed at seams and throughout the blanket at a maximum spacing in all directions of 2 feet.

### CONSTRUCTION PRACTICES TO MINIMIZE STORM WATER CONTAMINATION

TO PREVENT STORM WATER CONTAMINATION FROM OCCURRING, THE FOLLOWING BMPS WILL BE IMPLEMENTED:

- 1. All areas that are rough graded must be kept in a smooth condition to allow sheet flow of storm water wherever practical and always ready for surface application of degradable or non-degradable blankets, mulch or other protective covers.
- 2. A stabilized construction entrance/exit will be constructed to reduce vehicle tracking of sediments off the project right of way.
- 3. All non-hazardous waste materials will be collected and stored in a securely lidded metal dumpster or other approved containment method at the end of each day. Any alternative to a metal dumpster must be submitted in writing for approval by the project engineer. All trash and construction debris from the site will be deposited in the dumpster. The dumpster will be emptied as necessary to function as intended for debris collection. No construction materials will be buried on-site. The contractor's erosion control supervisor will instruct all personnel regarding the correct procedure for disposal.
- 4. A licensed sanitary waste management contractor will collect all sanitary waste from the portable units at a rate necessary to maintain design function.
- 5. All vehicles on site will be monitored for leaks and receive regular preventative maintenance to reduce the chance of leakage.
- 6. Fertilizers will be stored in a covered shed and partially used bags will be transferred to a sealable bin to reduce chance of spillage.
- 7. Petroleum products will be stored in tightly sealed containers, which are clearly labeled.
- 8. Spill kits will be included with all fueling sources and maintenance activities. Secondary containment measures will be installed and maintained by the contractor.
- 9. Any asphalt substances used on site will be applied in accordance with manufacturers recommendations.
- 10. All paint containers and curing compounds will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm water system but will be properly disposed of according to manufacturer's instructions.
- 11. Materials and equipment necessary for spill clean up will be kept in an enclosed trailer or shed on site, Equipment will include, but not limited to, brooms, mops, dust pans, rags, gloves, absorbent (kitty litter). Oil absorbent brooms and diapers, and buckets.
- 12. All spills will be contained and cleaned up immediately upon discovery, Spills large enough to reach the stormwater conveyance system will be reported to the Minnesota duty officer at 1.800.422.0798.
- 13. Concrete trucks will not be allowed to wash out or discharge surplus concrete or drum wash water on the site. Unless done in an engineered containment system. The engineered system must include site drawings for the project file and written assurance that the system will work as designed and leave no discharge of concrete or concrete residue potential to waters of the state during a minimum of a 100 year storm event.
- 14. Form release oil used for concrete work must be applied over a pallet containing absorbent to collect excess liquid. The absorbent material will be replaced and properly disposed of when saturated.
- 15. Discharges from basin dewatering operations that are turbid or sediment laden shall be discharged to temporary sediment basins constructed on the site to provide treatment prior to discharge to a water of the state.
- 16. Clogged or compromised filters must be replaced. Where there is evidence of sediment accumulation adjacent to the inlet protection measure, deposited sediment shall be removed by the end of the same work day on which it is found or by the end of the following work day if removal by the same work day is not feasible.
- 17. Accumulated sediment shall be removed where the depth of sediment has reached half of the working height of the sediment retaining device. Sediment shall be removed by the end of the work day on which it is found or by the end of the following work day if removal by the same work day is not feasible.

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218.724.8578

SWPPP 2 OF 2

