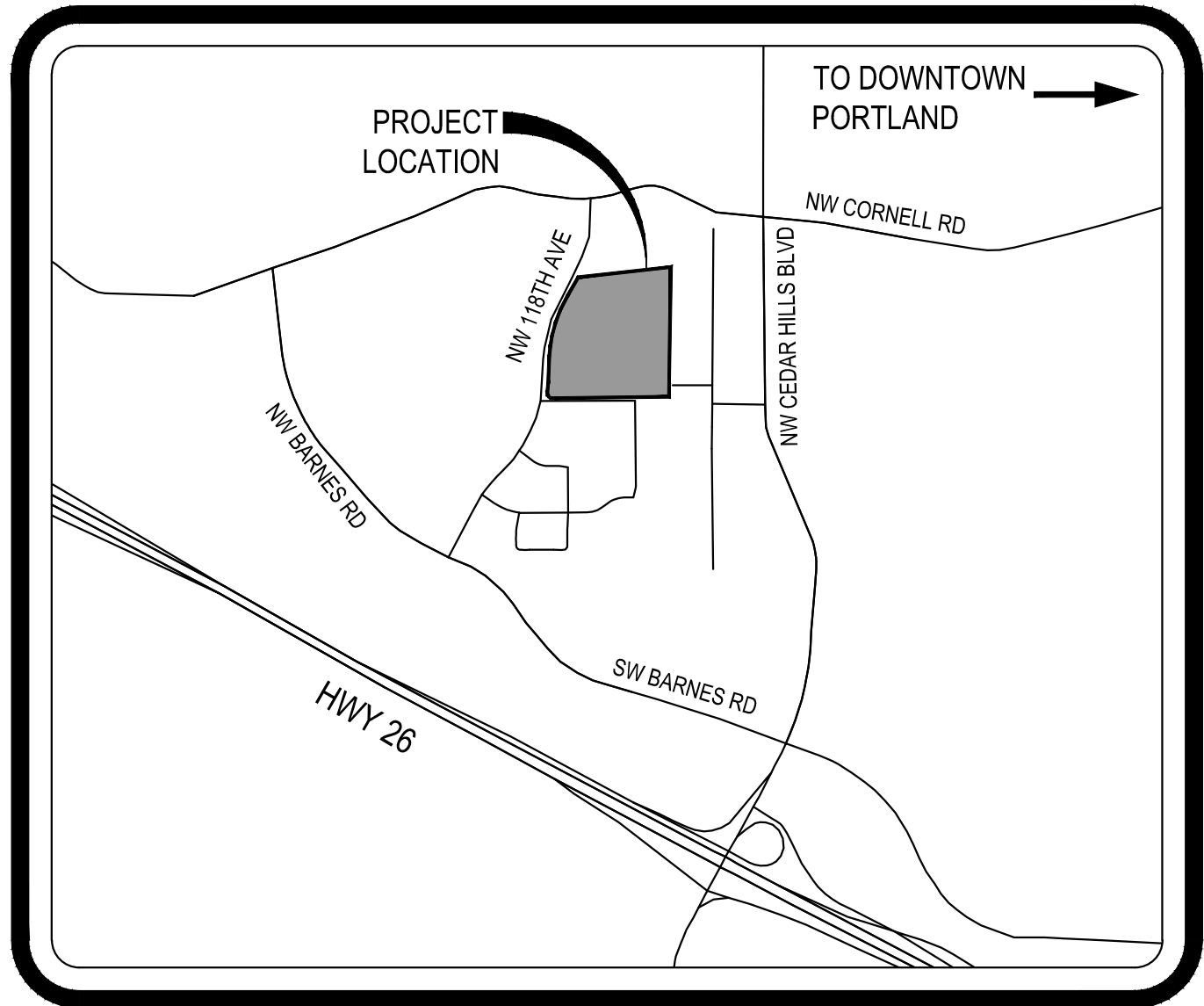


TIMBERLAND MIDDLE SCHOOL PARKING EXPANSION

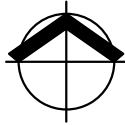
PREPARED FOR:
BEAVERTON SCHOOL DISTRICT
BEAVERTON, OREGON



PORTLAND
6720 SW MACADAM AVE, STE 200, PORTLAND, OR 97219
TEL: (503) 419-2500 FAX: (503) 419-2500 WWW.CARDNO.COM



VICINITY MAP
SCALE: NTS



PROJECT TEAM

OWNER

BEAVERTON SCHOOL DISTRICT
ATTN: SCOTT JOHNSON
16550 SW MERLO ROAD
BEAVERTON, OR 97006
PHONE: 503-356-4552

CIVIL ENGINEER

CARDNO
ATTN: MATT LEWIS, PE
6720 SW MACADAM AVE, SUITE 200
PORTLAND, OR 97219
PHONE: 503-419-2500

LANDSCAPE ARCHITECT

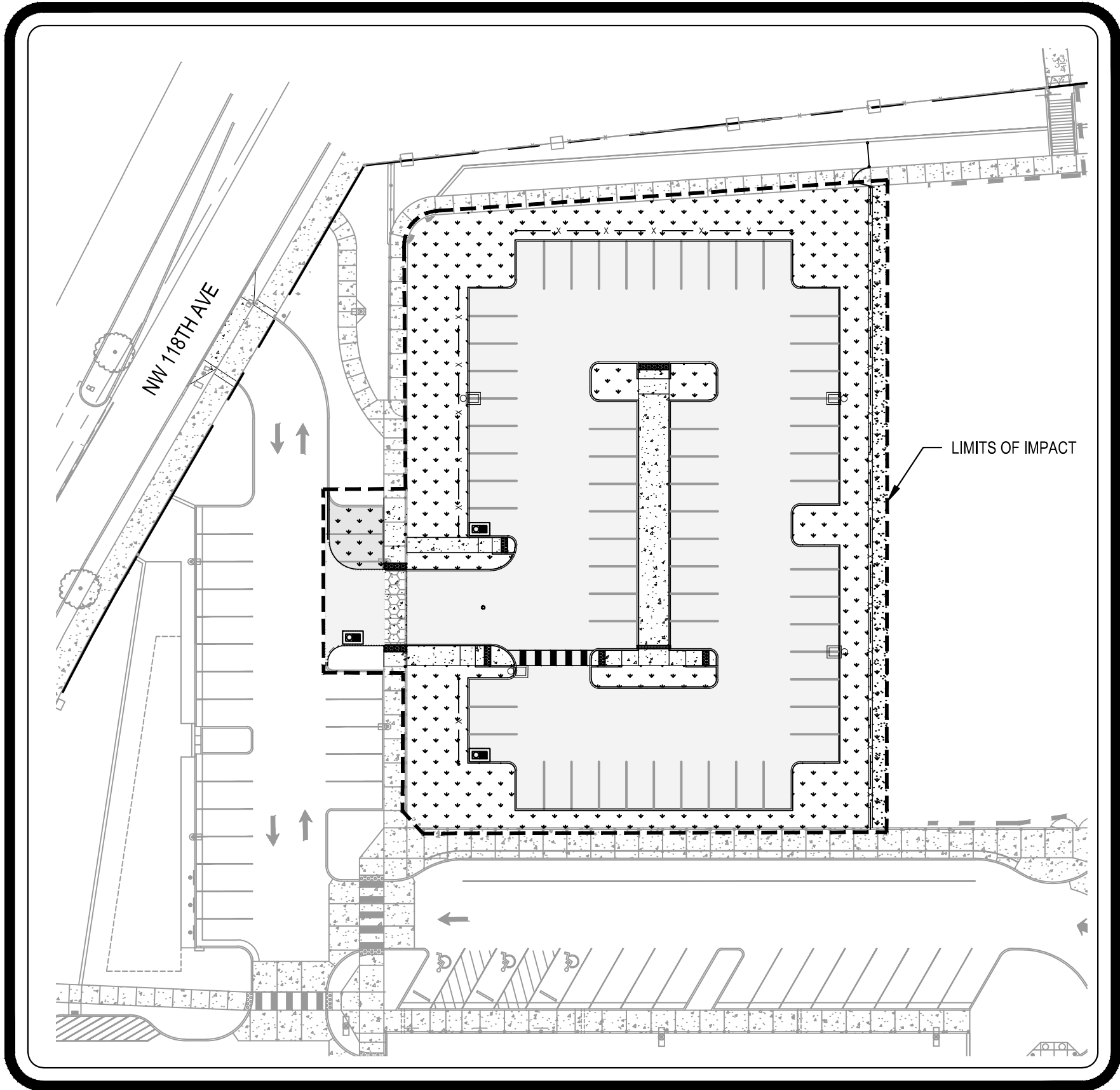
CARDNO
ATTN: BECKY STRICKLER, PLA
6720 SW MACADAM AVE, SUITE 200
PORTLAND, OR 97219
PHONE: 503-419-2500

PLANNER

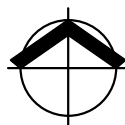
ANGELO PLANNING GROUP
ATTN: FRANK ANGELO
921 SW WASHINGTON STREET, STE 468
PORTLAND, OR 97205
PHONE: 503-227-3664

ELECTRICAL ENGINEER

INTERFACE ENGINEERING
ATTN: DAVID CHESLEY
708 SW THIRD AVENUE, STE 400
PORTLAND, OR 97204
PHONE: 503-382-2685



SITE MAP
SCALE: NTS



SITE INFORMATION

650 NW 118TH AVE., PORTLAND, OR 97229
LOCATED AT THE NORTHEAST CORNER OF NW 118TH AVENUE AND NW STONE MOUNTAIN LANE.
TAX LOT: 1N1 34 CA - 900

BENCHMARK/BASIS OF BEARING

THE ELEVATIONS ARE BASED ON A RIM OF A CATCH BASIN ALONG NW STONE MOUNTAIN LANE, ELEVATION = 287.77, AS SHOWN ON THE SURVEY BY HAGEDOWN, INC., DATED FEBRUARY 21, 2011.

SHEET INDEX

C000	COVER SHEET
C001	GENERAL NOTES
C100	EXISTING CONDITIONS
C110	DEMOLITION PLAN
C200	SITE PLAN
C300	GRADING PLAN
C400	COMPOSITE UTILITY PLAN
C500	SITE DETAILS
C510	STORM DETAILS
C600	TURF FIELD CIVIL PLAN & DETAILS
C601	TURF FIELD CONSTRUCTION ACCESS PLAN
L100	PLANTING PLAN
L101	PLANTING DETAILS & NOTES
L200	IRRIGATION PLAN
L201	IRRIGATION DETAILS & NOTES
E001	COVER SHEET - LIGHTING
E100	SITE PLAN - LIGHTING
E100 - PH	LIGHTING PHOTOMETRICS
EC01	EXISTING EROSION CONTROL PLAN
EC02	PROPOSED EROSION CONTROL PLAN
EC03	EC DETAILS & NOTES

UNDERGROUND ACCURACY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH WE CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. DUE TO THE HAZARDOUS NATURE AND APPLICABLE OSHA REQUIREMENTS REGARDING CONFINED SPACES, IT IS CARDNO POLICY TO NOT SEND FIELD STAFF INTO UTILITY MANHOLES TO RETRIEVE DEPTH AND SIZE INFORMATION. INFORMATION SHOWN HEREON IS SUBJECT TO AN UNCERTAINTY IN ACCURACY DEPENDING ON DEPTH, SIZE, FLOW, AND CONSTRUCTION OF MANHOLES. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITY LINES.

OREGON UTILITY
NOTIFICATION CENTER
1-800-332-2344



CONSTRUCTION DOCUMENTS

COVER SHEET

TIMBERLAND MS PARKING EXPANSION

BEAVERTON SCHOOL DISTRICT

BEAVERTON, OR

DATE	DESCRIPTION	BY
ADD #1 12/29/2019	ADDENDUM #1 - TURF FIELD IRRIGATION	KNY

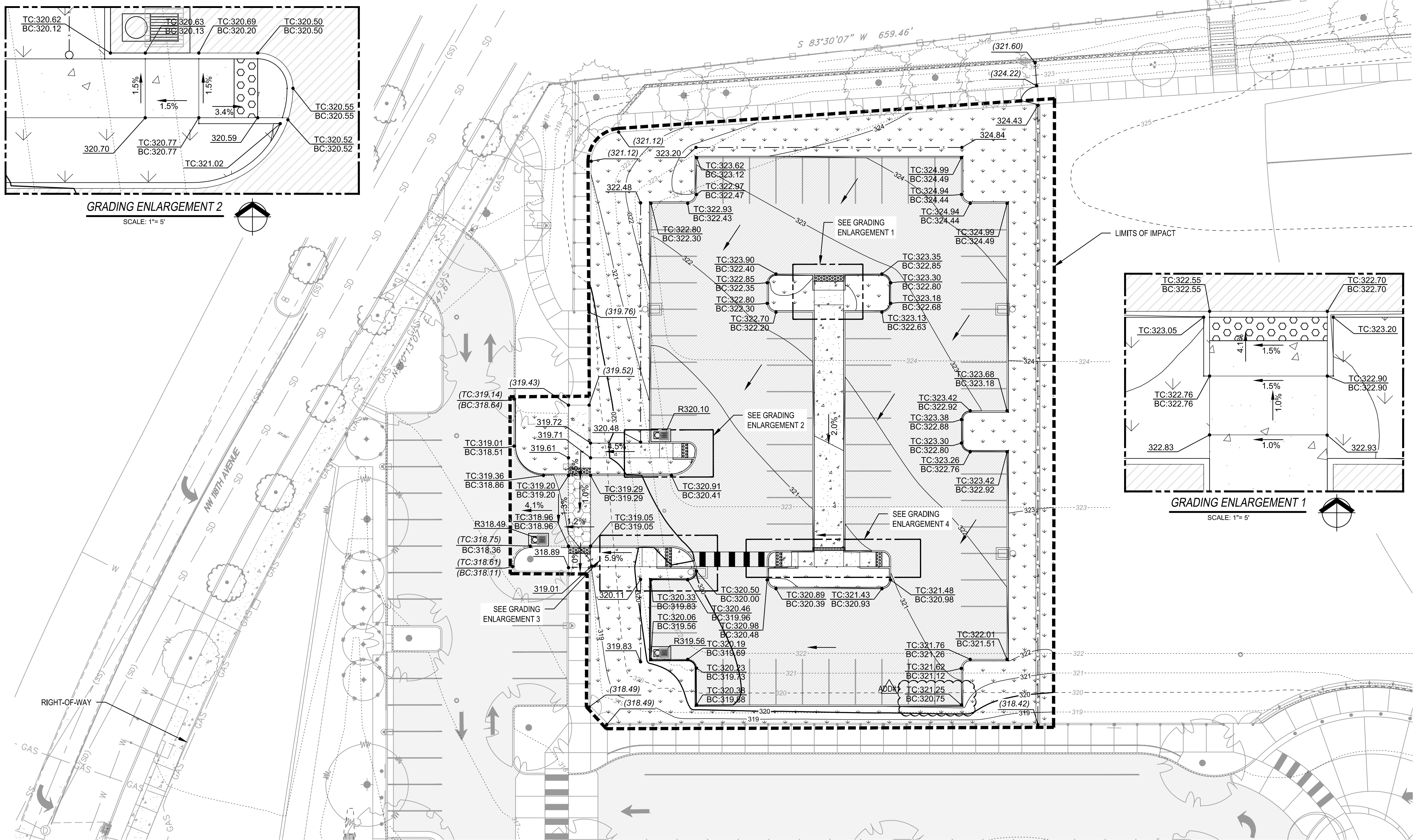
DATE	I 01/04/2019
DRAWN	I SPC/KNY
DESIGNED	I SPC/KNY
CHECKED	I MCL
PROJECT #	I 21813760

SHEET TITLE
COVER SHEET

SHEET NUMBER

C000

LAND USE # ADJ2018-007 / DR2018-0151



PROPOSED LEGEND

- LIMITS OF IMPACT
- CURB
- CHAIN LINK FENCE
- MAJOR CONTOURS
- MINOR CONTOURS
- LIGHT ASPHALT
- CONCRETE
- LANDSCAPE
- FILTER CATCHBASIN
- STORM CLEANOUT
- LIGHTING
- RUNNEL GRATE
- PROPOSED SPOT ELEVATION
- PROPOSED TOP OF CURB ELEVATION
- PROPOSED BOTTOM OF CURB ELEVATION
- PROPOSED SLOPE
- PROPOSED RIM ELEVATION

EXISTING LEGEND

- CENTERLINE
- MAJOR CONTOURS
- MINOR CONTOURS
- WALL
- FENCE
- CURB
- ROAD MARKING
- UNDERGROUND STORM LINE
- UNDERGROUND GAS LINE
- CONCRETE
- TRUNCATED DOMES
- CATCH BASIN
- WATER VALVE
- BOLLARD
- SIGN
- HANDICAP PARKING SYMBOL
- DIRECTIONAL TRAFFIC ARROW
- CROSSWALK
- TREE
- LIGHT
- CONCRETE WHEEL BLOCK
- EXISTING SPOT ELEVATION
- EXISTING TOP OF CURB ELEVATION
- EXISTING BOTTOM OF CURB ELEVATION



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GRADING PLAN

TIMBERLAND MS PARKING EXPANSION

BEAVERTON SCHOOL DISTRICT

BEAVERTON, OR

BY	DATE	DESCRIPTION
ADD #1	3/29/2019	ADDENDUM #1 - TURF FIELD IRRIGATION

DATE	I 01/04/2019
DRAWN	I SPCKNY
DESIGNED	I SPCKNY
CHECKED	I MCL
PROJECT #	I 21813760
SHEET TITLE	GRADING PLAN
SHEET NUMBER	C300

CONSTRUCTION DOCUMENTS

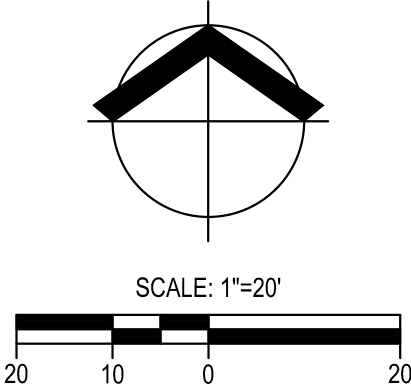
UNDERGROUND ACCURACY STATEMENT

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OREGON UTILITY
NOTIFICATION CENTER
1-800-332-2344

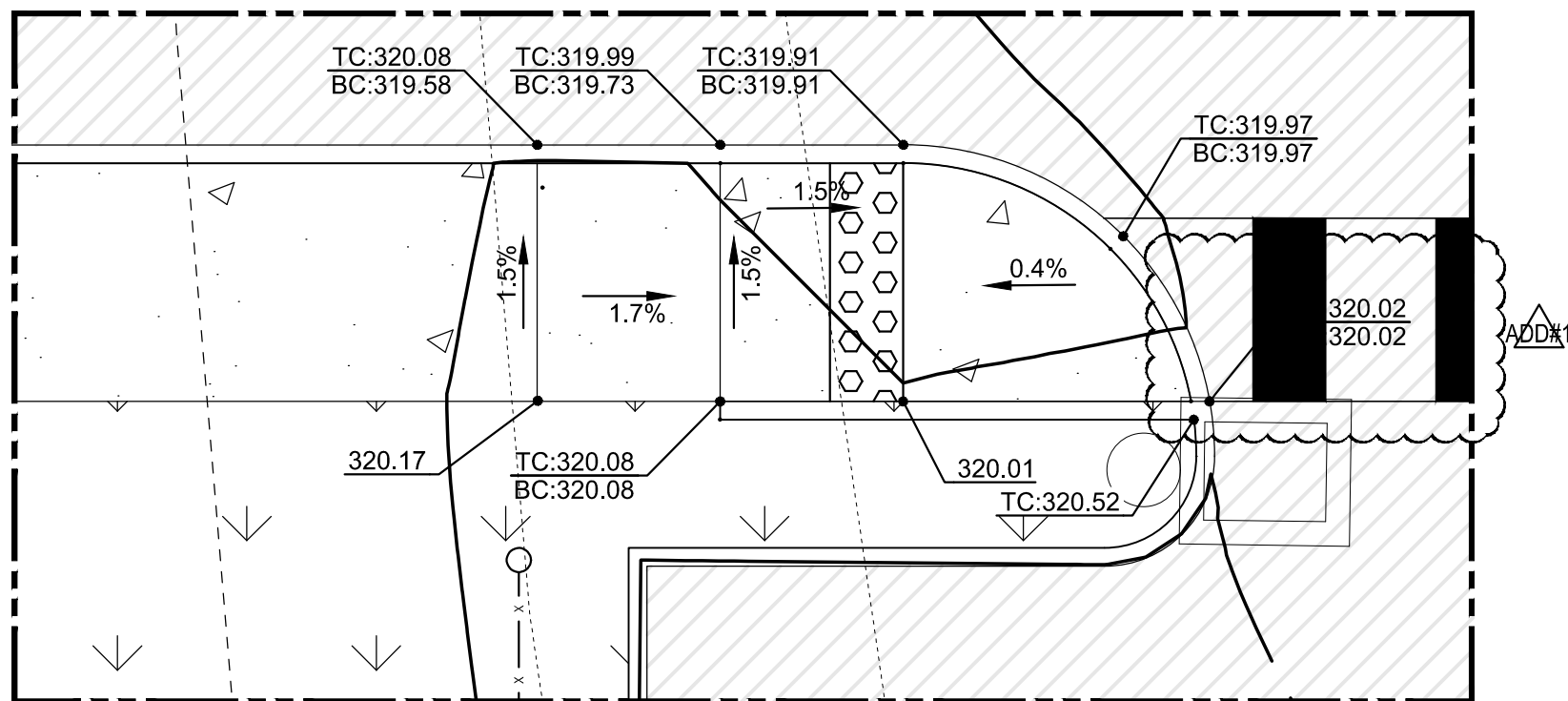


THE ENTIRE SITE IS LOCATED OUTSIDE OF THE 100-YEAR FLOODPLAIN.



