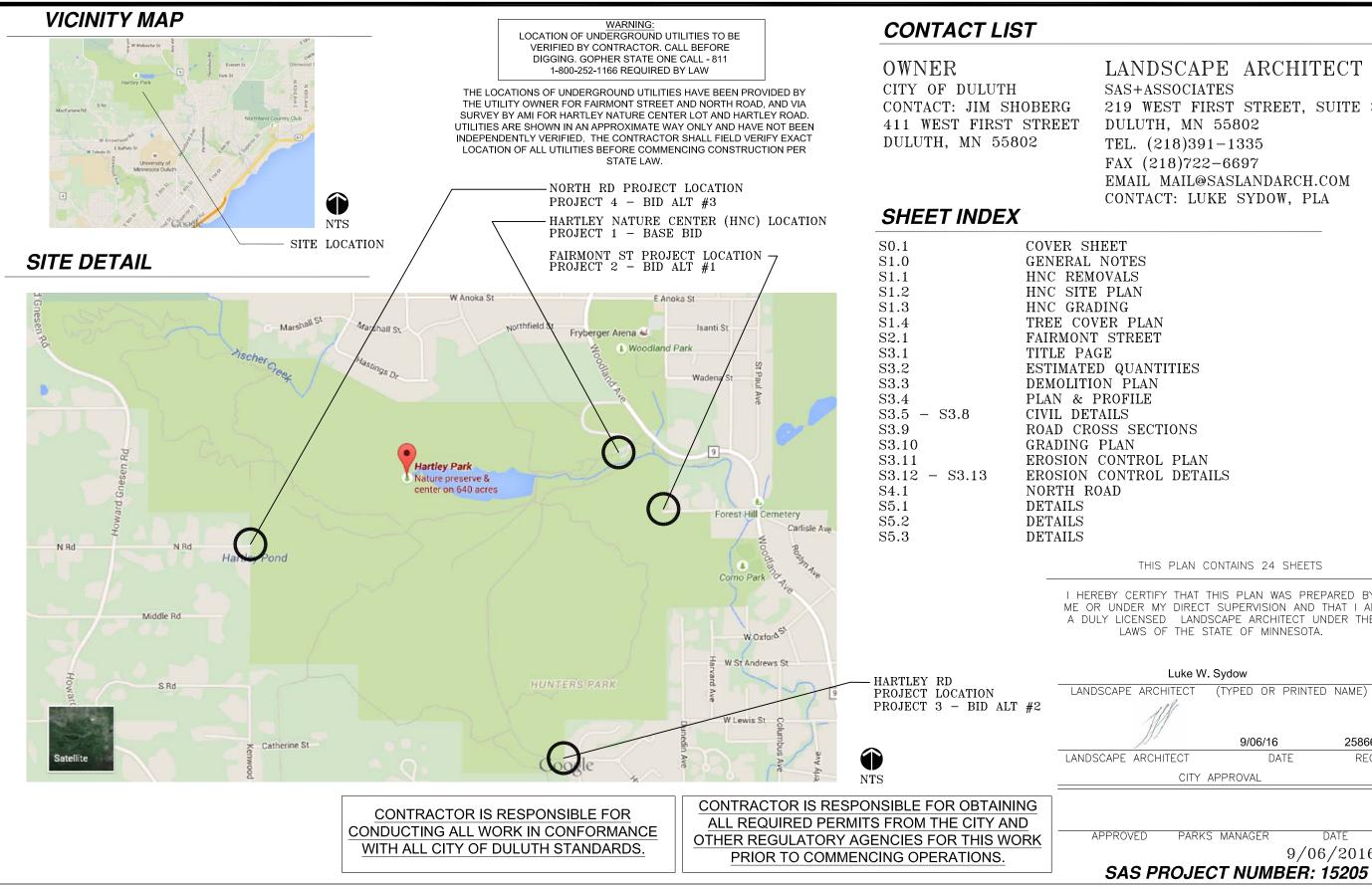
# HARTLEY PARK PARKING IMPROVEMENTS





# DULUTH, MN

LANDSCAPE ARCHITECT SAS+ASSOCIATES 219 WEST FIRST STREET, SUITE 350 DULUTH. MN 55802 TEL. (218)391-1335 FAX (218)722-6697 EMAIL MAIL@SASLANDARCH.COM CONTACT: LUKE SYDOW, PLA



THIS PLAN CONTAINS 24 SHEETS

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

Luke W. Sydow

9/06/16 25866 DATE REG. CITY APPROVAL

DATE

9/06/2016

PARKS MANAGER

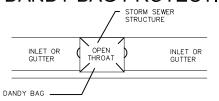
COVER SHEET

S 0.1

# SEQUENCE OF CONSTRUCTION

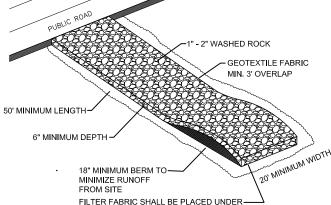
- CONTRACTOR TO VERIFY THAT ALL PERMITS HAVE BEEN OBTAINED CONTRACTOR TO SCHEDULE FIELD MEETING WITH OWNER.
- CONTRACTOR TO INSTALL ALL PERIMETER SEDIMENT CONTROL DEVICES, CONSTRUCTION ENTRANCES AND PROTECTIVE FENCING FOR TREES, DITCHES, EXISTING WATER BODIES AND AREAS TO REMAIN UNDISTURBED
- 4. CONTRACTOR TO CONSTRUCT STORMWATER AND/OR TEMPORARY SEDIMENTATION BASINS.
- CONTRACTOR TO CONTACT OWNER FOR APPROVAL OF SEDIMENT CONTROL DEVICES.
- CONTRACTOR TO ROUGH GRADE SITE AND PROTECT UTILITIES CONTRACTOR TO INSTALL TEMPORARY EROSION CONTROL DEVICES AS NECESSARY. CONTRACTOR TO FILL TEMPORARY SEDIMENTATION BASINS COMPACTING TO SPECIFIED DENSITIES REMOVE ALL UNSUITABLE SEDIMENT PER RECOMMENDATION OF GEOTECHNICAL ENGINEER
- CONTRACTOR TO INSTALL SUBBASE AND BASE FOR PAVEMENT. CONTRACTOR TO INSTALL BITUMINOUS SURFACE.
- 10. CONTRACTOR TO INSTALL EROSION CONTROL BLANKETS WITH
- PERMANENT SEED MIX. 11. CONTRACTOR TO REMOVE SEDIMENT CONTROL DEVICES WITHIN ONE WEEK OF FINAL ESTABLISHMENT / ACCEPTANCE.
- 12. SUBMIT NOTICE OF TERMINATION WITHIN 30 DAYS OF FINAL STABILIZATION

# DANDY BAG PROTECTION



TEMPORARY BARRIER USING DANDY BAGS TO PREVENT SEDIMENT-LADEN WATER FROM ENTERING THE STORM SEWER SYSTEM DURING CONSTRUCTION

**BIO-ROLL INSTALLATION** SEE DETAIL 1/S3.13



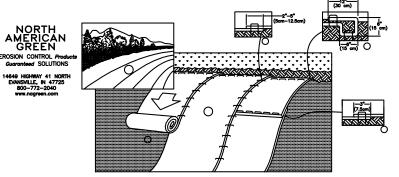
ROCK TO STOP SILT MIGRATION THROUGH ROCK

- \* ROCK CONSTRUCTION ENTRANCE USED ONLY IF LARGE AMOUNTS OF MATERIAL ARE TO BE HAULED OFF-SITE. CONSULT WITH LANDSCAPE ARCHITECT OR OWNER FOR THE NEED OF A ROCK CONSTRUCTION ENTRANCE.
- 1. BACK-OF-CURB DOWN GRADIENT EROSION CONTROL SHALL BE INSTALLED PRIOR TO BASEMENT/FOUNDATION EXCAVATION. (BACK-OF CURB DOWN GRADIENT EROSION CONTROL MAY BE REMOVED FOR A TIME PERIOD NO LONGER THAN 48 HOURS FOR BUILDING EXCAVATION AND FOR FINAL GRADE PRIOR TO SOD)
- 2. ROCK ENTRANCES SHALL BE INSTALLED PRIOR TO
- BASEMENT/FOUNDATION EXCAVATION

Sep 26, 2016 - 9:57am P:(15205 - Hartley Park)E

- 3. ALL STORM DRAIN INLETS THAT RECEIVE DISCHARGE FROM THE CONSTRUCTION SITE SHALL BE PROTECTED PRIOR TO SITE DISTURBANCE
- 4. PERIMETER EROSION CONTROL SHALL BE INSTALLED PRIOR TO SITE DISTURBANCE
- 5. A TRUCK MOUNTED CONCRETE WASHOUT IS REQUIRED AND SHALL MEET THE PROPER BMP EROSION CONTROL PROVISIONS.
- 6. STREETS SHALL BE SWEPT ONCE WEEKLY, EXCEPT DURING FROZEN GROUND CONDITIONS
- 7. ROCK ENTRANCES SHALL BE INSTALLED FOR OFF STREET ACCESS TO SITE FOR PURPOSES OF STORING MATERIALS, SETTING DUMPSTERS OR PARKING
- 8. ALL BMPS SHALL BE MAINTAINED UNTIL FINAL STABILIZATION.
- 9. BMPS MAY NOT BE IN PLACE DUE TO FROZEN GROUND CONDITIONS, BUT SHALL BE INSTALLED AFTER SPRING THAW.

# SLOPE PROTECTION SLOPE INSTALLATION



PARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'#), INCLUDING ANY NECESSARY APPLICATION IME, FERTILIZER, AND SEED. E: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.

- NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DY BEGIN AT THE TOP OF THE SLOPE BY AUCHORING THE RECP'S IN A 6° (15 CM) DEEP X 6° (15 CM) DEEN A WITH APPROXIMATELY 12° (30 cm) OF RECP'S DITINDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE DEP'S WITH A ROW OF STAPELS/STATUSE APPROXIMATELY 12° (30 CM) APART IN THE BOTTOM OF THE TRENCH. RECP'S WITH A ROW OF STAPELS/STATUSE APPROXIMATELY 12° (30 CM) APART IN THE BOTTOM OF THE TRENCH. PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOL. SECURE RECP'S OVER COMPACTED SOL. WITH A ROW OF STAPLES/STATUSES SPACED APPROXIMATELY 12° (30 CM) APART ACROSS THE WIDTH OF THE RECP'S.
- 3. ROLL THE RECP'S (A) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOLL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY FUCING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN QUIDE. WHEN USING THE DOT SYSTEM", STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2" 5" (5 CM 12.5 CM) OVERLAP DEPENDING
- 5. CONSECUTIVE RECP'S SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP'S WOTH.

IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECEP's.

# NOTICE OF TERMINATION

PERMITTEE MUST ENSURE FINAL STABILIZATION OF THE SITE AND SUBMIT THE N.O.T. WITHIN 30 DAYS OF FINAL STABILIZATION. FINAL STABILIZATION CAN BE ACHIEVED IN THE FOLLOWING WAY: 1. ALL SOIL DISTURBING ACTIVITIES ARE COMPLETE AND A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70% OVER THE ENTIRE PERVIOUS SURFACE HAS BEEN ACHIEVED INCLUDING:

-STABILIZATION OF DITCHES AND SWALES. -REMOVAL OF ALL TEMPORARY SYNTHETIC & STRUCTURAL BMP'S -REMOVAL OF SEDIMENTS FROM STORM WATER CONVEYANCES AND PERMANENT WATER QUALITY BASINS

## REDUNDANT BMPS REQUIRED ON ALL SITES

SILT FENCE

SEE SHEET S3.12

NOTES PLANS

2) CONTRACTOR SHALL CONTACT MINNESOTA ONE CALL CENTER 811 FOR UTILITY LOCATIONS 72 HOURS PRIOR TO EXCAVATION/CONSTRUCTION.

3) ALL EROSION CONTROL MEASURES AND TREE PROTECTION MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF GRADING OPERATIONS AND MAINTAINED UNTIL ALL AREAS ALTERED ON THE SITE HAVE BEEN REPAIRED. ONCE DISTURBED AREAS HAVE BEEN STABILIZED, INSPECTED AND ACCEPTED IN WRITING BY THE OWNER OR OWNER'S REPRESENTATIVE, ALL MEASURES OF EROSION CONTROL MUST BE PROMPTLY REMOVED FROM THE SITE. NO SILT FENCING, BIOROLLS, CHECK DAMS, ETC., MAY BE LEFT ON SITE UNLESS SPECIFICALLY DIRECTED.

4) REFER TO LAYOUT PLANS FOR EACH PROJECT FOR HORIZONTAL SITE DIMENSIONS AND LAYOUT

OR SEEDED

6) EXISTING TOPOGRAPHY PROVIDED BY CITY OF DULUTH

7) GRADES SHOWN ARE FINISHED GRADES. CONTRACTOR IS **RESPONSIBLE FOR CALCULATING, ESTABLISHING AND** MAINTAINING GRADES AND CONTROL POINTS ON SITE THROUGHOUT THE ENTIRE PROJECT

8) STOCKPILE TOPSOIL AND GRANULAR FILL AT LOCATIONS DIRECTED BY THE OWNER OR OWNERS REPRESENTATIVE. ALL STOCKPILED MATERIAL SHALL BE COVERED, STABILIZED OR OTHERWISE PROTECTED FROM EROSION. SILT FENCING SHALL BE INSTALLED AROUND ALL STOCKPILED MATERIAL.

8) ALL EXCESS OR EXCAVATED MATERIAL NOT DESIGNATED FOR PLACEMENT ON THIS PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY, AND PROMPTLY REMOVED FROM THE SITE AND DISPOSED OF OFF THE CONSTRUCTION SITE IN A LAWFUL MANNER.

9) WHEN PLACING NEW SURFACE NEXT TO EXISTING PAVEMENT. THE EXCAVATION SHALL BE BACKFILLED PROMPTLY TO AVOID UNDERMINING OF THE EXISTING PAVEMENT. ALL NEW SURFACES SHALL MEET EXISTING SURFACES WITH NO ABRUPT CHANGE IN SURFACE ELEVATION.

10) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HORIZONTAL AND VERTICAL CONTROL ONCE THE ALIGNMENT HAS BEEN ESTABLISHED IN THE FIELD.

11) CONTRACTOR SHALL BE RESPONSIBLE FOR ANY

12) CONTRACTOR SHALL STAKE THE LIMITS OF SITE DISTURBANCE, PROPOSED GRADING, LOCATION AND THE ALIGNMENT OF ALL NEW WALKS AND SURFACES, FOR INSPECTION AND APPROVAL BY OWNER OR OWNERS REPRESENTATIVE PRIOR TO ANY CONSTRUCTION ACTIVITY. REQUEST FOR INSPECTION MUST BE MADE A MINIMIUM OF 24 HOURS IN ADVANCE

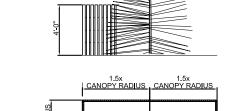
13) REPAIR AND STABILIZE ALL DISTURBED AREAS PROMPTLY.

14) FENCE ALL PORTIONS OF THE PROJECT FOR SAFETY WITH A 4'-0" HIGH ORANGE FENCE. SIGN THE CONSTRUCTION ENTRY POINTS DURING CONSTRUCTION.

15) IDENTIFY STAGING AREA FOR APPROVAL BY OWNERS RÉPRESENTATIVE.

16) PROTECT ALL TREES TO REMAIN PRIOR TO SITE DISTURBANCE.

17) FIELD-STAKE LAYOUT FOR APPROVAL PRIOR TO SITE DISTURBANCE. BRING TO THE ATTENTION OF THE LANDSCAPE ARCHITECT ANY VARIATION IN THE SITE WHICH WOULD PROHIBIT, AS CURRENTLY SHOWN ON THE PLANS, THE CONSTRUCTION OF THE PROJECT AS SHOWN.



