

STORM WATER SEWER TO SERVE

29th St. N. Church Addition

LOT 1, BLOCK A

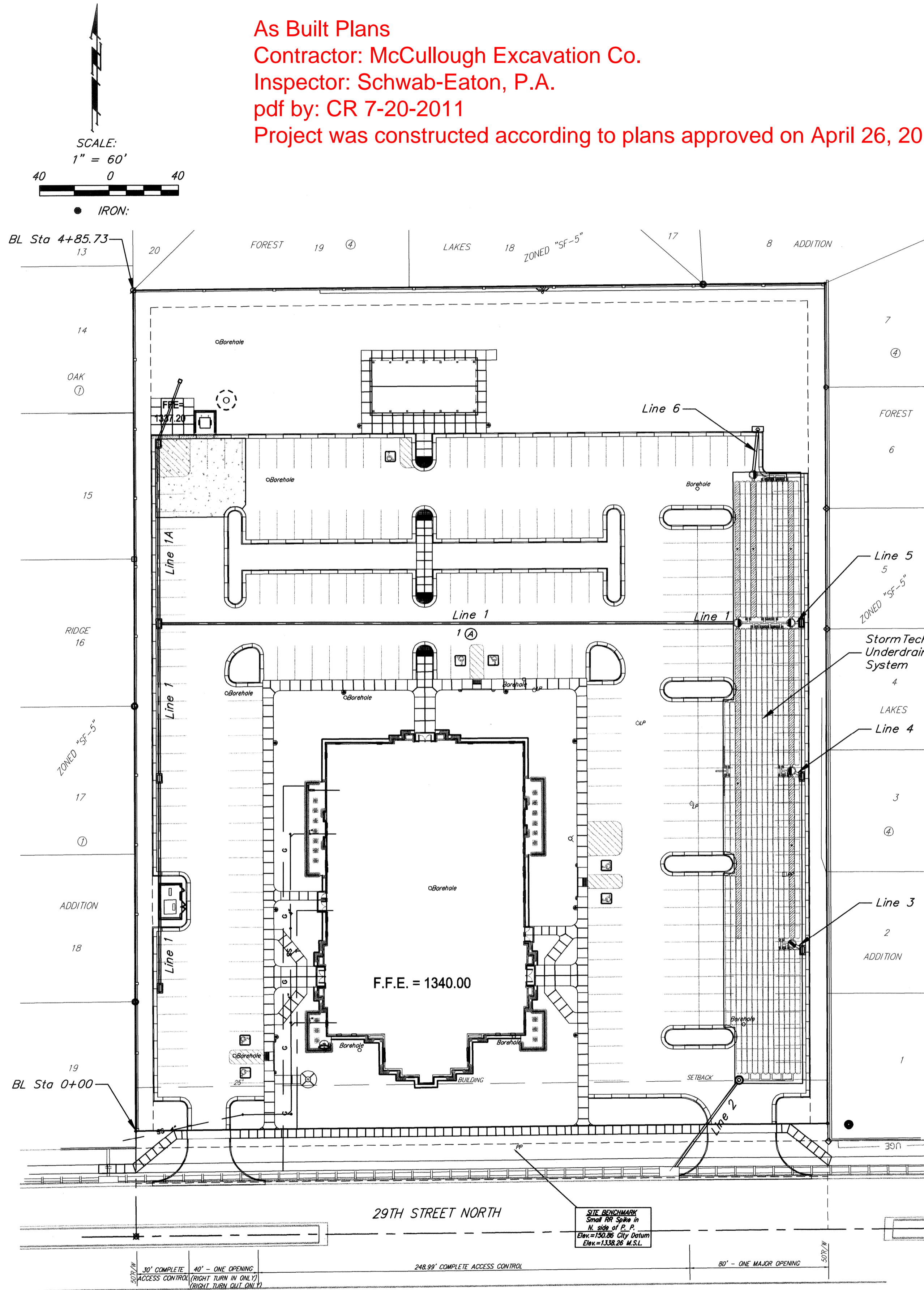
Private Project: 0020 PPD (607861)

CITY OF WICHITA, KANSAS

James Armour, P.E. City Engineer

April 2011

As Built Plans
 Contractor: McCullough Excavation Co.
 Inspector: Schwab-Eaton, P.A.
 pdf by: CR 7-20-2011
 Project was constructed according to plans approved on April 26, 2011



Benchmarks

Small RR Spike in N. side of P.P. (Shown on Plan)
 Elev. = 150.86 City Datum
 Elev. = 1338.26 M.S.L.

Legal Description

Lot 1, Block A 29th St. N. Church Addition.
 Wichita, Sedgwick County, Kansas

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Site Erosion Control Plan	C708
BMP Erosion Details	Available On Request
Inlet Detail Sheets	Available On Request

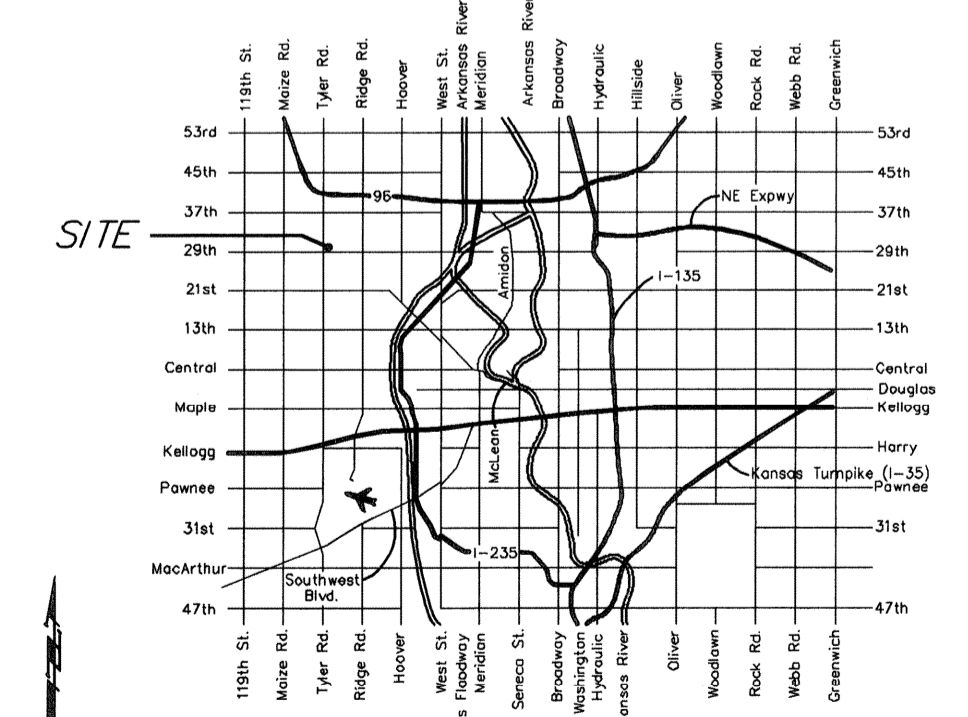
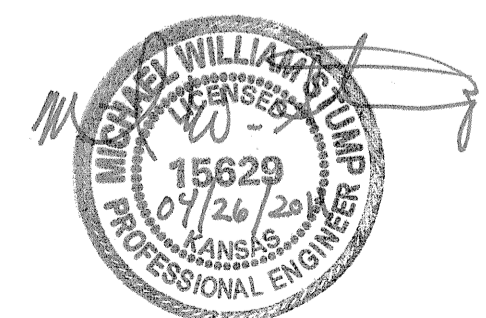
General Notes

- Contractor will be required to provide notice to utility companies a minimum of forty-eight (48) hours prior to any excavation, as follows:
 Kansas One-Call 687-2470
 The Contractor must notify the following in case of an emergency:
 Cox Communications 262-4270
 Kansas Gas Service Company 1-888-482-4950
 Westar Energy (Electric) 383-8650
 Black Hills Energy (Gas) 1-800-303-0357
 Southwestern Bell Telephone Co. 1-800-286-8313
 City of Wichita Water Dept. (Water) 262-6000
 City of Wichita Sewer Maint. (SS) 262-6000
 City of Wichita Storm Sewer Maint. 268-4090
 City of Wichita Traffic Maint. 268-4034
- All disturbed R/W areas not intended for pavement or sidewalk construction shall be seeded with Kansas Premium Fescue Blend at a rate of 8 lb./1000 Sq. Ft., fertilized with a 16-20-6 ratio at a rate of 4 lb./1000 Sq. Ft., and mulched with Prairie Hay at a rate of 92 lb./1000 Sq. Ft. Mulch shall be "patted" with forks or punched into soil to reduce loss due to wind.
- Utility service lines, poles, valve boxes, meters, et cetera are to be adjusted as necessary by others prior to construction unless the plans specifically call for their adjustment by the Contractor or unless the plans specifically identify a utility to be adjusted by its owner during construction. Existing utilities and their location, as shown on the plans represent the best information obtainable for design and shall be field verified. The contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.
- Contractor shall furnish the inspector with a copy of the manufacturer's certification for all pipe used on this project after completion of pipe installation. The engineer will not certify the project to the city until pipe certification has been received.
- Properties within the project limits may have underground sprinkler systems which conflict with new construction. Contractor will be required to remove such improvements should they not be removed by their owner at the time of construction. The Contractor will be required to salvage all sprinkler heads and/or valves and give such material to their owner. Portions of underground sprinkler systems not in conflict with new construction shall be protected from damage and shall remain in place. All work in connection with underground sprinkler systems shall be considered as subsidiary to the contract pay items of work.
- Cuts made to paved surfaces on public property will be repaired by the City's contractor and charged against the owner/applicant. Unit repair prices are available from the City at 268-4418. A surcharge may be applicable; call 268-4418 for details. Repair costs to be paid prior to release of sewer service if sewer service is affected. Contractor shall obtain permit prior to construction.
- Barriers and detour signage shall be in accordance with the Manual On Uniform Traffic Control Devices.
- Contractor shall not start work on the project until the project inspector is assigned to the project and is present on the site. Contractor shall not start on the project until all necessary bonds and permits have been obtained. Bonds may include but are not limited to Statutory, Performance & Maintenance Any work done without inspection will be required to be uncovered for inspection.
- Rubble from the removal of miscellaneous structures and excess excavation which is to be wasted shall be disposed of on sites to be provided by the Contractor. These sites shall be approved by the Engineer as to suitability, appearance and site location. Locations that, in the opinion of the Engineer, will leave an unsightly appearance will not be approved. All disposal sites must be approved by the Kansas Department of Health and Environment. Material either stockpiled or disposed of in a flood plain would require a Kansas State Board of Agriculture permit. Any material dumped in waters of the United States or wetlands is subject to U.S. Corps. of Engineers permitting regulations. Any material buried or stockpiled beyond approved construction limits would require additional archaeological investigations unless buried in a previously approved borrow location.
- All storm water sewer lines and appurtenances shall be installed in accordance with the most recent edition of City of Wichita, Kansas Standard Specifications for the Construction of City Projects.

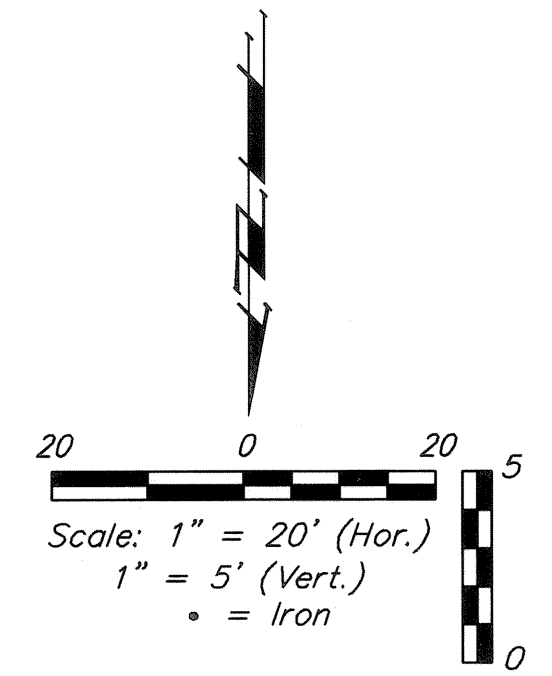
APPROVED AS NOTED
 BY CITY ENGINEER OF WICHITA

Engineering *Julian Kellman* 4-26-11
 Storm Sewers *Jim Hendry* 4-28-11

NOTE TO CONTRACTORS
 Installation, inspection and testing for this project is to be provided by a Licensed Consulting Engineering Firm under contract with the Owner/Developer. Said inspection to be in accordance with the City of Wichita standard construction engineering practices and certified by a Licensed Professional Engineer. No work shall be performed in dedicated easements or public right-of-way by the Contractor without such inspection nor shall any work be commenced without written authorization by the City Engineer. All Construction and Materials shall comply with the City of Wichita Specifications and Standards (on file and available in the City Engineer's Office).



Benchmark:
 Small RR Spike in N. side of P.P.
 Elev. = 150.86 City Datum
 Elev. = 1338.26 M.S.L.