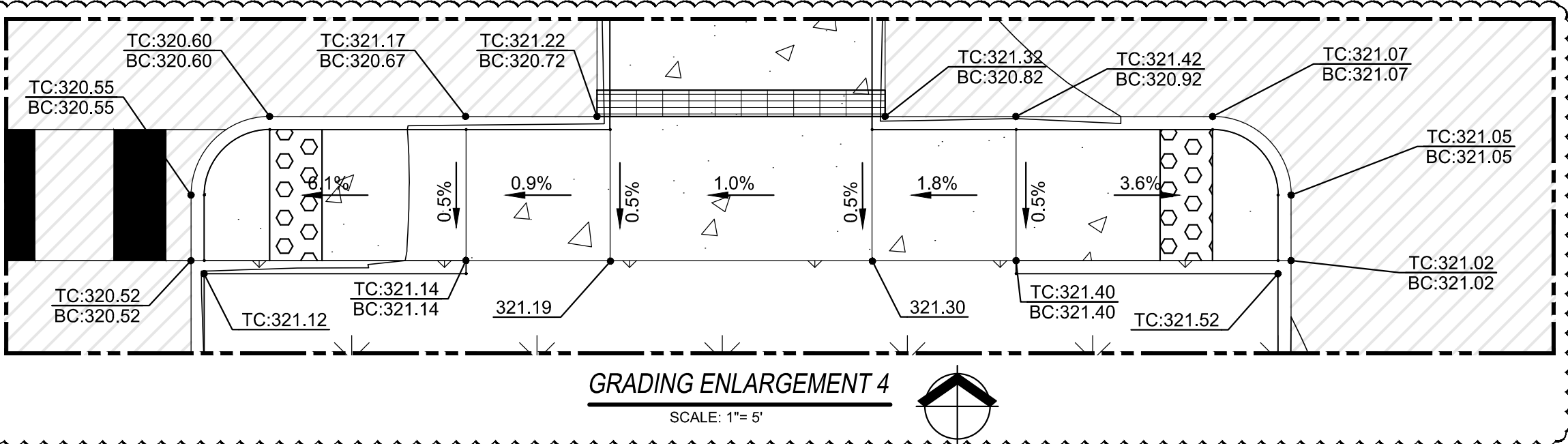
GRADING ENLARGEMENT 3

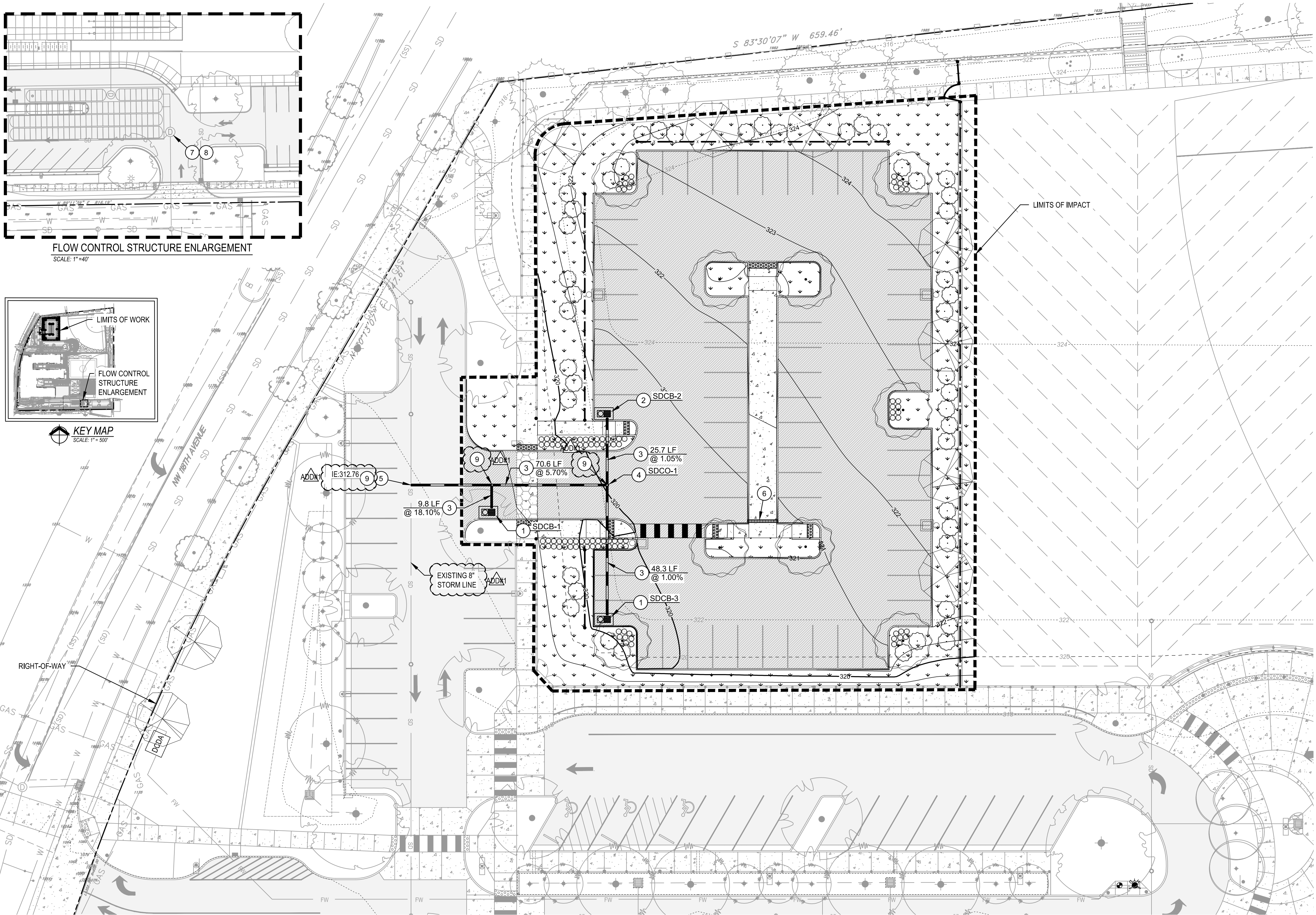
SCALE: 1"=5'



GRADING ENLARGEMENT 4

SCALE: 1"=5'





STORM CONSTRUCTION NOTES

1. INSTALL SINGLE 18-INCH CARTRIDGE STORMFILTER CATCHBASIN PER DETAIL 4 ON SHEET C510. SEE STRUCTURE TABLE FOR INVERT INFORMATION.
2. INSTALL SINGLE 27-INCH CARTRIDGE STORMFILTER CATCHBASIN PER DETAIL 5 ON SHEET C510. SEE STRUCTURE TABLE FOR INVERT INFORMATION.
3. INSTALL 8" HDPE STORM PIPE, REFER TO DETAIL 3 ON SHEET C510 FOR PIPE TRENCH BACKFILL. SEE PLAN FOR LENGTH AND SLOPE INFORMATION.
4. INSTALL STORM DRAIN CLEANOUT WITH THREADED TYPE CAP AND FITTING, PER DETAIL 1 ON SHEET C510. SEE STRUCTURE TABLE FOR INVERT INFORMATION.
5. CONNECT TO EXISTING STORM SYSTEM, CONTRACTOR TO EXPOSE AND VERIFY EXISTING INVERT AT CONNECTION POINT.
6. INSTALL CONCRETE RUNNEL PER DETAIL 2 ON SHEET C510.
7. MODIFY NOTCH WEIR ELEVATION PER CWS DETAIL 270 ON SHEET C510.
8. REPLACE EXISTING ORIFICE PLATE. NEW ORIFICE DIAMETER PER CWS DETAIL 270 ON SHEET C510.
9. INSTALL WYE-TYPE DRAINAGE FITTING AT LATERAL CONNECTION.

CATCH BASIN DATA

SDCB-1
RIM: 318.49
IE OUT (8"N) = 316.19

SDCB-2
RIM: 320.10
IE OUT (8"S) = 317.05

SDCB-3
RIM: 319.56
IE OUT (8"N) = 317.26

CLEANOUT DATA

SDCO-1
RIM = 320.05'
IE (8") = 316.78'

THE ENTIRE SITE IS LOCATED OUTSIDE OF THE 100-YEAR FLOODPLAIN.

UNDERGROUND ACCURACY STATEMENT

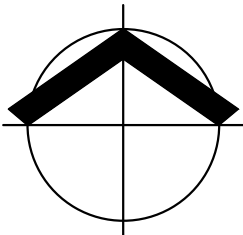
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PROPOSED LEGEND

- LIMITS OF IMPACT
- CURB
- MAJOR CONTOURS
- MINOR CONTOURS
- LIGHT ASPHALT CONCRETE
- CONCRETE
- LANDSCAPE
- STORM PIPE
- STORM CLEANOUT
- STORMFILTER CATCHBASIN
- RUNNEL GRATE

EXISTING LEGEND

- RIGHT OF WAY LINE
- CENTERLINE
- MAJOR CONTOURS
- MINOR CONTOURS
- WALL
- FENCE
- CURB
- ROAD MARKING
- UNDERGROUND STORM LINE
- UNDERGROUND GAS LINE
- UNDERGROUND STORM PERF PIPE
- LIGHT ASPHALT CONCRETE
- CONCRETE
- TRUNCATED DOMES
- CATCH BASIN
- WATER VALVE
- BOLLARD
- SIGN
- HANDICAP PARKING SYMBOL
- DIRECTIONAL TRAFFIC ARROW
- CROSSWALK
- TREE
- LIGHT
- CONCRETE WHEEL BLOCK



SCALE: 1"=20'



OREGON UTILITY
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CONSTRUCTION DOCUMENTS

UTILITY PLAN

TIMBERLAND MS PARKING EXPANSION
BEAVERTON SCHOOL DISTRICT
BEAVERTON, OR

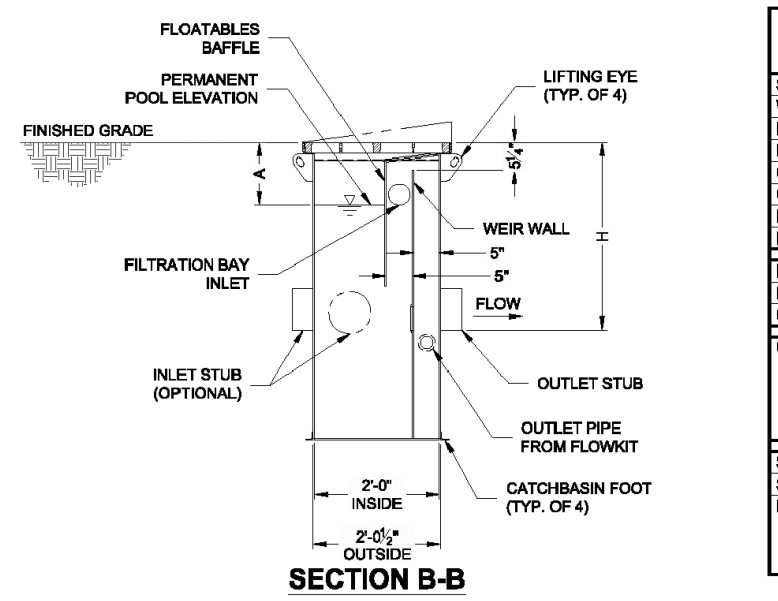
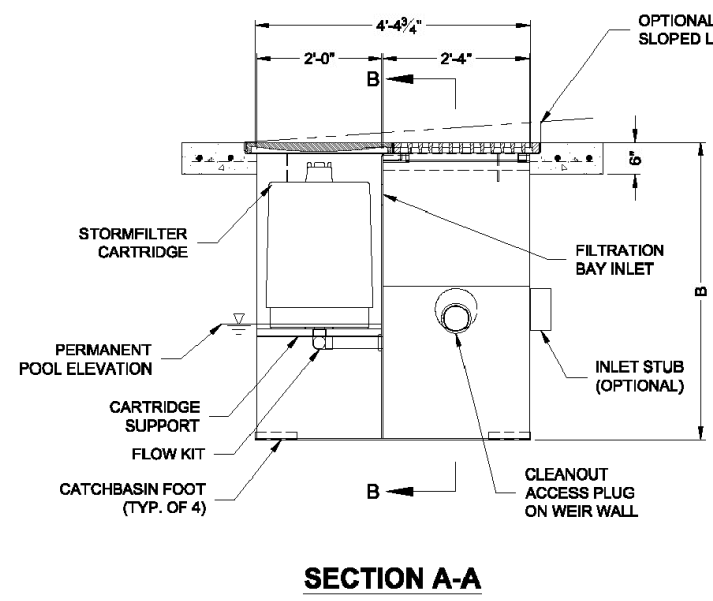
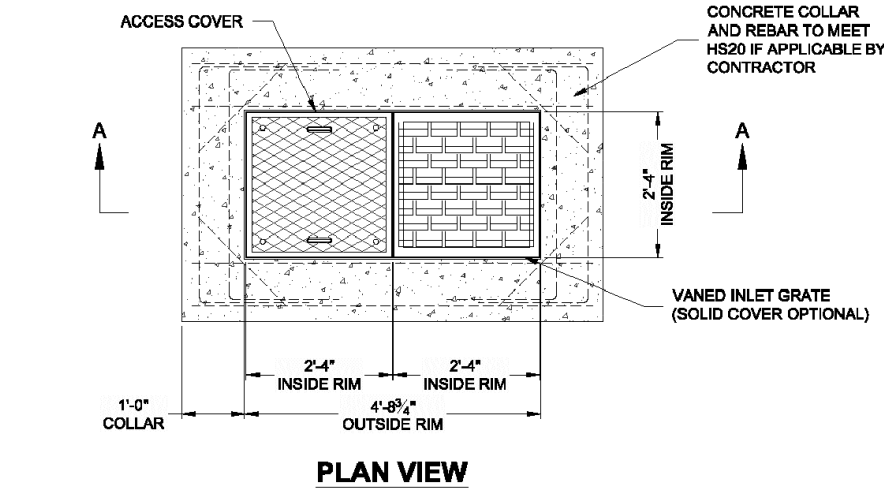
DATE	DESCRIPTION	BY
ADD #1 1/29/2019	ADDENDUM #1 - TURF FIELD & IRRIGATION	KAY

DATE	1/01/04/2019
DRAWN	I SPCKINY
DESIGNED	I SPCKINY
CHECKED	I MCL
PROJECT #	21813760

SHEET TITLE	UTILITY PLAN
SHEET NUMBER	

C400
LAND USE # ADJ2018-007 / DR2018-0151

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CONTECH
ENGINEERED SOLUTIONS LLC
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9025 Centre Pointe Dr., Suite 400, West Chester, OH 45386
603-628-3999 613-645-7300 613-645-7363 FAX

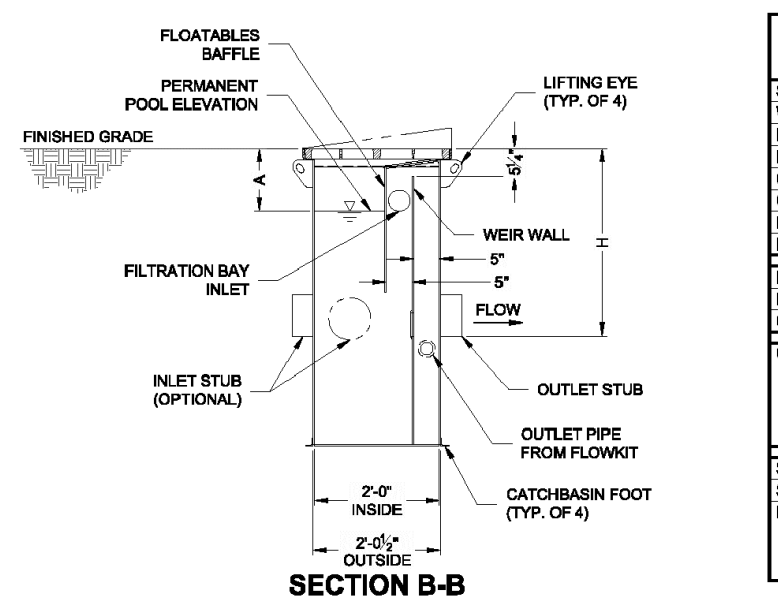
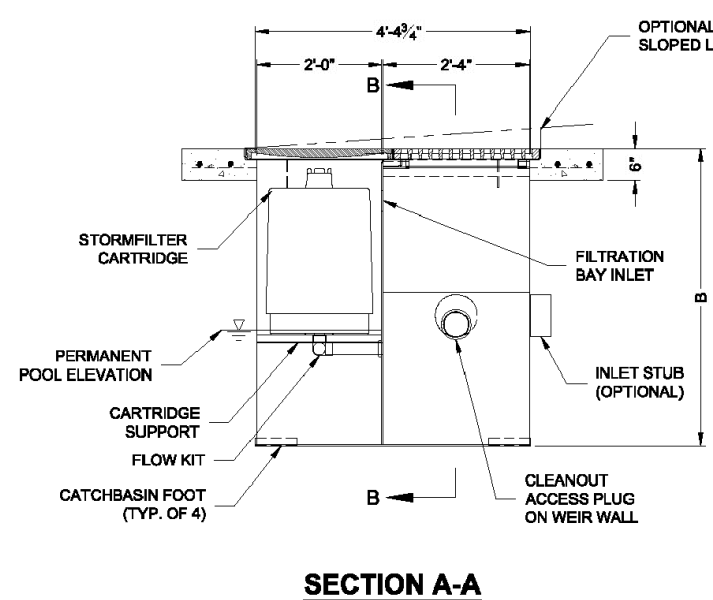
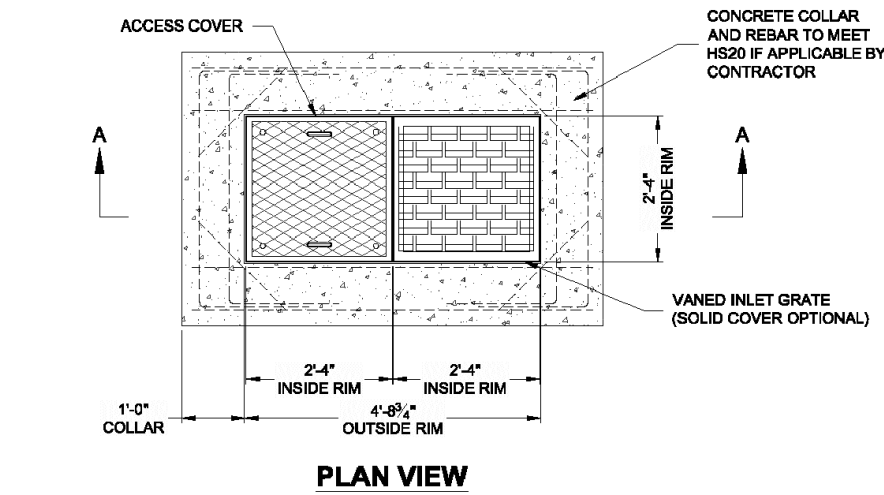
1 CARTRIDGE CATCHBASIN
STORMFILTER
STANDARD DETAIL