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TREE PROTECTION

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CLEARING AND GRUBBING AS MAY BE REQUIRED FOR FINAL CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER DISPOSAL OF ALL VEGETATIVE MATERIAL REMOVED AS PART OF THIS PROJECT

1) CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND ÉLEVATIONS OF EXISTING UTILITIES AND TOPOGRAPHIC FEATURES, SUCH AS EXISTING GRADES AT THE PROPOSED THE PARKING LOT, PRIOR TO THE START OF SITE GRADING. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER OR OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES OR VARIATIONS FROM

5) CONTRACTOR TO PROVIDE MIN 4" OF TOPSOIL SETTLED DEPTH. ON ALL DISTURBED AREAS WHICH ARE TO BE SODDED





DULUTH, MN 55802 (P) 218.391.1335 (F) 218.722.6697

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ISSUE RECORD/REVISION

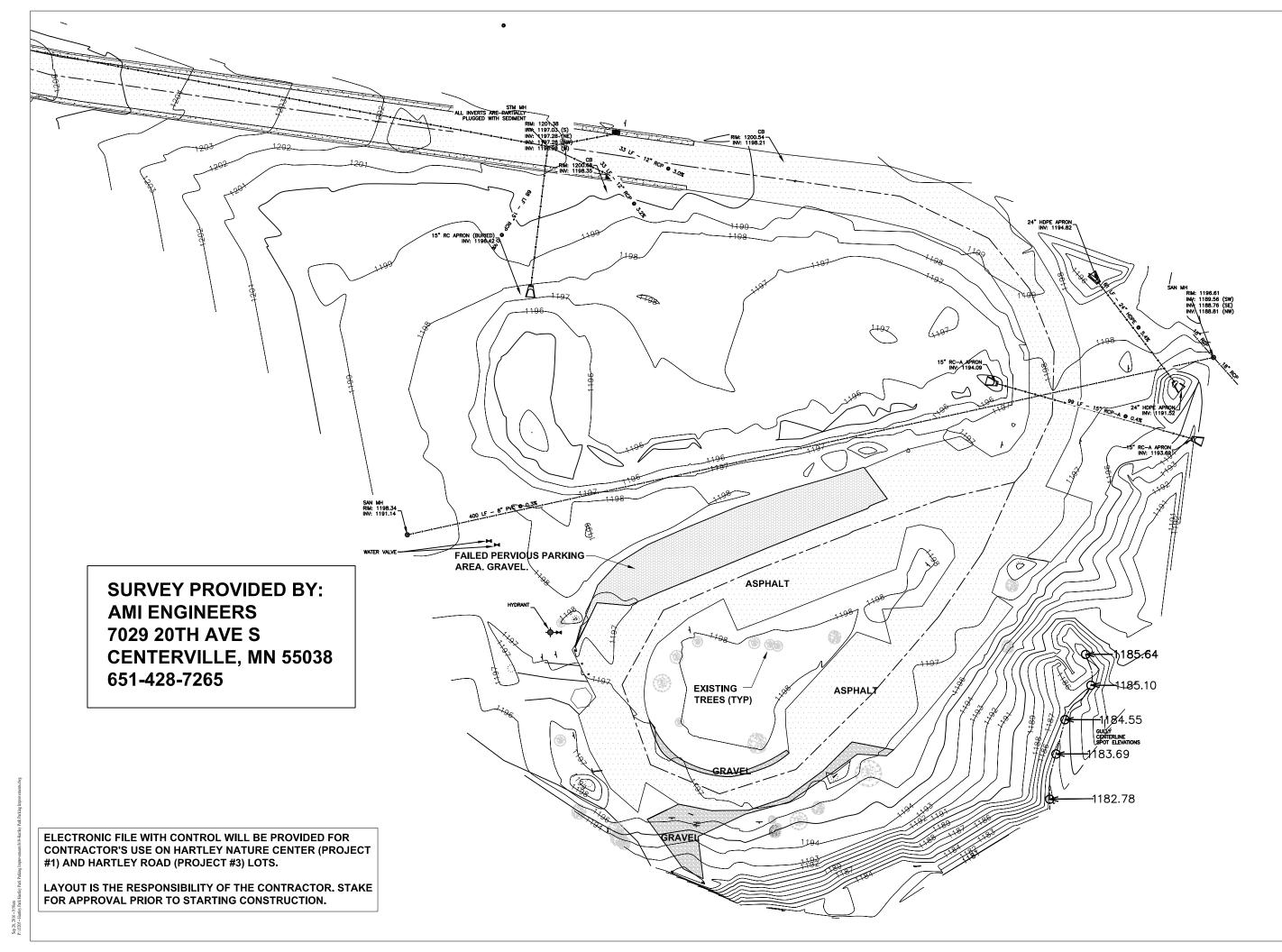
PURPOSE	DATE



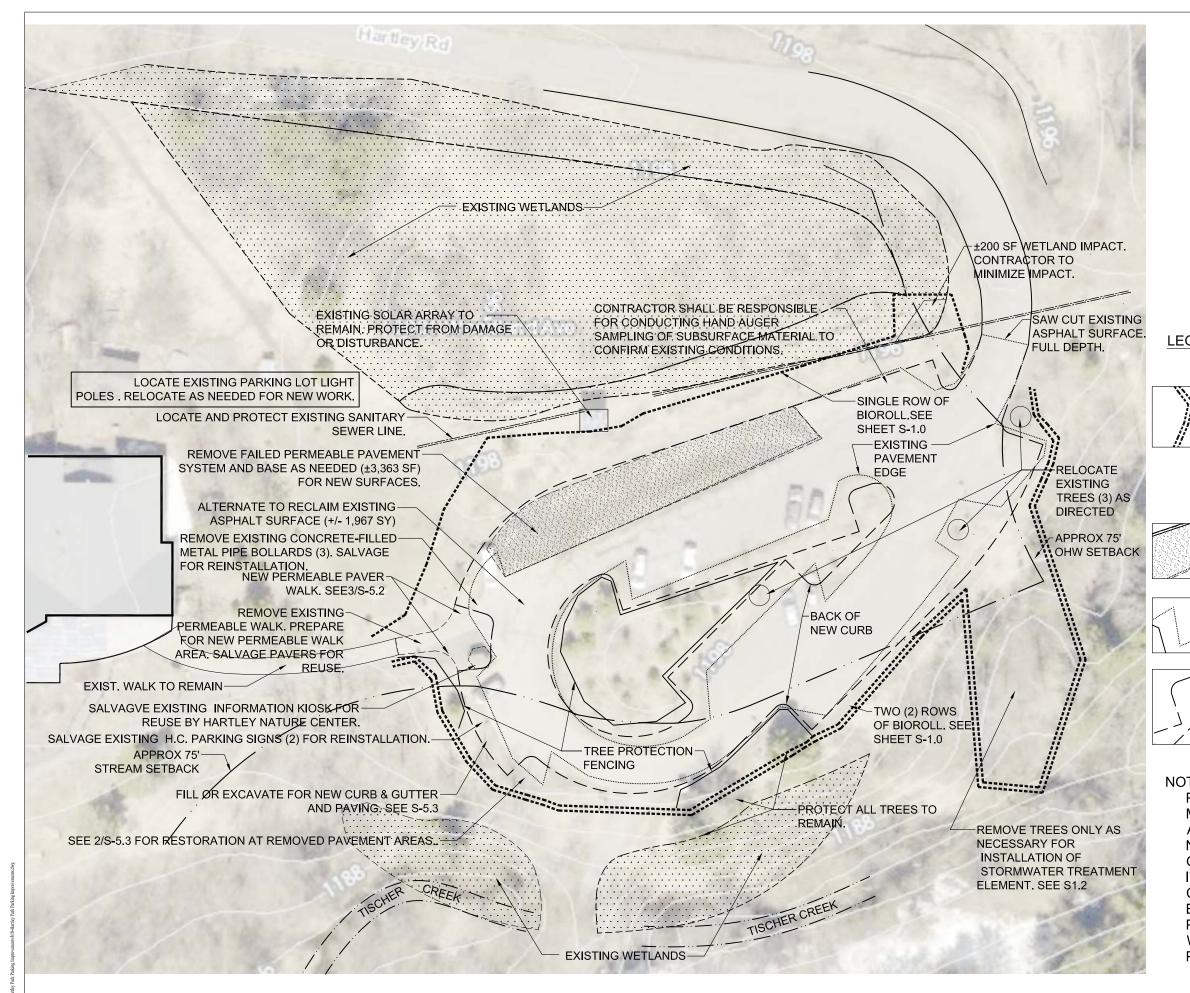
SHEET KEY

SHEET TITLE GENERAL NOTES

DATE	9/06/16
DRAWN BY:	LWS
CHECKED BY:	LWS
PROJECT NUMBER	15.0.05
	15205
SHEET NUMBER	15205







# LEGEND:



WOOD FIBER BIOROLLS -SINGLE OR DOUBLE ROLL (FOR REDUNDANT BMP) AS SHOWN ON PLANS.



REMOVE FAILED PERMEABLE PAVEMENT PARKING AREA ±3.363 SF



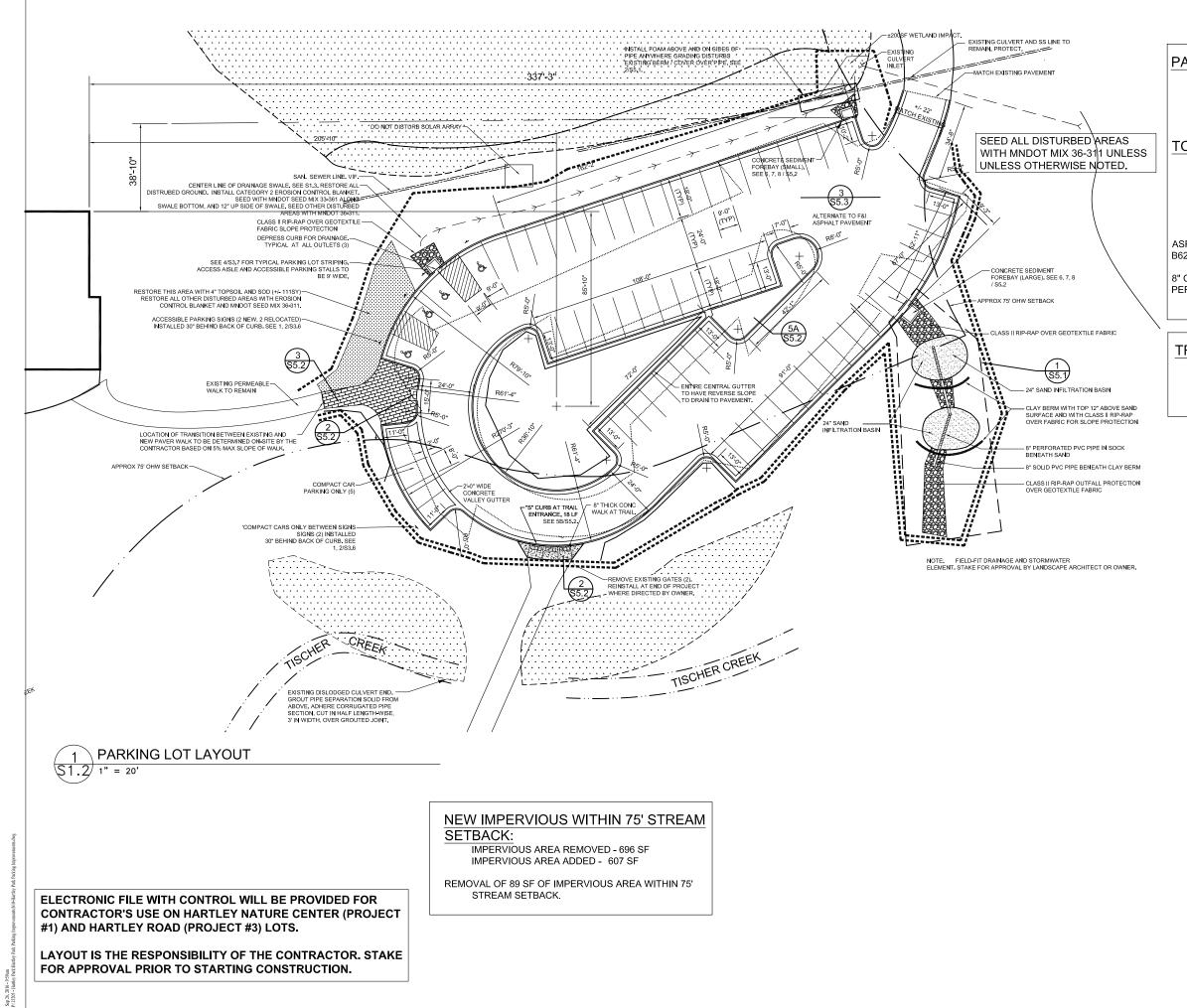
LINE OF EXISTING PAVEMENT



BACK OF NEW CURB.

NOTE: SEE BID TAB FOR PROVIDING COST FOR MILLING EXISTING ASPHALT AND PLACING NEW ASPHALT. THE CITY OF DULUTH MAY, USING ITS OWN RESOURCES, CHOOSE TO MILL EXISTING ASPHALT AND PLACE NEW ASPHALT IF IT WILL RESULT IN A PROJECT COST SAVINGS.





PARKING:

ACCESSIBLE PARKING SPACES - 4 PARKING SPACES - 61 TOTAL PARKING SPACES - 65

# TOTAL LOT AREAS

EXISTING IMPERVIOUS AREA -	21,681 SF
NEW IMPERVIOUS AREA -	24,590 SF
CHANGE -	+2,909 SF
SPHALT PAVEMENT -	21,621 SF
24 CURB & GUTTER -	1,187 LF
CONCRETE SIDEWALK - RMEABLE PAVER WALK -	185 SF
ADDITIONAL PERMEABLE	
PAVER WALK -	421 SF

# TRUCK WASHOUT:

NO CEMENT TRUCK WASHOUT SHALL OCCUR ON SITE. ALL WASHOUTS SHALL OCCUR OFF-SITE IN A LEGAL MANNER, OR BE CONDUCTED WITH A TRUCK-MOUNTED CLEAN-OUT SYSTEM.