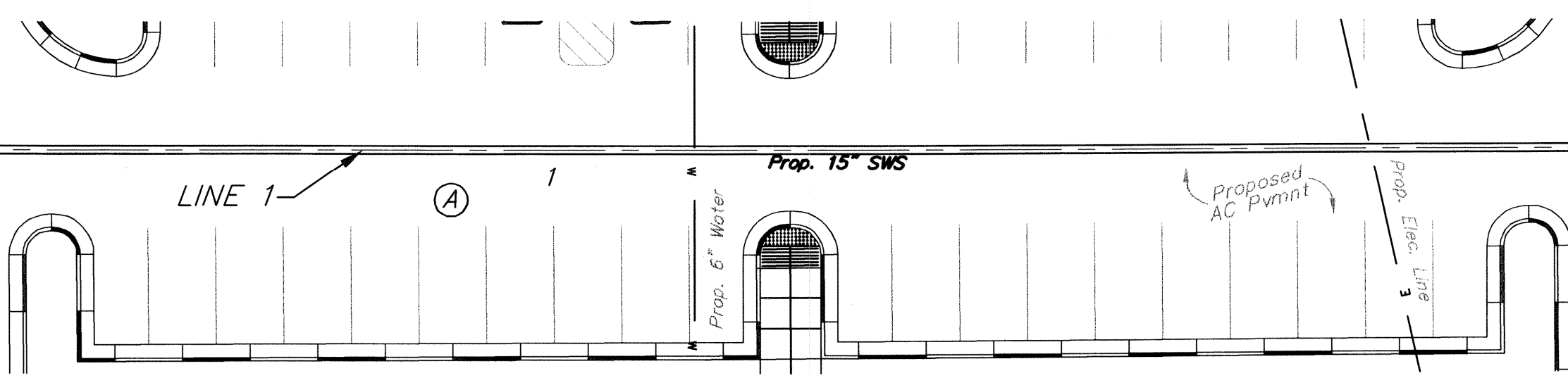


Proposed StormTech Underdrain System. See ADS Sheets for plans & details

Sta 0+00, Line 1 =
 BL Sta 2+91.04, 347.95' Rt.
 Nyloplast Manhole By
 StormTech Supplier
 Top Elev. = 1334.42

LINE 5

29th ST. N.
 CHURCH
 ADDITION



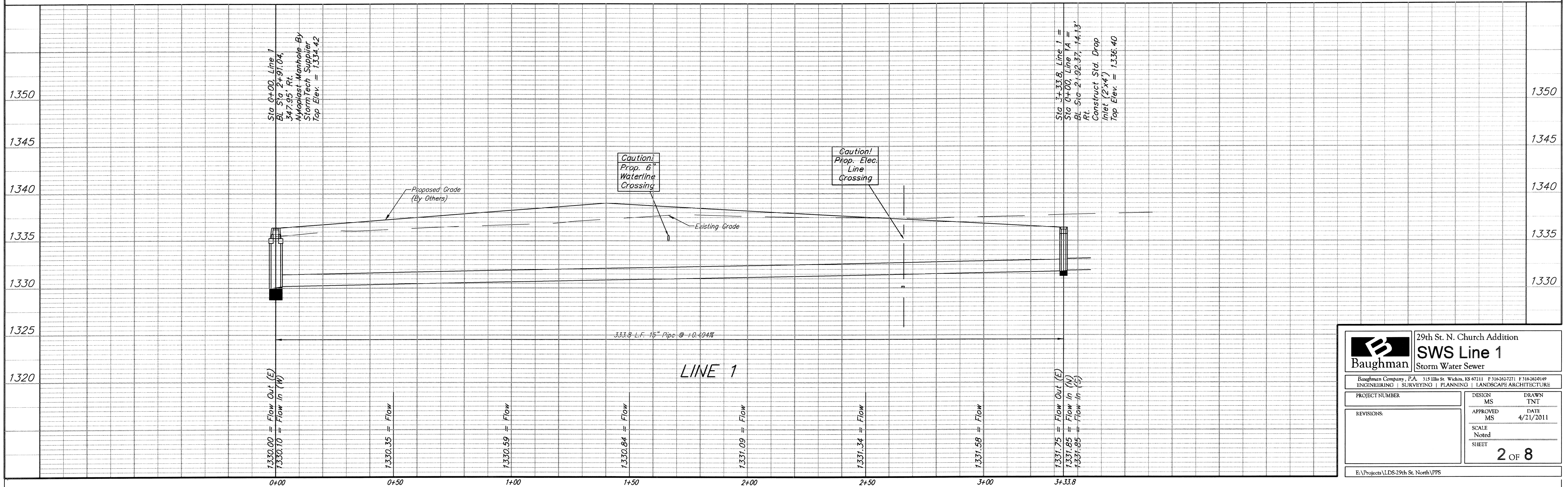
LINE 1

Sta 3+33.8, Line 1 =
 Sta 0+00, Line 1A =
 BL Sta 2+92.37, 14.13' Rt.
 Construct Std. Drop Inlet
 (2'x4')
 Top Elev. = 1336.40

Construct Erosion Control Curb Inlet Protection around Inlet.

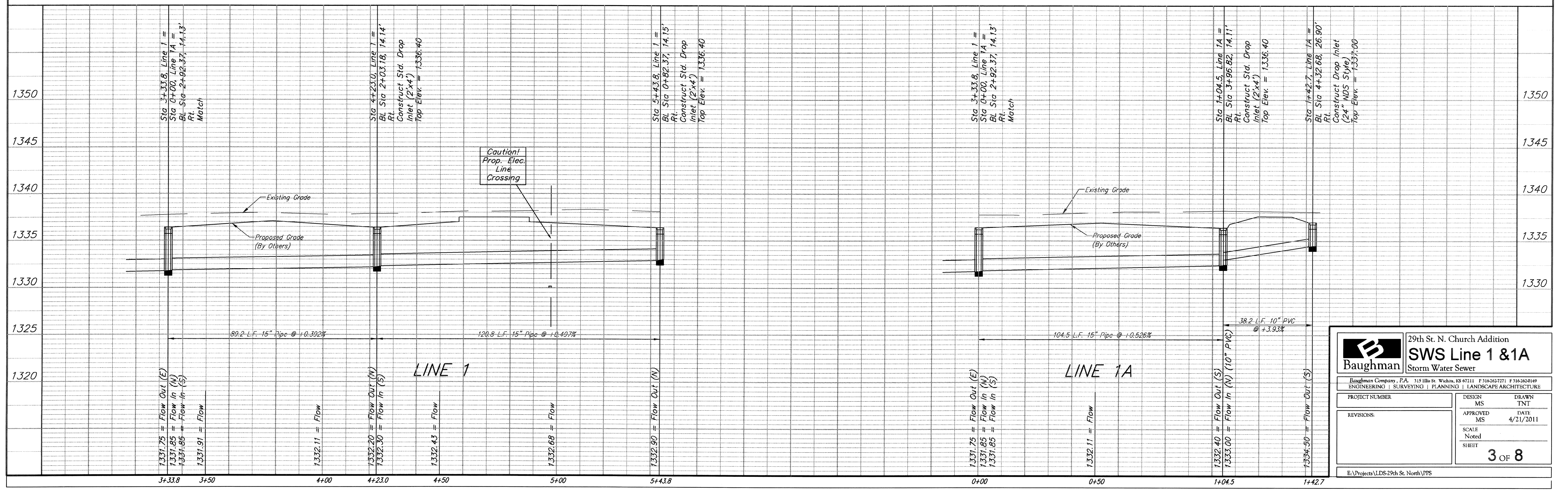
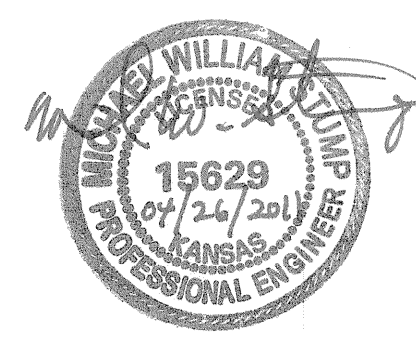
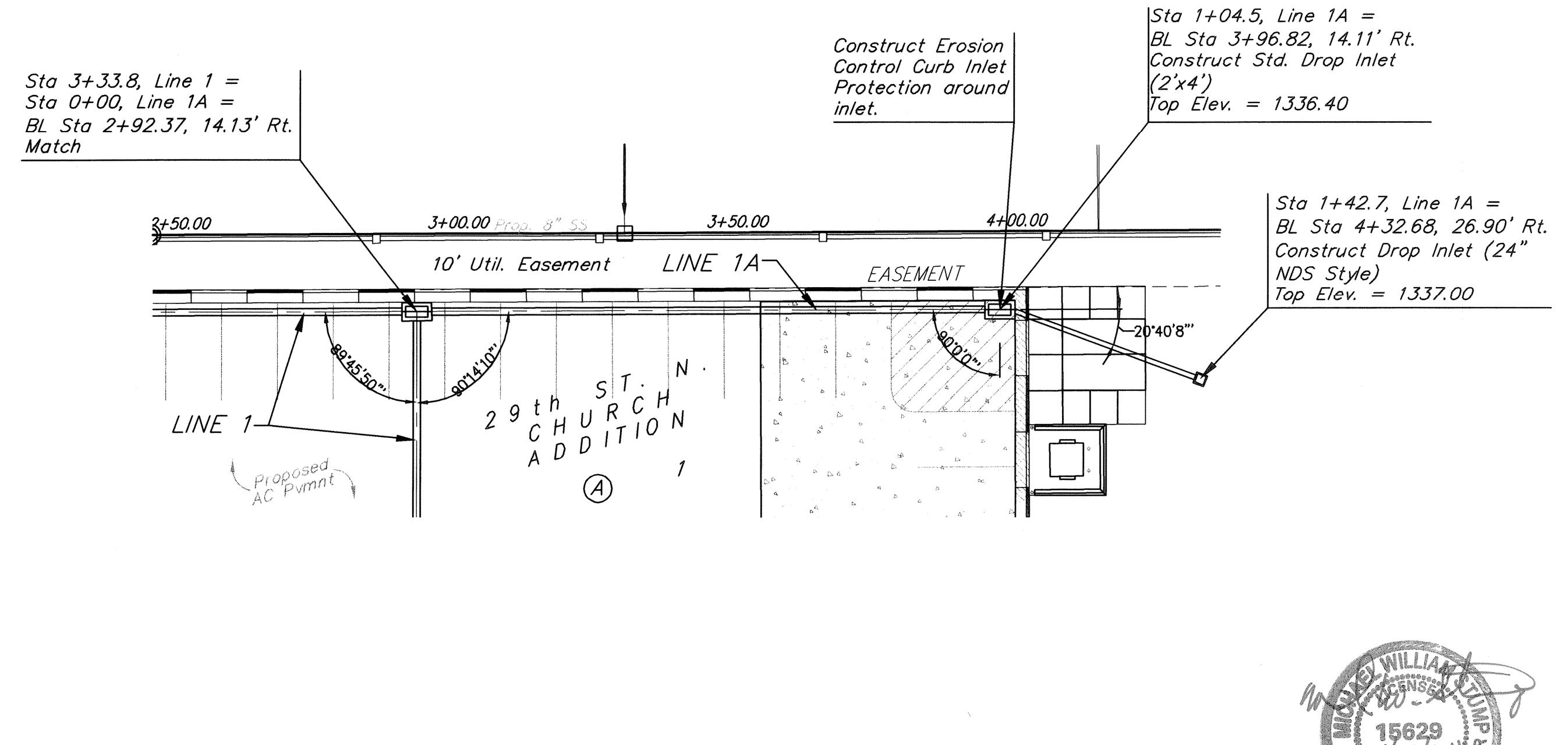
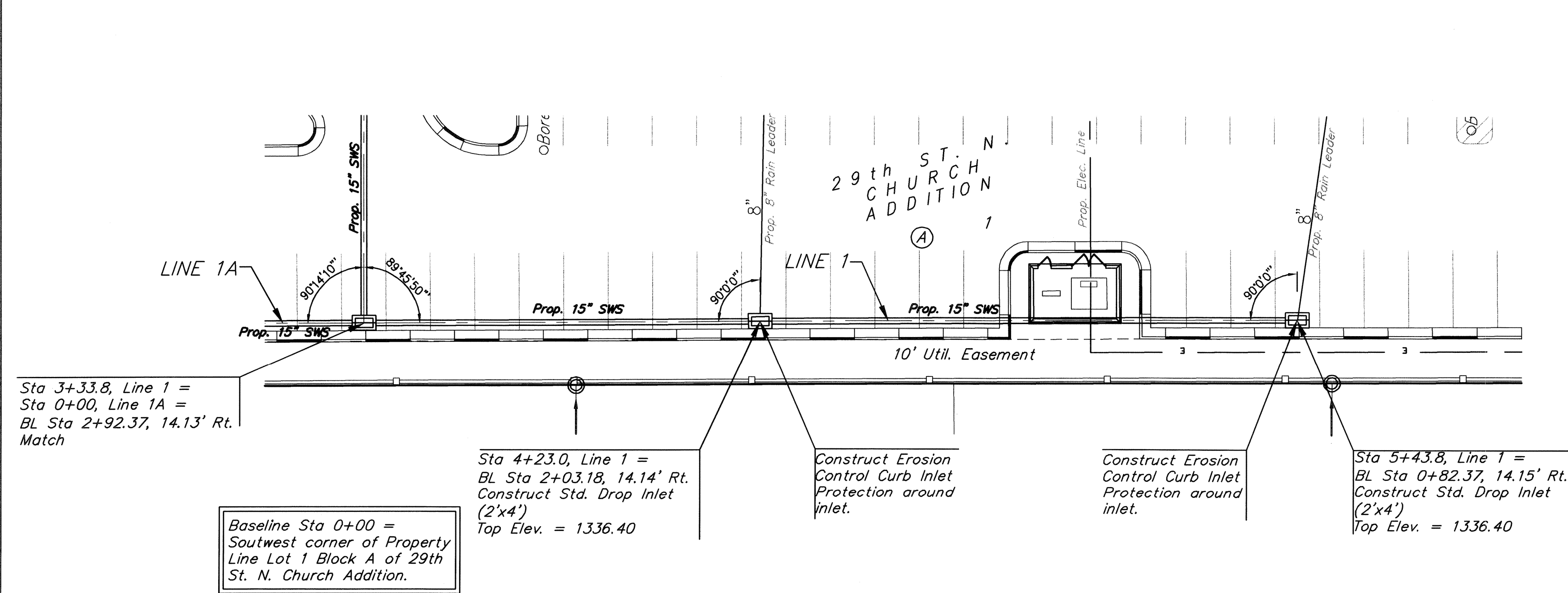
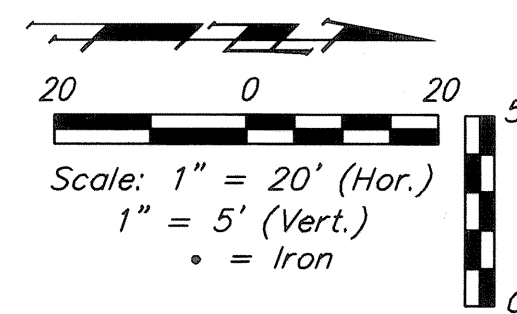
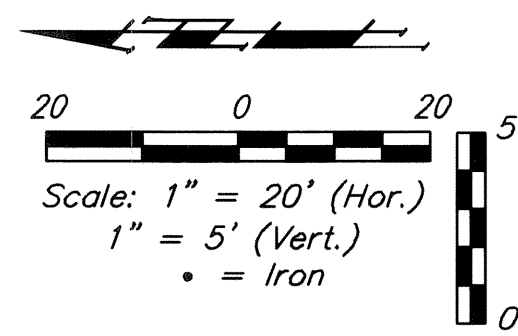
LINE 1A