STORMFILTER STEEL CATCHBASIN DESIGN NOTES									
STORMFILTER TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. 1 CARTRIDGE CATCHBASIN HAS A MAXIMUM OF ONE CARTRIDGE. SYSTEM IS SHOWN WITH A 27" CARTRIDGE, AND IS ALSO AVAILABLE WITH AN 18" CARTRIDGE. STORMFILTER CATCHBASIN CONFIGURATIONS ARE AVAILABLE WITH A DRY INLET BAY FOR VECTOR CONTROL. PEAK HYDRAULIC CAPACITY PER TABLE BELOW. IF THE SITE CONDITIONS EXCEED PEAK HYDRAULIC CAPACITY, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.									
CARTRIDGE SELECTION									
CATCHBASIN HEIGHT	27"		18"		18" DEEP				
RECOMMENDED HYDRAULIC DROP (H)	3.02'		2.3'		3.3'				
SPECIFIC FLOW RATE (gpm/sf)	2 gpm/sf		1.67 gpm/sf		1 gpm/sf				
CATCHBASIN FLOW RATE (gpm)	22.5		16.75		11.25				
PEAK HYDRAULIC CAPACITY	1.0		1.0		1.0				
INLET PERMANENT POOL LEVEL (A)	1'-0"		1'-0"		1'-0"				
OVERALL STRUCTURE HEIGHT (B)	4'-8"		3'-8"		4'-8"				

- * 1.67 gpm/sf SPECIFIC FLOW RATE IS APPROVED WITH PHOSPHORUS® (PSORB) MEDIA ONLY
- GENERAL NOTES
- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
 - FOR SITE SPECIFIC DRAWINGS WITH DETAILED STORMFILTER CATCHBASIN STRUCTURE: DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contechES.com
 - STORMFILTER CATCHBASIN WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
 - INLET SHOULD NOT BE LOWER THAN OUTLET. INLET (IF APPLICABLE) AND OUTLET PIPING TO BE SPECIFIED BY ENGINEER AND PROVIDED BY CONTRACTOR.
 - MANUFACTURER TO APPLY A SURFACE BEAD WELD IN THE SHAPE OF THE LETTER "O" ABOVE THE OUTLET PIPE STUB ON THE EXTERIOR SURFACE OF THE STEEL SPOT.
 - STORMFILTER CATCHBASIN EQUIPPED WITH 4 INCH (APPROXIMATE) LONG STUBS FOR INLET (IF APPLICABLE) AND OUTLET PIPING. STANDARD OUTLET STUB IS 8 INCHES IN DIAMETER. MAXIMUM OUTLET STUB IS 15 INCHES IN DIAMETER. CONNECTION TO COLLECTION PIPING CAN BE MADE USING FLEXIBLE COUPLING BY CONTRACTOR.
 - STEEL STRUCTURE TO BE MANUFACTURED OF 1/4 INCH STEEL PLATE. CASTINGS SHALL MEET AASHTO M293 LOAD RATING. TO MEET HS20 LOAD RATING ON STRUCTURE, A CONCRETE COLLAR IS REQUIRED. WHEN REQUIRED, CONCRETE COLLAR WITH #4 REINFORCING BARS TO BE PROVIDED BY CONTRACTOR.
 - FILTER CARTRIDGES SHALL BE MEDIA FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF-CLEANING. RADIAL MEDIA DEPTH SHALL BE 7 INCHES. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 38 SECONDS.
 - SPECIFIC FLOW RATE IS EQUAL TO THE FILTER TREATMENT CAPACITY (gpm) DIVIDED BY THE FILTER CONTACT SURFACE AREA (sq ft).
- INSTALLATION NOTES
- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
 - CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CATCHBASIN (LIFTING CLUTCHES PROVIDED).
 - CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

1-CARTRIDGE CATCHBASIN STORMFILTER DATA	
STRUCTURE ID	SDS-1
WATER QUALITY FLOW RATE (cfs)	0.001
PEAK FLOW RATE (cfs)	0.001
RETURN PERIOD OF PEAK FLOW (yrs)	25
CATCHBASIN HEIGHT (27", 18", 18" DEEP)	18"
CATCHBASIN FLOW RATE (gpm)	11.25
MEDIA TYPE (PERLITE, ZPG, PSORB)	PERLITE
RIM ELEVATION	282.50
PIPE DATA:	I.E. DIAMETER
INLET STUB	PER PLAN
OUTLET STUB	PER PLAN
CONFIGURATION	OUTLET
INLET	INLET
OUTLET	OUTLET
OUTLET PIPE FROM FLOWKIT	OUTLET
OUTLET PIPE FROM FLOWKIT	OUTLET
SLOPED LID	YES/NO
SOLID COVER	YES/NO
NOTES/SPECIAL REQUIREMENTS:	

1 CARTRIDGE CATCHBASIN
STORMFILTER
STANDARD DETAIL



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603-628-3999 613-645-7300 613-645-7363 FAX

1 CARTRIDGE CATCHBASIN
STORMFILTER
STANDARD DETAIL

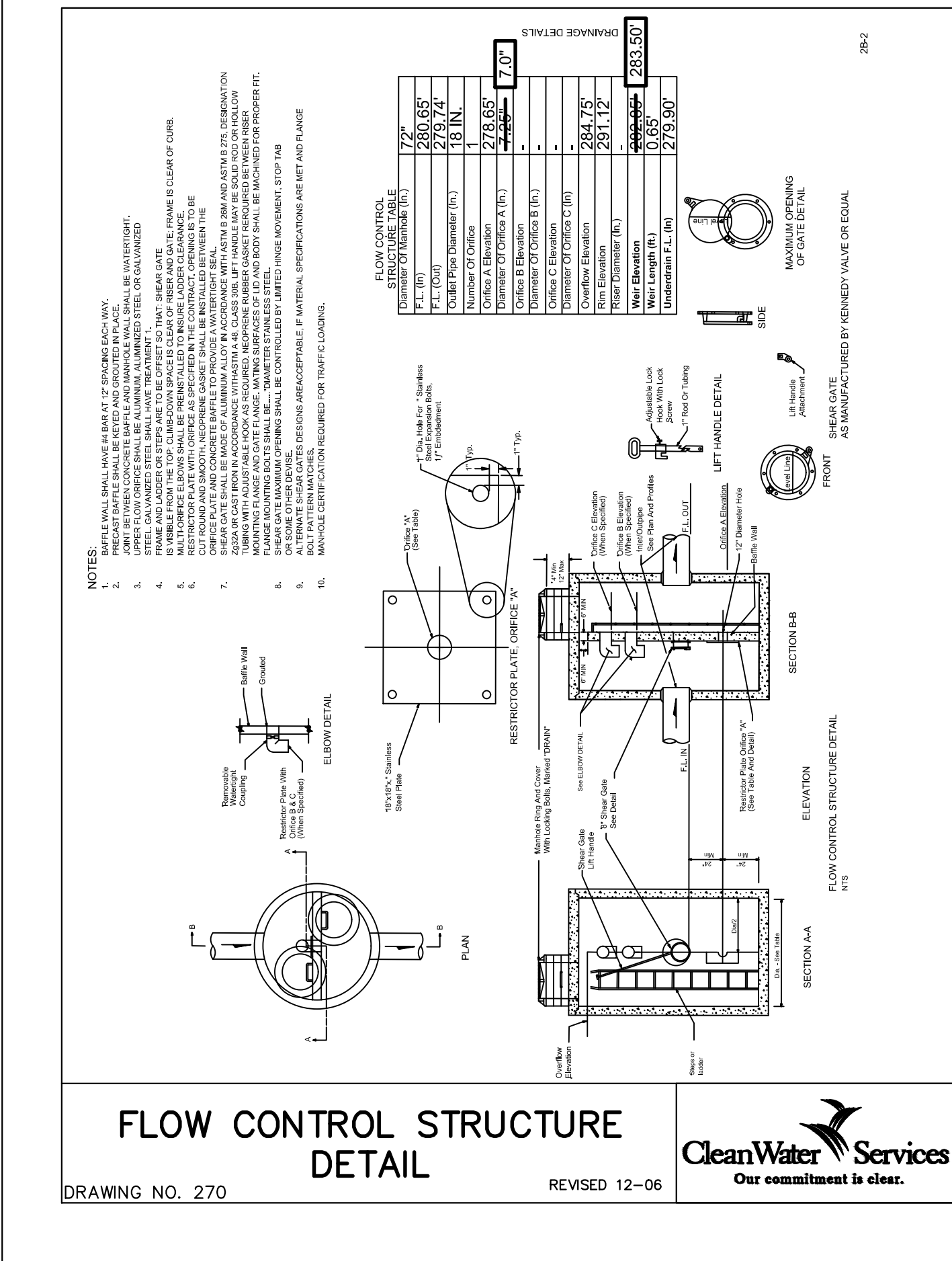
STORMFILTER STEEL CATCHBASIN DESIGN NOTES									
STORMFILTER TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. 1 CARTRIDGE CATCHBASIN HAS A MAXIMUM OF ONE CARTRIDGE. SYSTEM IS SHOWN WITH A 27" CARTRIDGE, AND IS ALSO AVAILABLE WITH AN 18" CARTRIDGE. STORMFILTER CATCHBASIN CONFIGURATIONS ARE AVAILABLE WITH A DRY INLET BAY FOR VECTOR CONTROL. PEAK HYDRAULIC CAPACITY PER TABLE BELOW. IF THE SITE CONDITIONS EXCEED PEAK HYDRAULIC CAPACITY, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.									
CARTRIDGE SELECTION									
CATCHBASIN HEIGHT	27"		18"		18" DEEP				
RECOMMENDED HYDRAULIC DROP (H)	3.02'		2.3'		3.3'				
SPECIFIC FLOW RATE (gpm/sf)	2 gpm/sf		1.67 gpm/sf		1 gpm/sf				
CATCHBASIN FLOW RATE (gpm)	22.5		16.75		11.25				
PEAK HYDRAULIC CAPACITY	1.0		1.0		1.0				
INLET PERMANENT POOL LEVEL (A)	1'-0"		1'-0"		1'-0"				
OVERALL STRUCTURE HEIGHT (B)	4'-8"		3'-8"		4'-8"				

- * 1.67 gpm/sf SPECIFIC FLOW RATE IS APPROVED WITH PHOSPHORUS® (PSORB) MEDIA ONLY
- GENERAL NOTES
- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
 - FOR SITE SPECIFIC DRAWINGS WITH DETAILED STORMFILTER CATCHBASIN STRUCTURE: DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contechES.com
 - STORMFILTER CATCHBASIN WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
 - INLET SHOULD NOT BE LOWER THAN OUTLET. INLET (IF APPLICABLE) AND OUTLET PIPING TO BE SPECIFIED BY ENGINEER AND PROVIDED BY CONTRACTOR.
 - MANUFACTURER TO APPLY A SURFACE BEAD WELD IN THE SHAPE OF THE LETTER "O" ABOVE THE OUTLET PIPE STUB ON THE EXTERIOR SURFACE OF THE STEEL SPOT.
 - STORMFILTER CATCHBASIN EQUIPPED WITH 4 INCH (APPROXIMATE) LONG STUBS FOR INLET (IF APPLICABLE) AND OUTLET PIPING. STANDARD OUTLET STUB IS 8 INCHES IN DIAMETER. MAXIMUM OUTLET STUB IS 15 INCHES IN DIAMETER. CONNECTION TO COLLECTION PIPING CAN BE MADE USING FLEXIBLE COUPLING BY CONTRACTOR.
 - STEEL STRUCTURE TO BE MANUFACTURED OF 1/4 INCH STEEL PLATE. CASTINGS SHALL MEET AASHTO M293 LOAD RATING. TO MEET HS20 LOAD RATING ON STRUCTURE, A CONCRETE COLLAR IS REQUIRED. WHEN REQUIRED, CONCRETE COLLAR WITH #4 REINFORCING BARS TO BE PROVIDED BY CONTRACTOR.
 - FILTER CARTRIDGES SHALL BE MEDIA FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF-CLEANING. RADIAL MEDIA DEPTH SHALL BE 7 INCHES. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 38 SECONDS.
 - SPECIFIC FLOW RATE IS EQUAL TO THE FILTER TREATMENT CAPACITY (gpm) DIVIDED BY THE FILTER CONTACT SURFACE AREA (sq ft).
- INSTALLATION NOTES
- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
 - CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CATCHBASIN (LIFTING CLUTCHES PROVIDED).
 - CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

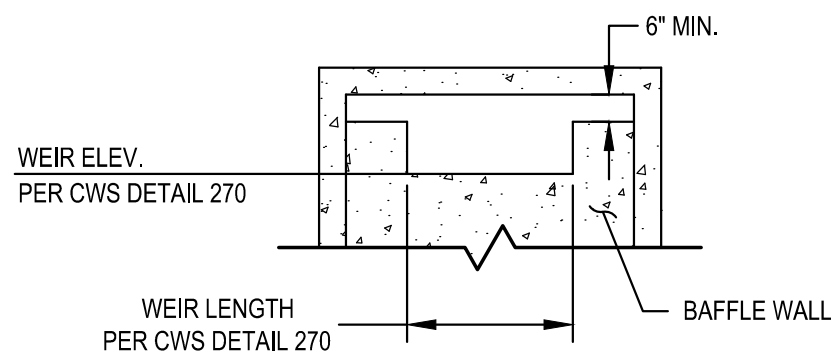
1-CARTRIDGE CATCHBASIN STORMFILTER DATA	
STRUCTURE ID	SDS-2
WATER QUALITY FLOW RATE (cfs)	0.0022
PEAK FLOW RATE (cfs)	0.0022
RETURN PERIOD OF PEAK FLOW (yrs)	25
CATCHBASIN HEIGHT (27", 18", 18" DEEP)	18"
CATCHBASIN FLOW RATE (gpm)	11.25
MEDIA TYPE (PERLITE, ZPG, PSORB)	PERLITE
RIM ELEVATION	282.50
PIPE DATA:	I.E. DIAMETER
INLET STUB	PER PLAN
OUTLET STUB	PER PLAN
CONFIGURATION	OUTLET
INLET	INLET
OUTLET	OUTLET
OUTLET PIPE FROM FLOWKIT	OUTLET
OUTLET PIPE FROM FLOWKIT	OUTLET
SLOPED LID	YES/NO
SOLID COVER	YES/NO
NOTES/SPECIAL REQUIREMENTS:	

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ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45386
603-628-3999 613-645-7300 613-645-7363 FAX

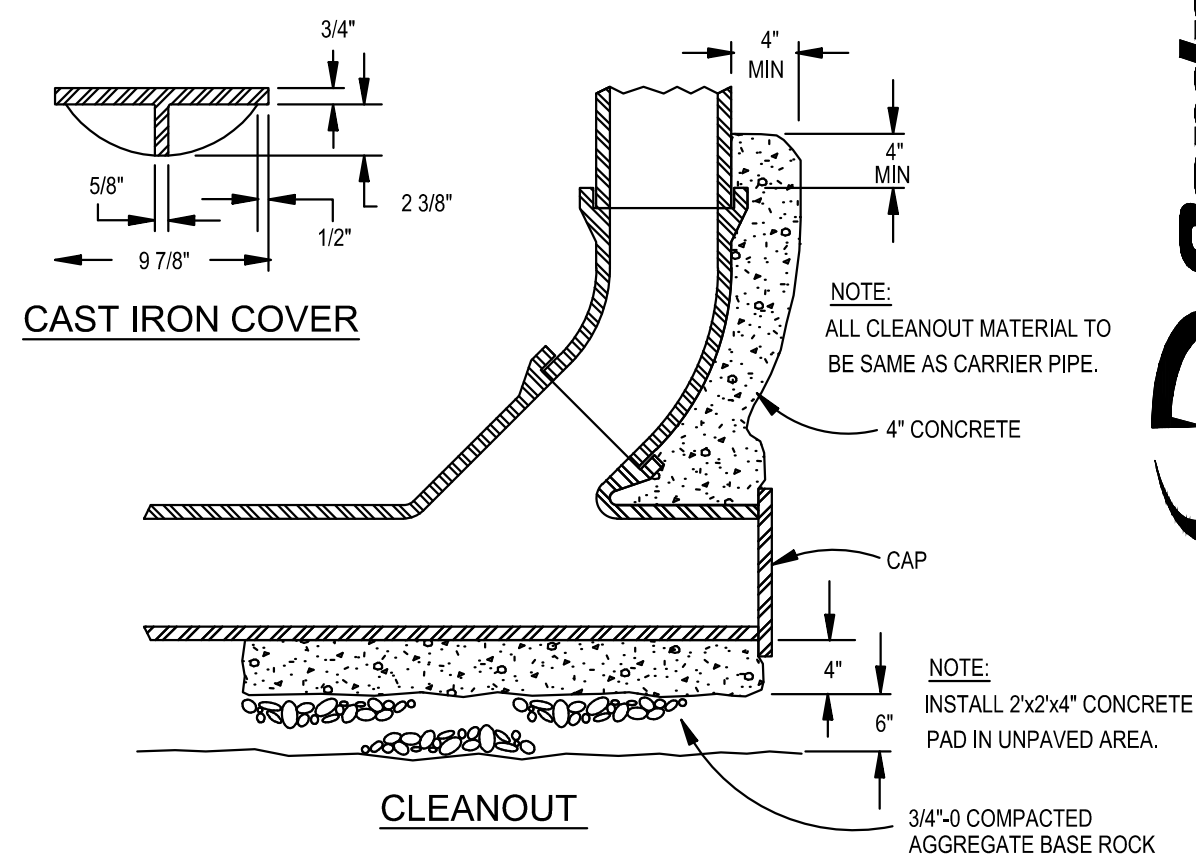
1 CARTRIDGE CATCHBASIN
STORMFILTER
STANDARD DETAIL



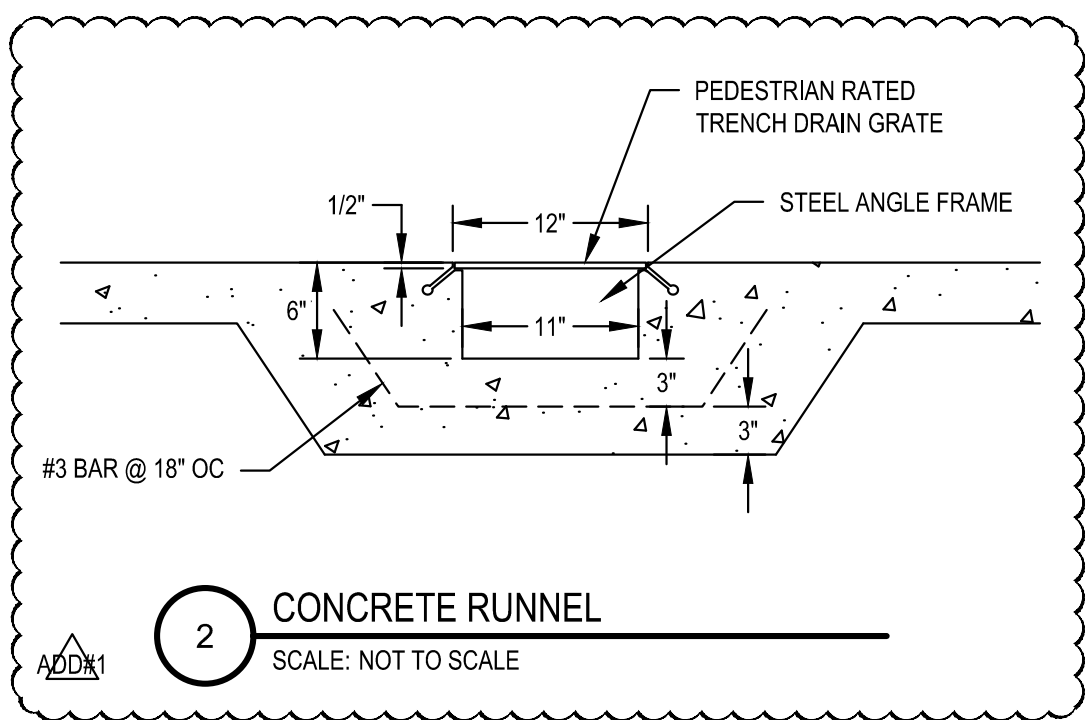
NOTE: THIS DETAIL IS THE VERSION USED IN THE BEAVERTON MIDDLE SCHOOL PROJECT WHEN THE EXISTING FLOW CONTROL STRUCTURE WAS CONSTRUCTED.