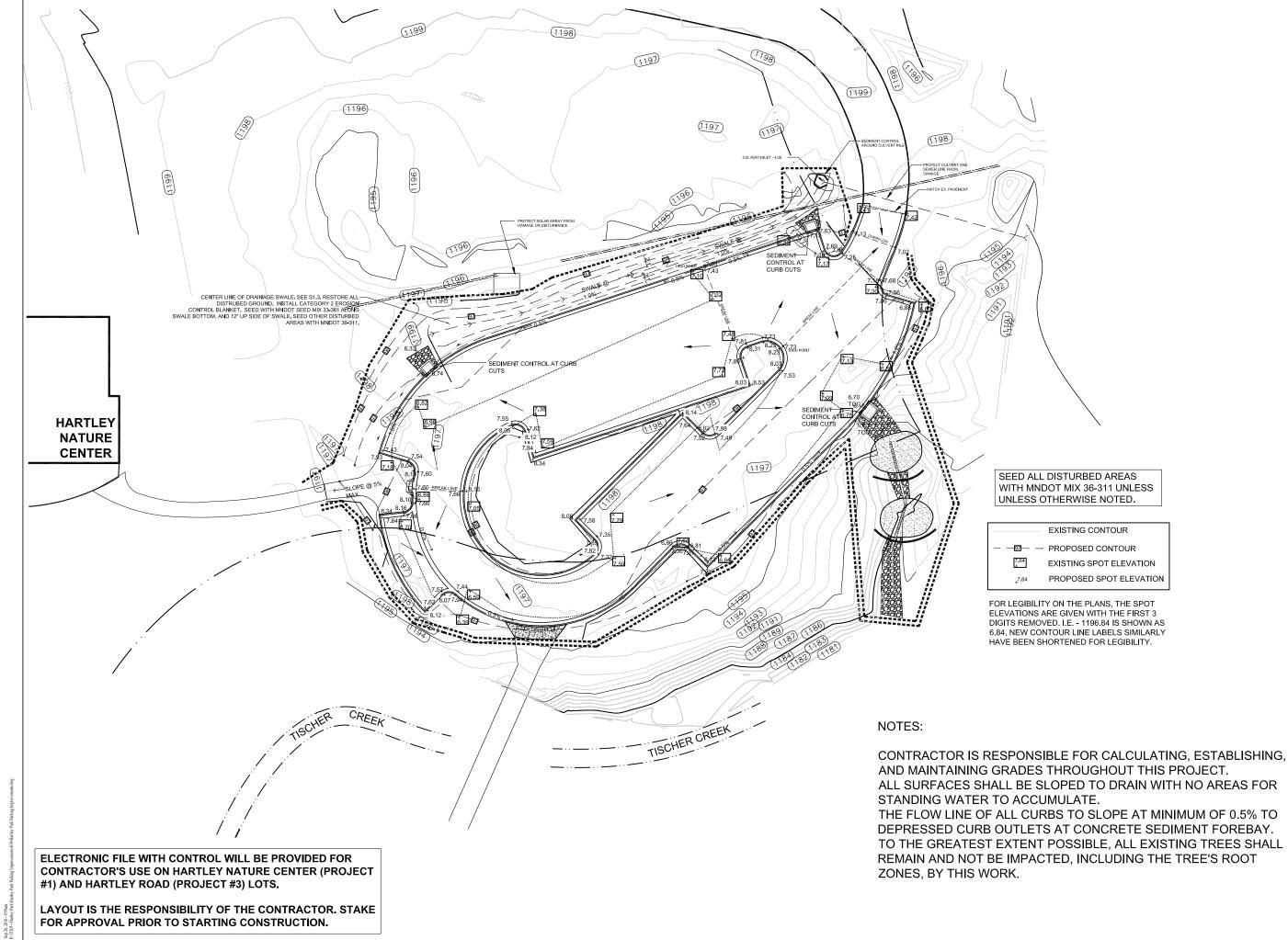


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### ISSUE RECORD/REVISION

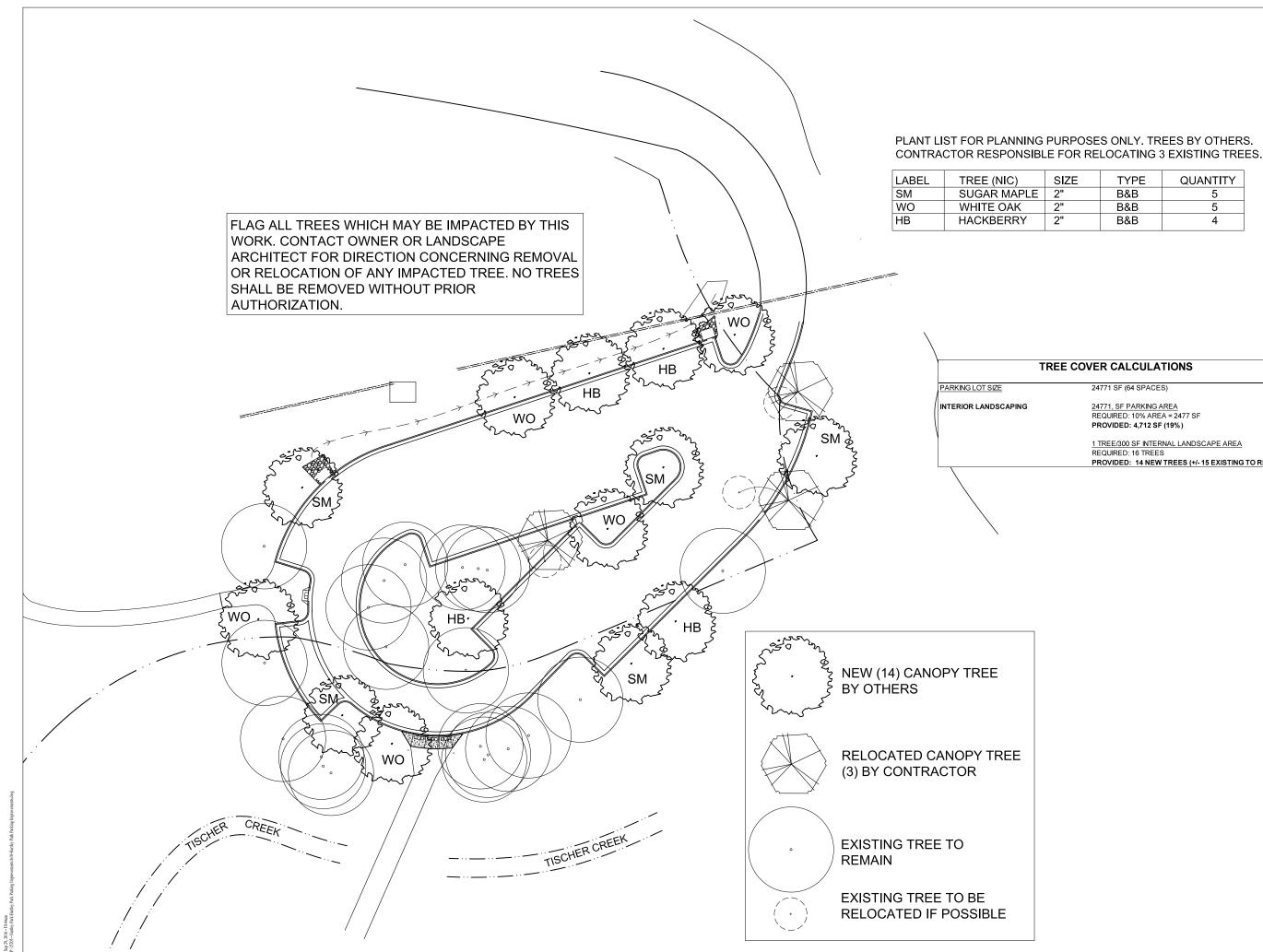
PURPOSE	DATE





FOR APPROVAL PRIOR TO STARTING CONSTRUCTION.





QUANTITY
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5
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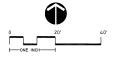
# TREE COVER CALCULATIONS

24771 SF (64 SPACES)

24771, SF PARKING AREA REQUIRED: 10% AREA = 2477 SF PROVIDED: 4,712 SF (19%)

1 TREE/300 SF INTERNAL LANDSCAPE AREA REQUIRED: 16 TREES PROVIDED: 14 NEW TREES (+/- 15 EXISTING TO REMAIN)

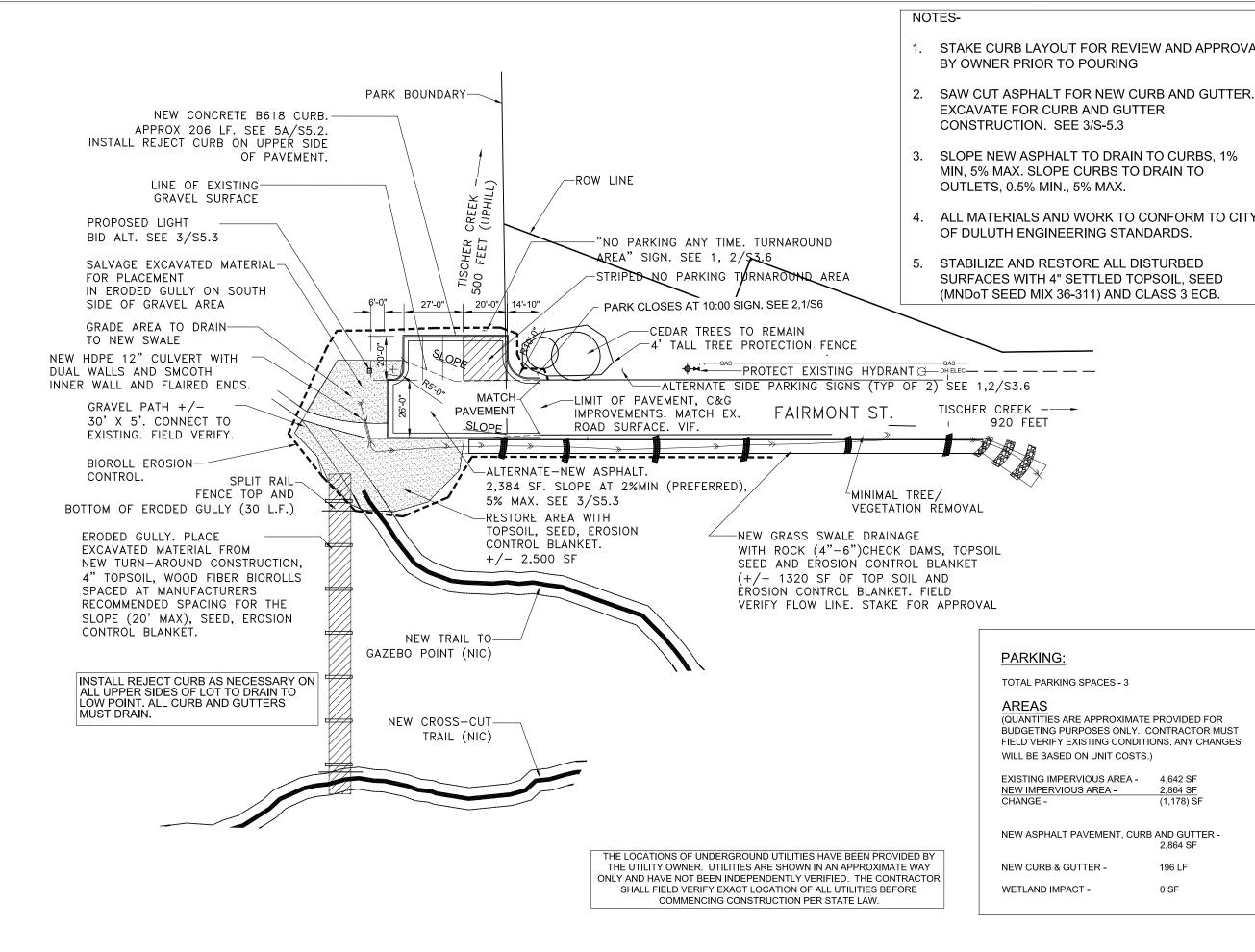




SHEET KEY

SHEET TITLE TREE COVER PLAN

	S I.4	
Sheet Number		
PROJECT NUMBER		
CHECKED BY:	LWS	
DRAWN BY:	LWS	
DATE	9/06/16	



1. STAKE CURB LAYOUT FOR REVIEW AND APPROVAL

SLOPE NEW ASPHALT TO DRAIN TO CURBS, 1%

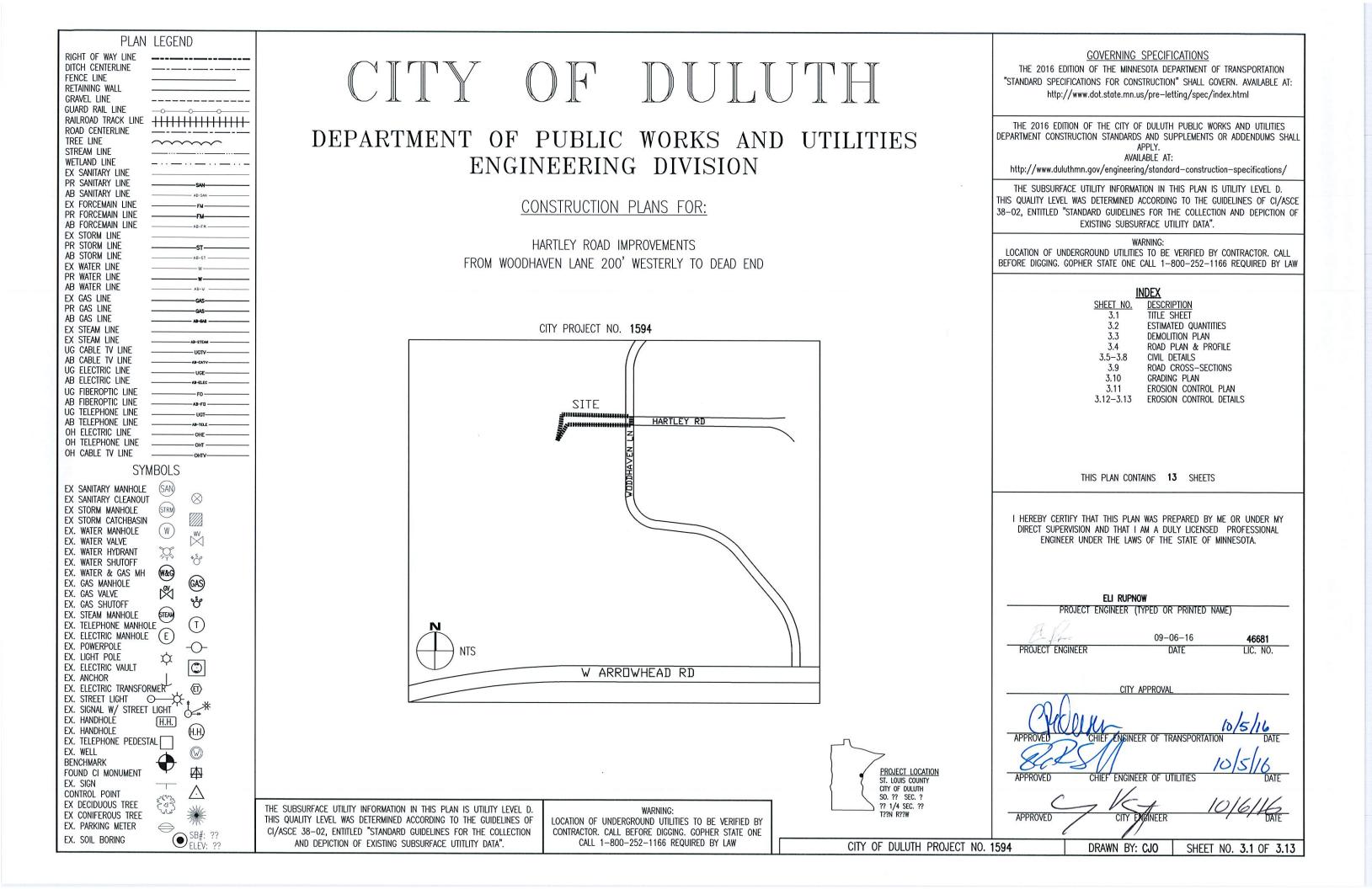
4. ALL MATERIALS AND WORK TO CONFORM TO CITY

SURFACES WITH 4" SETTLED TOPSOIL, SEED (MNDoT SEED MIX 36-311) AND CLASS 3 ECB.

(QUANTITIES ARE APPROXIMATE PROVIDED FOR BUDGETING PURPOSES ONLY. CONTRACTOR MUST FIELD VERIFY EXISTING CONDITIONS, ANY CHANGES WILL BE BASED ON UNIT COSTS.)

ERVIOUS AREA - OUS AREA -	4,642 SF 2,864 SF (1,178) SF
F PAVEMENT, CURB	AND GUTTER 2,864 SF
GUTTER -	196 LF
PACT -	0 SF





ITEM NO.	DESCRIPTION	QUANTITY	UNIT
GENERAL			
1	MOBILIZATION	1	LS
2	TRAFFIC CONTROL	1	LS
EROSION CONTR	ROL		
3	SILT FENCE	440	LF
4	BIO ROLL	22	LF
5	INLET PROTECTION	4	EA
6	CAT. 2 EROSION CONTROL BLANKET, NET 1 SIDED	150	SY
SITE DEMOLITIO	N		
7	CLEAR & GRUB	0.11	AC
8	REMOVE CONCRETE FLUME	1	LS
9	REMOVE WOODEN BOLLARDS	1	LS

# EXCAVATION AND RESTO

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10	COMMON EXCAVATION	160	CY
11	HAUL EXCESS CUT	100	CY
12	SOD	65	SY
13	SEED (MIX 36-311), PREP. & FERTILIZE	0.08	AC
14	MULCH CAT. 3	0.08	AC
UTILITY CONST	RUCTION	·	
15	4" PVC DRAIN TILE	525	LF
16	ADJUST CASTING	2	EA
17	CURB CUT WITH FRAME AND CASTING	1	EA
PAVEMENT			
18	CURB & GUTTER (B624)	528	LF
19	CONCRETE CLOTH	406	SF
20	GEOTEXTILE FABRIC, TYPE V	841	SY
21	AGGREGATE BASE CLV (8.5")	182	CY
22	SURMOUNTABLE CURB	20	LF
23	STRIPING	1	LS
MISC		·	
24	ACCESSIBLE PARKING SIGN	1	EA
25	SAVE AND REINSTALL LIGHT POLE	1	LS
26	RELOCATE SLABS & J-BARRIERS	1	LS
27	MISC. SIGN SALVAGE & REINSTALL	1	LS
28	GATE	1	EA
29	REGULATORY SIGN (STOP, YIELD, ETC.)	4	EA
ALTERNATES	•	•	·
30	SAWCUT BITUMINUOUS PAVEMENT (FULL DEPTH)	67	LF
31	REMOVE BITUMINOUS PAVEMENT	465	SY

BITUMINOUS TYPE SP 9.5 WEARING COURSE (1.5")

F & I PARKING LOT LIGHT AND POLE

REMOVE CURB & GUTTER

BITUMINOUS TYPE SP 12.5NON-WEARING COURSE (2")

	-	20
ORATION		
ION EXCAVATION	160	CY
EXCESSION	100	CV

# PAVING. SIGNAGE AND MARKING NOTES:

- 1. ALL SIGNS SHALL BE IN ACCORDANCE WITH THE MN MUTCD, CURRENT VERSION.
- 2. SEE REGULATORY SIGN DETAIL FOR SIGN AND POST DETAILS AND SIGN DESIGNATION AND SIZE INFORMATION.
- 3. ACCESSIBLE PARKING SIGNS SHALL BE PER MINNESOTA MUTCO SIGN R7-8M. VAN ACCESSIBLE PARKING SIGNS PER R7-88P WHERE INDICATED AS "VAN". SEE ACCESSIBLE SIGN AND POST DETAIL.
- 4. PROVIDE 4" WIDE SOLID WHITE STRIPING IN PARKING AREAS, UNLESS NOTED OTHERWISE.
- 5. PROVIDE PAVEMENT MARKINGS AND PAINT SYMBOLS AT ACCESSIBLE PARKING SPACES PER MN MUTCD, ADA AND LOCAL CODE.