Baseline Sta 0+00 =
 Southwest corner of Property
 Line Lot 1 Block A of 29th
 St. N. Church Addition.



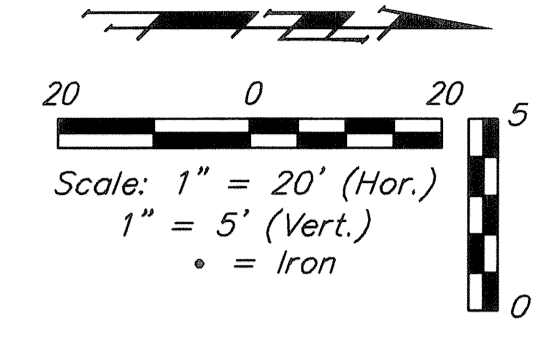
Baughman		29th St. N. Church Addition	
		SWS Line 1	
		Storm Water Sewer	
Baughman Company, P.A. 315 Ellis St. Wichita, KS 67211 P 316-262-1271 F 316-262-0149 ENGINEERING SURVEYING PLANNING LANDSCAPE ARCHITECTURE			
PROJECT NUMBER	DESIGN MS	DRAWN TNT	
REVISIONS:	APPROVED MS	DATE 4/21/2011	
	SCALE Noted		
	SHEET	2 OF 8	
E:\Projects\LDS-29th St. North\PPS			

Benchmark:
Small RR Spike in N. side of P.P.
Elev. = 150.86 City Datum
Elev. = 1338.26 M.S.L.



		29th St. N. Church Addition	
		SWS Line 1 & 1A	
Storm Water Sewer		Baughman Company, P.A. 315 11th St. Wichita, KS 67211 F 316-2637271 F 316-2620149	
PROJECT NUMBER		DESIGN MS	DRAWN TNT
REVISIONS		APPROVED MS	DATE 4/21/2011
SCALE Noted		SHEET	
		3 OF 8	

Benchmark:
Small RR Spike in N. side of P.P.
Elev. = 150.86 City Datum
Elev. = 1338.26 M.S.L.



Caution!
Ex. Gas &
Telephone
Lines

Remove existing
sidewalk as necessary
for construction. Cost
to be included in "Site
Restoration." To be
replaced by the City's
Contractor

Baseline Sta 0+00 =
Southwest corner of Property
Line Lot 1 Block A of 29th
St. N. Church Addition.

Sta 0+00, Line 2 =
BL Sta -0+24.79, 307.89' Rt.
Core Existing Inlet and
Extend 15" RCP Northeast
Slanted Top Elevation =
1332.29-1333.46

Sta 0+66.6, Line 2 =
BL Sta 0+27.18, 347.99' Rt.
Nyloplast Manhole By
StormTech Supplier
Top Elev. = 1334.60

Sta 0+0+00, Line 3 =
BL Sta 1+06.01, 378.81' Rt.
Nyloplast Manhole By
StormTech Supplier
Top Elev. = 1333.70

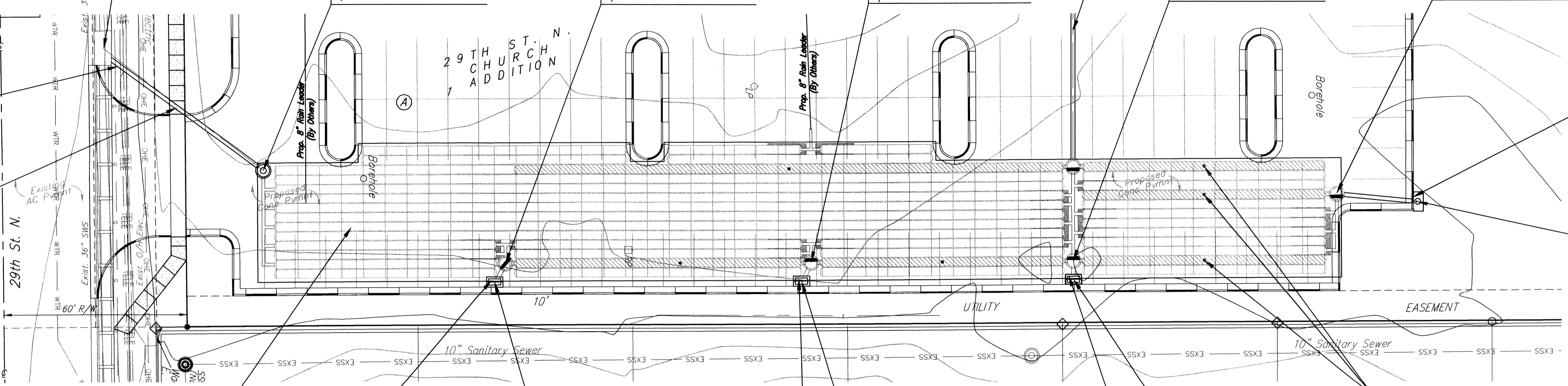
Sta 0+0+00, Line 4 =
BL Sta 2+05.64, 378.80' Rt.
Nyloplast Manhole By
StormTech Supplier
Top Elev. = 1333.70

Sta 0+0+00, Line 5 =
BL Sta 2+91.04, 378.79' Rt.
Nyloplast Manhole By
StormTech Supplier
Top Elev. = 1333.65

Sta 0+0+00, Line 6 =
BL Sta 3+76.98, 357.19' Rt.
Nyloplast Manhole By
StormTech Supplier
Top Elev. = 1333.85

Construct Erosion
Control Curb Inlet
Protection around
inlet.

Sta 0+26.2, Line 6 =
BL Sta 4+03.04, 359.90' Rt.
Construct Std. Catch Basin
Top Elev. = 1334.00



Proposed StormTech
Underdrain System.
See ADS Sheets for
plans & details

Construct Erosion
Control Curb Inlet
Protection around
inlet.

Sta 0+07.0, Line 3 =
BL Sta 1+02.42, 384.81' Rt.
Construct Std. Drop Inlet
(2'x4')
Top Elev. = 1333.50

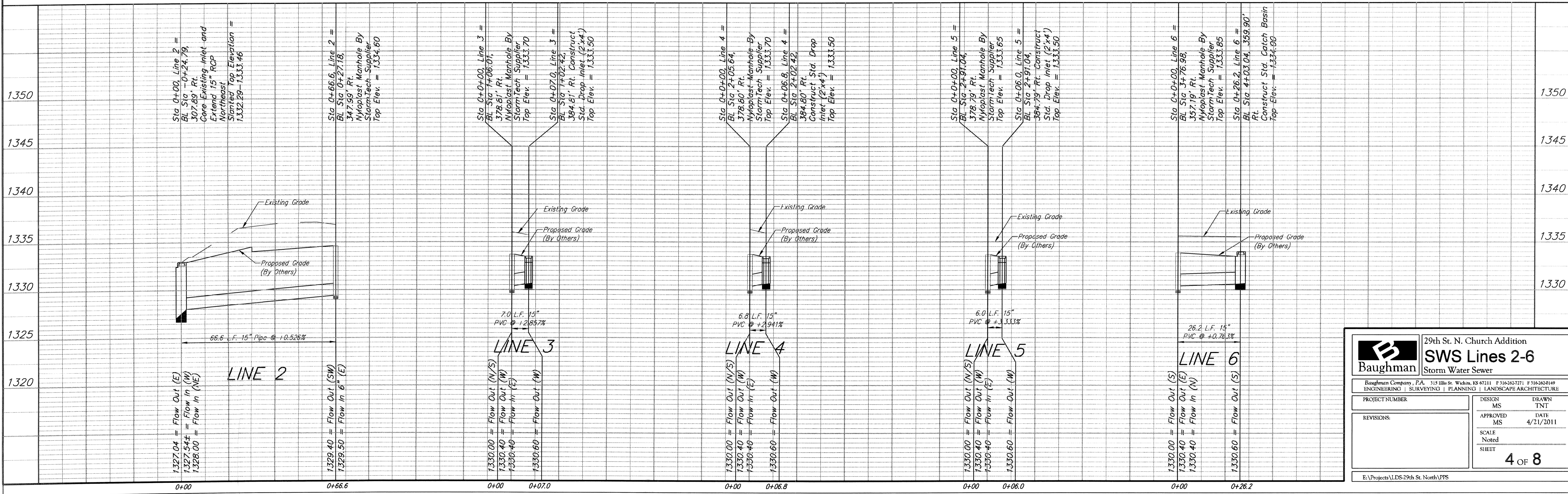
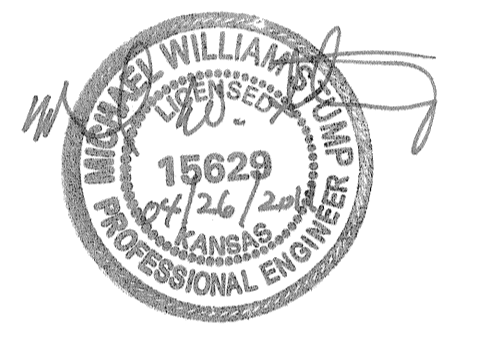
Construct Erosion
Control Curb Inlet
Protection around
inlet.