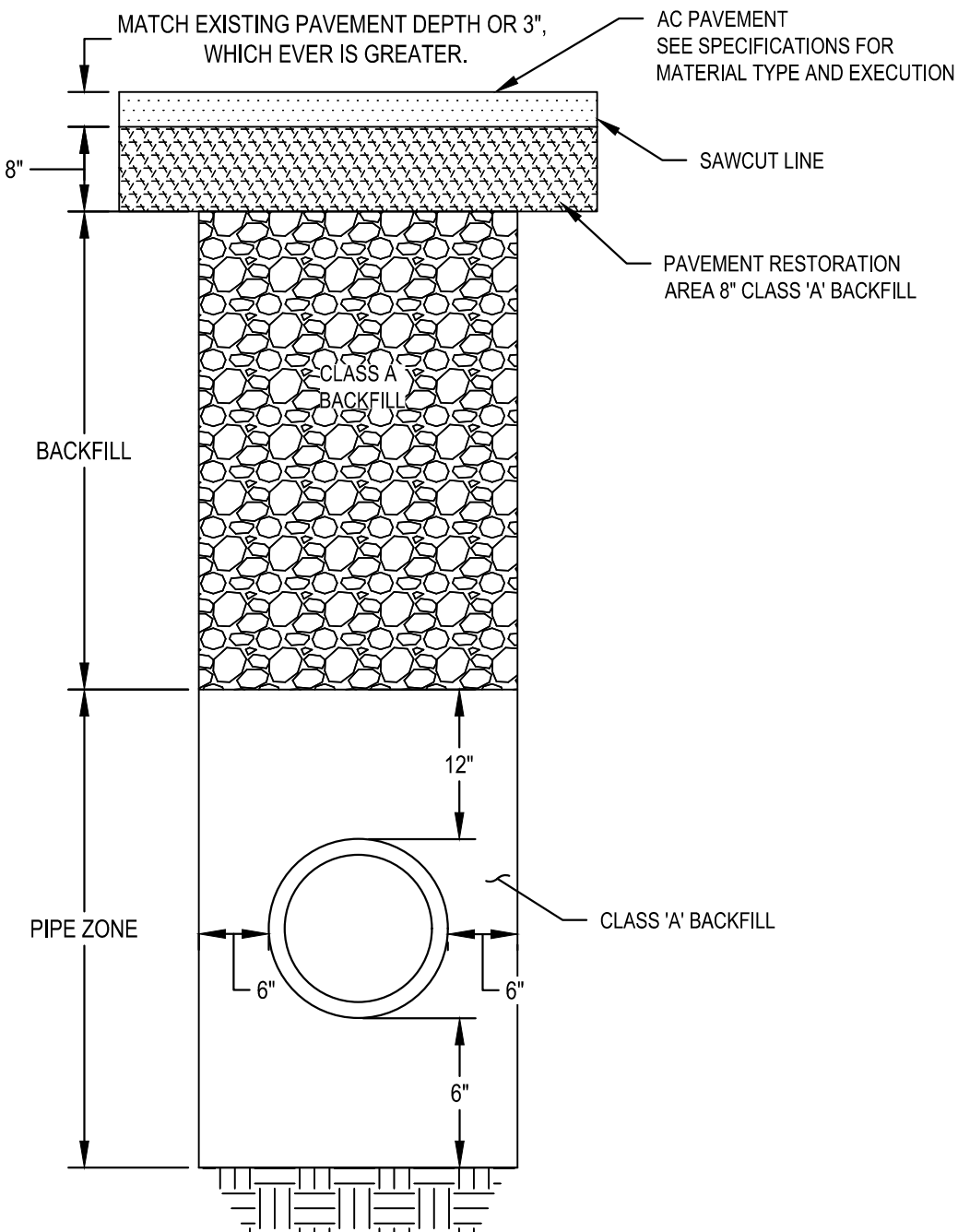
BAFFLE WALL DETAIL
SCALE: NTS



1 TYPICAL STORM & SEWER CLEANOUT
SCALE: NOT TO SCALE



2 CONCRETE RUNNEL
SCALE: NOT TO SCALE



3 TRENCH SECTION BACKFILL
SCALE: NOT TO SCALE

Cardno

PORTLAND
6720 SW MACADAM AVE, STE 200, PORTLAND, OR 97219
TEL: (503) 419-2500 FAX: (503) 419-2600 www.cardno.com

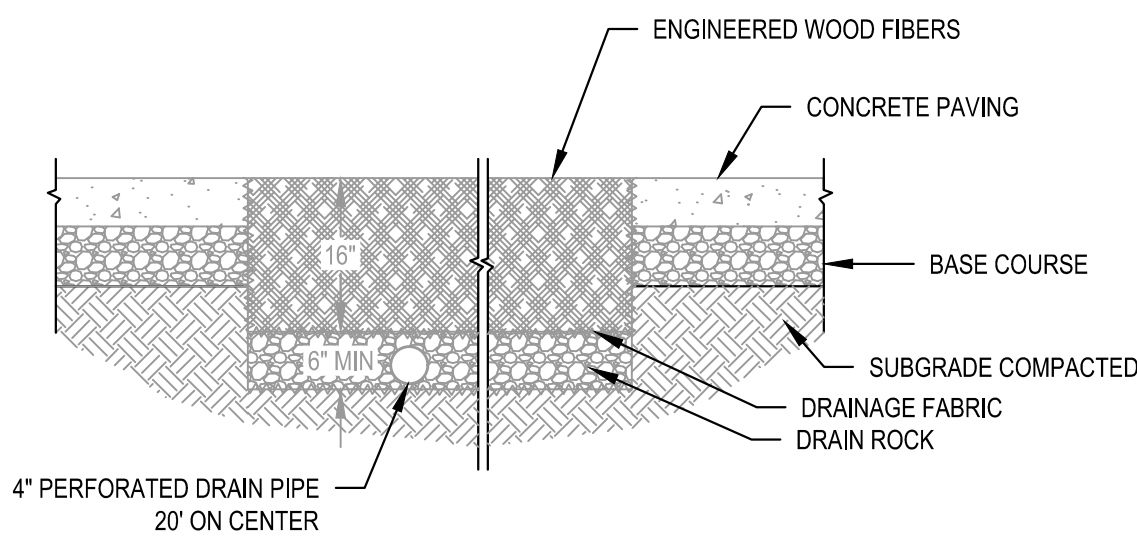
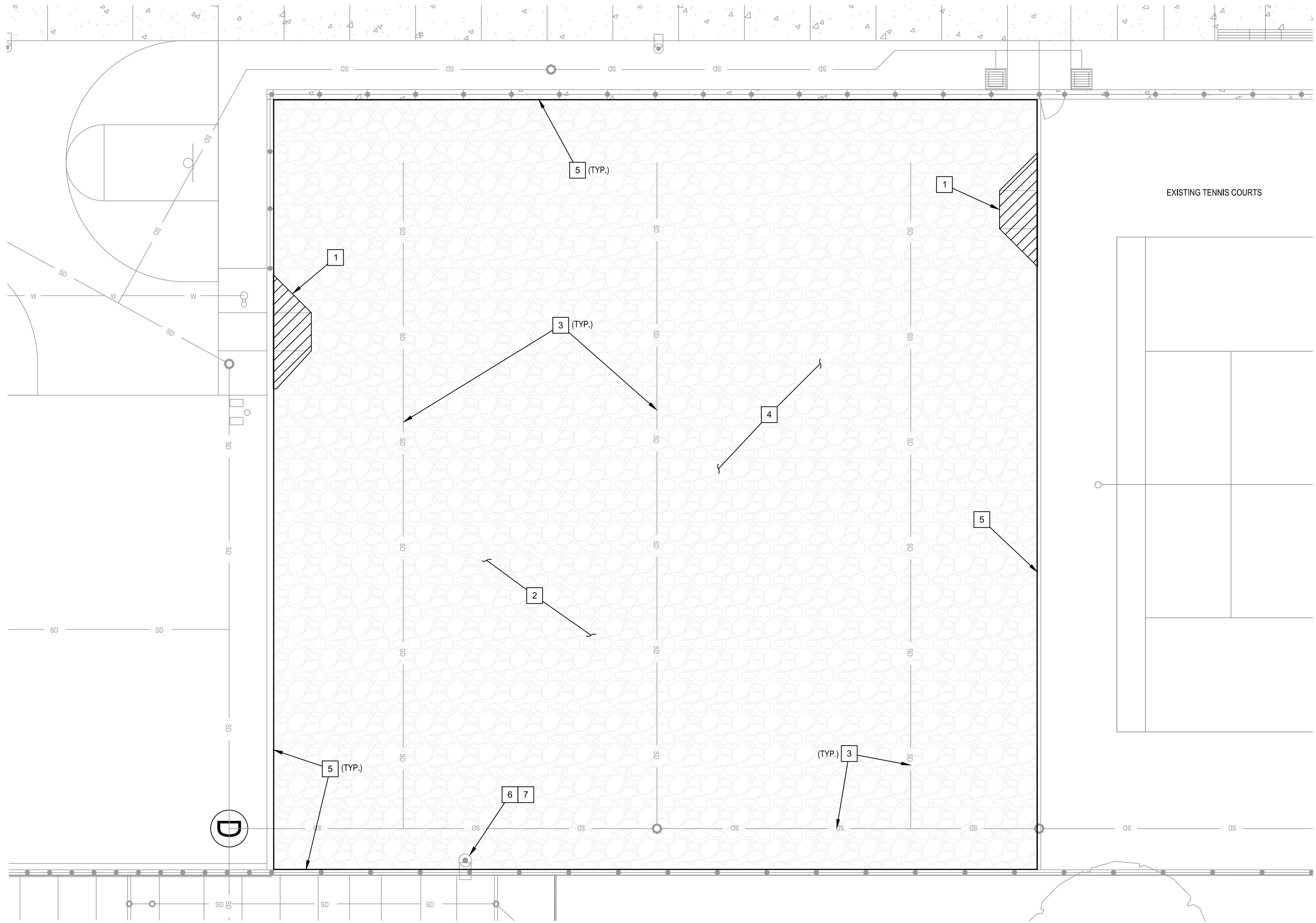
CONSTRUCTION DOCUMENTS

STORM DETAILS

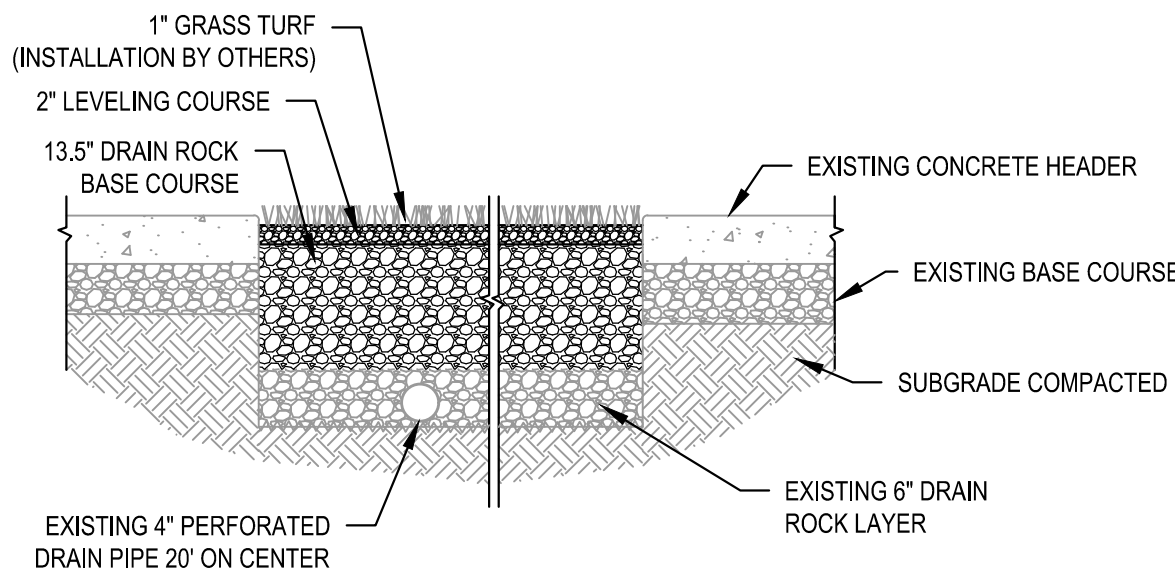
BEAVERTON
SCHOOL DISTRICT

TIMBERLAND MS PARKING EXPANSION
BEAVERTON SCHOOL DISTRICT
BEAVERTON, OR

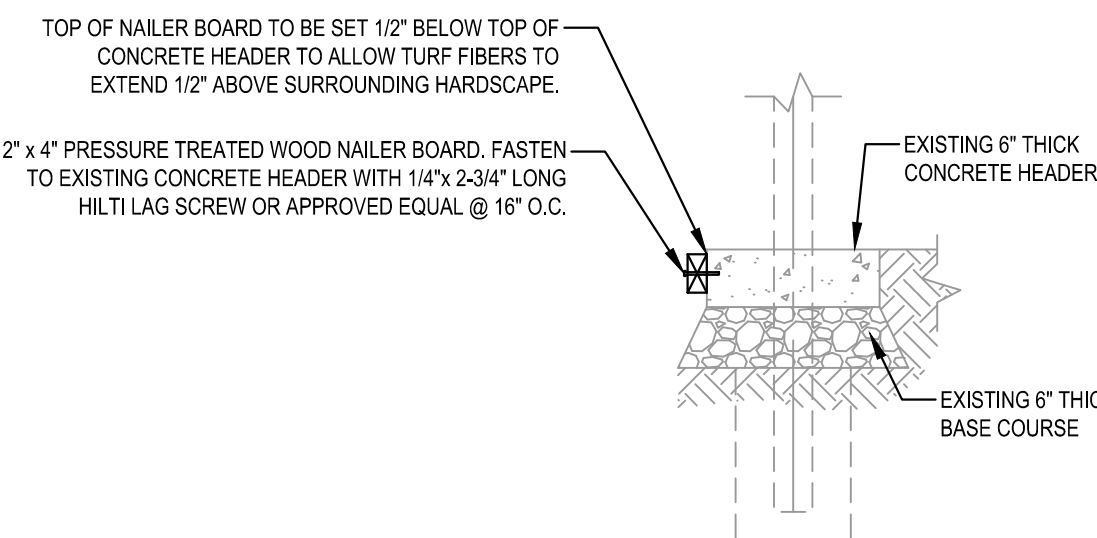
DATE	DESCRIPTION	BY
ADD #1 3/29/2019	ADDENDUM #1 - TDR FIELD IRRIGATION	KNY
DATE	DESCRIPTION	BY
DRAWN	I SPCKNY	
DESIGNED	I SPCKNY	
CHECKED	I MCL	
PROJECT #	I 21813760	
SHEET TITLE	STORM DETAILS	
SHEET NUMBER	C510	
LAND USE #	ADD/2018-007 / DR2018-0151	



1 EXISTING PLAYGROUND SECTION
NOT TO SCALE



2 PROPOSED AGGREGATE BASE SECTION
NOT TO SCALE



3 NAILER BOARD AT CONCRETE HEADER
NOT TO SCALE

CONSTRUCTION NOTES

- 1 REMOVE EXISTING ADA RAMP AND DISPOSE MATERIALS OFF SITE. PROVIDE CLEAN SAWCUT EDGE.
- 2 CONTRACTOR TO REMOVE BARK CHIPS AND DISPOSE OFF-SITE. REMOVE EXISTING GEOTEXTILE. SEE DETAIL 1, THIS SHEET, FOR EXISTING PLAYGROUND SECTION.
- 3 PRESERVE AND PROTECT EXISTING PERFORATED PIPE. CONTRACTOR TO LOCATE EXISTING PIPE AND STAKE TO PREVENT CONSTRUCTION IMPACT.
- 4 INSTALL DRAIN ROCK AND LEVELING COURSE PER DETAILS 2 AND 4, THIS SHEET.
- 5 INSTALL 2" x 4" NAILER BOARD AT EXISTING CONCRETE HEADER PER DETAIL 3, THIS SHEET.
- 6 PROVIDE FLEXIBLE HEADER AROUND LIGHT POLE BASE. ALIGN TOP OF HEADER TO BE FLUSH WITH TOP OF BASE.
- 7 PROVIDE MINIMUM 6' x 1 3/8" THICK SQUARE POST PAD WITH FULLY ENCASED ALL-WEATHER VINYL. CONTRACTOR TO PROVIDE SUBMITTAL FOR ENGINEER TO REVIEW PRIOR TO INSTALLATION.