# GENERAL GEOMETRIC AND PAVING NOTES:

- 1. SITE DIMENSIONS SHOWN ON THIS PLAN SHALL BE USED FOR ALL LAYOUT WORK, CHECK ALL PLAN AND DETAIL DIMENSIONS. BUILDING AND SITE IMPROVEMENTS SHALL BE LAID OUT ON SITE BY A REGISTERED LAND SURVEYOR.
- REFER TO ARCHITECTURAL PLANS FOR BUILDING LAYOUT, EXACT LOCATION AND DIMENSIONS OF STOOPS/EXITS, RAMPS AND TRUCK DOCKS AND PRECISE BUILDING DIMENSIONS.
- 3. REFER TO SITE DEMOLITION PLAN FOR LIMITS OF PAVEMENT REMOVAL, IF APPLICABLE. 4. ALL PAVING DIMENSIONS ARE TO FLOW LINE OF CURB UNLESS NOTED OTHERWISE. THE
- FLOW LINE OF CURB IS ASSUMED TO BE 8 INCHES FROM THE BACK OF CURB.
- MEET REQUIREMENTS OF LOCAL GOVERNING AUTHORITY FOR WORK WITHIN THE PUBLIC RIGHT OF WAY, INCLUDING TEMPORARY TRAFFIC CONTROL. A TRAFFIC CONTROL PLAN SHALL BE PROVIDED AND APPROVED BY THE CITY PRIOR TO BEGINNING WORK IN THE RIGHT OF WAY.
- ALL SIDEWALKS SHALL HAVE POSITIVE SLOPE AWAY FROM THE BUILDING: THE MAXIMUM CROSS SLOPE SHALL BE 2.0% AND THE MAXIMUM LONGITUDINAL SLOPE SHALL BE 5.0% UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
- 7. NO SLOPE IN ANY DIRECTION SHALL EXCEED 2% IN ACCESSIBLE PARKING AND LOADING AREAS
- MATCH NEW AND EXISTING PAVEMENT SURFACES, SIDEWALKS AND CURBS AT SAWCUT LINES, ALLOWING NO PONDING OF WATER AT JOINTS. PROVIDE SMOOTH GRADE TRANSITION ACROSS NEW AND EXISTING JOINTS. 8.
- 9. ALLOW MINIMUM OF SEVEN DAYS CURE FOR CURB AND GUTTER PRIOR TO PAVING.
- 10. ALLOW MINIMUM OF 24 HOUR COOLING PRIOR TO ALLOWING TRAFFIC ON BITUMINOUS

### REVISION PROJECT LOCATION CERTIFIED BYELI RUPNOW LIC. NO.: 46681 Δ CITY OF DULUTH DATE: 08/26/2016 SIGNATURE: $\wedge$ CITY PROJECT NO.: 1594 STATE AID

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## GENERAL PROJECT NOTES:

1.

BIDDER WILL VISIT THE SITE TO UNDERSTAND THE SCOPE OF WORK. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ITEMS THAT COULD HAVE BEEN IDENTIFIED BY A SITE VISIT, STUDYING THE TOPOGRAPHIC SURVEY, THOROUGHLY REVIEWING ALL PLANS AND REPORTS, AND ADDITIONAL INFORMATION REQUESTED FOR CLARIFICATION PRIOR TO BIDDING.

THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS PRIOR TO STARTING WORK.

3. EXISTING TOPOGRAPHIC AND BOUNDARY INFORMATION TAKEN FROM SURVEY BY AMI CONSULTING ENGINEERS DATED 07/07/2016.

4. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR ONSITE LOCATIONS OF EXISTING UTILITIES. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT ANY EXISTING UTILITIES OR STRUCTURES LOCATED AT THE WORK SITE.

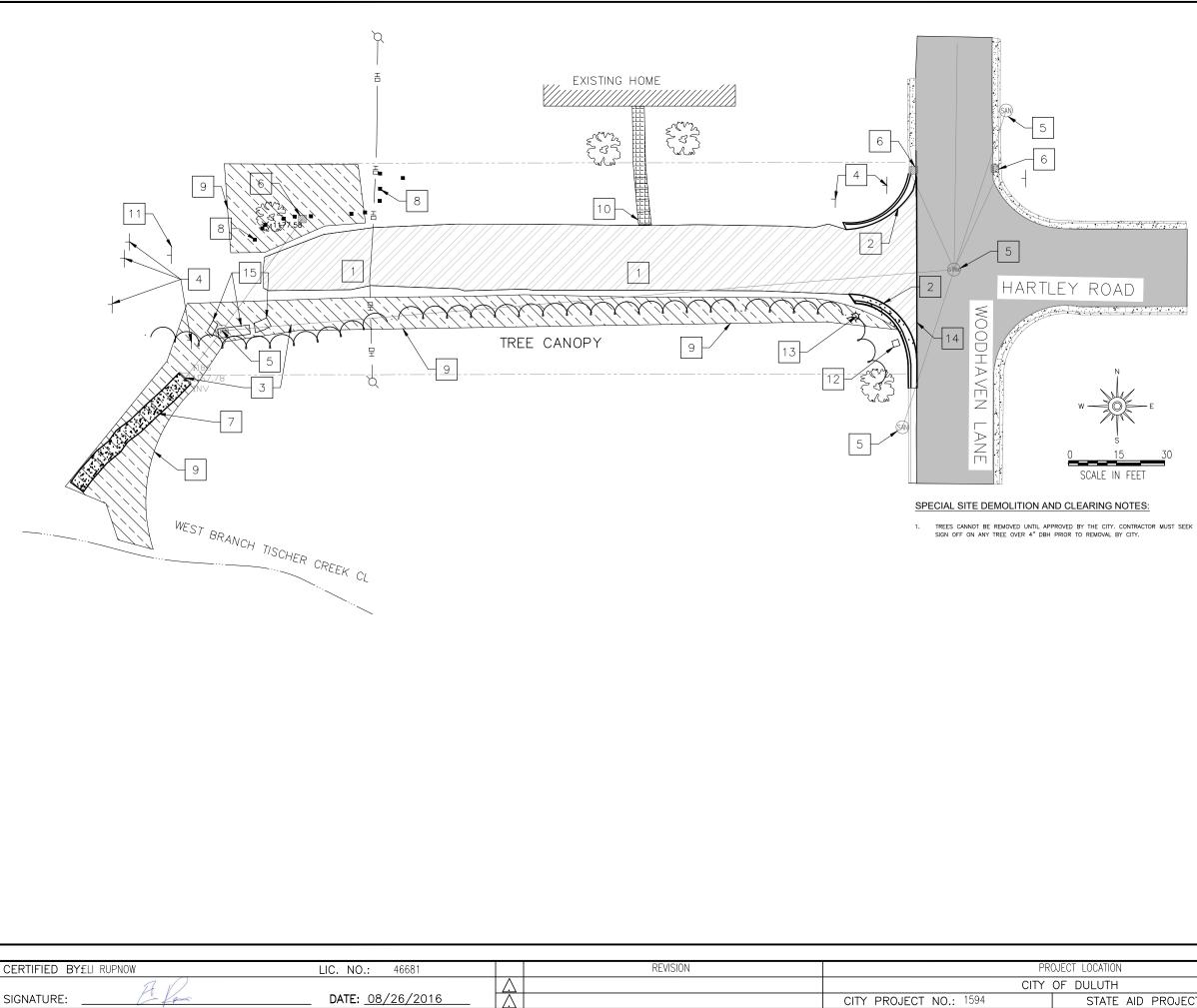
 PROVIDE AND MAINTAIN TRAFFIC CONTROL DEVICES WHERE NECESSARY, PLACEMENT OF THESE DEVICES SHALL BE APPROVED BY THE CITY AND ENGINEER PRIOR TO PLACEMENT. TRAFFIC CONTROL DEVICES SHALL MEET THE REQUIREMENTS OF THE MMUTCD, CURRENT ADDITION.

CONTRACTOR SHALL MAINTAIN FULL ACCESS TO ADJACENT PROPERTIES DURING CONSTRUCTION AND TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES.

7. ALL CONSTRUCTION WORK SHALL BE COMPLETED WITHIN CITY APPROVED WORKING HOURS

8. INSTALL CONTROL FENCING AND BARRICADING AS NECESSARY TO PROTECT THE PUBLIC.

	DRAWN BY: CJO
	ESTIMATED QUANTITIES
PROJECT NO .:	SHEET NO. S3.20F S3.13



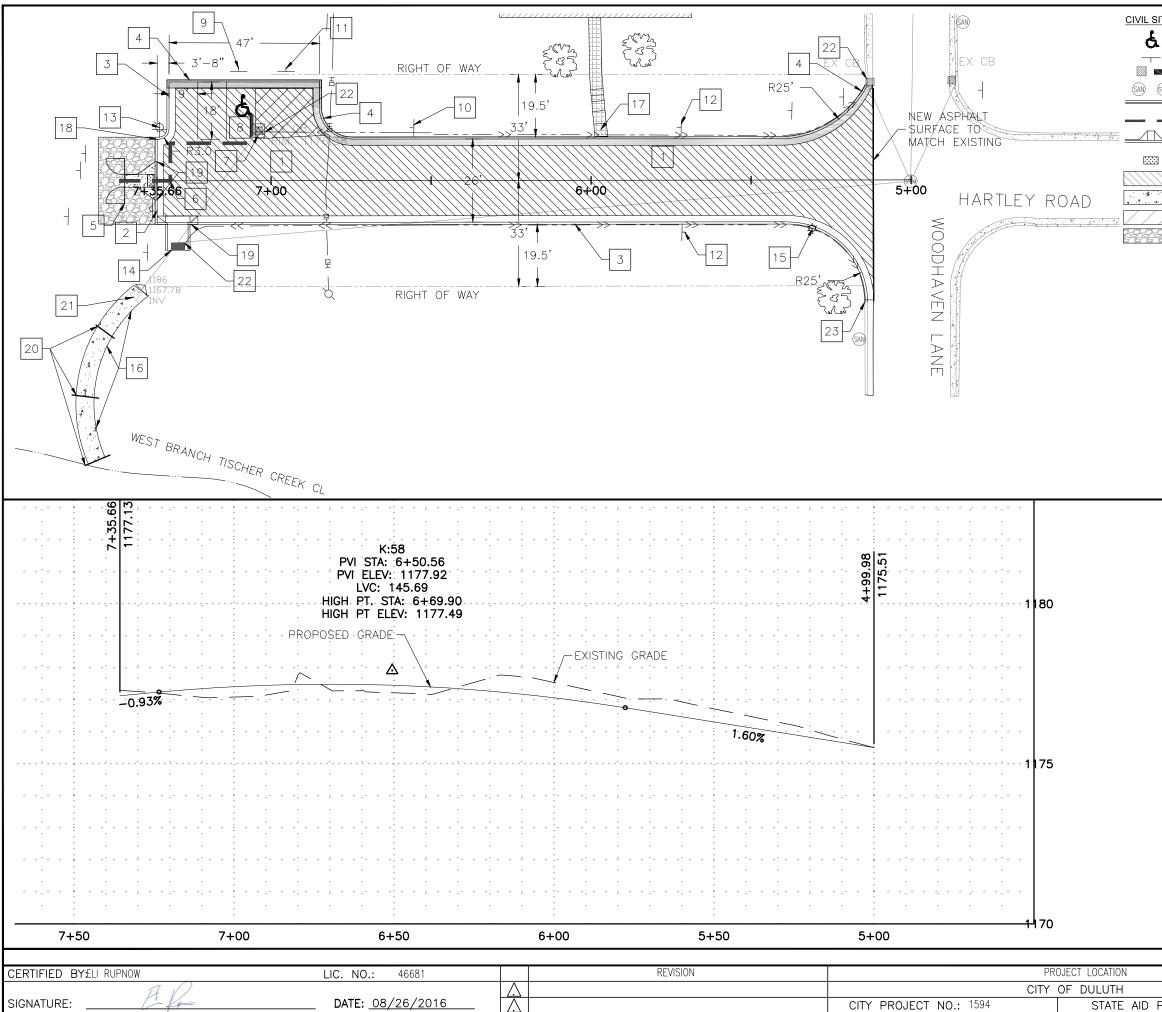
## KEY NOTES

- 1 REMOVE BITUMINOUS PAVEMENT (ALT)
- 2 REMOVE CONCRETE CURB AND GUTTER (ALT)
- 3 PROTECT STORM PIPE
- 4 PROTECT SIGN
- 5 PROTECT MANHOLE
- 6 PROTECT CATCH BASIN
- 7 REMOVE CONCRETE FLUME
- 8 REMOVE WOODEN BOLLARDS (12 TOTAL)
- 9 REMOVE TREES, C&G SEE NOTE 7 BELOW
- 10 REMOVE, SALVAGE AND PROTECT PAVER STAIRS
- 11 REMOVE AND SALVAGE SIGN
- 12 REMOVE, SALVAGE AND PROTECT LIBRARY BOX
- 13 PROTECT LIGHT POLE
- 14 SAWCUT BITUMINOUS PAVEMENT (ALT)
- 15 RELOCATE J. BARRIERS AND STONE SLABS PER CITY DIRECTION

### GENERAL SITE DEMOLITION AND CLEARING NOTES:

- CONTRACTOR SHALL COORDINATE LIMITS OF REMOVALS WITH PROPOSED IMPROVEMENTS AND SHALL BE RESPONSIBLE FOR PROTECTING EXISTING SITE FEATURES (STRUCTURES, CURBS, WALKS, PAVEMENTS, UTILITIES, SIGNAGE, FENCES, ETC.) WHICH ARE TO REMAIN. REPAIR OR REPLACE, TO OWNER'S SATISFACTION, ANY DAMAGE TO EXISTING PROPERTY OR SITE FEATURES WHICH ARE TO REMAIN, AT NO ADDITIONAL COST.
- COORDINATE DISRUPTION OF UTILITY SERVICES WITH THE OWNER'S PROJECT 2. REPRESENTATIVE AND UTILITY OWNER, PUBLIC OR PRIVATE. CONTRACTOR TO PROVIDE TEMPORARY UTILITIES AS NECESSARY TO MAINTAIN BUILDING SERVICES.
- THE OWNER'S ACTIVITIES MAY CONTINUE ON THE SITE DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE SEQUENCE OF WORK WITH THE OWNER. 3.
- SEE GENERAL PROVISIONS FOR TEMPORARY FENCING AND PROTECTION REQUIREMENTS. 4.
- PRIOR TO START OF ANY WORK, ALL EROSION AND SEDIMENT CONTROL PROTECTION 5. MEASURES SHALL BE IN PLACE. SEE EROSION CONTROL PLAN OR SWPPP FOR DETAILS.
- 6. CONTRACTOR SHALL PRESERVE ALL VEGETATION NOT TO BE REMOVED BY CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR RE-SEEDING OR SODDING AREAS DISTURBED BY CONSTRUCTION.
- CLEARLY IDENTIFY AND LABEL EACH TREE THAT IS TO REMAIN PRIOR TO STARTING SITE CLEARING. CONTACT OWNER'S PROJECT REPRESENTATIVE FOR SITE INSPECTION AFTER ALL "TO REMAIN" TREES HAVE BEEN IDENTIFIED. TREES THAT ARE TO BE PROTECTED SHALL HAVE TEMPORARY FENCING PLACED AT THE DRIP LINE AROUND EACH TREE. 7.
- STOCKPILE TOPSOIL FOR REUSE ON SITE. VERIFY THE STRIPPED TOPSOIL MEETS SPECIFICATIONS FOR THE PROPOSED USE. VERIFY THE AMOUNT OF TOPSOIL NEEDED AND REMOVE EXCESS FROM SITE. 8.
- 9. ALL MATERIAL REMOVED SHALL BE DISPOSED OF OFF-SITE AND IN A LEGAL MANNER.
- 10. MATERIAL TO BE SALVAGED FOR REUSE BY OWNER SHALL BE REMOVED UNDAMAGED IN USABLE CONDITION. TEMPORARY PROTECTED STORAGE ON-SITE MAY BE REQUIRED.
- 11. ON-SITE BROKERAGE OF MATERIALS SALVAGED BY CONTRACTOR FROM MATERIALS TO BE REMOVED IS NOT PERMITTED WITHOUT PRIOR OWNER APPROVAL.
- 12. LOCATION AND ELEVATIONS OF IMPROVEMENTS TO BE MET (OR AVOIDED) SHALL BE CONFIRMED BY THE CONTRACTOR THROUGH FIELD EXPLORATIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL REPORT TO THE ENGINEER ANY DISCREPANCIES BETWEEN THEIR MEASUREMENTS AND THESE PLANS. CONTRACTOR SHALL ALSO MAKE EXPLORATION EXCAVATIONS AND LOCATE EXISTING UNDERGROUND UTLITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF ACTUAL LOCATION OF EXISTING FACILITIES, CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTLITY UNES SHOPM AND ANY OTHER EXISTING LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