Sta 0+06.8, Line 4 =
BL Sta 2+02.42, 384.80' Rt.
Construct Std. Drop Inlet
(2'x4')
Top Elev. = 1333.50

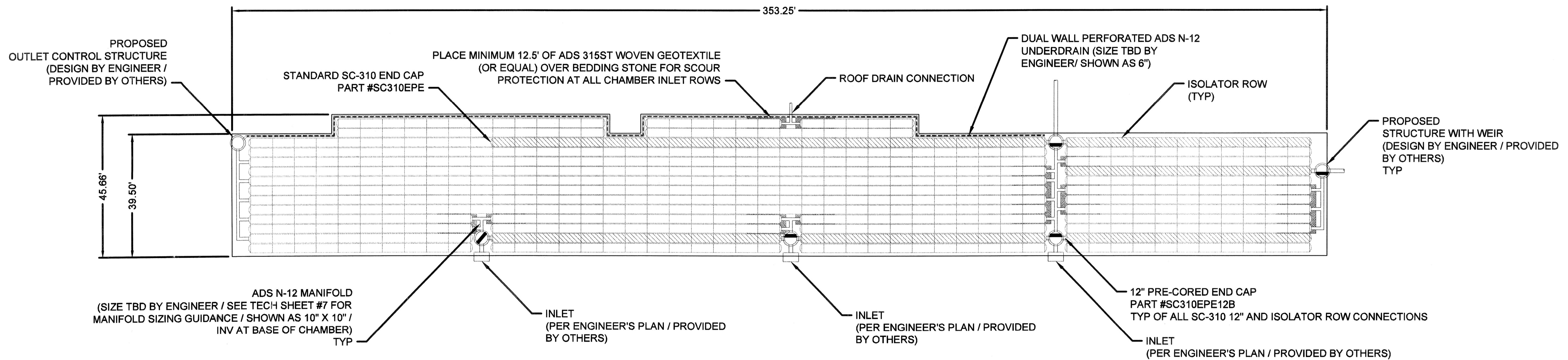
Construct Erosion
Control Curb Inlet
Protection around
inlet.

Sta 0+06.0, Line 5 =
BL Sta 2+91.04, 384.79' Rt.
Construct Std. Drop Inlet
(2'x4')
Top Elev. = 1333.50

Inspection Ports, Typ.
Per StormTech
Chamber System. By
StormTech Supplier



		29th St. N. Church Addition SWS Lines 2-6 Storm Water Sewer	
Baughman Company, P.A. 315 Ellis St. Wichita, KS 67211 P: 316-262-7271 F: 316-262-0149 ENGINEERING SURVEYING PLANNING LANDSCAPE ARCHITECTURE			
PROJECT NUMBER	DESIGN	MS	DRAWN
REVISIONS:	APPROVED	MS	DATE
			4/21/2011
	SCALE	Noted	
	SHEET	4 of 8	
E:\Projects\LDS-29th St. North\PPS			



CONCEPTUAL LAYOUT:

(603) STORMTECH SC-310-3 CHAMBERS (3" SPACING)
 INSTALLED WITH 6" COVER STONE, 6" BASE STONE, 40% STONE VOID
 INSTALLED SYSTEM VOLUME (INCLUDING PERIMETER STONE): 19,393 CF

PROPOSED ELEVATIONS

MAX. GRADE (TOP OF PAVEMENT/UNPAVED):	1339.33
MIN. GRADE (UNPAVED WITH TRAFFIC):	1333.33
MIN. GRADE (BASE OF FLEXIBLE PAVEMENT/UNPAVED):	1332.83
MAX. GRADE (TOP OF REINFORCED CONCRETE PAVEMENT):	1333.50
TOP OF STONE:	1331.83
TOP OF CHAMBER:	1331.33
10" MANIFOLD INVERT:	1330.06
12" INVERT TO ISOLATOR ROW(S):	1330.08
BOTTOM OF CHAMBER:	1330.00
BOTTOM OF STONE:	1329.50
UNDERDRAIN:	1329.50

DATE	DRN	CHK	DESCRIPTION
02/24/11	KLJ	KAM	LAYOUT REVISED TO MEET FLOW RATE BASED WQ
3-2-11	KAM	KAM	ADDED UNDERDRAIN AND ELEVATIONS

ADS
 ADVANCED DRAINAGE SYSTEMS, INC.

THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO STORMTECH UNDER THE DIRECTION OF THE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.

STORMTECH GENERAL NOTES

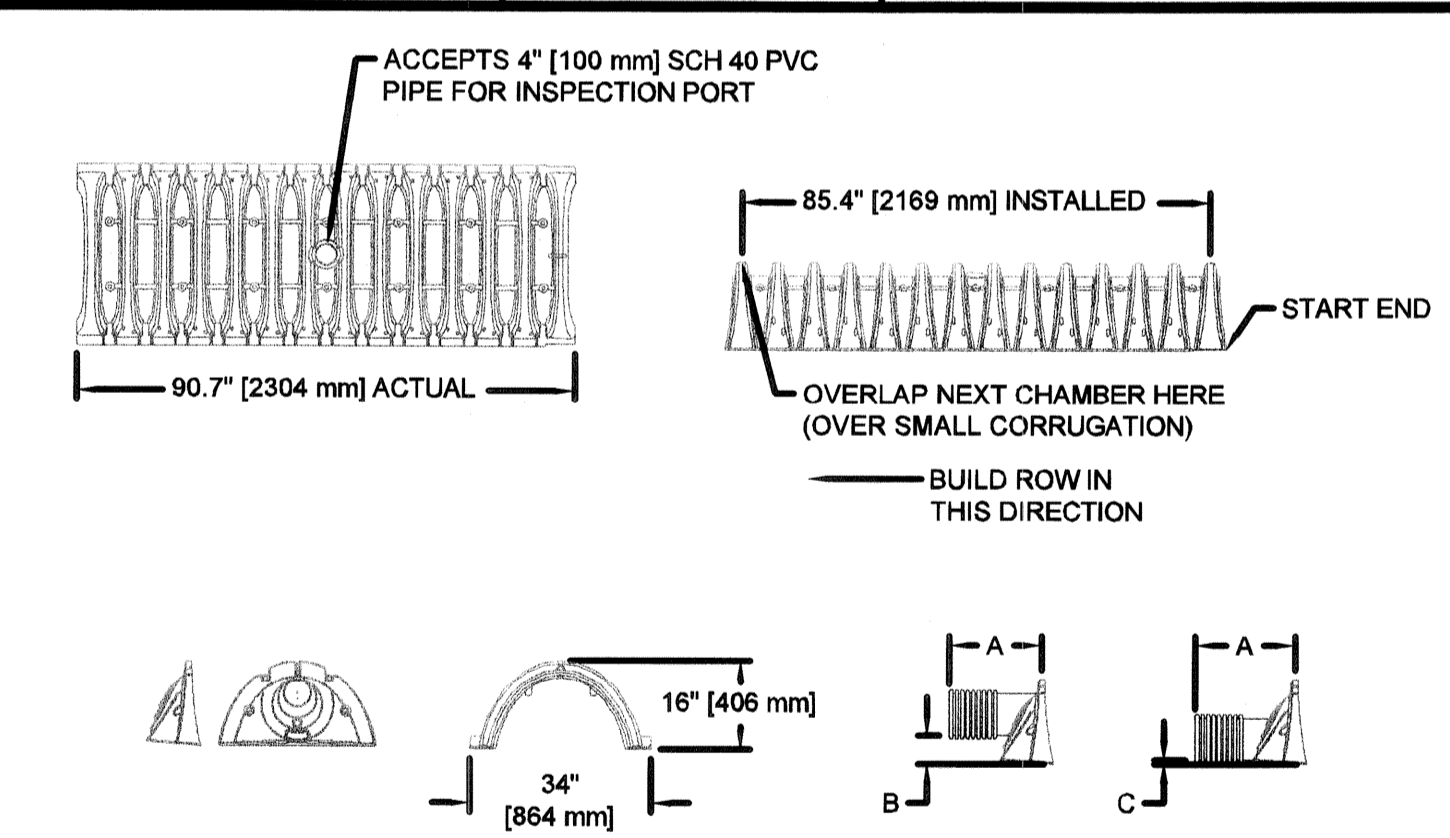
- STORMTECH REQUIRES INSTALLING CONTRACTORS TO USE AND UNDERSTAND STORMTECH'S LATEST INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING SYSTEM INSTALLATION.
- OUR TECHNICAL SERVICES DEPARTMENT OFFERS INSTALLATION CONSULTATIONS TO INSTALLING CONTRACTORS. CONTACT OUR TECHNICAL SERVICES REPRESENTATIVE AT LEAST 30 DAYS PRIOR TO SYSTEM INSTALLATION TO ARRANGE A PRE-INSTALLATION CONSULTATION. OUR REPRESENTATIVES CAN THEN ANSWER QUESTIONS OR ADDRESS COMMENTS ON THE STORMTECH CHAMBER SYSTEM AND INFORM THE INSTALLING CONTRACTOR OF THE MINIMUM INSTALLATION REQUIREMENTS BEFORE BEGINNING THE SYSTEM'S CONSTRUCTION. CALL 1-888-892-2694 TO SPEAK TO A TECHNICAL SERVICES REPRESENTATIVE OR VISIT WWW.STORMTECH.COM TO RECEIVE A COPY OF OUR INSTALLATION INSTRUCTIONS.
- STORMTECH'S REQUIREMENTS FOR SYSTEMS WITH PAVEMENT DESIGN (ASPHALT, CONCRETE PAVERS, ETC.): MINIMUM COVER IS 18" [457 mm] NOT INCLUDING PAVEMENT; MAXIMUM COVER IS 96" [2438 mm] INCLUDING PAVEMENT. FOR INSTALLATIONS THAT DO NOT INCLUDE PAVEMENT, WHERE RUTTING FROM VEHICLES MAY OCCUR, MINIMUM REQUIRED COVER IS 24" [610 mm], MAXIMUM COVER IS 96" [2438 mm].
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE DESIGN ENGINEER.
- AASHTO M288 CLASS 2 NON-WOVEN GEOTEXTILE (FILTER FABRIC) MUST BE USED AS INDICATED IN THE PROJECT PLANS.
- STONE PLACEMENT BETWEEN CHAMBERS ROWS AND AROUND PERIMETER MUST FOLLOW INSTRUCTIONS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
- BACKFILLING OVER THE CHAMBERS MUST FOLLOW REQUIREMENTS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
- THE CONTRACTOR MUST REFER TO STORMTECH'S INSTALLATION INSTRUCTIONS FOR A TABLE OF ACCEPTABLE VEHICLE LOADS AT VARIOUS DEPTHS OF COVER. THIS INFORMATION IS ALSO AVAILABLE AT STORMTECH'S WEBSITE: WWW.STORMTECH.COM. THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING VEHICLES THAT EXCEED STORMTECH'S REQUIREMENTS FROM TRAVELING ACROSS OR PARKING OVER THE STORMWATER SYSTEM. TEMPORARY FENCING, WARNING TAPE AND APPROPRIATELY LOCATED SIGNS ARE COMMONLY USED TO PREVENT UNAUTHORIZED VEHICLES FROM ENTERING SENSITIVE CONSTRUCTION AREAS.
- THE CONTRACTOR MUST APPLY EROSION AND SEDIMENT CONTROL MEASURES TO PROTECT THE STORMWATER SYSTEM DURING ALL PHASES OF SITE CONSTRUCTION PER LOCAL CODES AND DESIGN ENGINEER'S SPECIFICATIONS.
- STORMTECH PRODUCT WARRANTY IS LIMITED. SEE CURRENT PRODUCT WARRANTY FOR DETAILS. TO ACQUIRE A COPY CALL STORMTECH AT 1-888-892-2694 OR VISIT WWW.STORMTECH.COM

		STORMTECH GENERAL NOTES	
		SCALE: N/A	
		DATE: 3/30/10	
		DRAWN BY: KLJ	CHECKED:

STORMWATER CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH SC-740, SC-310 OR APPROVED EQUAL.
- CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12 ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCE.
- ONLY CHAMBERS THAT ARE APPROVED BY THE ENGINEER WILL BE ALLOWED. THE CONTRACTOR SHALL SUBMIT (3 SETS) OF THE FOLLOWING TO THE ENGINEER FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE:
 - A STRUCTURAL EVALUATION BY A REGISTERED STRUCTURAL ENGINEER THAT DEMONSTRATES THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12 ARE MET. THE 50-YEAR CREEP MODULUS DATA SPECIFIED IN ASTM F2418-05 MUST BE USED AS A PART OF THE AASHTO STRUCTURAL EVALUATION TO VERIFY LONG-TERM PERFORMANCE.
- CHAMBERS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.
- ALL DESIGN SPECIFICATIONS FOR CHAMBERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S LATEST DESIGN MANUAL.
- THE INSTALLATION OF CHAMBERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S LATEST INSTALLATION INSTRUCTIONS.