BASE AND LEVELING COURSE AGGREGATE SPECIFICATION

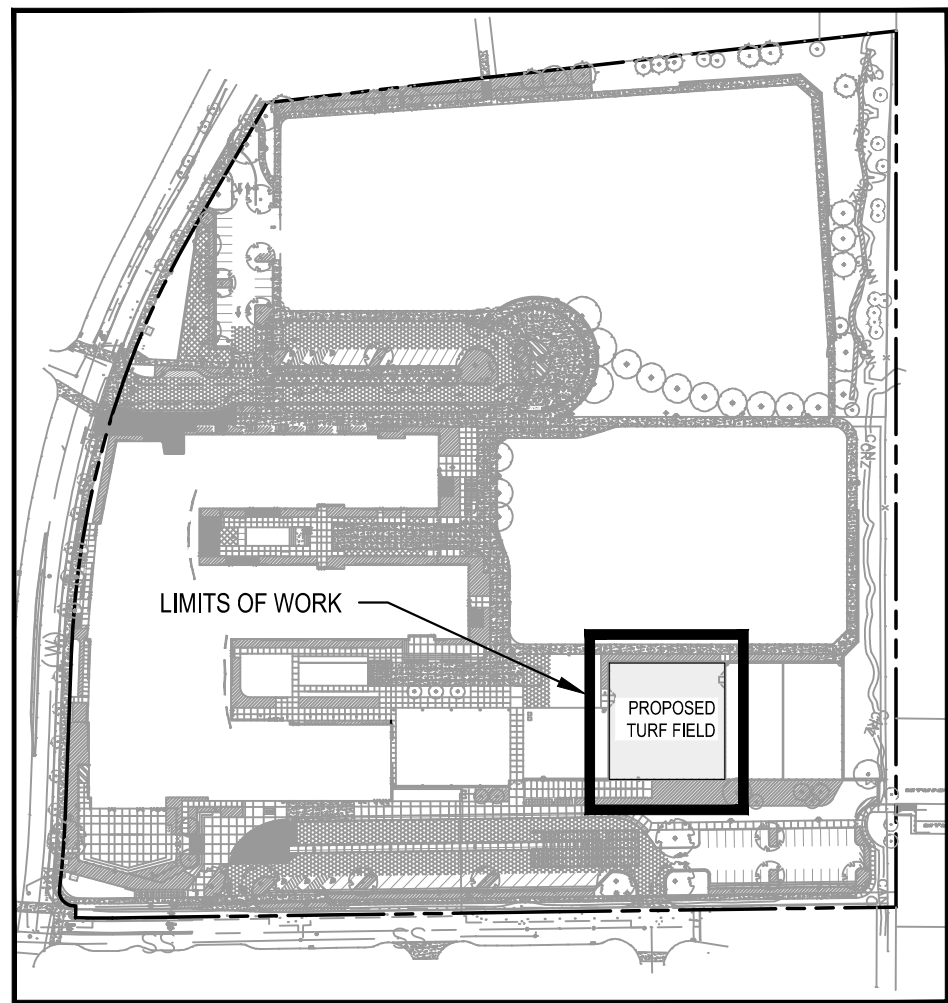
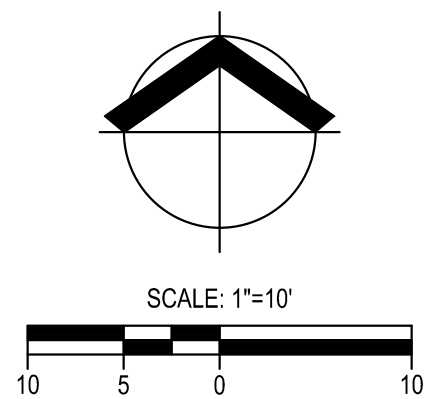
BASE AGGREGATE SHALL HAVE 100% FRAGMENTATION. CONTRACTOR SHALL SUBMIT LABORATORY GRADATION TEST RESULTS FOR APPROVAL PRIOR TO START OF CONSTRUCTION ACTIVITIES. LABORATORY COMPACTION RESULTS SHALL ALSO BE SUBMITTED THAT DEMONSTRATE A MINIMUM 0.30 VOID RATIO FOR THE COMPACTED AGGREGATE. COMPACTION SHALL BE ACCOMPLISHED WITHOUT THE USE OF VIBRATORY COMPACTION TECHNIQUES. AGGREGATE SHALL BE PLACED IN 6" LOOSE LIFTS AND COMPACTED TO 92% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.

TYLER STANDARD SERIES U.S. SIEVES EQUI NO.	% OF PARTICLES PASSING BASE COURSE	% OF PARTICLES PASSING LEVELING COURSE
2"	100	
1-1/2"	90-100	
1"	75-100	
3/4"	65-95	
1/2"	65-85	100
3/8"	40-75	55-100
#8	0-40	35-75
#16	0-20	10-55
#30	0-7	0-40
#50-60	0-5	0-15
#100	0-3	0-8
#200	0-2	0-5

NOTES:

1. ROCK SECTIONS SHALL BE TESTED AND ACHIEVE A MINIMUM INFILTRATION OF 20/Hr.
2. BOTH ROCK SECTIONS SHALL HAVE MULTIPLE FRACTURED FACES PRIOR TO PLACEMENT AND COMPACTION.
3. SURFACE TOLERANCE SHALL NOT EXCEED 0.25-INCH OVER 10 FEET OR 0.5" FROM DESIGN GRADE.

4 DRAIN ROCK GRADATION TABLE
NOT TO SCALE



KEY MAP
SCALE: 1"=200'



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CONSTRUCTION DOCUMENTS

TURF FIELD CIVIL PLAN & DETAILS



TIMBERLAND MS PARKING EXPANSION

BEAVERTON SCHOOL DISTRICT

BEAVERTON, OR

DATE	DESCRIPTION	BY
ADD #1 3/29/2019	ADDENDUM #1 - TURF FIELD & IRRIGATION	KAY

DATE	I 01/04/2019
DRAWN	I SPCKNY
DESIGNED	I SPCKNY
CHECKED	I MCL
PROJECT #	I 21813760

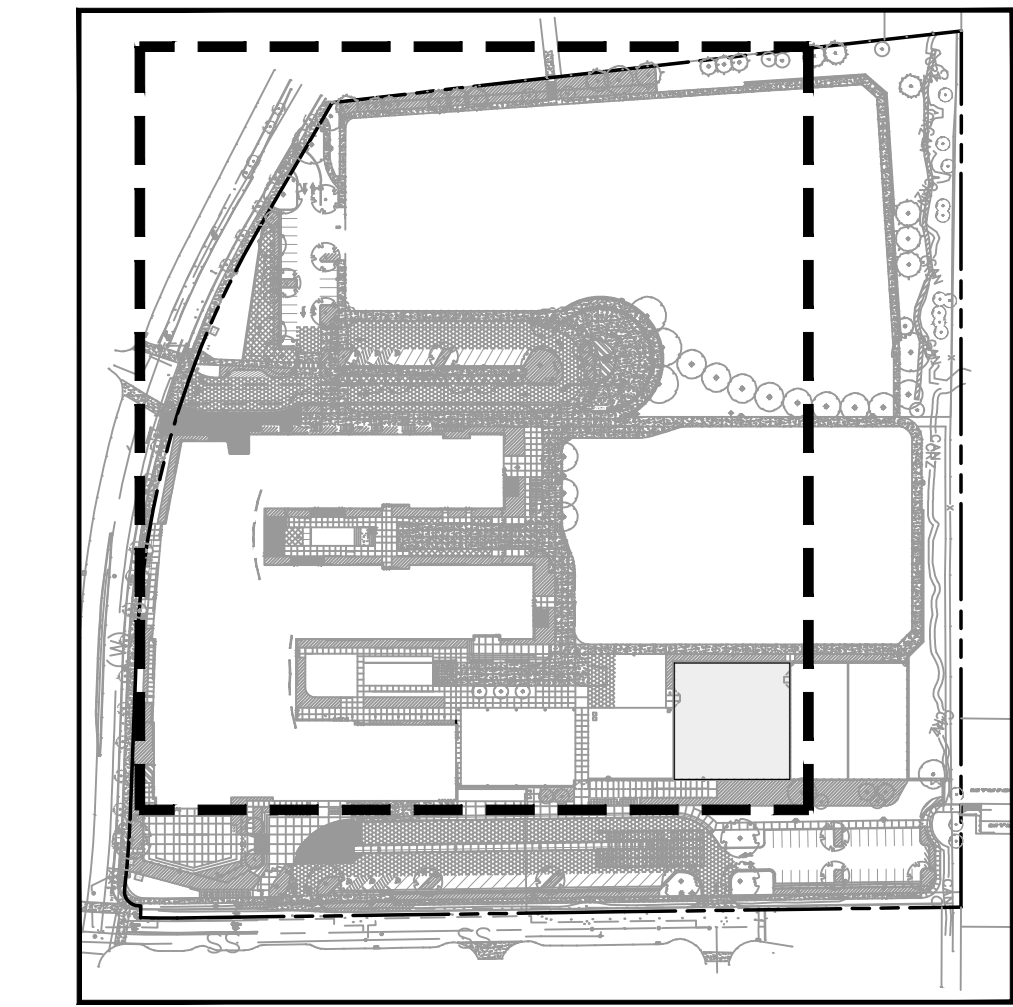
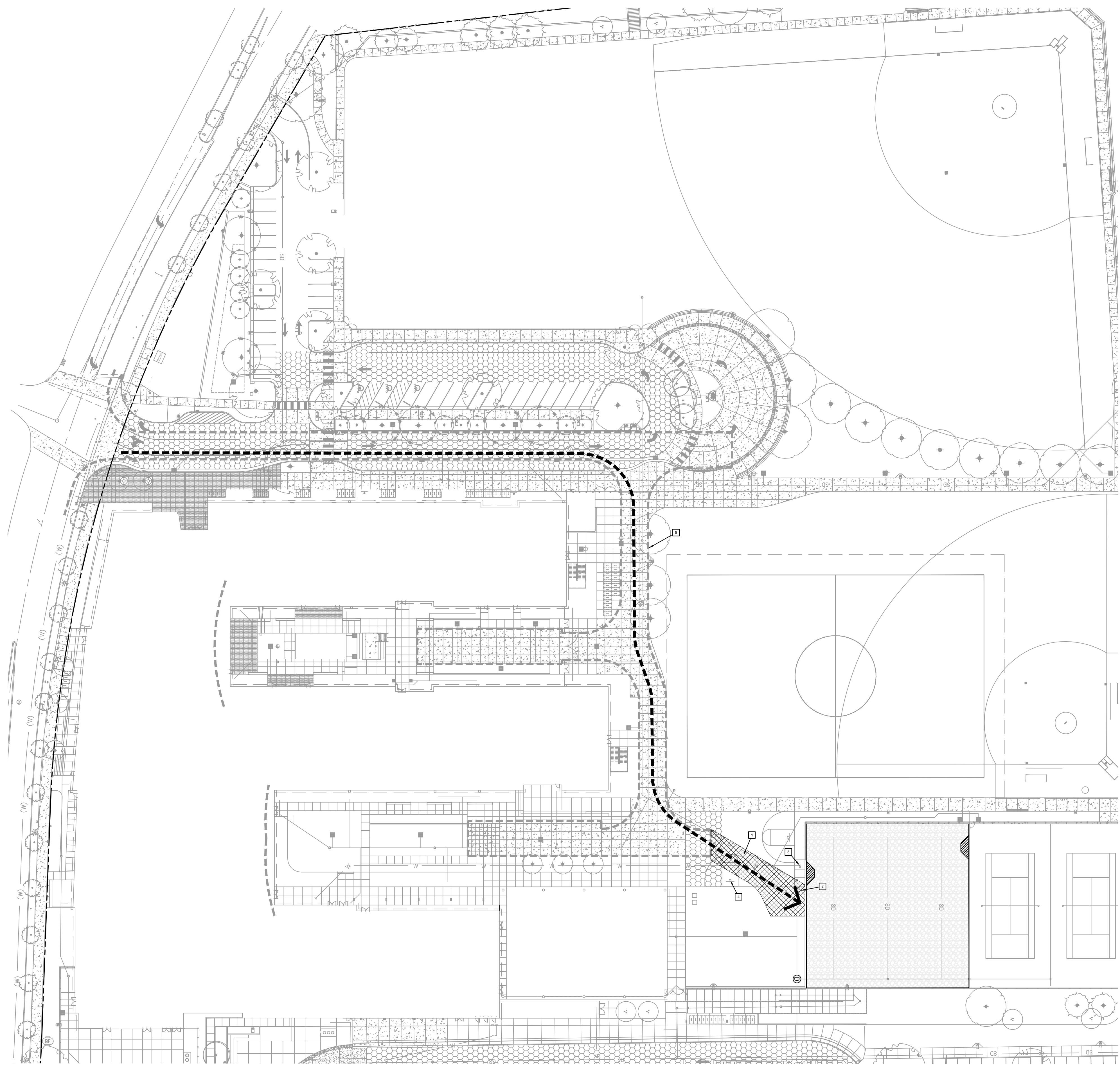
SHEET TITLE
TURF FIELD

SHEET NUMBER

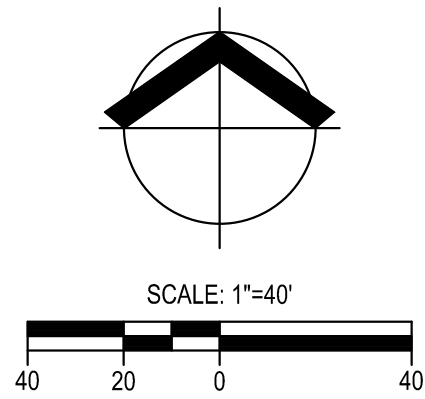


LAND USE # ADJ2018-007 / DR2018-0151

Plot Stamp: 3/29/2019 1:48:44 PM - Kelly Youngberg
File: W:\21813760\CADCivil_CDT\TURF FIELD\1376-DD-TURF-SITE.dwg, Tab: C601



KEY MAP
SCALE: 1" = 200'



LEGEND

- CONSTRUCTION ACCESS ROUTE
- SURFACE PROTECTION

CONSTRUCTION NOTES

- BEYOND LIMITS OF STRUCTURAL FIRE LANE, CONTRACTOR TO PROVIDE SURFACE PROTECTION ALONG ROUTE OF CONSTRUCTION TRAVEL TO PREVENT DAMAGE. CONTRACTOR TO DOCUMENT CONDITION PRIOR TO CONSTRUCTION AND IS RESPONSIBLE FOR ANY DAMAGE RESULTING FROM CONSTRUCTION.
- PRESERVE AND PROTECT EXISTING VALVE BOXES.
- PRESERVE AND PROTECT EXISTING DRINKING FOUNTAIN.
- PRESERVE AND PROTECT EXISTING BASKETBALL HOOP.
- CONTRACTOR TO REMAIN WITHIN LIMITS OF FIRE LANE, AS SHOWN. CONTRACTOR TO DOCUMENT CONDITION PRIOR TO CONSTRUCTION AND IS RESPONSIBLE FOR ANY DAMAGE RESULTING FROM CONSTRUCTION.



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CONSTRUCTION DOCUMENTS

ADD #	DATE	DESCRIPTION	BY
ADD #1	3/29/2019	ADDENDUM #1 - TURF FIELD & IRRIGATION	KNY

DATE	I 01/04/2019
DRAWN	I SPC/KNY
DESIGNED	I SPC/KNY
CHECKED	I MCL
PROJECT #	I 21813760

SHEET TITLE	TURF FIELD CONSTRUCTION ACCESS
SHEET NUMBER	C601

LAND USE # ADJ2018-007 / DR2018-0151

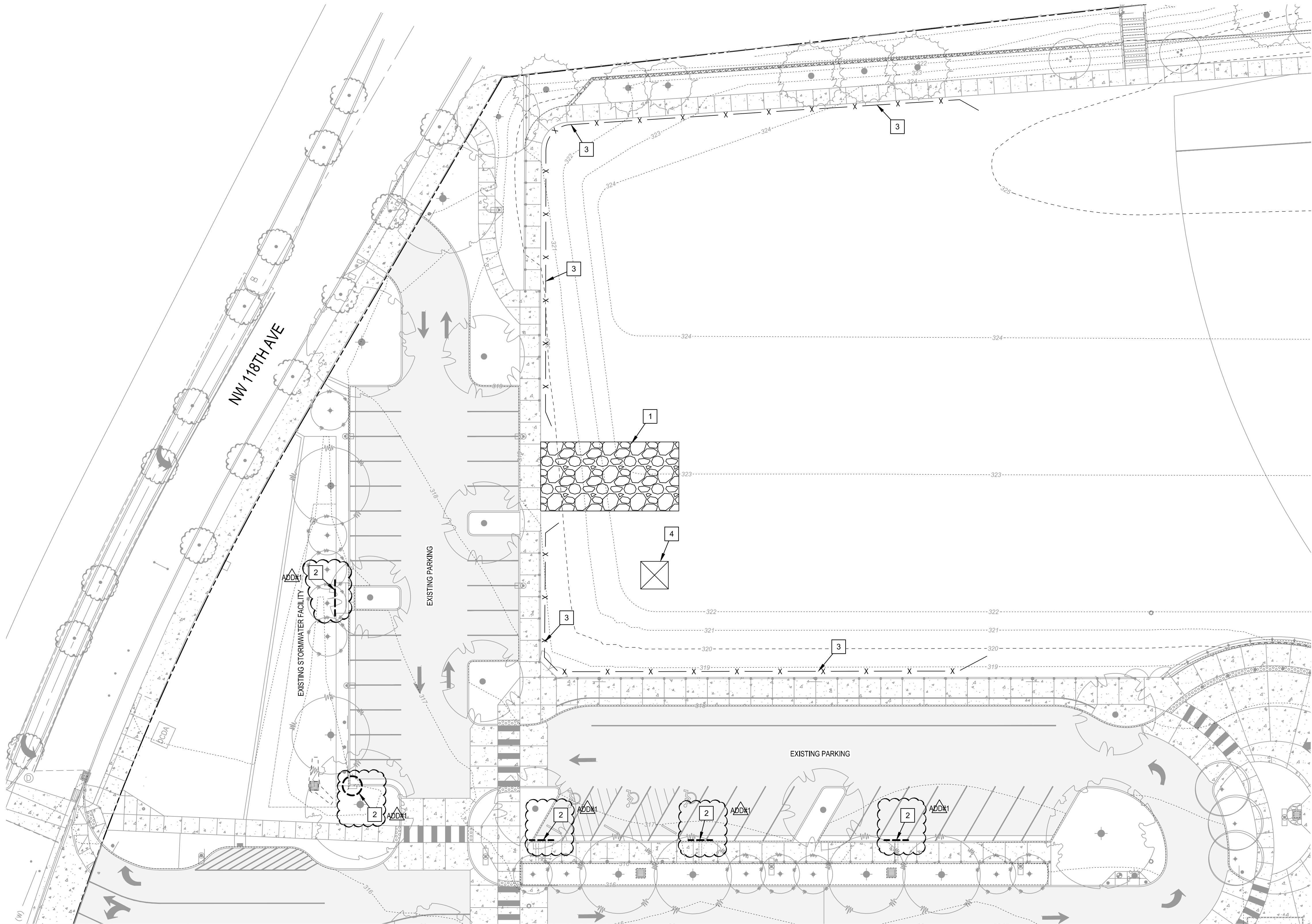
TURF FIELD CONSTRUCTION ACCESS PLAN

TIMBERLAND MS PARKING EXPANSION

BEAVERTON SCHOOL DISTRICT

BEAVERTON, OR





EROSION CONTROL NOTES

- 1 INSTALL CONSTRUCTION ENTRANCE PER CWS DETAIL 855 ON SHEET EC03.
- 2 INSTALL STRAW WATTLES PER DETAIL 2 ON SHEET EC03.
- 3 INSTALL SEDIMENT FENCE PER DETAIL 4 ON SHEET EC03.
- 4 INSTALL CONCRETE WASHOUT PER DETAIL 3 ON SHEET EC03.