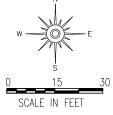
	DRAWN BY: CJO
	DEMOLITION PLAN
PROJECT NO .:	SHEET NO. S3.3OF S3.13



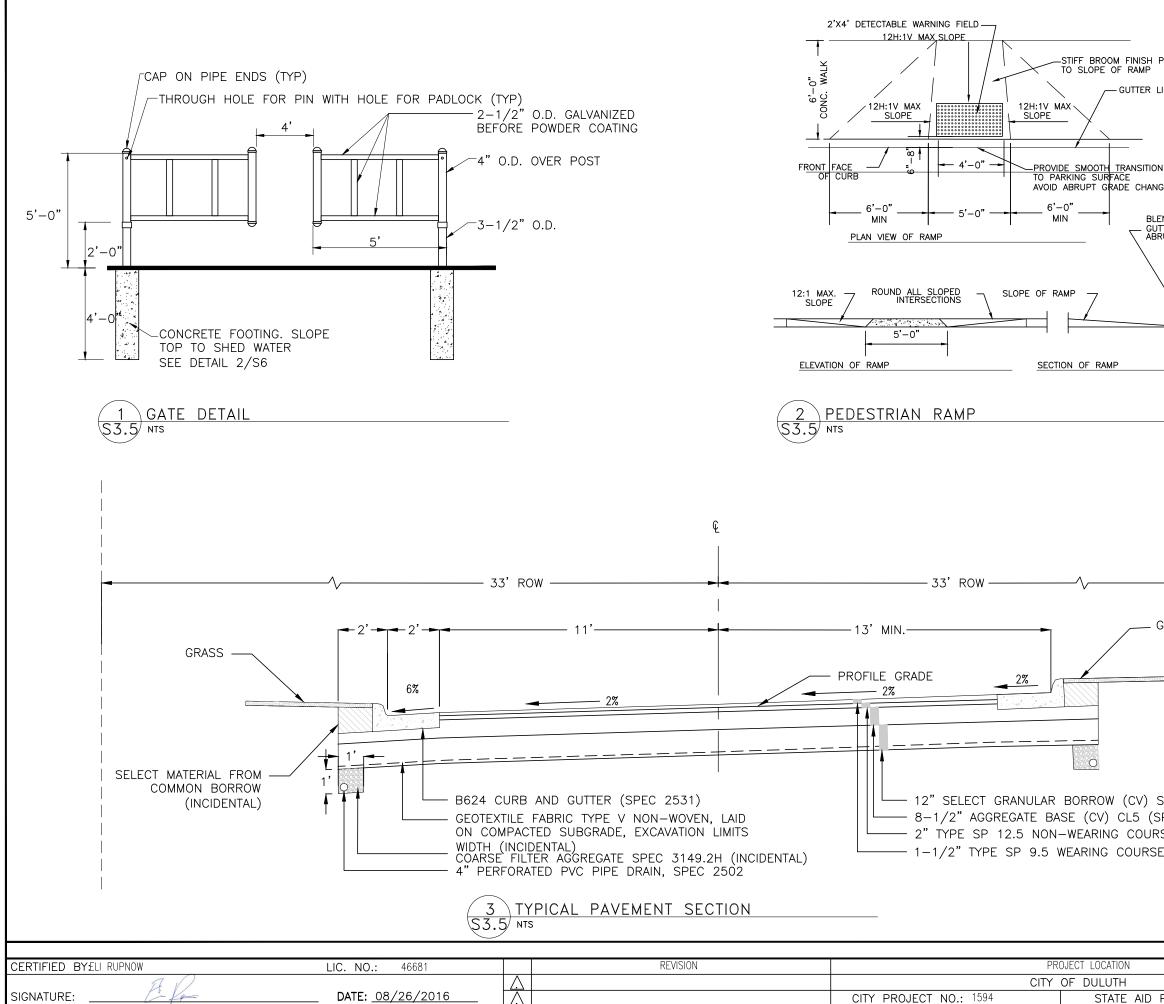
# CIVIL SITE LEGEND:

	ACCESSIBLE PARKIN
9	SIGN CATCH BASIN
TRM	MANHOLE
	CONCRETE CURB A
	ACCESSIBLE ROUTE
<u> </u>	PEDESTRIAN CURB
~ ~ ~	DETECTABLE WARNI
	BITUMINOUS PAVEM
<u>ه</u>	CONCRETE
	NO PARKING STRIP
	AGGREGATE BASE O

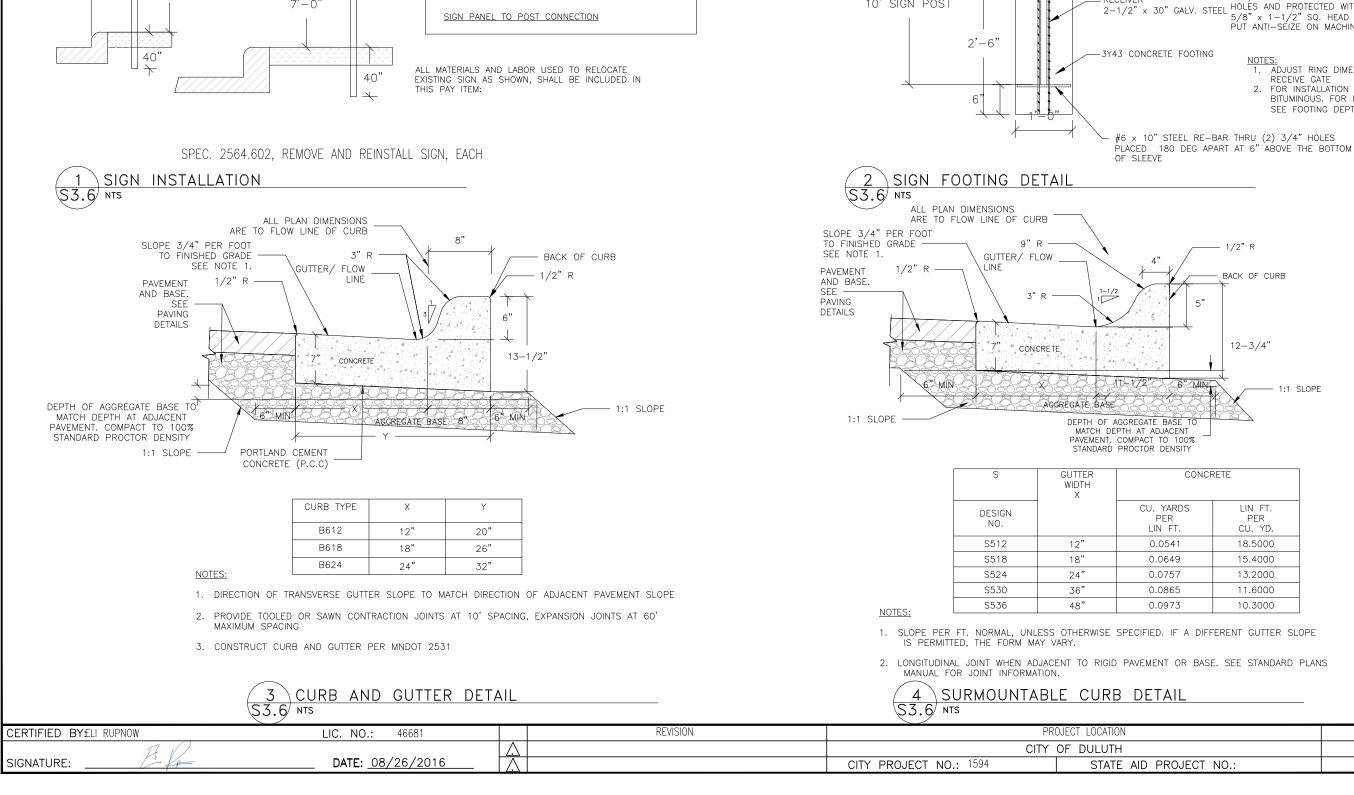
	<u>KE</u>	<u>( NOTES</u>
KING STALL	1	BITUMINOUS PAVEMENT (SEE DETAIL 3/S3.5)
	2	S524SURMOUNTABLE CURB (SEE DETAIL 4/S3.6)
	3	B624 CONCRETE CURB AND GUTTER (SEE DETAIL 3/S3.6)
	4	B624 TRANSVERSE CONCRETE CURB AND GUTTER (SEE DETAIL 2/S3.)
AND GUTTER	5	NEW GATE (SEE DETAIL 1/S3.5)
70	6	PEDESTRIAN RAMP (SEE DETAIL 2/S3.5)
TE	7	ADJUST CASTING
B RAMP	8	ADA PARKING STALL (SEE DETAIL 4/S3.7)
NING PANEL	9	ACCESSIBLE STALL SIGN (SEE DETAIL 1/S3.6)
EMENT	10	"NO PARKING FROM HERE TO END OF ROAD" SIGN (SEE DETAIL 1/S
	11	"NO PARKING" SIGN (SEE DETAIL 1/S3.6)
	12	"ALTERNATE SIDE PARKING" SIGN (SEE DETAIL 1/S3.6)
IPING	13	NEW LIGHT POLE SEE LANDSCAPE
CLV	14	MANHOLE INLET EXISTING CASTING UNKNOWN, REPLACE WITH CITY ST OR APPROVED CASTING (SEE DETAIL 1/S3.7 & 3/S3.7)
	15	PROTECT LIGHT POLE PLACE EXPANSION JOINT AGAINST POLE WHEN POURING CURB
	16	CONCRETE CLOTH CONVEYANCE CHANNEL (SEE DETAIL 1/S3.8)
	17	REINSTALL PAVERS TO BACK OF CURB (INCIDENTAL)
	18	TRANSITION FROM B624 TO SURMOUNTABLE CURB
	19	CURB CUT (SEE DETAIL 1/S3.7)
	20	VERTICAL TOE WALLS (SEE DETAIL 1/S3.8)
	21	Anchor with $\frac{1}{2}''$ dia. Stainless steel anchor bolt with 1.5" ss fender washer 3.5" minimum embedment @ 12" oc to flared e section
	22	CONNECT PVC DRAIN TILE TO STRUCTURE
	23	CONNECT PVC DRAIN TILE TO EXISTING DRAIN TILE
— E		

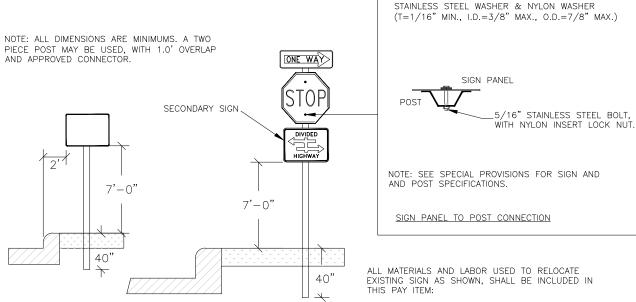


	DRAWN BY: CJO
	PLAN & PROFILE
PROJECT NO .:	SHEET NO. S3.4 OF S3.13



NES	PERPENDICULAR	
NES	LINE	
NES		
NES		
NES		
LEND RAMP SMOOTHLY INTO JRUPH CHANGE IN GRADE	ON	
GRASS SPEC 2105 (MODIFIED 7%) SPEC 2211) RSE MIX (SPNWB330C) SE MIX (SPNWB340C) DRAWN BY: C/0 CIVIL DETAILS	NGES	
SPEC 2105 (MODIFIED 7%) SPEC 2211) RSE MIX (SPNWB330C) SE MIX (SPWEA340C) DRAWN BY: CJ0 CIVIL DETAILS	LEND RAMP SMOOTHLY INTO UTTER LINE W/ NO BRUPT CHANGE IN GRADE	
SPEC 2105 (MODIFIED 7%) SPEC 2211) RSE MIX (SPNWB330C) SE MIX (SPWEA340C) DRAWN BY: CJ0 CIVIL DETAILS	$\setminus$	
SPEC 2105 (MODIFIED 7%) SPEC 2211) RSE MIX (SPNWB330C) SE MIX (SPWEA340C) DRAWN BY: CJ0 CIVIL DETAILS		
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SPEC 2105 (MODIFIED 7%) SPEC 2211) RSE MIX (SPNWB330C) SE MIX (SPWEA340C) DRAWN BY: CJ0 CIVIL DETAILS	GRASS	
SPEC 2211) RSE MIX (SPNWB330C) SE MIX (SPWEA340C) DRAWN BY: <sup>CJO</sup> CIVIL DETAILS		
SPEC 2211) RSE MIX (SPNWB330C) SE MIX (SPWEA340C) DRAWN BY: <sup>CJO</sup> CIVIL DETAILS		
SPEC 2211) RSE MIX (SPNWB330C) SE MIX (SPWEA340C) DRAWN BY: <sup>CJO</sup> CIVIL DETAILS	the provide and the	
SPEC 2211) RSE MIX (SPNWB330C) SE MIX (SPWEA340C) DRAWN BY: <sup>CJO</sup> CIVIL DETAILS		
SPEC 2211) RSE MIX (SPNWB330C) SE MIX (SPWEA340C) DRAWN BY: <sup>CJO</sup> CIVIL DETAILS		
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SPEC 2211) RSE MIX (SPNWB330C) SE MIX (SPWEA340C) DRAWN BY: <sup>CJO</sup> CIVIL DETAILS	SPEC 2105 (MODIFIED 7%)	
SE MIX (SPWEA340C)	SPEC 2211)	
DRAWN BY: <sup>CJO</sup> CIVIL DETAILS		
CIVIL DETAILS		
CIVIL DETAILS		
CIVIL DETAILS		
CIVIL DETAILS		
CIVIL DETAILS		
PROJECT NO.: SHEET NO. S3.5 OF S3.13		CIVIL DETAILS
	PROJECT NO .:	SHEET NO. S3.5 OF S3.13





(2) 3/4" HOLES OFFSET AT 90 DEG 3/4" FROM TOP OF SLEEVE 8" 1/2" CROWN TYPICAL LANDSCA RECEIVER 10' SIGN POST

SIGN POST

TOP VIEW

ALL MATERIALS AND LABOR USED TO CONSTRUCT SIGN BASE AS SHOWN, AND REMOVAL AND REPLACEMENT OF EXISTING SIGNS AND POLE IN NEW BASE, SHALL BE INCLUDED IN THIS PAY ITEM.