		STORMWATER CHAMBER SPECIFICATIONS	
		SCALE: N/A	
		DATE: 3/30/10	
		DRAWN BY: KLJ	CHECKED:



NOMINAL CHAMBER SPECIFICATIONS	
SIZE (W x H x INSTALLED LENGTH)	34.0" x 16.0" x 85.4" [864 mm x 406 mm x 2169 mm]
CHAMBER STORAGE	14.7 CUBIC FEET [0.42 m³]
MINIMUM INSTALLED STORAGE	31.0 CUBIC FEET [0.88 m³]
WEIGHT	35 lbs. [16.8 kg]

STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"

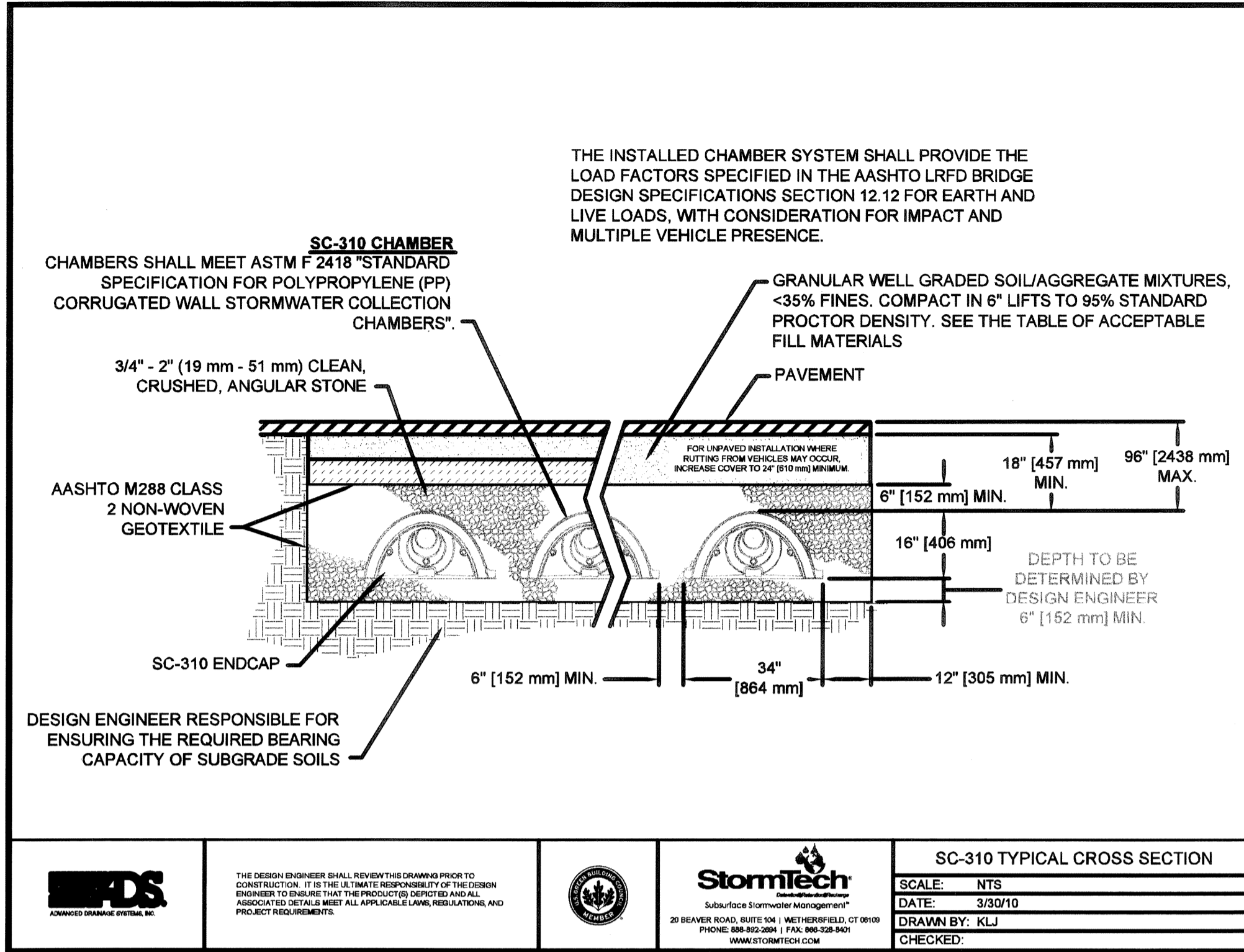
PART#	STUB	A	B	C
SC310EPE0T	6" [150 mm]	9.60" [244 mm]	5.80" [147 mm]	N/A
SC310EPE0B	6" [150 mm]	9.80" [244 mm]	N/A	0.50" [13 mm]
SC310EPE0T	8" [200 mm]	11.90" [302 mm]	3.50" [89 mm]	N/A
SC310EPE0B	8" [200 mm]	11.90" [302 mm]	N/A	0.60" [16 mm]
SC310EPE10T	10" [250 mm]	12.70" [323 mm]	1.40" [36 mm]	N/A
SC310EPE10B	10" [250 mm]	12.70" [323 mm]	N/A	0.70" [18 mm]
SC310EPE12B	12" [300 mm]	13.50" [343 mm]	N/A	0.90" [23 mm]

ALL STUBS, EXCEPT FOR THE SC310EPE12B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

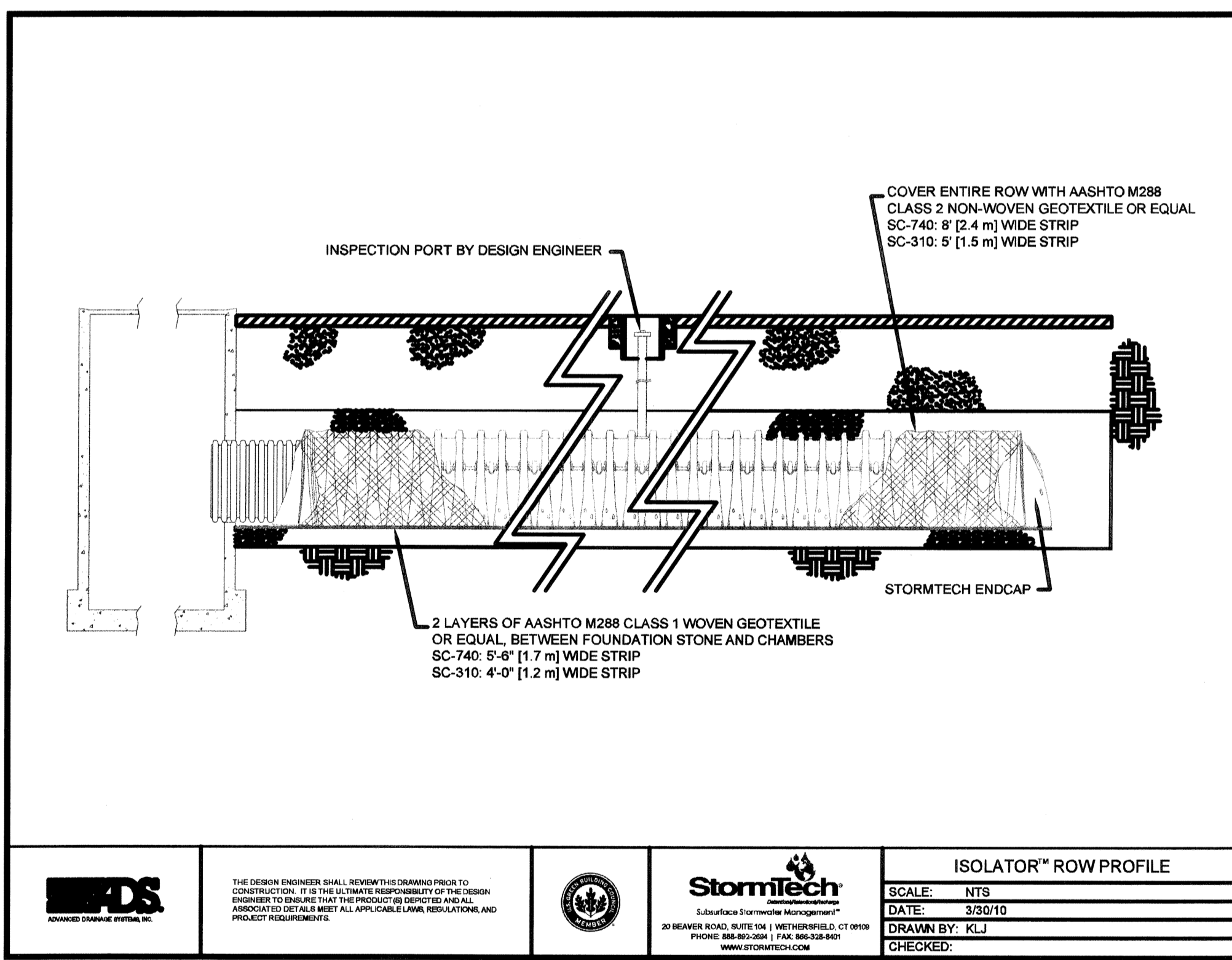
*FOR THE SC310EPE12B THE 12" [300 mm] STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 0.25" [6 mm]. BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL

		SC-310 TECHNICAL SPECIFICATIONS	
		SCALE: N/A	
		DATE: 3/30/10	
		DRAWN BY: KLJ	CHECKED:



		SC-310 TYPICAL CROSS SECTION	
		SCALE: N/A	
		DATE: 3/30/10	
		DRAWN BY: KLJ	CHECKED:

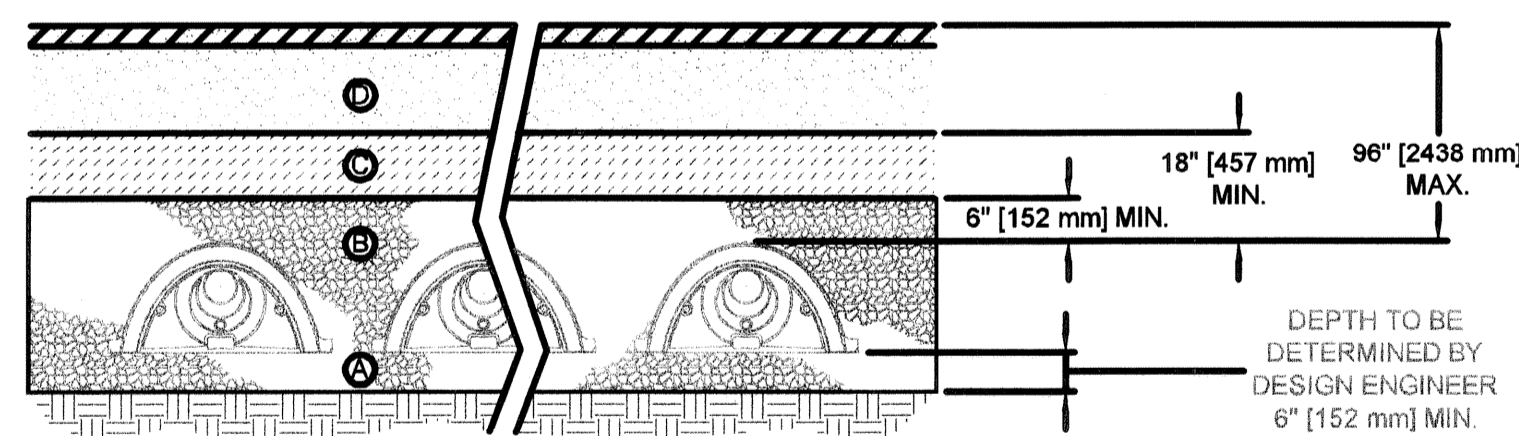


		ISOLATOR* ROW PROFILE	
		SCALE: N/A	
		DATE: 3/30/10	
		DRAWN BY: KLJ	CHECKED:

ACCEPTABLE FILL MATERIALS: STORMTECH SC-310 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO M43 DESIGNATION *	COMPACTION/DENSITY REQUIREMENT
① FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISH GRADE ABOVE. NOTE THAT PAVEMENT SUB-BASE MAY BE PART OF THIS LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
② FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE TO 18" [457 mm] ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUB-BASE MAY BE A PART OF THIS LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES < 35% FINES. MOST PAVEMENT SUB-BASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 76, 8, 89, 9, 10	BEGIN COMPACTION AFTER 12" [305 mm] OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" [152 mm] LIFTS TO A MIN. 95% STANDARD PROCTOR DENSITY. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs [53 kN]; DYNAMIC FORCE NOT TO EXCEED 20,000 lbs [89 kN].
③ EMBEDMENT STONE SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4 - 2 INCH [19 - 51 mm]	3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
④ FOUNDATION STONE BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4 - 2 INCH [19 - 51 mm]	3, 35, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A 95% STANDARD PROCTOR DENSITY *

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. AS AN ALTERNATE TO PROCTOR TESTING AND FIELD DENSITY MEASUREMENTS ON OPEN GRADED STONE, STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" [229 mm] (MAX) LIFTS USING TWO FULL COVERAGES WITH AN APPROPRIATE COMPACTOR.