UNDERGROUND ACCURACY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH WE CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. DUE TO THE HAZARDOUS NATURE AND APPLICABLE OSHA REQUIREMENTS REGARDING CONFINED SPACES, IT IS CARDNO POLICY TO NOT SEND FIELD STAFF INTO UTILITY MANHOLES TO RETRIEVE DEPTH AND SIZE INFORMATION. INFORMATION SHOWN HEREON IS SUBJECT TO AN UNCERTAINTY IN ACCURACY DEPENDING ON DEPTH, SIZE, FLOW, AND CONSTRUCTION OF MANHOLES. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITY LINES.

OREGON UTILITY
NOTIFICATION CENTER
1-800-332-2344



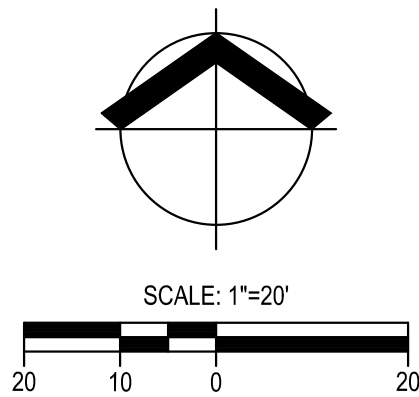
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PROPOSED LEGEND

- X - SEDIMENT FENCE
- - - - - STRAW WATTLES
- [Pattern] - CONSTRUCTION ENTRANCE
- [X in Box] - CONCRETE WASHOUT

EXISTING LEGEND

- - - - - RIGHT OF WAY LINE
- - - - - CENTERLINE
- - - - - MAJOR CONTOURS
- - - - - MINOR CONTOURS
- - - - - WALL
- - - - - FENCE
- - - - - CURB
- - - - - ROAD MARKING
- SD - UNDERGROUND STORM LINE
- GAS - UNDERGROUND GAS LINE
- - - - - UNDERGROUND STORM PERF PIPE
- [Pattern] - LIGHT ASPHALT CONCRETE
- [Pattern] - CONCRETE
- [Pattern] - CATCH BASIN
- [Symbol] - WATER VALVE
- [Symbol] - BOLLARD
- [Symbol] - SIGN
- [Symbol] - HANDICAP PARKING SYMBOL
- [Symbol] - DIRECTIONAL TRAFFIC ARROW
- [Symbol] - CROSSWALK
- [Symbol] - TREES
- [Symbol] - LIGHT
- [Symbol] - CONCRETE WHEEL BLOCK



CONSTRUCTION DOCUMENTS



EXISTING EROSION CONTROL PLAN
TIMBERLAND MS PARKING EXPANSION
BEAVERTON SCHOOL DISTRICT
BEAVERTON, OR

DATE	DESCRIPTION	BY
ADD #1 1/29/2019	ADDENDUM #1 - TURF FIELD & IRRIGATION	KAY

DATE	I 01/04/2019
DRAWN	I SPCK/NKY
DESIGNED	I SPCK/NKY
CHECKED	I MCL
PROJECT #	I 21813760

SHEET TITLE	EXISTING EC PLAN
SHEET NUMBER	EC01

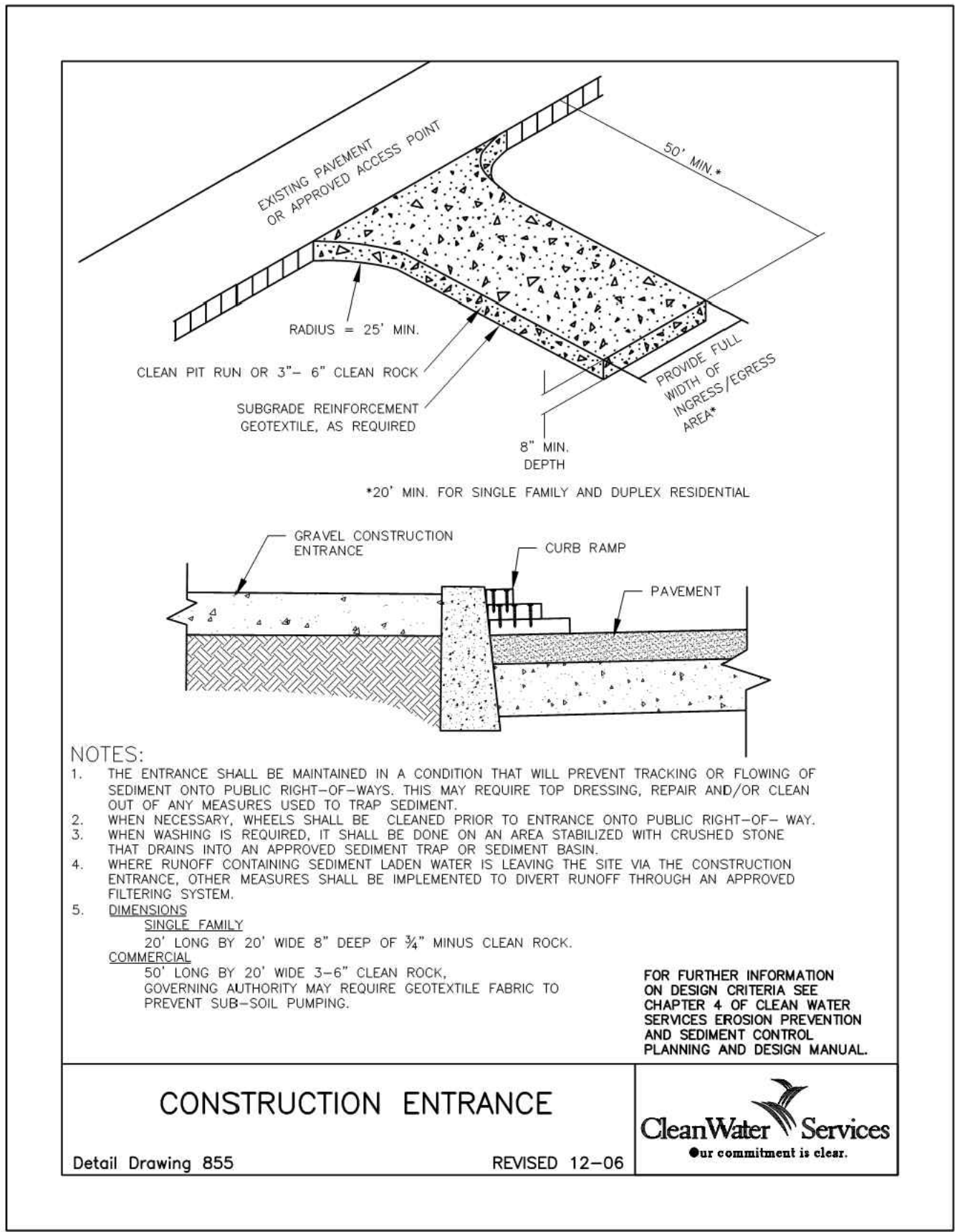
CITY OF BEAVERTON EROSION CONTROL NOTES

- CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION / SEDIMENTATION CONTROL DURING CONSTRUCTION (ANY TIME OF THE PER THE "EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL: DATED DEC. 2000 AND CLEAN WATER SERVICES DESIGN AND CONSTRUCTION STANDARDS, R&O 07-20, CHAPTER 6.
- APPROVAL OF THIS EROSION / SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.)
- THE IMPLEMENTATION OF THESE ESC PLANS AND CONSTRUCTION, MAINTENANCE, REPLACEMENT AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED BY THE CITY OF BEAVERTON AND VEGETATION / LANDSCAPING IS ESTABLISHED. THE DEVELOPER SHALL BE RESPONSIBLE FOR MAINTENANCE OF ESC AFTER THE PROJECT IS APPROVED AND UNTIL THE LOTS ARE SOLD.
- THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE APPLICANT / CONTRACTOR FOR THE DURATION OF THE CONSTRUCTION.
- THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO INSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS.
- THE ESC FACILITIES SHOWN ON THIS PLAN ARE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DOES NOT LEAVE THE SITE.
- THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT / CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
- THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE EVERY TWO WEEKS OR WITHIN 24 HOURS FOLLOWING A STORM EVENT.
- REMOVAL OF TRAPPED SEDIMENT IN A SEDIMENT BASIN OR SEDIMENT TRAP MUST OCCUR WHEN THE SEDIMENT RETENTION CAPACITY HAS BEEN REDUCED BY FIFTY (50) PERCENT AND AT COMPLETION OF PROJECT.
- STABILIZED GRAVEL ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
- STORM DRAIN INLETS, BASINS AND AREA DRAINS SHALL BE PROTECTED UNTIL PAVEMENT SURFACES ARE COMPLETED AND / OR VEGETATION IS RE-ESTABLISHED.
- PAVEMENT SURFACES AND VEGETATION ARE TO BE PLACED AS RAPIDLY AS POSSIBLE.
- SEEDING SHALL BE PERFORMED NO LATER THAN SEPTEMBER 1ST FOR EACH PHASE OF CONSTRUCTION.
- IF THERE ARE EXPOSED SOILS, OR SOILS ARE NOT FULLY ESTABLISHED FROM OCTOBER 1ST THROUGH MAY 31ST, THE WET WEATHER EROSION CONTROL MEASURES WILL BE IN EFFECT. SEE CHAPTER 6 OF THE EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL FOR REQUIREMENTS.
- ESC MEASURES SHALL BE REMOVED BY THE DEVELOPER / OWNER WHEN VEGETATION IS FULLY ESTABLISHED.
- NOTIFY CITY OF BEAVERTON CONSTRUCTION INSPECTOR 24 HOURS PRIOR TO ANY WORK ON THIS SITE.

CITY OF BEAVERTON WET WEATHER EROSION CONTROL NOTES

ON SEPTEMBER 1ST OF EACH YEAR, IF THERE ARE EXPOSED SOILS, DISTURBED AREAS, OR GROUND-COVER VEGETATION NOT FULLY ESTABLISHED SUFFICIENT TO PREVENT EROSION, A SPECIFIC EROSION CONTROL PLAN SHALL BE PREPARED BASED ON THE EXISTING AND EXPECTED SITE CONDITIONS USING THE WET WEATHER EROSION PREVENTION MEASURES (SEE EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL CHAPTER 4 FOR REQUIREMENTS). FOR SURFACE WATER FACILITIES, FIBER MATTING SHALL BE INSTALLED IN ALL AREAS EXPOSED TO WATER FLOW OR INUNDATION; FREE-FLOATING MULCH SHALL NOT BE USED IN AREAS SUBJECT TO INUNDATION. FIBER MATTING SHALL EITHER BE SEEDED (PER THE DESIGN) OR PLACED PRIOR TO PLANTING OF PLUGS, CUTTINGS, REEDS, RUSHES, OR SHRUBS. ALL MEASURES AND SPECIFICATIONS FOR MATERIALS USED SHALL BE PER PLAN OR AS SPECIFICALLY APPROVED BY THE ENGINEER AND CITY INSPECTOR. IF ANY ADDITIONAL AREAS BECOME EXPOSED, DISTURBED, OR STRIPPED OF VEGETATION BETWEEN OCTOBER 1ST AND MAY 31ST, THE PLAN SHALL BE REVISED OR OTHERWISE EXPANDED PER THE STANDARDS AND AS DIRECTED BY THE ENGINEER AND CITY INSPECTOR. PRIOR TO OCTOBER 1ST OF EACH YEAR, WET WEATHER MEASURES SHALL BE INSTALLED AND FULLY FUNCTIONAL.

UPDATED 2/2010

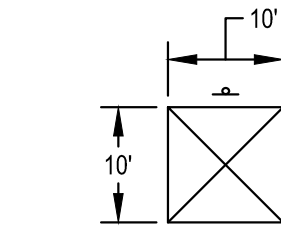


- NOTES:
- WHEN RAINFALL AND RUNOFF OCCURS, A KNOWLEDGEABLE AND EXPERIENCED PERSON IN THE PRINCIPLES, PRACTICES, INSTALLATION, AND MAINTENANCE OF EROSION AND SEDIMENT CONTROLS WHO WORKS FOR THE PERMITTEE MUST PROVIDE DAILY INSPECTIONS OF THE EROSION AND SEDIMENT CONTROLS AND DISCHARGE OUTFALLS.
 - CONSTRUCTION ACTIVITIES MUST AVOID OR MINIMIZE EXCAVATION AND CREATION OF BARE GROUND FROM OCTOBER 1 THROUGH MAY 31ST EACH YEAR.
 - DURING WET WEATHER PERIOD, TEMPORARY STABILIZATION OF THE SITE MUST OCCUR AT THE END OF EACH WORK DAY.
 - SEDIMENT CONTROLS MUST BE INSTALLED AND MAINTAINED ON ALL DOWN GRADIENT SIDES OF THE CONSTRUCTION SITE AT ALL TIMES DURING CONSTRUCTION. THEY MUST REMAIN IN PLACE UNTIL PERMANENT VEGETATION OR OTHER PERMANENT COVERING OF EXPOSED SOIL IS ESTABLISHED.
 - ALL ACTIVE INLETS MUST HAVE SEDIMENT CONTROLS INSTALLED AND MAINTAINED AT ALL TIMES DURING CONSTRUCTION, UNLESS OTHERWISE APPROVED. A SURFACE MOUNTED AND ATTACHABLE, U-SHAPED FILTER BAG IS REQUIRED FOR ALL CURB INLET CATCH BASINS.
 - SIGNIFICANT AMOUNTS OF SEDIMENT THAT LEAVES THE SITE MUST BE CLEANED UP WITHIN 24 HOURS AND PLACED BACK ON THE SITE AND STABILIZED OR PROPERLY DISPOSED. THE CAUSE OF THE SEDIMENT RELEASE MUST BE FOUND AND PREVENTED FROM CAUSING A RECURRENCE OF THE DISCHARGE WITHIN THE SAME 24 HOURS. ANY IN-STREAM CLEAN UP OF SEDIMENT SHALL BE PERFORMED ACCORDING TO THE OREGON DEPARTMENT OF STATE LANDS REQUIRED TIME FRAME.
 - SEDIMENT MUST NOT BE INTENTIONALLY WASHED INTO STORM SEWERS, DRAINAGE WAYS, OR WATER BODIES.
 - SEDIMENT MUST BE REMOVED FROM BEHIND ALL SEDIMENT CONTROL MEASURES WHEN IT HAS REACHED A HEIGHT OF 1/3-RD THE BARRIER HEIGHT AND PRIOR TO THE CONTROL MEASURES REMOVAL.
 - CLEANING OF ALL STRUCTURES WITH SUMPS MUST OCCUR WHEN THE SEDIMENT RETENTION CAPACITY HAS BEEN REDUCED BY 50% AND AT COMPLETION OF PROJECT.
 - ANY USE OF TOXIC OR OTHER HAZARDOUS MATERIALS MUST INCLUDE PROPER STORAGE, APPLICATION, AND DISPOSAL.
 - THE PERMITTEE MUST PROPERLY MANAGE HAZARDOUS WASTES, USED OILS, CONTAMINATED SOILS, CONCRETE WASTE, SANITARY WASTE, LIQUID WASTE, OR OTHER TOXIC SUBSTANCES DISCOVERED OR GENERATED DURING CONSTRUCTION.
 - THE APPLICATION RATE OF FERTILIZERS USED TO REESTABLISH VEGETATION MUST FOLLOW MANUFACTURER'S RECOMMENDATIONS. NUTRIENT RELEASES FROM FERTILIZERS TO SURFACE WATERS MUST BE MINIMIZED. TIME RELEASE FERTILIZERS SHOULD BE USED AND CARE SHOULD BE MADE IN APPLICATION OF FERTILIZERS WITHIN ANY WATER WAY RIPARIAN ZONE.
 - OWNER OR DESIGNATED PERSON SHALL BE RESPONSIBLE FOR PROPER INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES, IN ACCORDANCE WITH CURRENT CLEAN WATER SERVICES STANDARDS AND STATE, AND FEDERAL REGULATIONS.
 - PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE BOUNDARIES OF THE CLEARING LIMITS, VEGETATED BUFFERS, AND ANY SENSITIVE AREAS SHOWN ON THIS PLAN SHALL BE CLEARLY DELINEATED IN THE FIELD. UNLESS OTHERWISE APPROVED, NO DISTURBANCE IS PERMITTED BEYOND THE CLEARING LIMITS. THE OWNER/PERMITTEE MUST MAINTAIN THE DELINEATION FOR THE DURATION OF THE PROJECT. NOTE: VEGETATED CORRIDORS TO BE DELINEATED WITH ORANGE CONSTRUCTION FENCE OR APPROVED EQUAL.
 - PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE BMPs THAT MUST BE INSTALLED ARE GRAVEL CONSTRUCTION ENTRANCE, PERIMETER SEDIMENT CONTROL, AND INLET PROTECTION. THESE BMPs MUST BE MAINTAINED FOR THE DURATION OF THE PROJECT.
 - IF VEGETATIVE SEED MIXES ARE SPECIFIED, SEEDING MUST TAKE PLACE NO LATER THAN SEPTEMBER 1ST; THE TYPE AND PERCENTAGES OF SEED IN THE MIX ARE AS IDENTIFIED ON THE PLANS OR AS SPECIFIED BY THE DESIGN ENGINEER.
 - WATERTIGHT TRUCKS MUST BE USED TO TRANSPORT SATURATED SOILS FROM THE CONSTRUCTION SITE. AN APPROVED EQUIVALENT IS TO DRAIN THE SOIL ON SITE AT A DESIGNATED LOCATION USING APPROPRIATE BMPs; SOIL MUST BE DRAINED SUFFICIENTLY FOR MINIMAL SPILLAGE.
 - ALL PUMPING OF SEDIMENT LADEN WATER MUST BE DISCHARGED OVER AN UNDISTURBED, PREFERABLY VEGETATED AREA, AND THROUGH A SEDIMENT CONTROL BMP (I.E. FILTER BAG).
 - THE ESC PLAN MUST BE KEPT ONSITE. ALL MEASURES SHOWN ON THE PLAN MUST BE INSTALLED PROPERLY TO ENSURE THAT SEDIMENT LADEN WATER DOES NOT ENTER A SURFACE WATER SYSTEM, ROADWAY, OR OTHER PROPERTIES.
 - THE ESC MEASURES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE MEASURES SHALL BE UPGRADED AS NEEDED TO MAINTAIN COMPLIANCE WITH ALL REGULATIONS.
 - WRITTEN ESC LOGS ARE SUGGESTED TO BE MAINTAINED ONSITE AND AVAILABLE TO DISTRICT INSPECTORS UPON REQUEST.
 - IN AREAS SUBJECT TO WIND EROSION, APPROPRIATE BMPs MUST BE USED WHICH MAY INCLUDE THE APPLICATION OF FINE WATER SPRAYING, PLASTIC SHEETING, MULCHING, OR OTHER APPROVED MEASURES.
 - ALL EXPOSED SOILS MUST BE COVERED DURING WET WEATHER PERIOD.