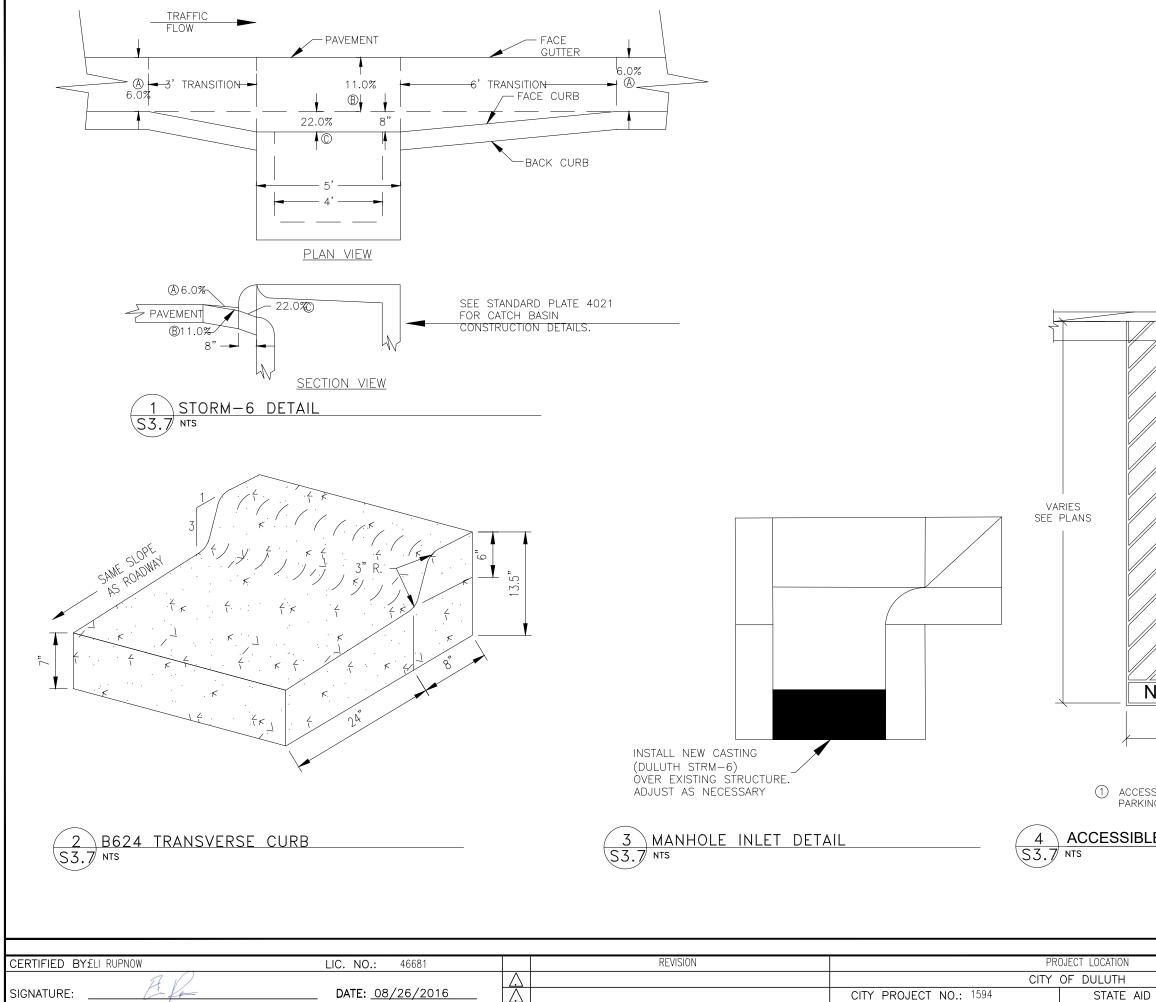
2" I.D. 2 3/8" O.D. x 10', GALV. STEEL

	RETAINING RING 3" I.D. x 4" O.D. x 1 1/2" WIDE CAST STEEL THREADED FOR (2) 5/8" x 1 1/2" SQ. HEAD MACHINE SCREW (PLATED), @ 90 DEG, APART, PUT
APE	ANTI-SEIZE ON MACHINE SCREWS OR 3" I.D. $\times$ 3-1/2" O.D. $\times$ 1 1/2" WIDE GALVANIZED STEEL
AFL	5/8" HOLES OFFSET AT 90 DEG. 3/4" FROM TOP
	OF SLEEVE WELD NUT THREADED FOR 5/8" x
: 30" GALV. STEEL	HOLES AND PROTECTED WITH GALVANIZED SPRAY 5/8" x 1-1/2" SQ. HEAD SET SCREW (PLATED) PUT ANTI-SEIZE ON MACHINE SCREWS

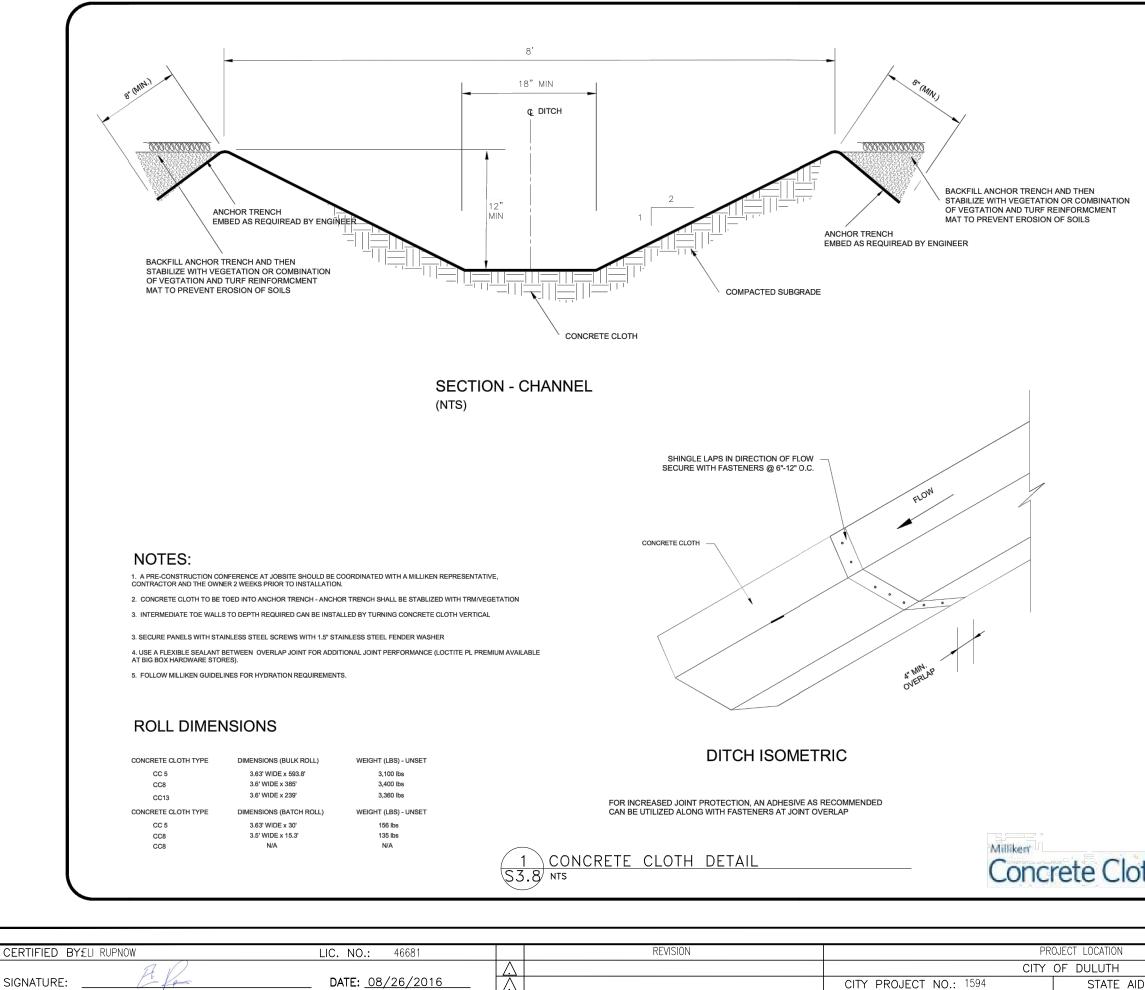
- 1. ADJUST RING DIMENSIONS AS NEEDED TO
- RECEIVE GATE 2. FOR INSTALLATION IN CLASS V, CONCRETE, OR BITUMINOUS. FOR INSTALLATION IN TURF AREAS SEE FOOTING DEPTH DETAIL 1/S6

CONCRETE				
J. YARDS PER LIN FT.	LIN FT. PER CU. YD.			
0.0541	18.5000			
0.0649	15.4000			
0.0757	13.2000			
0.0865	11.6000			
0.0973	10.3000			

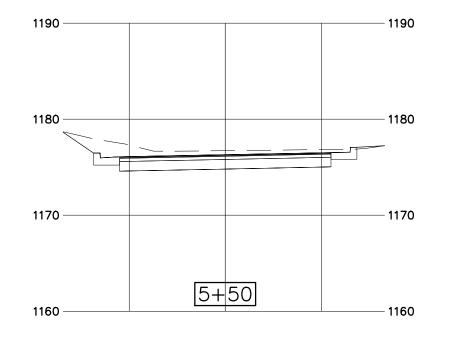
	DRAWN BY: CJO		
	CIVIL DETAILS		
PROJECT NO .:	SHEET NO. \$3.60F \$3.13		

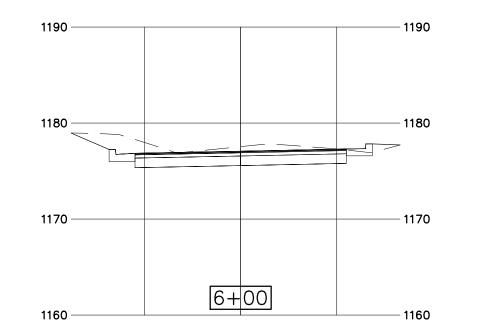


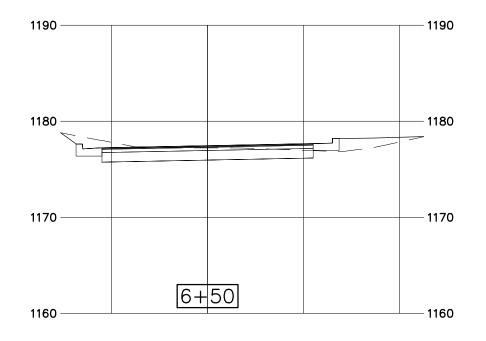
	CURB	RAMP OR FLUSH RIBBON WITH WARNING PANELS PLAN AND DETAILS)			
S		4" WIDE STRIPE (TYP.)			
NO PARKING MARKING   ACCESS AISLE PARKING STALL 8' MIN.   S' MIN. CENTER - CENTER   1 ACCESS AISLE SHALL EXTEND THE FULL LENGTH OF THE PARKING SPACE IT SERVES   CESSIBLE PARKING PAVEMENT MARKINGS					
	NI				
LOCATIO		DRAWN BY: CJO CIVIL DETAILS			
	AID PROJECT NO.:	SHEET NO. \$3.70F \$3.13			

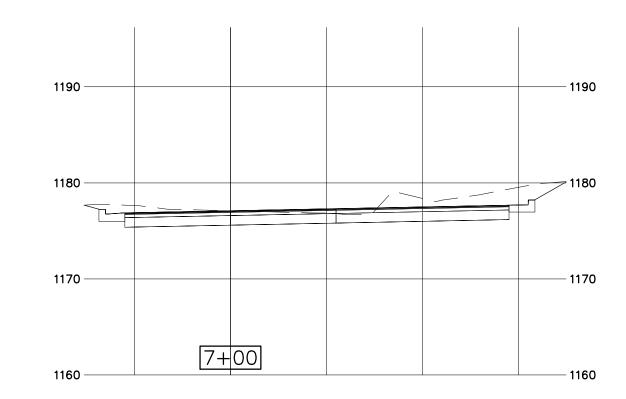


ΕΝ	
OMBINATION MCMENT .S	Ceneral Notes
	Revfator/Issue Date
	CHANNEL LINING DETAILS
LOCATION	DRAWN BY: CJO
ULUTH	CIVIL DETAILS SHEET NO. \$3.80F \$3.13
STATE AID PROJECT NO.:	SHEET NO. S3.80F S3.13











SCALE	IN	FEET	

CERTIFIED BY£LI RUPNOW LIC. NO.: 46681		REVISION	PROJECT LOCATION		DRAWN BY: CJO
I D			CITY	OF DULUTH	ROAD CROSS SECTIONS
SIGNATURE:	DATE: <u>08/26/2016</u>		CITY PROJECT NO.: 1594	STATE AID PROJECT NO.:	SHEET NO. \$3.90F \$3.13

1178.15 1177.21 ME (1177.2) ME (1177.2) ME (1177.2) (177.669) (177.669) (177.669) (177.669) (177.67) (177.77) (177.		EXISTING HOME	ME (117 1177	1175.88) 5700 HART 1175 00	LEY ROAD $w \rightarrow \int_{S} e$ $0 \rightarrow 15 \rightarrow 30$ SCALE IN FEET CONTF POIN
CERTIFIED BYELI RUPNOW	LIC. NO.: 46681		REVISION		PROJECT LOCATION CITY OF DULUTH

# KEY NOTES

- 1 MATCH GRADE OF EXISTING GRAVEL TRAIL
- 2 GRADE ROAD AND CURB TO DRAIN INTO CATCH BASIN WITHOUT PONDING
- 3 GRADE SWALE IN CONCRETE CLOTH PER DETAIL

## GRADING LEGEND:

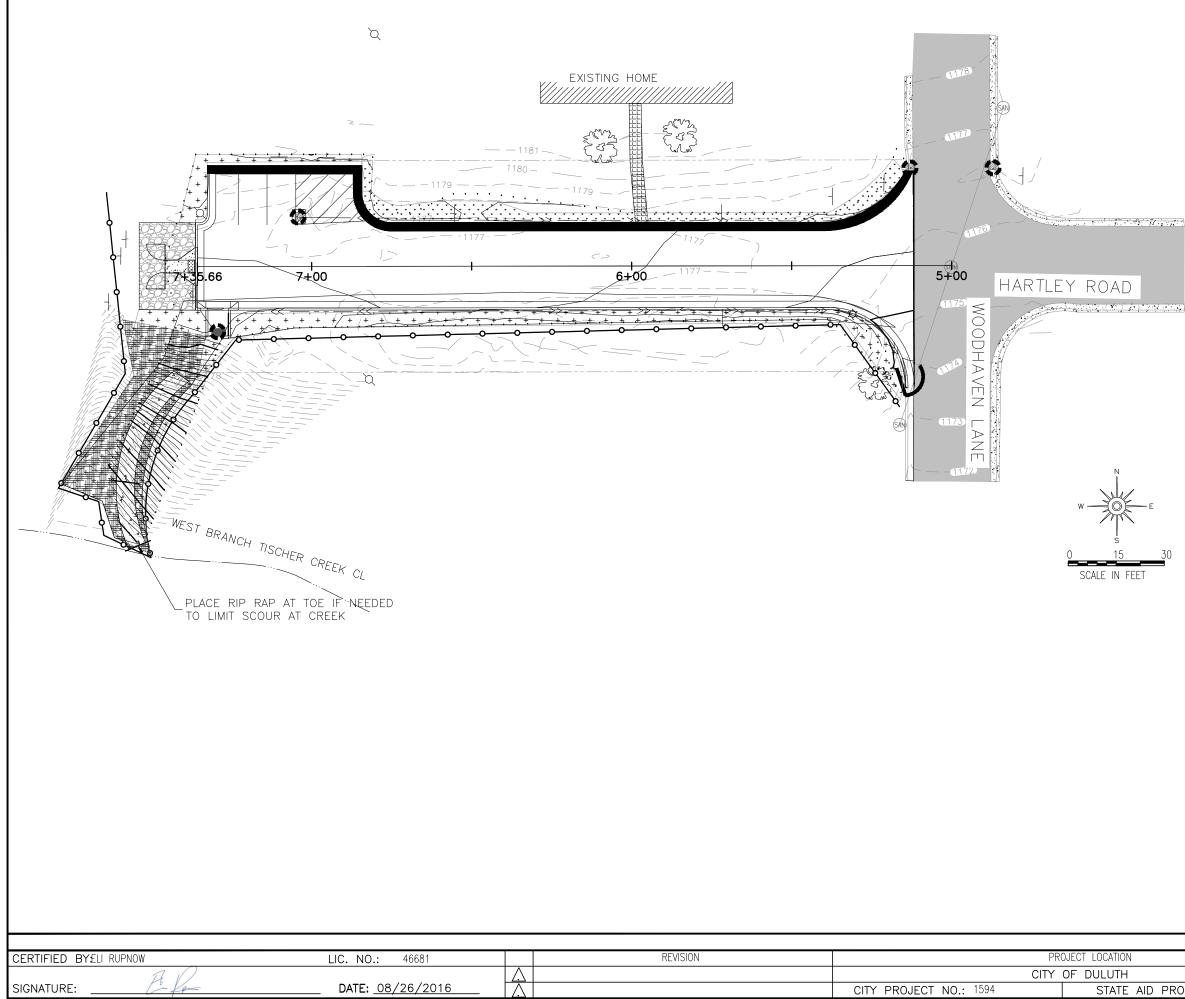
•	MANHOLE/CATCHBASIN	
	CATCHBASIN	
0.0%	FLOW ARROW	
(85.5)	SPOT ELEVATION	
	MINOR CONTOUR ELEVATION FINAL	
	MAJOR CONTOUR ELEVATION FINAL	
1179	MINOR CONTOUR ELEVATION EXISTING	
<u> </u>	MAJOR CONTOUR ELEVATION EXISTING	
	TRANSVERSE CURB AND GUTTER	
	CONSTRUCTION LIMITS	