		STORMTECH ACCEPTABLE FILL	
		SCALE: N/A	
		DATE: 3/30/10	
		DRAWN BY: KLJ	CHECKED:

Subsurface Stormwater Management™
20 BEAVER ROAD, SUITE 104 | WETHERFIELD, CT | 06109
860-529-8188 | 1-888-892-2694 | WWW.STORMTECH.COM

LDS CHURCH WICHITA KS

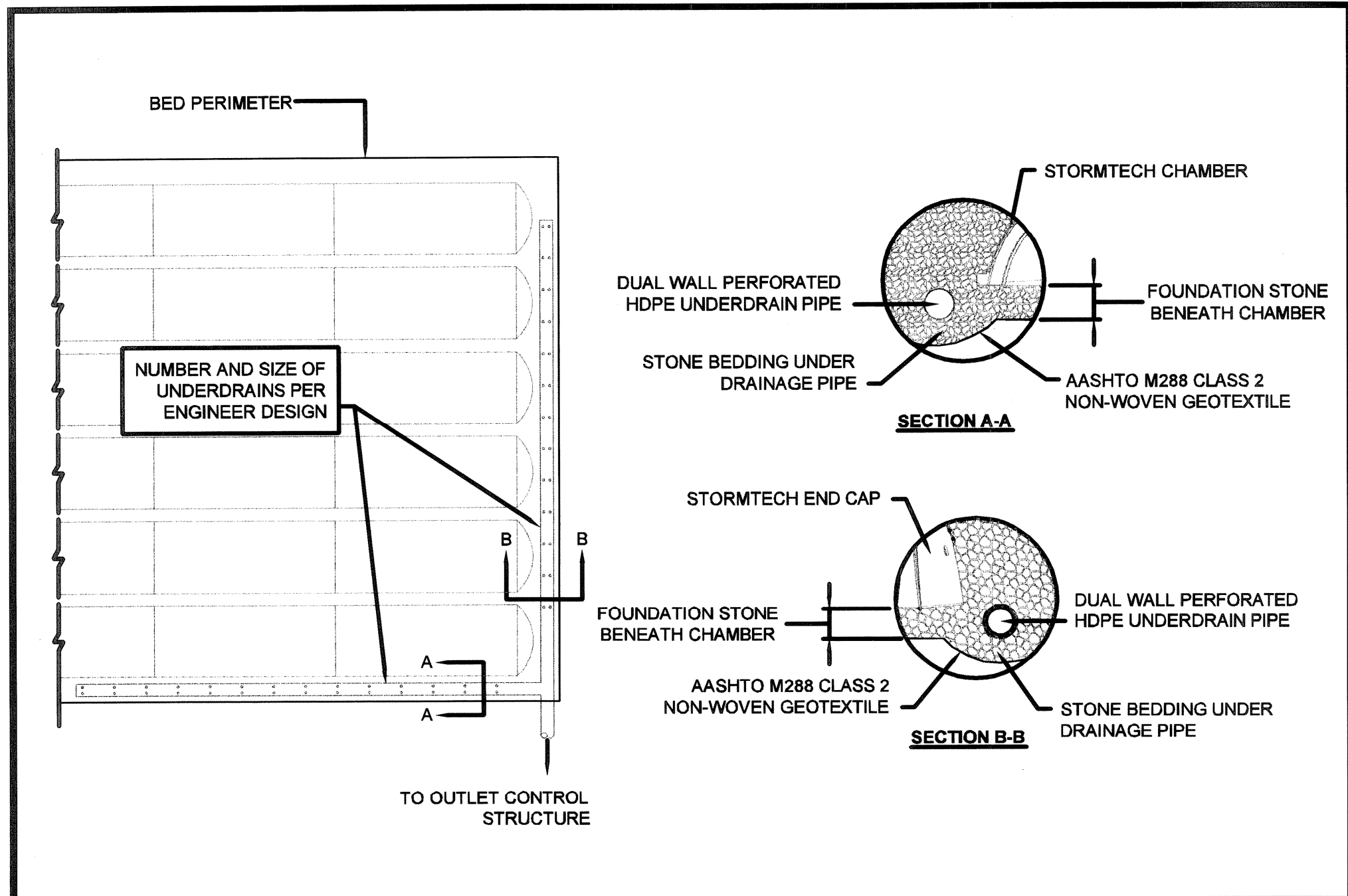
PROJECT #: 13221
DATE: 02-21-11
DRAWN BY: A/JD
CHECKED BY: KAM

SCALE: NTS
SCALE: NTS
PAGE: 6 OF 8

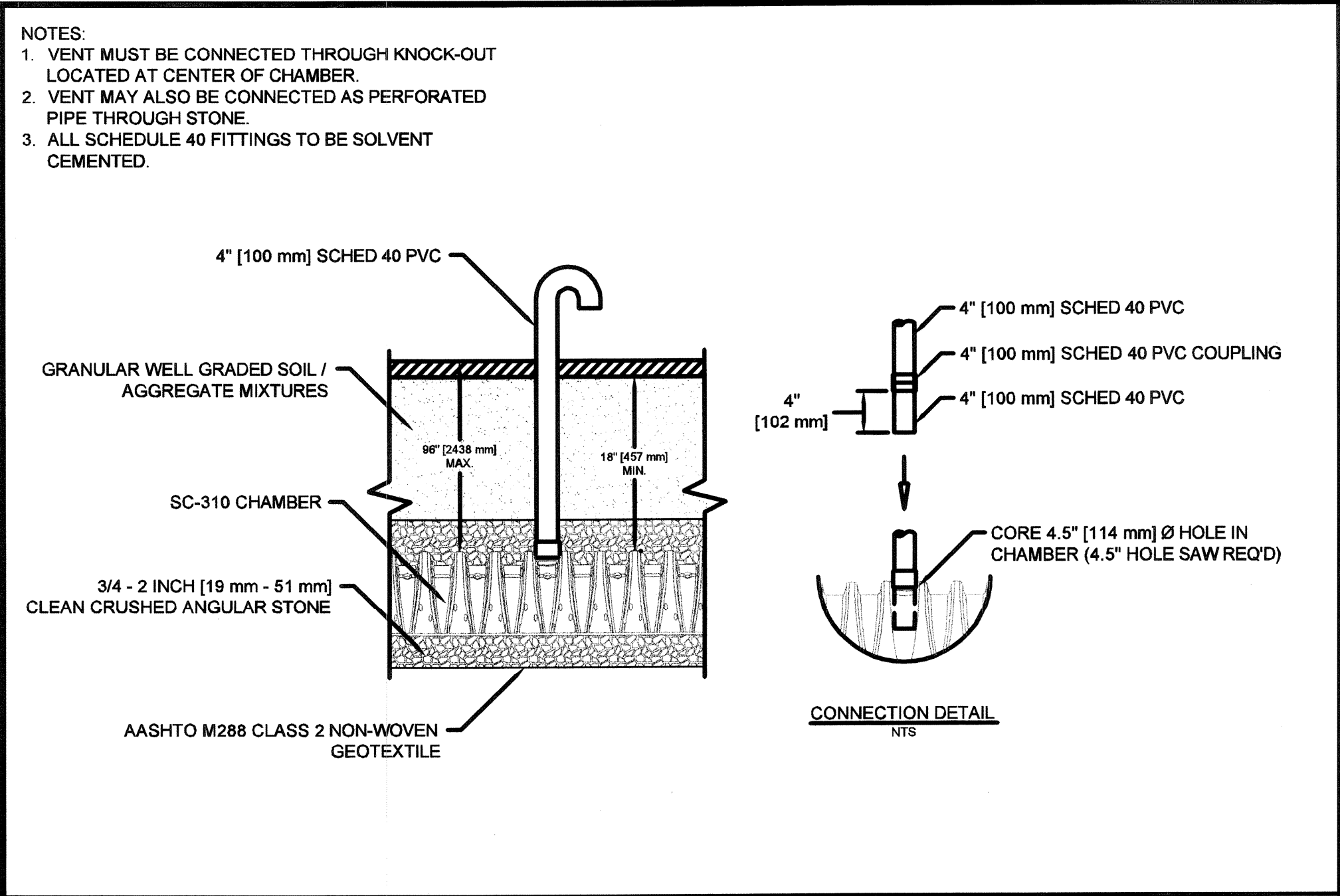
DATE	DRN	CHK	DESCRIPTION
02/24/11	KLJ	KAM	LAYOUT REVISED TO MEET FLOW RATE BASED WQ
3-2-11	KAM	KAM	ADDED UNDERDRAIN AND ELEVATIONS

ADVANCED DRAINAGE SYSTEMS, INC.

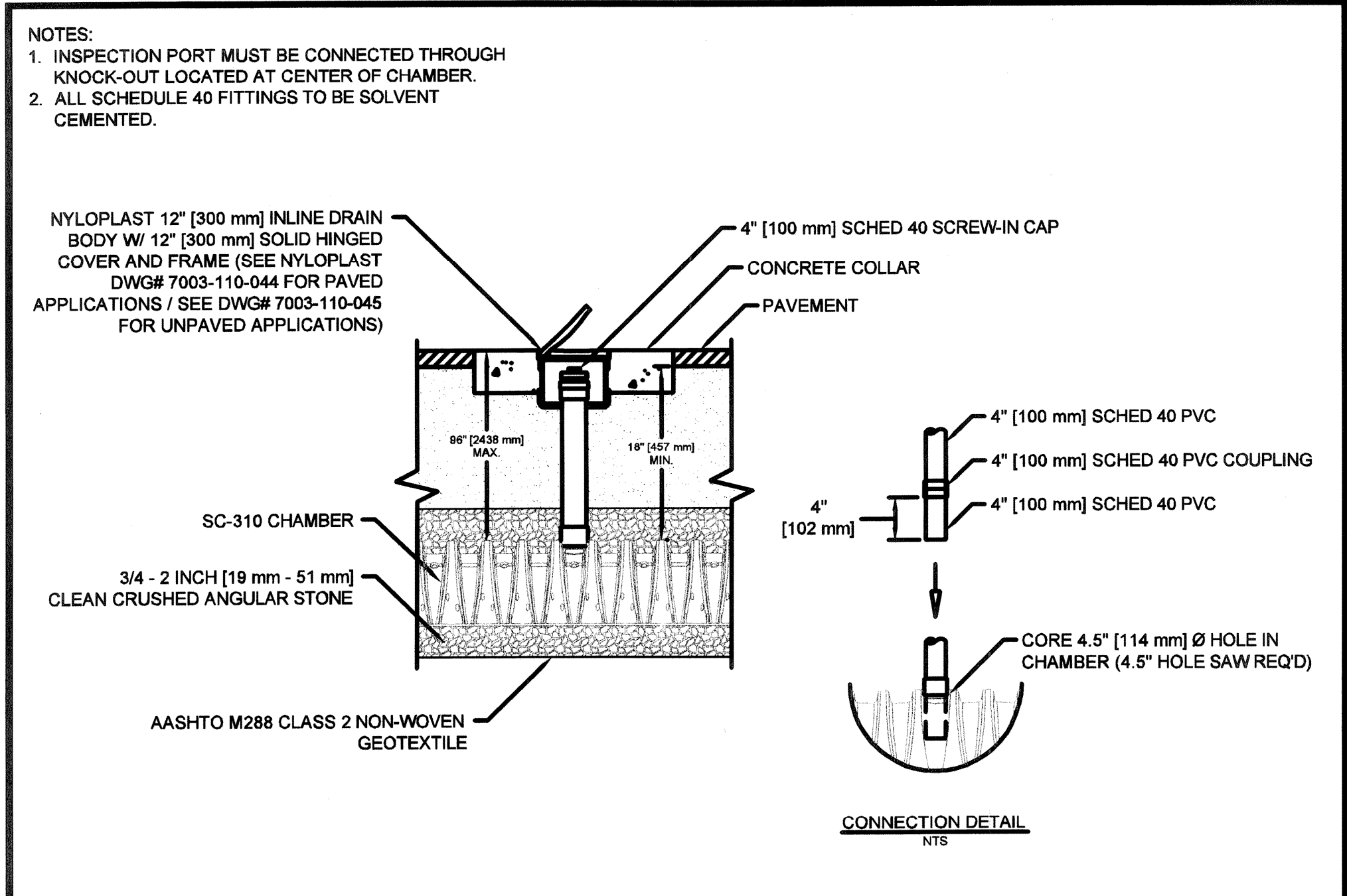
THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO STORMTECH UNDER THE DIRECTION OF THE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE DESIGN ENGINEER TO ENSURE THAT THE PRODUCTS (S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.