STANDARD EROSION CONTROL
NOTES FOR SITES LESS THAN 1
ACRE

DRAWING NO. 945

REVISED 12-16

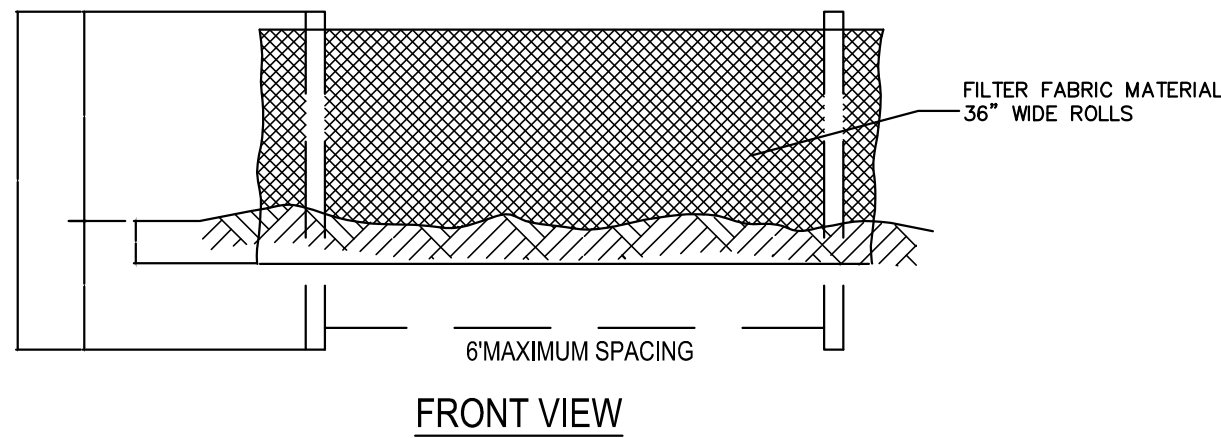
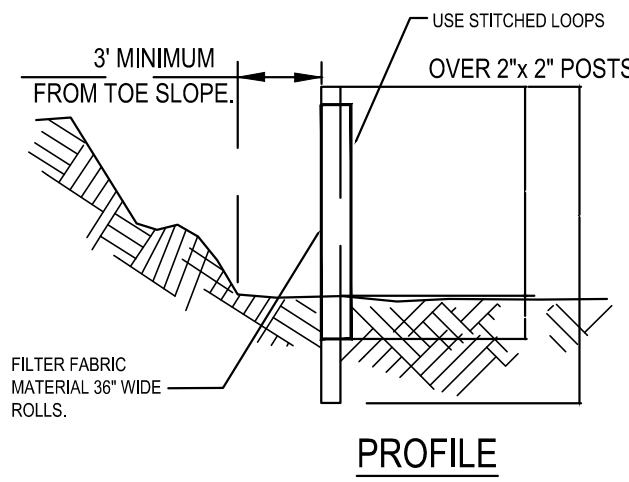
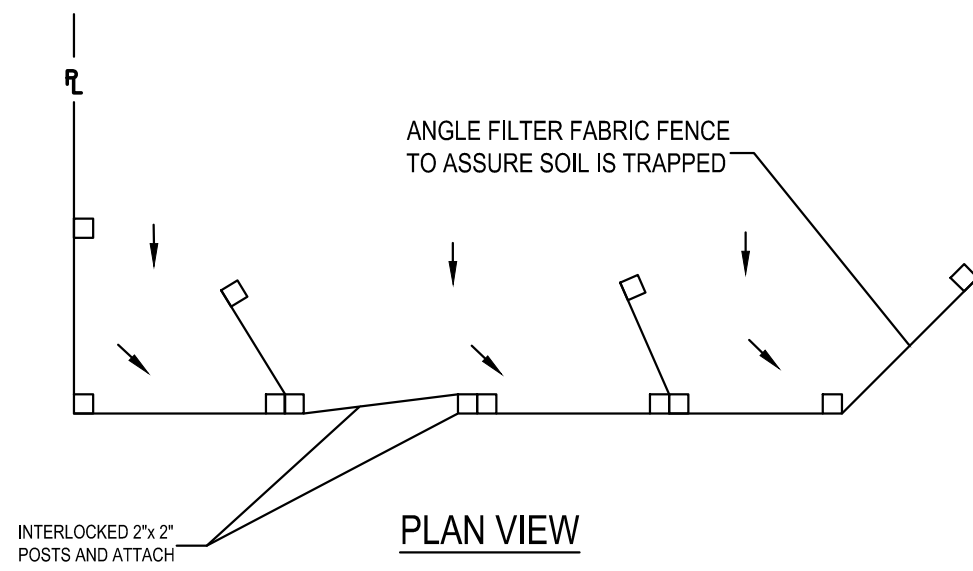


CONCRETE WASHOUT PIT AREA WITH SIGN.
SIGN TO BE POSTED AT ALL TIMES.

NOTES:

- WASHOUT AREA TO CONTAIN A MINIMUM OF 3 CY (IE 9' BY 9' BY 1' DEEP).
- REMOVE AND LEGALLY DISPOSE OF WASTE MATERIAL WHEN IT ACCUMULATES TO 2/3 OF WET STORAGE CAPACITY.
- CONCRETE WASHOUT AREA TO BE REPAIRED AND/OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY.
- UPON COMPLETION OF CONSTRUCTION ACTIVITIES REQUIRING CONCRETE WASHOUT, REMOVE WASHOUT AND RESTORE THE AREA TO FINISH GRADE.

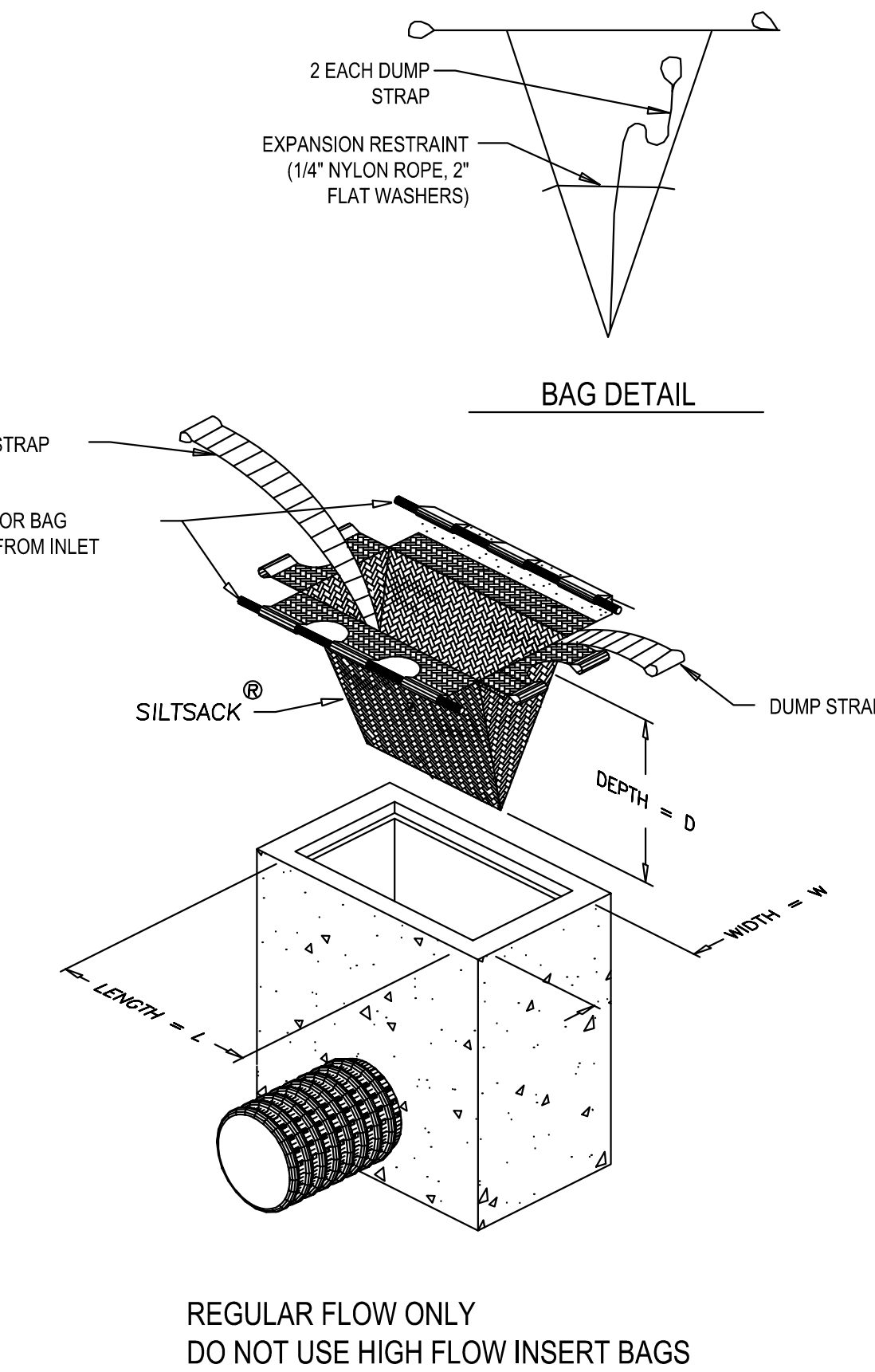
3 CONCRETE TRUCK WASHOUT
SCALE: NOT TO SCALE



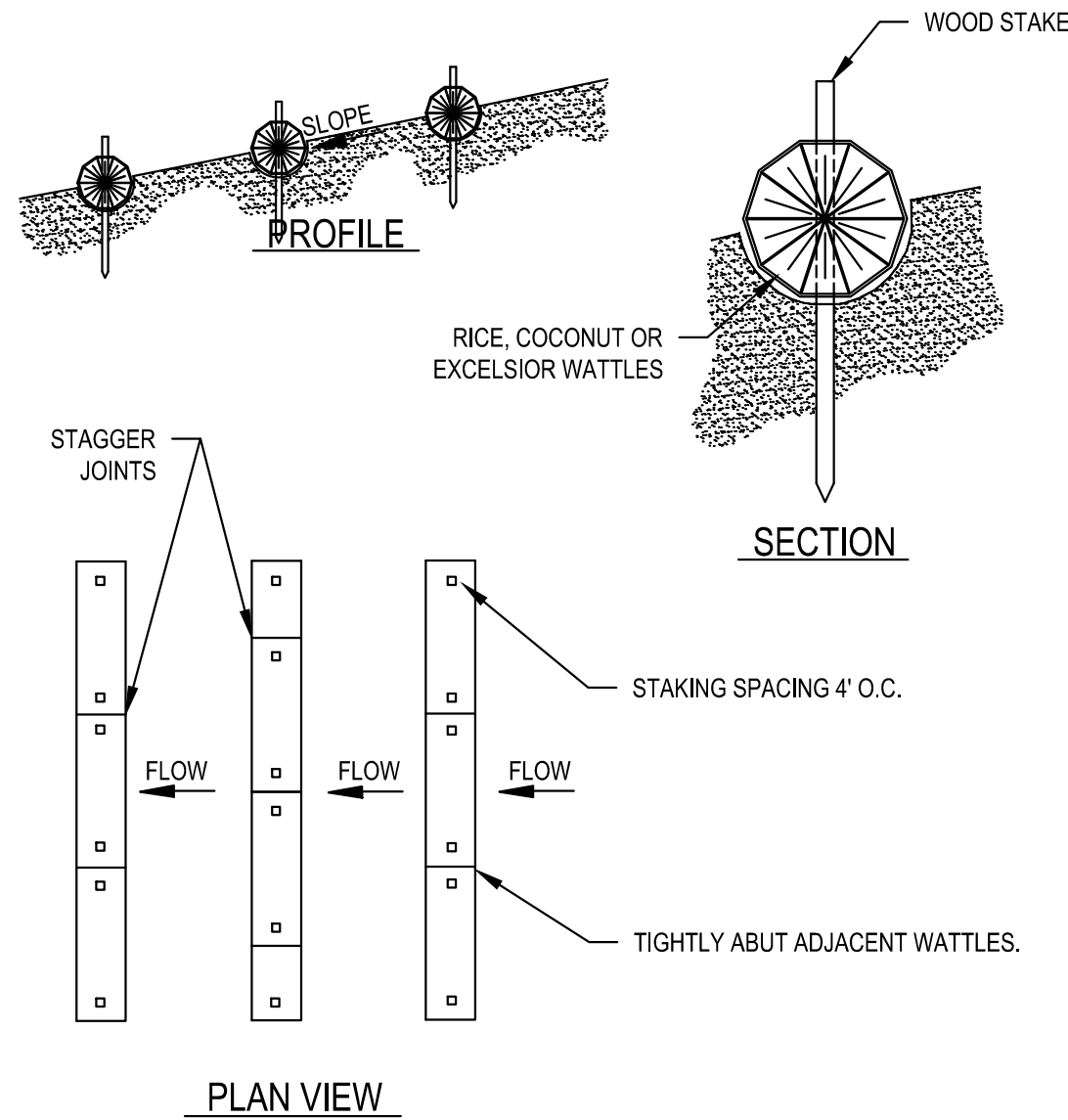
NOTES:

- BURY BOTTOM OF FILTER FABRIC 6\"/>
- 2\"/>
- POSTS TO BE INSTALLED ON UPHILL SIDE OF SLOPE.
- COMPACT BOTH SIDES OF FILTER FABRIC TRENCH.
- PANELS MUST BE PLACED ACCORDING TO SPACING ON DETAIL NO.940

4 SEDIMENTATION FENCING
SCALE: NOT TO SCALE



1 CATCH BASIN INSERT BAG
SCALE: NOT TO SCALE



NOTES:

- STAKING SPECIFICATIONS:
 - 1\"/>
 - ADDITIONAL STAKES MAY BE INSTALLED ON DOWNHILL SIDE OF WATTLES, ON STEEP SLOPE OR HIGHLY EROSIONE SOILS.
- SPACING IN ACCORDANCE WITH DETAIL 940.

2 STRAW WATTLES
SCALE: NOT TO SCALE



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EROSION CONTROL DETAILS & NOTES

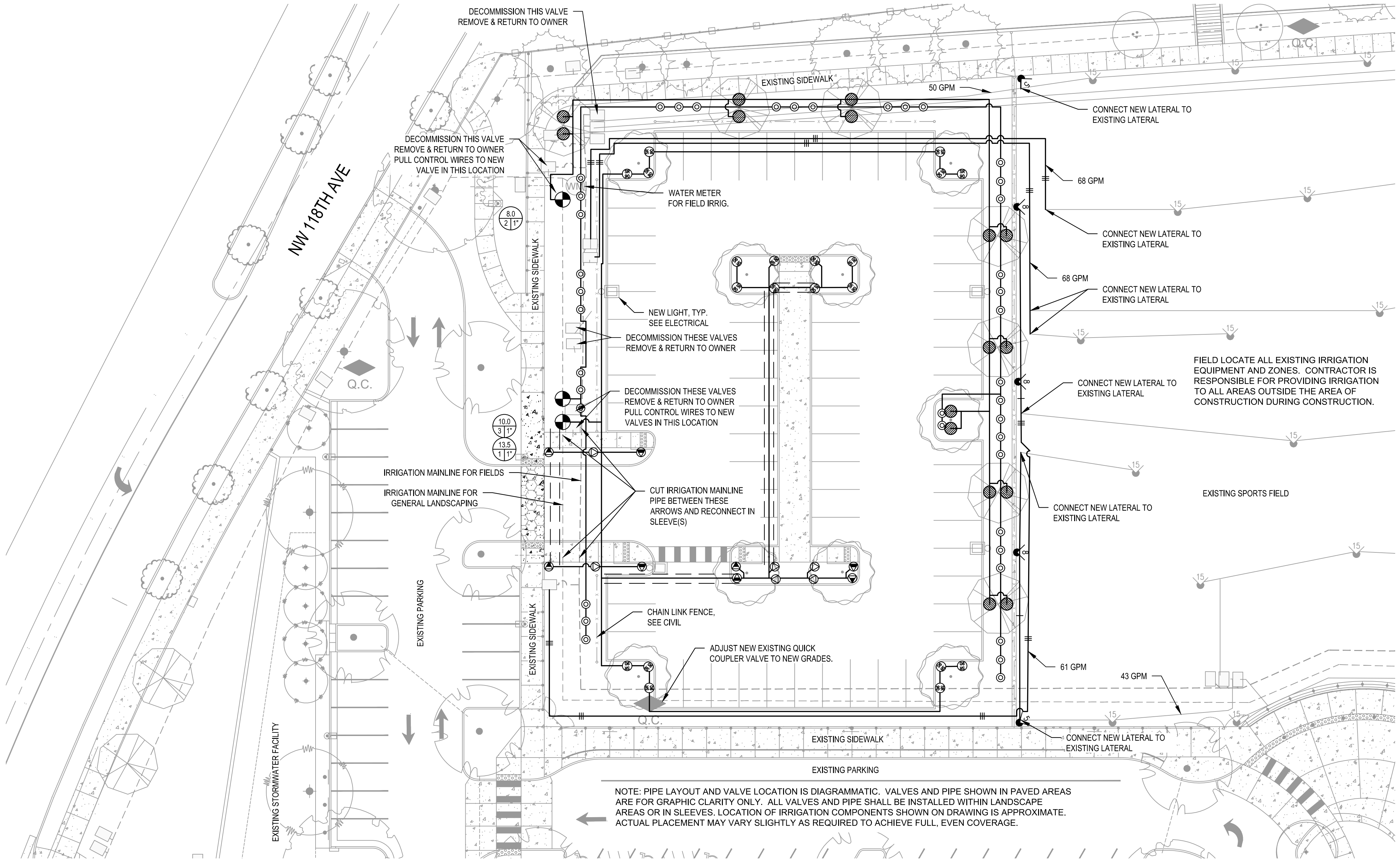


TIMBERLAND MS PARKING EXPANSION
BEAVERTON SCHOOL DISTRICT
BEAVERTON, OR

NO.	DATE	DESCRIPTION	BY
ADD #1	3/29/2019	ADDENDUM #1 - TURF FIELD IRRIGATION	KNY

DATE	I 01/04/2019
DRAWN	I SPCKKNY
DESIGNED	I SPCKKNY
CHECKED	I MCL
PROJECT #	I 21813760
SHEET TITLE	EC DETAILS & NOTES
SHEET NUMBER	

EC03



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IRRIGATION MATERIALS LEGEND

SYMBOL	NOZZLE & SPRAY BODY	GALLONS PER MINUTE	P.S.I.	RADIUS
MP ROTATOR ON PRS40 SPRAY HEAD				
	HUNTER MPLCS515, MPRCS515 ON	LEFT STRIP: IVORY RIGHT STRIP: COPPER = .22	40	5'x15'
	HUNTER MPSS530	SIDE STRIP: BROWN = 0.38	40	5'x30'
	HUNTER SHORT RANGE MP800SR-90	90°-210°: ORANGE = 0.49	40	10'
FIXED SPRAY AND MP ROTATOR NOTE: INSTALL 6" (-06) POP-UP HEADS IN AREAS OF CAR BUMPER OVERHANGS. INSTALL 12" (-12) POP-UP HEADS IN ALL OTHER LANDSCAPE AREAS.				
FIXED BUBBLERS				
	HUNTER BUBBLER MSBN-25F ON PROS-03 SHRUB ADAPTER	.25 GPM	30	1.5'
GEAR DRIVEN ROTORS				
	HUNTER I-25-06-SS 50-360° ARC & STAINLESS POP-UP (NOZZLE SET: STANDARD: F=18 H=8 Q=4)	F=14.5 H=8.3 Q=4.3	50	F=59' H=49' Q=41'
ROOT ZONE WATERING SYSTEM				
	HUNTER RZWS-18-50: 18" LENGTH w/ PRE-INSTALLED 0.50 GPM BUBBLER NOZZLE. INSTALL 2 PER TREE AS SHOWN ON PLAN.			