# GENERAL GRADING AND DRAINAGE NOTES:

- 1. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE BEFORE BEGINNING SITE GRADING ACTIVITIES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING QUANTITIES OF CUT, FILL AND WASTE MATERIAL TO BE HANDLED, AND FOR THE AMOUNT OF GRADING TO BE DONE. ALL COSTS ASSOCIATED WITH IMPORTING SUITABLE MATERIAL AND EXPORTING UNSUITABLE/EXCESS/WASTE MATERIAL SHALL BE INCLUDED IN THE BID PRICE.
- CONTRACTOR SHALL STRIP, STOCKPILE AND RE-SPREAD EXISTING ONSITE TOPSOIL, IF MATERIAL IS APPROVED BY THE LANDSCAPE ARCHITECT AND/OR SPECIFICATIONS. PROVIDE A UNIFORM THICKNESS OF 6" MINIMUM IN ALL DISTURBED AREAS TO BE LANDSCAPED.
- CONTRACTOR SHALL DISPOSE OF ANY EXCESS SOIL MATERIAL UNLESS OTHERWISE DIRECTED.
- 5. REFER TO LANDSCAPE PLAN FOR PERMANENT TURF RESTORATION AND PLANTING INFORMATION.
- MAINTAIN TEMPORARY PROTECTION MEASURES DURING CONSTRUCTION ACTIVITIES. SEE SITE REMOVALS PLAN FOR ADDITIONAL INFORMATION. PROVIDE ADDITIONAL PROTECTION AS NECESSARY AS WORK PROGRESSES.
- SEE SHEET 4 FOR SITE LAYOUT.
- 8. PROPOSED CONTOURS AND SPOT ELEVATIONS ARE TO FINISHED SURFACE GRADE.
- 9. SPOT ELEVATIONS SHOWN ADJACENT TO CURB REFER TO GUTTER/FLOW LINE. SPOT ELEVATION SHOWN FOR TOP OF CURB ARE LABELED WITH TC (TOP OF CURB). SPOT LABELED ME REFERS TO MATCH EXISTING GRADE, EOF REFERS TO EMERGENCY OVERFLOW ELEVATION, TW REFERS TO TOP OF WALL AND BW REFERS TO BOTTOM OF WALL.
- 10. PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS AT ALL TIMES.
- 11. NO GRADED SLOPES SHALL EXCEED 3:1 (HORIZONTAL TO VERTICAL) UNLESS OTHERWISE NOTED.
- UNIFORMALLY GRADE AREAS WITHIN LIMITS OF GRADING AND PROVIDE A SMOOTH FINISHED SURFACE WITH UNIFORM SLOPES BETWEEN POINTS WHERE ELEVATIONS ARE SHOWN OR BETWEEN SUCH POINTS AND EXISTING GRADES.
- 13. LIMIT THE DISTURBED AREA AS MUCH AS POSSIBLE AND CONDUCT GRADING OPERATIONS IN A MANNER TO MINIMIZE THE POTENTIAL FOR EROSION.

XOL	NORTHING	EASTING	ELEVATION
1	3358166.9180	4848844.2570	1177.4500
2	3358116.0949	4848620.9041	1177.1020
3	3358125.0660	3358125.0660	1174.0100

	DRAWN BY: CJO
	GRADING PLAN
PROJECT NO.:	SHEET NO. S3.100F S3.13



## EROSION CONTROL LEGEND:

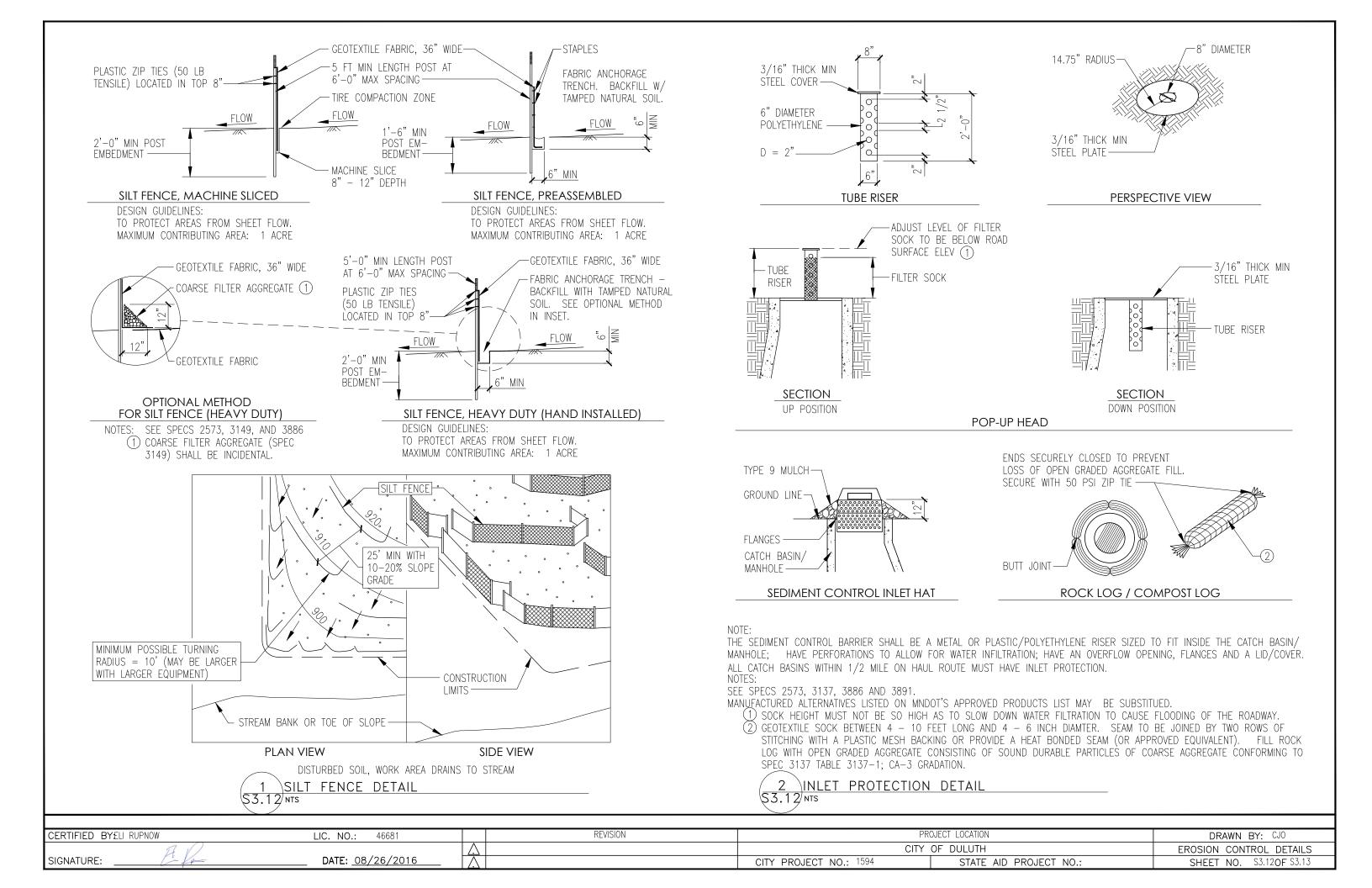
+ + + + + + + + + + + + + + + + + + + +	APPLY S MULCH C
	SOD
	EROSION
	SILT FEN
	BIOROLL
0	INLET PR

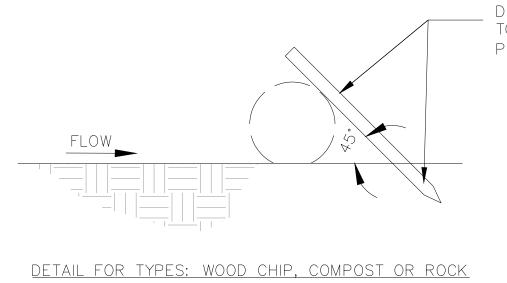
SEED MIX 36-311 @ 33.5 LB/AC CAT 3 @ 2 TON/AC CONTROL BLANKET CATEGORY 2, NET 1S NCE (SEE DETAIL 1/S3.12) (SEE DETAIL 1/S3.13)

INLET PROTECTION (SEE DETAIL 2/S3.13)

### GENERAL EROSION AND SEDIMENTATION CONTROL NOTES:

- INSTALL TEMPORARY EROSION CONTROL DEVICES AT THE LOCATIONS SHOWN ON THE 1 PLANS PRIOR TO BEGINNING LAND DISTURBING ACTIVITIES.
- MAINTAIN ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES IN PLACE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED. INSPECT ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES ON A WEEKLY BASIS AND DURING RAINFALL EVENTS. REMOVE ACCUMULATED SEDIMENT DEPOSITS FROM EROSION AND SEDIMENT CONTROL DEVICES AND DOWNSTREAM DRAINAGE SYSTEMS AS NEEDED. DO NOT ALLOW SEDIMENT TO ACCUMULATE TO A DEPTH OF MORE THAN ONE-THIRD OF THE CAPACITY OF THE DEVICE. REPLACE DETERIORATED OR DAMAGED EROSION CONTROL DEVICES WITHIN 24 HOURS HOURS.
- PROVIDE ADDITIONAL EROSION CONTROL, WHICH MAY NOT BE SHOWN ON THE DRAWINGS, CONSISTENT WITH THE MEANS, METHODS AND SEQUENCE OF CONSTRUCTION IN ACCORDANCE WITH PERMIT REQUIREMENTS AND AUTHORITES HAVING JURISDICTION. 3.
- REMOVE ALL SOILS AND SEDIMENTS TRACKED OR OTHERWISE DEPOSITED ONTO PAVEMENT AREAS. REMOVAL SHALL BE ON A DAILY BASIS THROUGHOUT THE DURATION OF THE CONSTRUCTION.
- STABILIZE ALL AREAS WHICH HAVE BEEN FINISH-GRADED, AND ALL DISTURBED AREAS IN WHICH GRADING OR CONSTRUCTION OPERATIONS ARE NOT ACTIVELY UNDERWAY, AGAINST EROSION DUE TO RAIN, WIND AND RUNNING WATER WITHIN 14 DAYS. REPAIR ERODED 5. AREAS IMMEDIATELY.
- 6. LOCATE SOIL OR DIRT STOCKPILES CONTAINING MORE THAN 10 CUBIC YARDS OF MATERIAL WITH A DOWNSLOPE DRAINAGE LENGTH OF NO LESS THAN 25 FEET FROM THE TOC OF THE PILE TO A ROADWAY OR DRAINAGE CHANNEL. IF REMAINING FOR MORE THAN SEVEN DAYS, STABILZE THE STOCKPILES BY MULCHING, VEGETATIVE COVER, TARPS, OR OTHER MEANS. CONTROL EROSION FROM ALL STOCKPILES BY PLACING SILT FENCE BARRIERS AROUND THE PILES.
- PERFORM ALL EROSION CONTROL PRACTICES AND SEQUENCE CONSTRUCTION IN ACCORDANCE WITH THE METHODS OUTLINED IN THE BEST MANAGEMENT PRACTICES HANDBOOK: "PROTECTING WATER QUALITY IN URBAN AREAS," PUBLISHED BY THE MINNESOTA POLLUTION CONTROL AGENCY.
- REMOVE TEMPORARY EROSION CONTROL DEVICES AFTER THE ADJACENT FINAL SURFACES ARE PERMANENTLY ESTABLISHED. COORDINATE REMOVAL WITH PERMANENT RESTORATION OF ALL AREAS OCCUPIED BY TEMPORARY DEVICES. 8.
- PHASED CONSTRUCTION SHALL BE USED TO THE EXTENT PRACTICAL OR AS INDICATED ON THE PLANS TO MINIMIZE EXPOSED SOILS. 9.
- 10. EROSION CONTROL PLAN, AS WELL AS THE WEEKLY AND POST RAINFALL EVENT INSPECTION REPORTS TO BE KEPT IN THE ON-SITE JOB TRAILER.
- 11. CONTRACTOR SHALL MAINTAIN ROCK ENTRANCE(S) DURING CONSTRUCTION
- ALL STORM SEWER CATCH BASINS TO BE PROTECTED FROM SEDIMENT DEPOSITION WITH AN APPROVED INLET PROTECTION DEVICE. CONTRACTOR SHALL CLEAN STORM SEWER SYSTEM OF SEDIMENT AND DEBRIS PRIOR TO COMPLETION. 12.

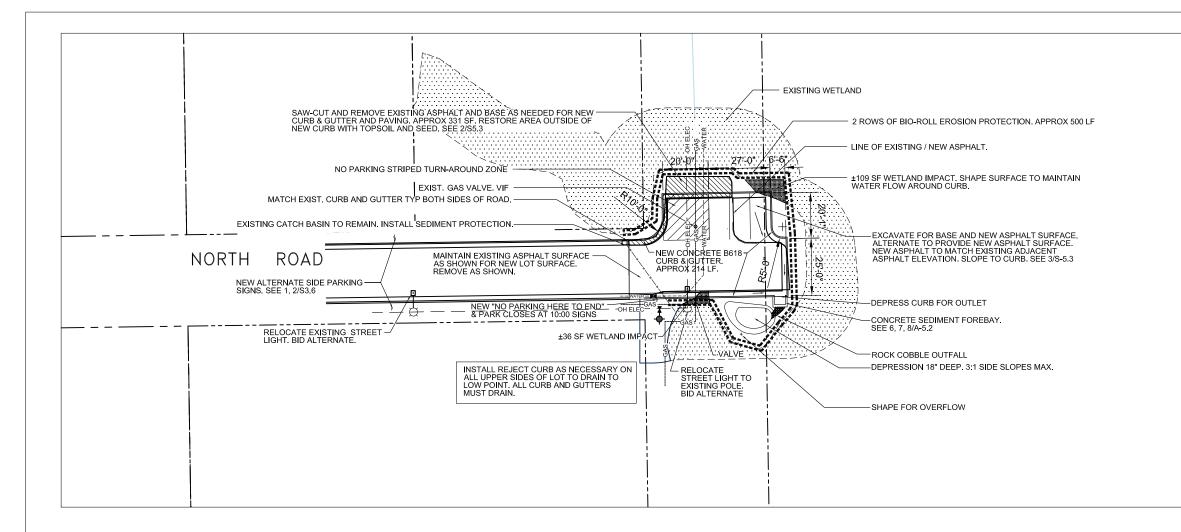




1"x2"x18" LONG WOOD STAKES AS NEEDED. DRIVE OVER LOG AT 45° ANGLE WITH THE TOP OF THE STAKE POINTING UPSTREAM. PROVIDE 8-10" OF EMBEDMENT DEPTH.



CERTIFIED BYELI RUPNOW	LIC. NO.: 46681	REVISION	PROJECT LOCATION	DRAWN BY: CJO
Z P		$\land$	CITY OF DULUTH	EROSION CONTROL DETAILS
SIGNATURE:	DATE: <u>08/26/2016</u>	$\left[ \begin{array}{c} & \\ & \\ \end{array} \right]$	CITY PROJECT NO.: 1594 STATE AID PROJECT NO.:	SHEET NO. \$3.130F \$3.13



THE LOCATIONS OF UNDERGROUND UTILITIES HAVE BEEN PROVIDED BY THE UTILITY OWNER. UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED. THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF ALL UTILITIES BEFORE COMMENCING CONSTRUCTION PER STATE LAW.