	<small>THE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT IS DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.</small>		 <small>Subsurface Stormwater Management™</small> <small>20 BEAVER ROAD, SUITE 104 WETHERSFIELD, CT 06099</small> <small>PHONE: 860-529-6188 FAX: 860-529-8461</small> <small>WWW.STORMTECH.COM</small>	SC-310 UNDERDRAIN DETAIL
				SCALE: NTS DATE: 3/30/10 DRAWN BY: KLJ CHECKED:



	<small>THE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT IS DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.</small>		 <small>Subsurface Stormwater Management™</small> <small>20 BEAVER ROAD, SUITE 104 WETHERSFIELD, CT 06099</small> <small>PHONE: 860-529-6188 FAX: 860-529-8461</small> <small>WWW.STORMTECH.COM</small>	SC-310 VENT DETAIL
				SCALE: NTS DATE: 3/30/10 DRAWN BY: KLJ CHECKED:



	<small>THE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT IS DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.</small>		 <small>Subsurface Stormwater Management™</small> <small>20 BEAVER ROAD, SUITE 104 WETHERSFIELD, CT 06099</small> <small>PHONE: 860-529-6188 FAX: 860-529-8461</small> <small>WWW.STORMTECH.COM</small>	SC-310 INSPECTION PORT DETAIL
				SCALE: NTS DATE: 3/30/10 DRAWN BY: KLJ CHECKED:



	<small>THE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT IS DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.</small>		 <small>Subsurface Stormwater Management™</small> <small>20 BEAVER ROAD, SUITE 104 WETHERSFIELD, CT 06099</small> <small>PHONE: 860-529-6188 FAX: 860-529-8461</small> <small>WWW.STORMTECH.COM</small>	SC-310 INSPECTION PORT DETAIL
				SCALE: NTS DATE: 3/30/10 DRAWN BY: KLJ CHECKED:

LDS CHURCH WICHITA KS	PROJECT # 13221	SCALE: NTS	PAGE: 7 OF 8
	DATE: 02-21-11	DRAWN BY: AJD	CHECKED BY: KAM
	DESCRIPTION: LAYOUT REVISED TO MEET FLOW RATE BASED W/Q ADDED UNDERDRAIN AND ELEVATIONS		
	DATE: 02/24/11	DRN: KLJ	CHK: KAM

DATE: 3-2-11	DRN: KAM	CHK: KAM

Stamp:

Project for:
Maize Ward
Wichita Kansas Stake
 7834 W. 29th Street North
 Wichita, Kansas

Project for:
THE CHURCH OF
JESUS CHRIST
OF LATTER-DAY SAINTS

Mark	Date	Description
1	26-APR-11	Added svs line under shed

Project Number:
 1045-1518
 Plan Series:
 HER-09T-SC-DS-01
 Property Number:
 578-3488

Sheet Title:
SITE PLAN
GRADING PLAN

Baughman
 ENGINEERING / PLANNING / INTERIORS
 LANDSCAPE ARCHITECTURE
 Baughman Company, P.A.
 315 Ellis, Wichita, KS 67211
 316-262-7271 F316-262-0149

Sheet:
C705

GRADING NOTES

- Contractor shall be required to provide notice to Kansas One Call at 687-2470 a minimum of two (2) working days prior to any excavation or work adjacent to utilities.
- The Contractor must notify the following in case of an emergency:
 Black Hills Energy (Gas).....1-800-303-0357
 Westar Energy (Electric).....383-8650
 Cox Communications (Cablevision).....262-4270
 AT&T (Phone).....268-2759
 City of Wichita Water Dept. (Water).....268-4563
 City of Wichita Sewer Maint.(San. Sewer).....268-4024
 City of Wichita Storm Sewer Maint. (Storm Sewer).....268-4090
 City of Wich Traffic Maint.(Traf. Control).....268-4034
 or 268-4203
- Existing utilities and their locations, as shown on the plans, represent the best information obtainable for design. Location information has been obtained from the various utility companies and is either from company record drawings or company provided field locations. The Contractor will be required to work around existing utilities which do not conflict with proposed construction.
- Traffic affected by the construction on this project shall be handled in accordance with the latest edition of the Local Manual on Uniform Traffic Control Devices.
- The Contractor shall verify all utility locations prior to construction of this project.
- Refer to Landscape Plans and Specifications for Treatment of All Disturbed Areas.
- Signaling and striping shall be installed Per Approved Specifications.
- Paved Lot to be constructed Per Approved Specifications.
- The Contractor shall notify adjacent landowners prior to proceeding with any construction work on landowner's property.
- Cross-Slopes on sidewalks around building shall not exceed 1/4" per foot (or 2%). Notify Engineer of any discrepancies prior to forming of walks.

BENCHMARK

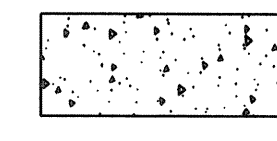
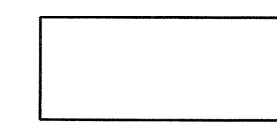
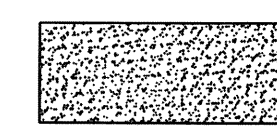
Site Benchmark - 1:
 Small Railroad Spike in North side of Power Pole.
 Elevation = 1338.26 (M.S.L.)

LEGAL DESCRIPTION

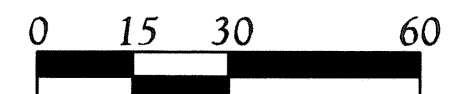
Lot 1, Block A, 29TH ST. N. CHURCH ADDITION, Wichita, Sedgwick County, Kansas.

Concrete Pavement Details:
 Refer to Details sheet C701, Detail F, for "Concrete Paving".
 Concrete Joint Layout:
 Refer to Details sheet C702 for "Concrete Pavement Notes Where Concrete Paving is Used". Also refer to Detail H on sheet C702 for "Concrete Paving Joint Details".

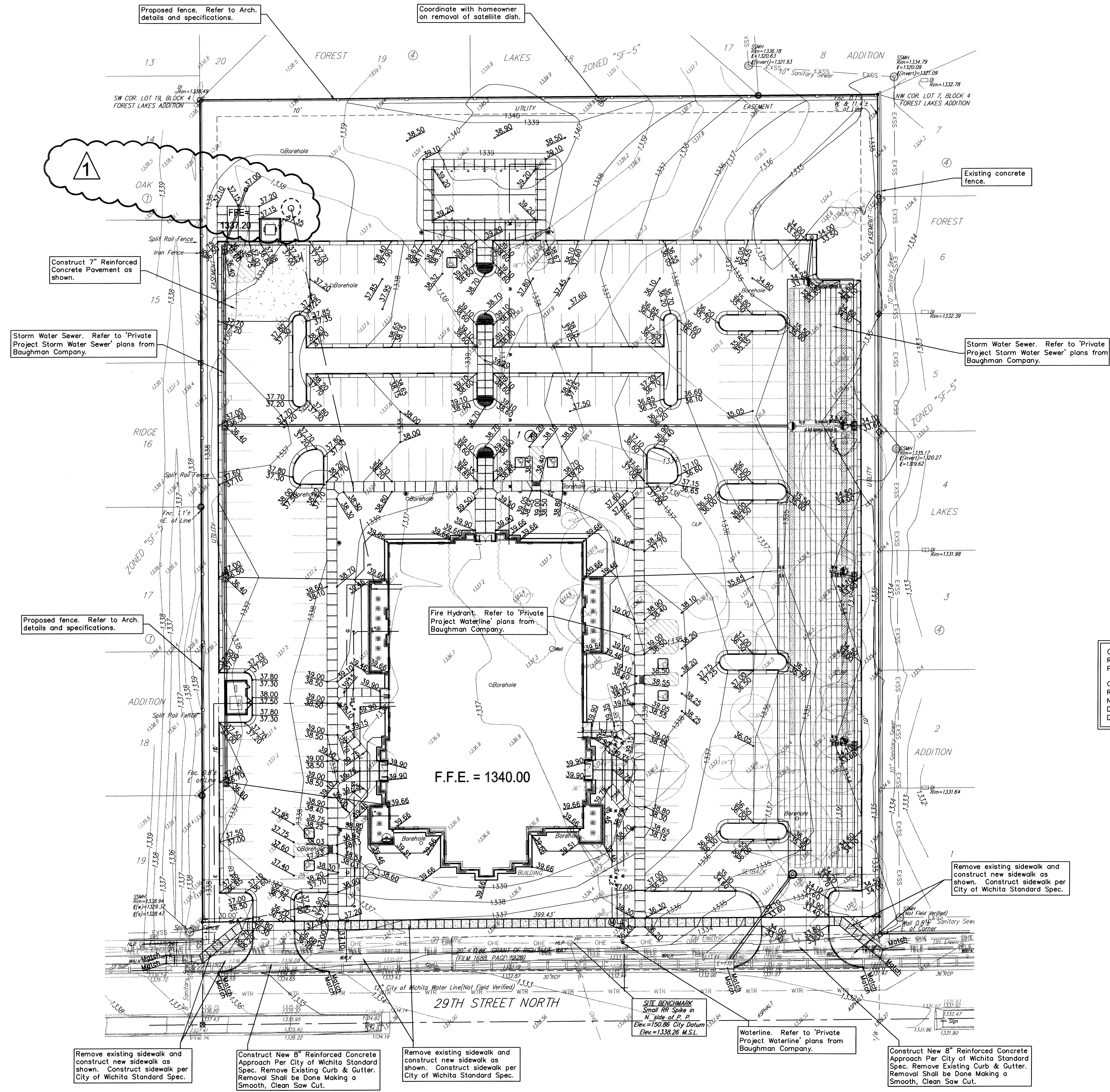
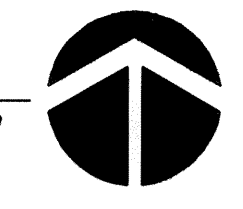
LEGEND:

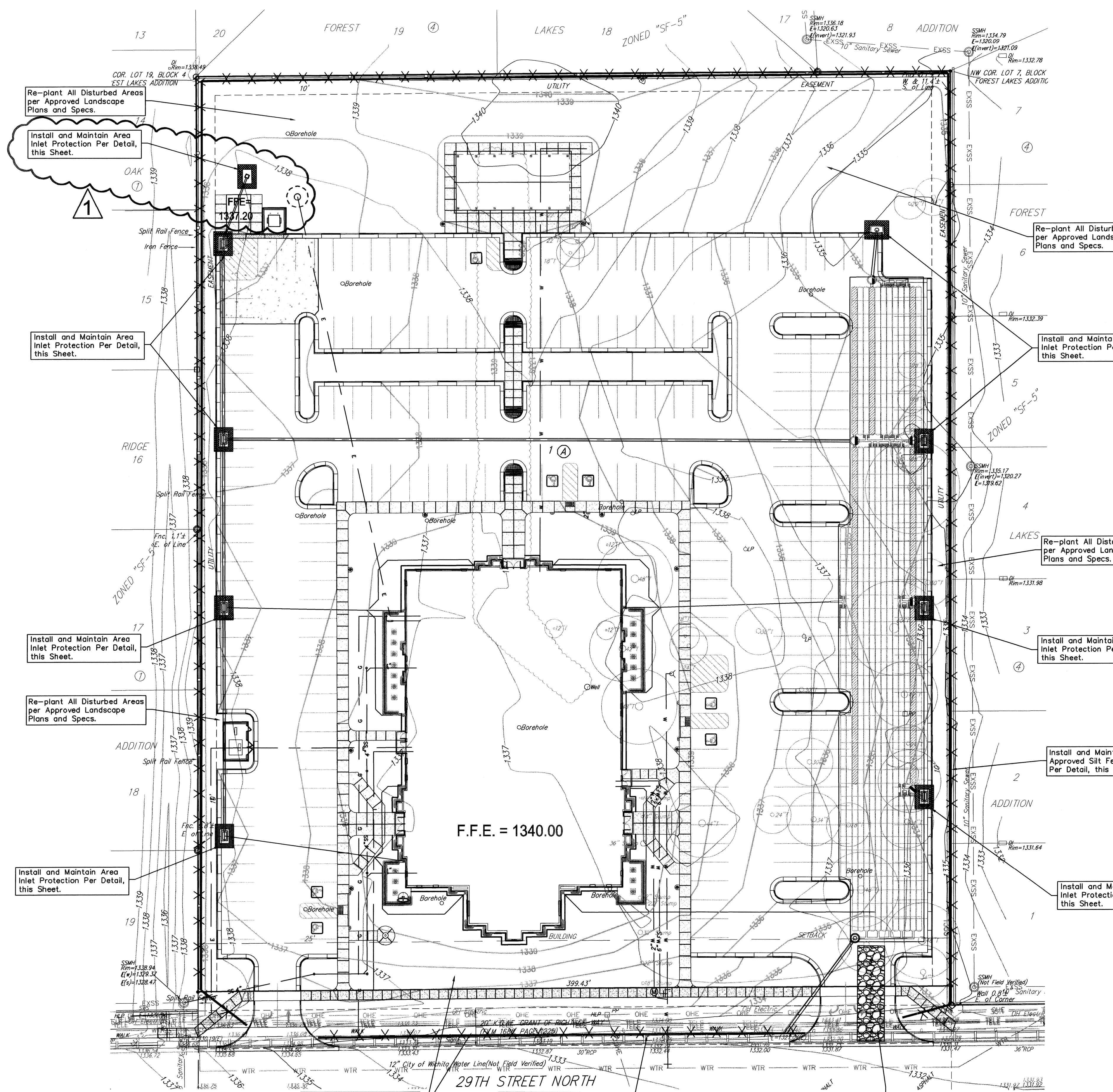
-  7" CONCRETE PAVEMENT
-  5.5" CONCRETE PAVEMENT
-  NEW SIDEWALK IN STREET RIGHT-OF-WAY

SITE PLAN GRADING PLAN



Scale 1"= 30'-0"





BENCHMARK

Site Benchmark - 1:
Small Railroad Spike in North side of Power Pole.
Elevation = 1338.26 (M.S.L.)