NOTE: PIPE LAYOUT AND VALVE LOCATION IS DIAGRAMMATIC. VALVES AND PIPE SHOWN IN PAVED AREAS ARE FOR GRAPHIC CLARITY ONLY. ALL VALVES AND PIPE SHALL BE INSTALLED WITHIN LANDSCAPE AREAS OR IN SLEEVES. LOCATION OF IRRIGATION COMPONENTS SHOWN ON DRAWING IS APPROXIMATE. ACTUAL PLACEMENT MAY VARY SLIGHTLY AS REQUIRED TO ACHIEVE FULL, EVEN COVERAGE.

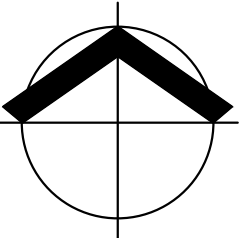
EXISTING IRRIGATION LEGEND & NOTES:

- EXISTING 3" MAINLINE - GENERAL
- EXISTING 3" MAINLINE - FIELDS
- EXISTING LATERAL PIPE TO BE PRESERVED

- EXISTING VALVE BOX
- EXISTING ROTOR HEAD

EXISTING IRRIGATION NOTES:

- FIELD LOCATE ALL EXISTING IRRIGATION EQUIPMENT AND FIELD TEST ZONES TO CONFIRM WHAT VALVES SERVE WHAT AREAS.
- IRRIGATION FOR FIELDS SHALL BE RETROFITTED AT THE BEGINNING OF PROJECT TO PROVIDE IRRIGATION TO THE EXISTING FIELDS DURING CONSTRUCTION.
- ALL IRRIGATION MAINLINES, WATER METER, VALVES STILL IN COMMISSION WITHIN CONSTRUCTION AREA IS TO BE PRESERVED IN PLACE.
- VALVES AND BOXES THAT ARE TO BE DECOMMISSIONED SHALL BE REMOVED AND RETURNED TO OWNER. MAINLINE AT THAT LOCATION SHALL BE REPAIRED. CONTROL WIRES SHALL BE PULLED TO SINGLE BOX AND PRESERVED AT THAT LOCATION.
- EXISTING IRRIGATION ROTOR HEADS WITHIN CONSTRUCTION AREA THAT ARE TO BE REMOVED ARE TO BE REUSED WHERE SHOWN OR RETURNED TO OWNER.



SCALE: 1"=20'
20 10 0 20

CONSTRUCTION DOCUMENTS

#	DATE	DESCRIPTION	BY
ADD #1	3/29/2019	ADDENDUM #1 - TURF FIELD & IRRIGATION	KAY



DATE	01/04/2019
DRAWN	BFS
DESIGNED	BFS
CHECKED	MCL
PROJECT #	21813760

SHEET TITLE
IRRIGATION PLAN
SHEET NUMBER

L200

LAND USE #

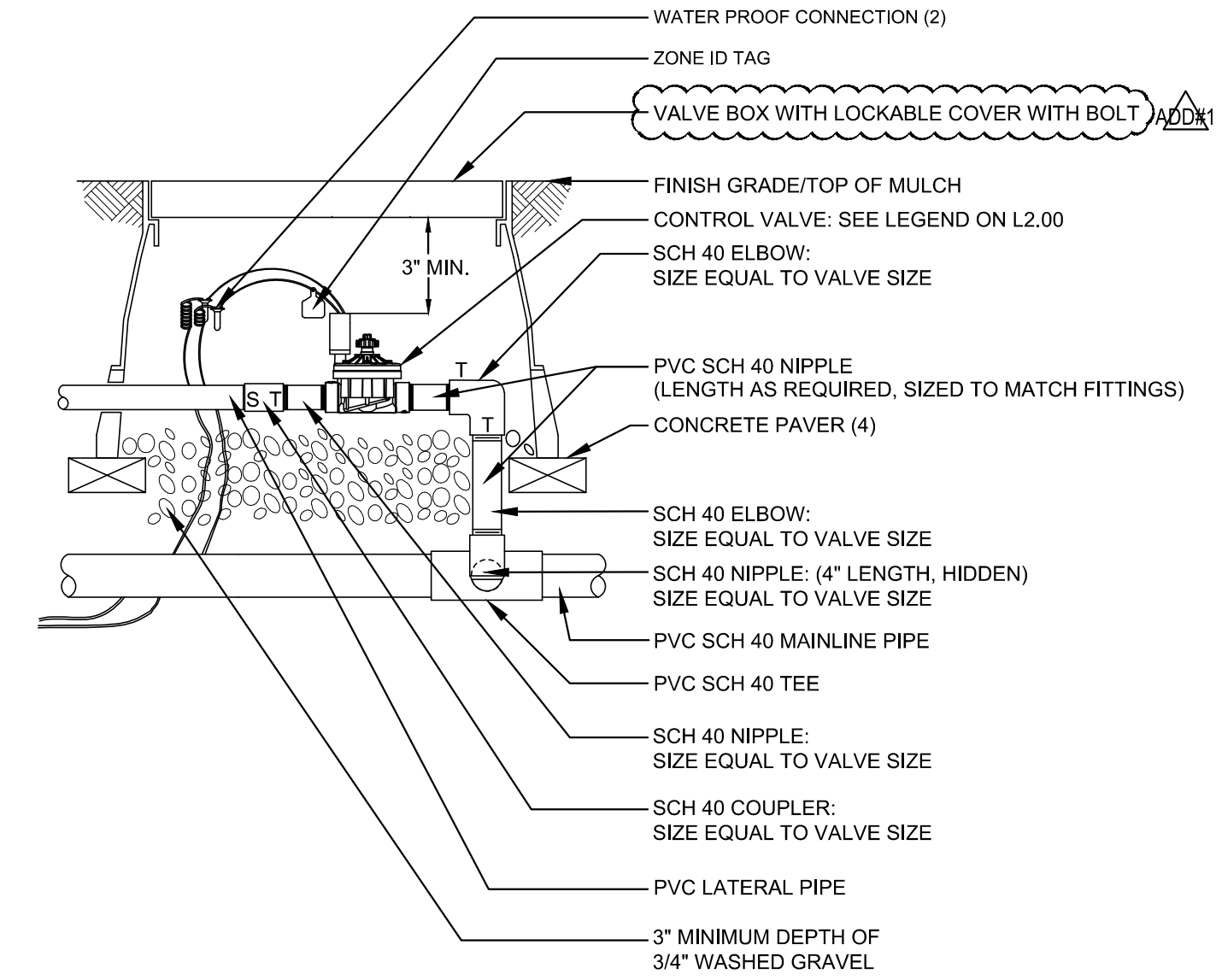
LANDSCAPE IRRIGATION PLAN

TIMBERLAND MS PARKING EXPANSION

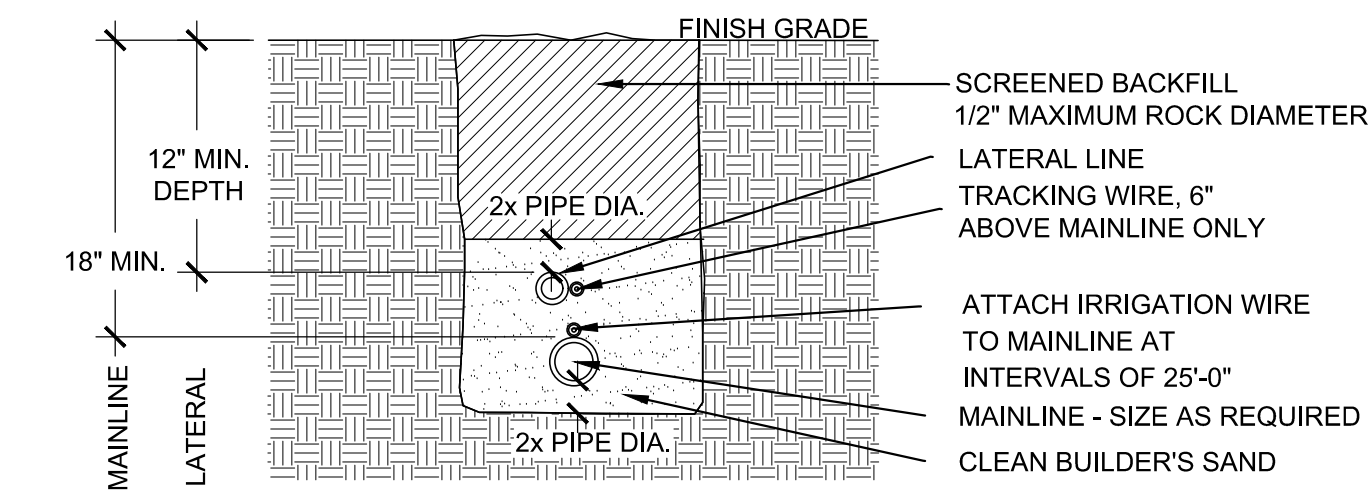
BEAVERTON SCHOOL DISTRICT

BEAVERTON, OR

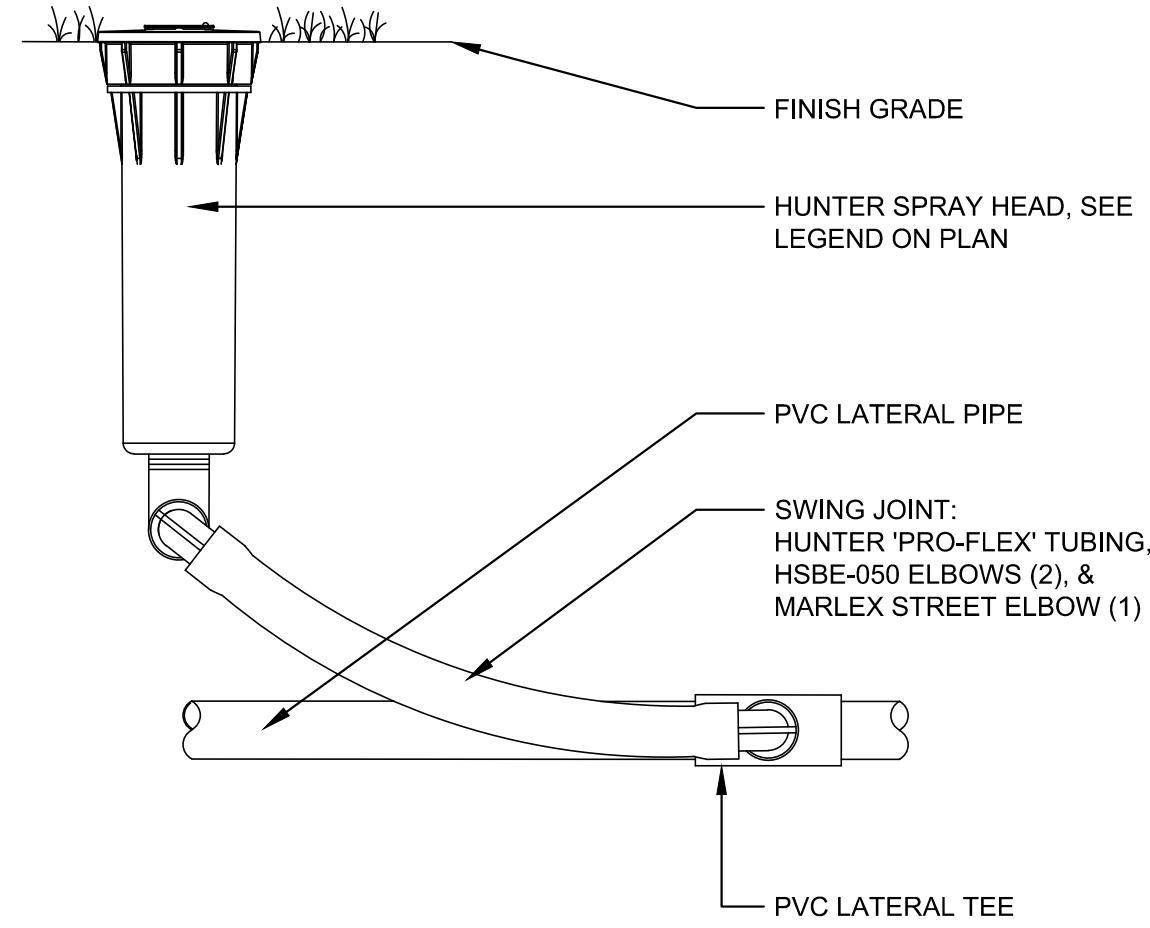




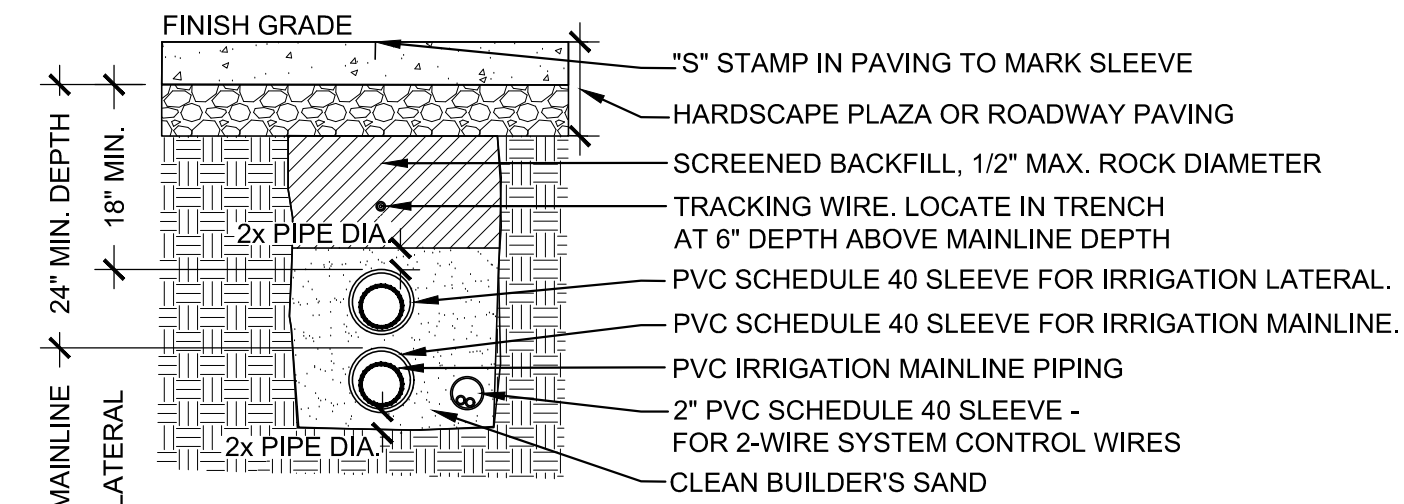
1 SPRAY VALVE
SCALE: NOT TO SCALE



3 IRRIGATION TRENCH IN LANDSCAPE BED
SCALE: NOT TO SCALE



2 POP-UP SPRAY HEAD
SCALE: NOT TO SCALE



4 SLEEVE INSTALLATION UNDER PAVING
SCALE: NOT TO SCALE

IRRIGATION NOTES:

1. CONTRACTOR TO VERIFY WITH OWNER AND UTILITY COMPANIES THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION AND TO DETERMINE IN THE FIELD THE ACTUAL LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES WHETHER SHOWN ON THE PLAN OR NOT. THE CONTRACTOR SHALL CALL UTILITY PROTECTION SERVICE 72 HOURS PRIOR TO CONSTRUCTION.
2. CONTRACTOR TO REPORT ALL DAMAGES TO EXISTING CONDITIONS OR INCONSISTENCIES WITH PLANS TO LANDSCAPE ARCHITECT.
3. CONTRACTOR SHALL EXAMINE FINISH SURFACE, GRADES, TOPSOIL QUALITY AND DEPTH. DO NOT START ANY WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. VERIFY LIMITS OF WORK BEFORE STARTING.
4. CONTRACTOR SHALL COORDINATE IRRIGATION INSTALLATION WITH INSTALLATION OF LANDSCAPING AND DRAINAGE SYSTEMS. CONTRACTOR WILL BE RESPONSIBLE FOR COORDINATION WITH OTHER SUBCONTRACTORS FOR INSTALLATION OF UNDERGROUND SLEEVING.
5. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE IN ALL LANDSCAPE BEDS AND ALL LAWN AREAS.
6. ALL PIPE SHALL BE LAID IN OPEN TRENCHES. INSTALL MAINLINE AND LATERALS TO THE DEPTHS SPECIFIED IN DETAILS.
7. ALL EXCAVATION REQUIRED TO OCCUR WITHIN THE DRIPLINE OF ANY EXISTING TREE SHALL BE RESTRICTED TO MANUAL LABOR. THE USE OF TRENCHERS, AUGERS, BACKHOES, TRACTORS, OR ANY OTHER TYPE OF MACHINERY/POWER EQUIPMENT IS PROHIBITED.
8. CONTRACTOR SHALL PROVIDE VALVE OUTPUT LIGHTNING / ELECTRICAL SURGE PROTECTION KITS AND 8' LONG COPPER GROUNDING ROD WITH #10 BARE COPPER WIRE FOR CONTROLLER. ALSO PROVIDE PRIMARY PROTECTION KIT. PROVIDE SURGE PROTECTOR ON EACH LEG OF INCOMING POWER TO GROUNDING ROD.
9. CONTRACTOR SHALL PROVIDE A REPRODUCIBLE AS-BUILT IRRIGATION PLAN. PLAN SHALL BE PREPARED, UPON FINAL ACCEPTANCE OF IRRIGATION INSTALLATION, ON A REPRODUCIBLE SITE PLAN (PROVIDED TO CONTRACTOR BY LANDSCAPE ARCHITECT). AS-BUILT PLAN SHALL BE SUBMITTED TO LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL.
10. CONTRACTOR SHALL PLACE A COLOR CODED ZONE MAP OF THE IRRIGATION SYSTEM INSIDE OF IRRIGATION CONTROLLER.
11. CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FOR ALL PRODUCT SUBSTITUTIONS BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. PRODUCTS, MANUFACTURERS, AND MODELS NOT IN COMPLIANCE WITH DRAWINGS AND SPECIFICATIONS MAY BE REJECTED BY THE LANDSCAPE ARCHITECT WITHOUT PRIOR WRITTEN APPROVAL. AT NO COST TO THE OWNER THESE ITEMS MAY BE REQUIRED TO BE REPLACED WITH PRODUCTS THAT ARE IN COMPLIANCE WITH THE MANUFACTURERS AND MODELS ON THE IRRIGATION PLAN.
12. THE IRRIGATION SYSTEM HAS BEEN DESIGNED TO OPERATE AT 65 PSI AFTER THE METER. IF THE PRESSURE IS LESS THAN 60 PSI, OR GREATER THAN 75 PSI, NOTIFY THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE IN WRITING. PRIOR TO PROCEEDING WITH THE INSTALLATION OF THE IRRIGATION SYSTEM, A PRESSURE REDUCING VALVE MAY BE NECESSARY FOR PRESSURES ABOVE 75 PSI.
13. CONTRACTOR SHALL INSTALL CHECK VALVES WHEREVER AN ELEVATION DIFFERENCE OF 3 FEET OR GREATER OCCURS WITHIN THE SAME IRRIGATION ZONE.



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LAND USE #

LANDSCAPE IRRIGATION DETAILS & NOTES

TIMBERLAND MS PARKING EXPANSION

BEAVERTON SCHOOL DISTRICT

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