# PARKING:

**TOTAL PARKING SPACES - 3** 

# AREAS

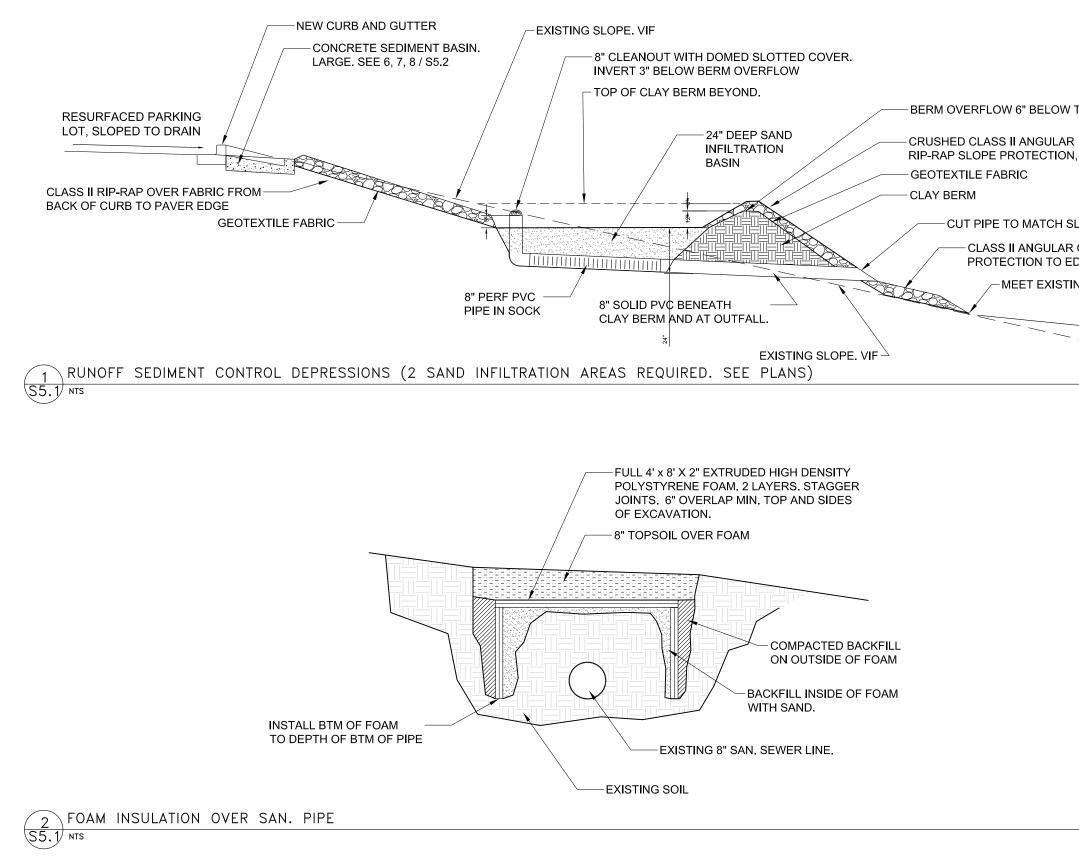
(QUANTITIES ARE APPROXIMATE PROVIDED FOR BUDGETING PURPOSES ONLY. CONTRACTOR MUST FIELD VERIFY EXISTING CONDITIONS. ANY CHANGES WILL BE BASED ON UNIT COSTS.)

EXISTING IMPERVIOUS AREA - NEW IMPERVIOUS AREA -	2,380 SF 2,790 SF
CHANGE -	410 SF
NEW ASPHALT PAVEMENT -	364 SF
NEW CURB & GUTTER -	197 LF
WETLAND IMPACT -	+/-145 SF

## NOTES-

- 1. EXISTING ASPHALT SURFACE TO REMAIN EXCEPT WHERE SHOWN. PROTECT ASPHALT TO REMAIN FROM DAMAGE.
- 2. SAW CUT ASPHALT FOR NEW CURB AND GUTTER. EXCAVATE FOR CURB AND GUTTER CONSTRUCTION. SEE 3/S-5.3
- 3. SAW CUT EXISTING ASPHALT TO PROVIDE A CLEAN EDGE ADJACENT TO THE PLACEMENT OF NEW ASPHALT.
- 4. SLOPE NEW ASPHALT TO DRAIN TO CURBS, 1% MIN, 5% MAX. SLOPE CURBS TO DRAIN TO OUTLETS, 0.5% MIN., 5% MAX.
- 5. ALL MATERIALS AND WORK TO CONFORM TO CITY OF DULUTH ENGINEERING STANDARDS.
- 6. STABILIZE AND RESTORE ALL DISTURBED SURFACES WITH 4" SETTLED TOPSOIL, SEED (MNDoT SEED MIX 36-311) AND CLASS 3 ECB.





BERM OVERFLOW 6" BELOW TOP OF BERM

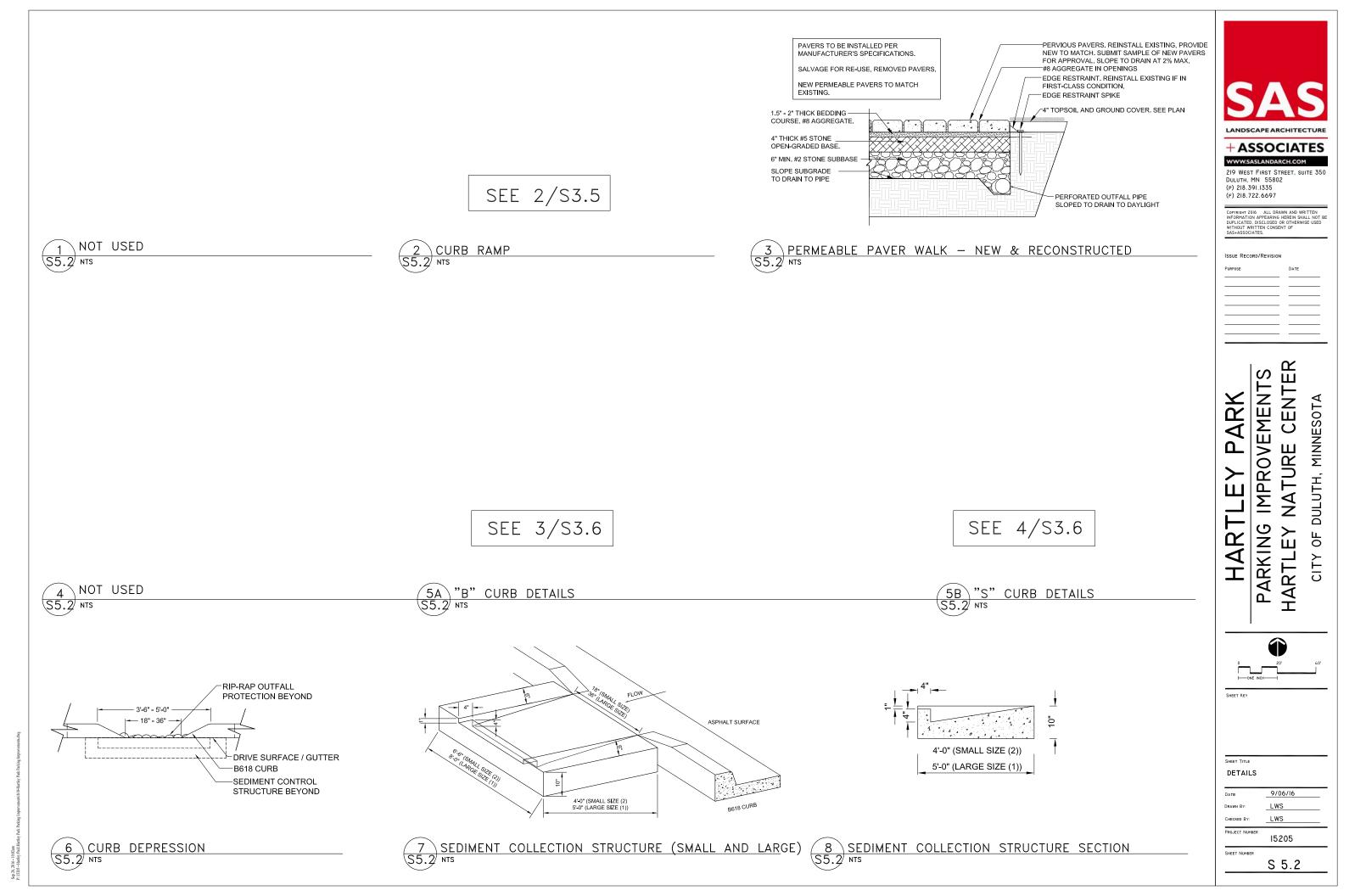
**RIP-RAP SLOPE PROTECTION, 12" DEEP** 

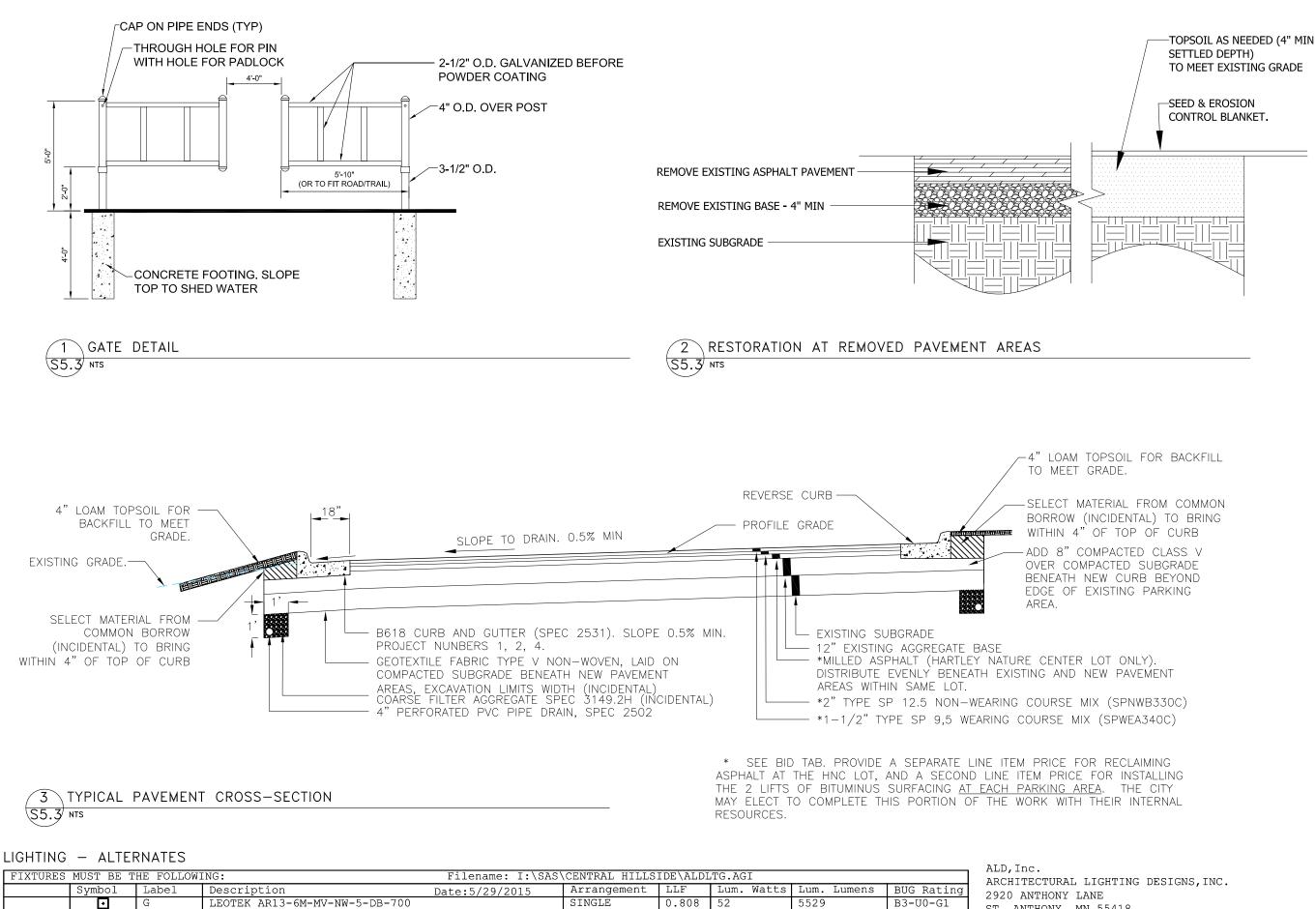
-CUT PIPE TO MATCH SLOPE

CLASS II ANGULAR OUTFALL SLOPE PROTECTION TO EDGE OF CREEK BANK.

-MEET EXISTING GRADE







SINGLE

Fc

Units

CalcType

Illuminance

0.808

0.855

Avq

0.59

52

52

Max

3.2

5529

B1-U0-G1

N.A.

Avg/Min Max/Min

N.A.

5451

Min

0.0

Label

SIDEWALK

2920 ANTHONY LANE ST. ANTHONY, MN 55418 MOUNTED ON 15' TALL POLES. 6" CONCRETE BASE

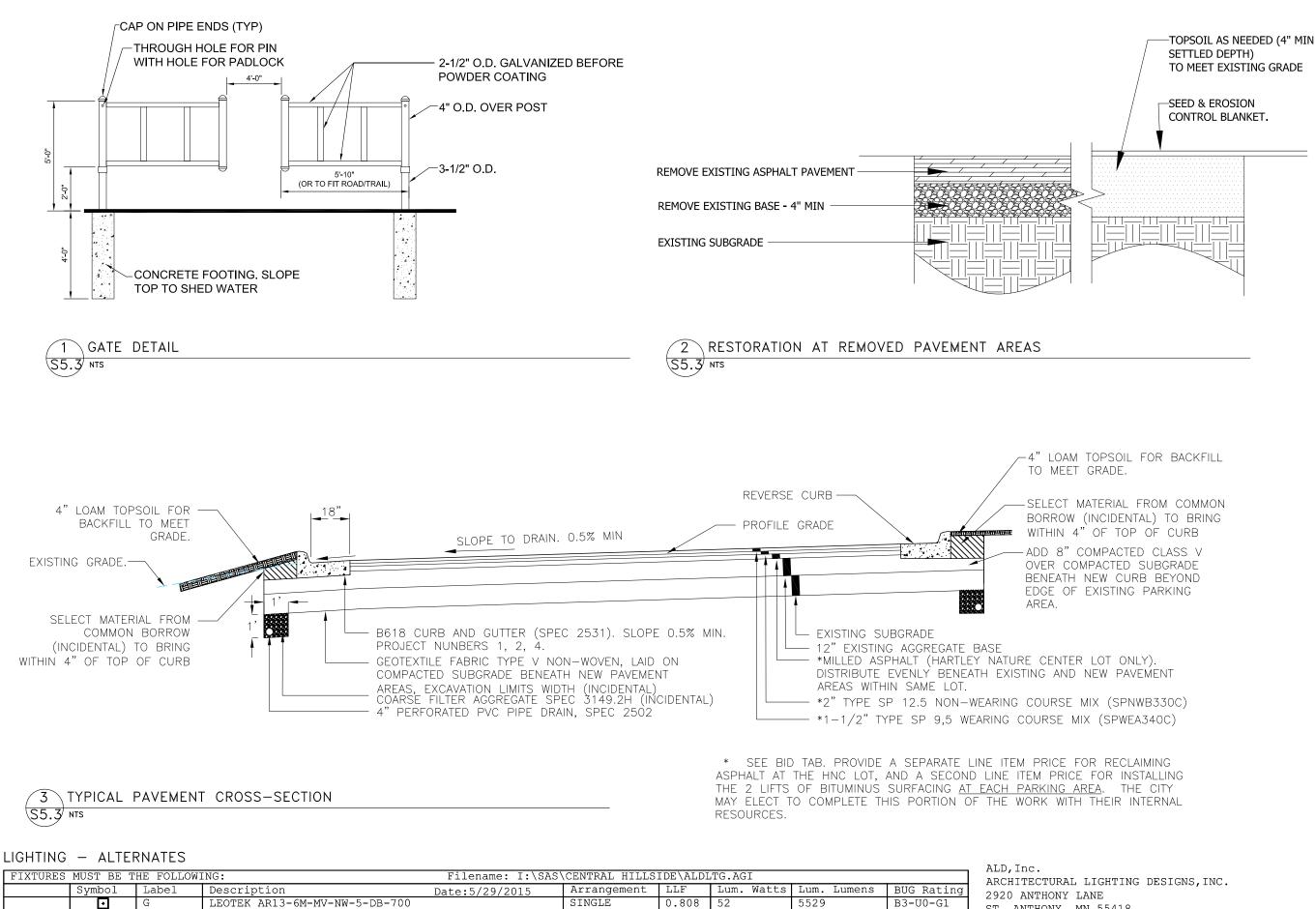
 $\Box$ 

•

G

612-252-4100, 612-252-4141 fax USING LEOTEK LED FIXTURES(4000k LED COLOR TEMP)





SINGLE

Fc

Units

CalcType

Illuminance

0.808

0.855

Avq

0.59

52

52

Max

3.2

5529

B1-U0-G1

N.A.

Avg/Min Max/Min

N.A.

5451

Min

0.0

Label

SIDEWALK

2920 ANTHONY LANE ST. ANTHONY, MN 55418 MOUNTED ON 15' TALL POLES. 6" CONCRETE BASE

 $\Box$ 

•

G

612-252-4100, 612-252-4141 fax USING LEOTEK LED FIXTURES(4000k LED COLOR TEMP)