LEGAL DESCRIPTION

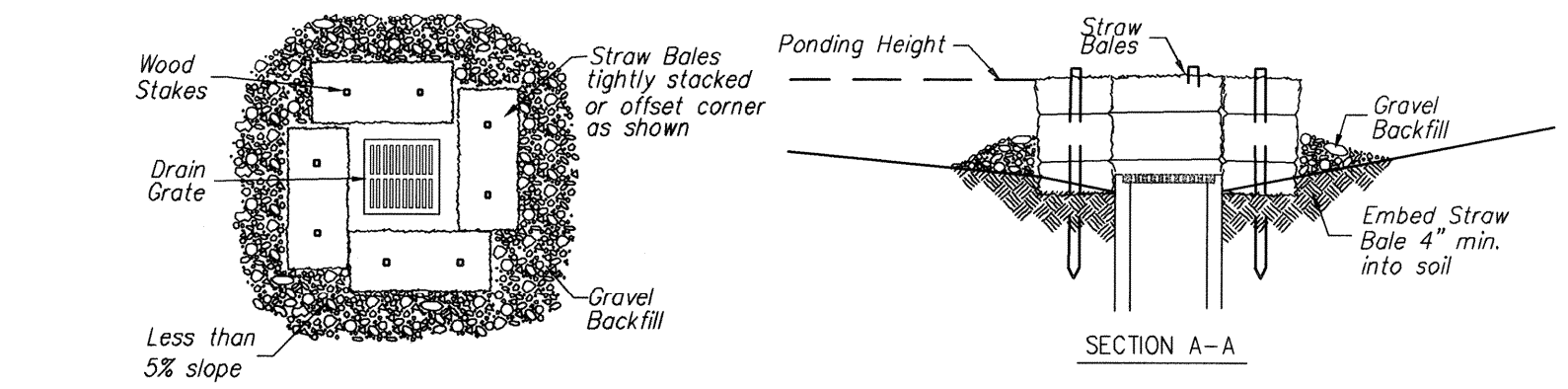
Lot 1, Block A, 29TH ST. N. CHURCH ADDITION, Wichita, Sedgwick County, Kansas.

SITE INFORMATION

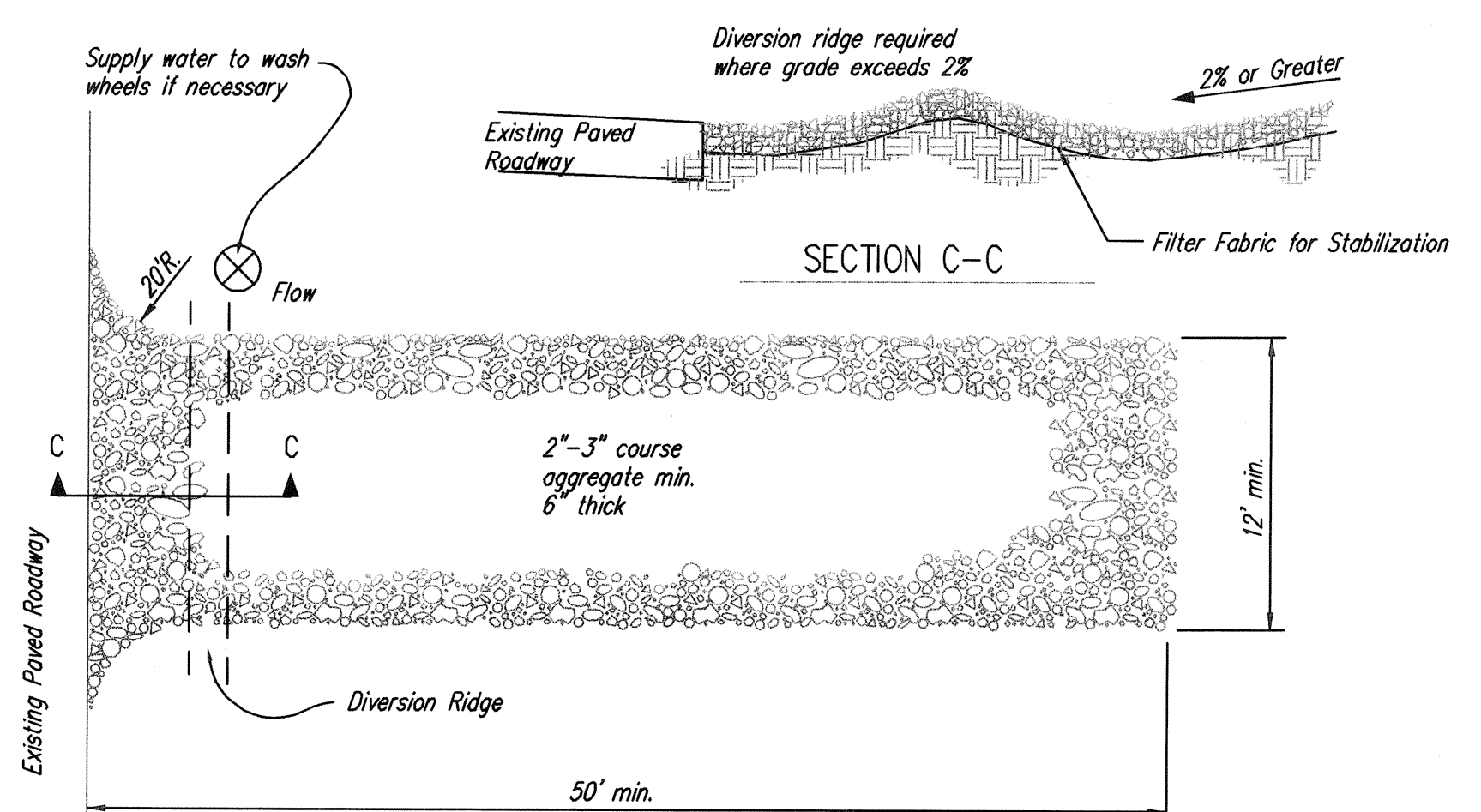
Total Area: 193,855.38 sq. ft. (4.45 acres)
Impervious Area: ±134,508 sq. ft. (3.1 acres)
Building Area: 20,717 sq. ft.

EROSION CONTROL NOTES

- No land clearing or grading shall begin until all applicable erosion control measures have been installed. This project is subject to this SWPP Plan. The Contractor shall comply with any unusual requirements as necessary for the site to be in compliance during construction, per this plan and City Specs (See #10).
- All exposed areas shall be seeded as specified within 30 days of final GRADING per Landscape Plans and Specifications.
- Should construction stop for longer than 15 days, the site shall be seeded per Landscape Plans and Specifications.
- Maintain erosion control measures after each rain and at least once a week.
- This plan shall not be considered all inclusive as the contractor shall take all necessary precautions to prevent soil sediment from leaving the site.
- Contractor shall comply with all state and local ordinances that apply.
- Additional erosion and sediment control measures will be installed if deemed necessary by on site inspection.
- Land disturbing activities shall not commence until approval to do so has been received by governing authorities.
- If installation of storm drainage system should be interrupted by weather or nightfall, the pipe ends shall be covered with filter fabric.
- This SWPP Plan should be in job trailer and/or on site at all times. The Contractor is responsible for any needed changes, updates or maintenance to BMP's on site. This plan may change and updates need to be recorded and documented on the plan. This plan is a flexible plan, due to changing site conditions and weather. Please inform Landscape Architect and/or Engineer of changes to plan.
- ANY substitutions for the sediment control devices shown, must be approved by the Landscape Architect and/or Engineer prior to any uses on site.
- An NPDES Permit Application has been submitted for this property. A copy of this application must be kept at the job site for the duration of the construction process.



2 STRAW BALE BARRIERS FOR AREA INLETS and CURB INLETS
NOT TO SCALE (Silt Fence may be used in lieu of Straw Bales)



- NOTES:
- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
 - WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
 - WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN, AS SHOWN ABOVE.
 - DRIVE ENTRANCES ONTO RESIDENTIAL LOTS WILL NOT BE REQUIRED TO HAVE THE SEDIMENT BARRIER SHOWN, BUT WHEEL WASHING MAY BE REQUIRED IF STABILIZED ENTRANCE IS NOT SUFFICIENT TO KEEP MUD FROM BEING TRACKED ONTO ADJACENT STREET. ENTRANCE SHALL EXTEND FROM BACK OF CURB TO DWELLING.

3 STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE

Re-plant All Disturbed Areas per Approved Landscape Plans and Specs.

Install and Maintain Area Inlet Protection Per Detail, this Sheet.

Install and Maintain Area Inlet Protection Per Detail, this Sheet.

Install and Maintain Area Inlet Protection Per Detail, this Sheet.

Re-plant All Disturbed Areas per Approved Landscape Plans and Specs.

Install and Maintain Area Inlet Protection Per Detail, this Sheet.

Re-plant All Disturbed Areas per Approved Landscape Plans and Specs.

Install and Maintain Area Inlet Protection Per Detail, this Sheet.

Re-plant All Disturbed Areas per Approved Landscape Plans and Specs.

Install and Maintain Area Inlet Protection Per Detail, this Sheet.

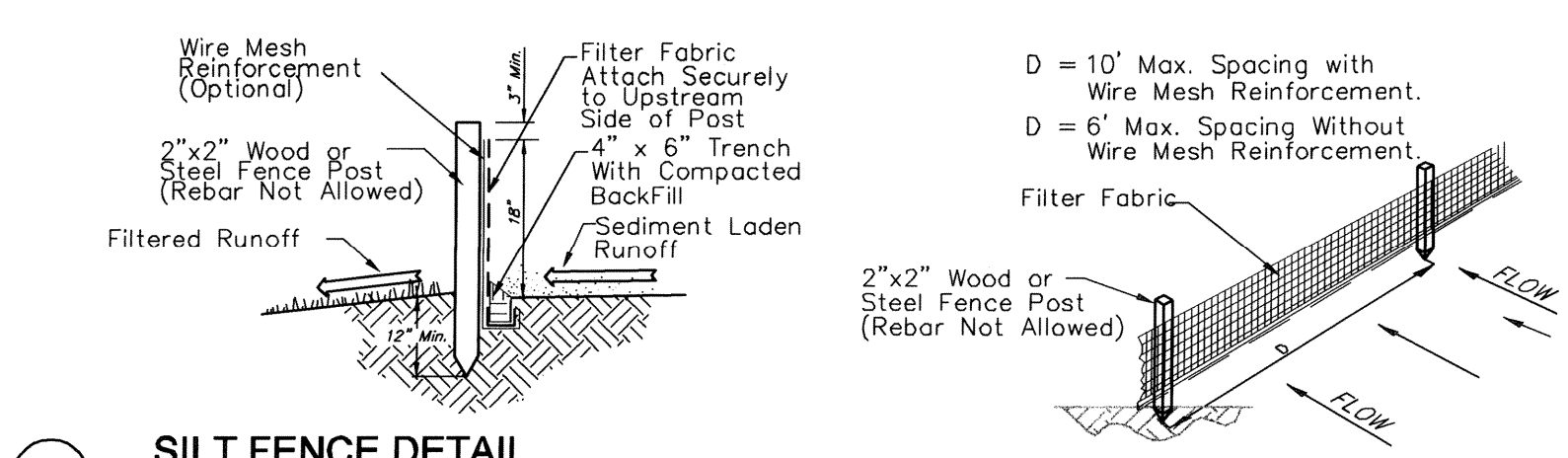
Install and Maintain 1,450 L.F. Approved Silt Fence as Shown Per Detail, this Sheet.

Install and Maintain Area Inlet Protection Per Detail, this Sheet.

Re-plant All Disturbed Areas per Approved Landscape Plans and Specs.

Install and Maintain 1,450 L.F. Approved Silt Fence as Shown Per Detail, this Sheet.

CONSTRUCTION ENTRANCE INFORMATION:
Contractor Shall Construct and Maintain Approved Entrance as Discussed in the Storm Water Pollution Prevention Plan Guidelines, and Detail, this Sheet. Entrance Shall be a Minimum of 12' Wide by 50' in Length With 2'-3" Dia. Stone at a Depth of 6".



EROSION CONTROL LEGEND

- x — x — x — = Silt Fence
- = Area Inlet Sediment Barrier

SITE PLAN EROSION CONTROL PLAN



Architect / Engineer:
nbw architects p.a.
ARCHITECTURE / PLANNING / INTERIORS
SCOTT NELSON, AIA, KEVIN R. BOOLY, AIA, JAMES H. WYATT, AIA,
990 JOHN BURNS BUILDING, P.O. BOX 2212 - 108TH FALLS, IDAHO FALLS, IDAHO 83402-2212
(208) 322-8719 (208) 322-8795 (208) 322-8796

Stamp:
Professional Engineer Seal

Project for:
Maize Ward
Wichita Kansas Stake

Project for:
THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS

Mark	Date	BY	Description
1	26-APR-11	Added silt fence under shed	

Project Number:
1045-1518
Plan Series:
HER-09T-SC-DS-01
Property Number:
578-3488

Sheet Title:
SITE PLAN EROSION CONTROL PLAN

Baughman
ENGINEERING | SURVEYING | PLANNING
LANDSCAPE ARCHITECTURE

Baughman Company, P.A.
215 811th, Wichita, KS 67211
316-262-1211 F316-262-0149

Sheet:
C708