

LIST OF DRAWINGS

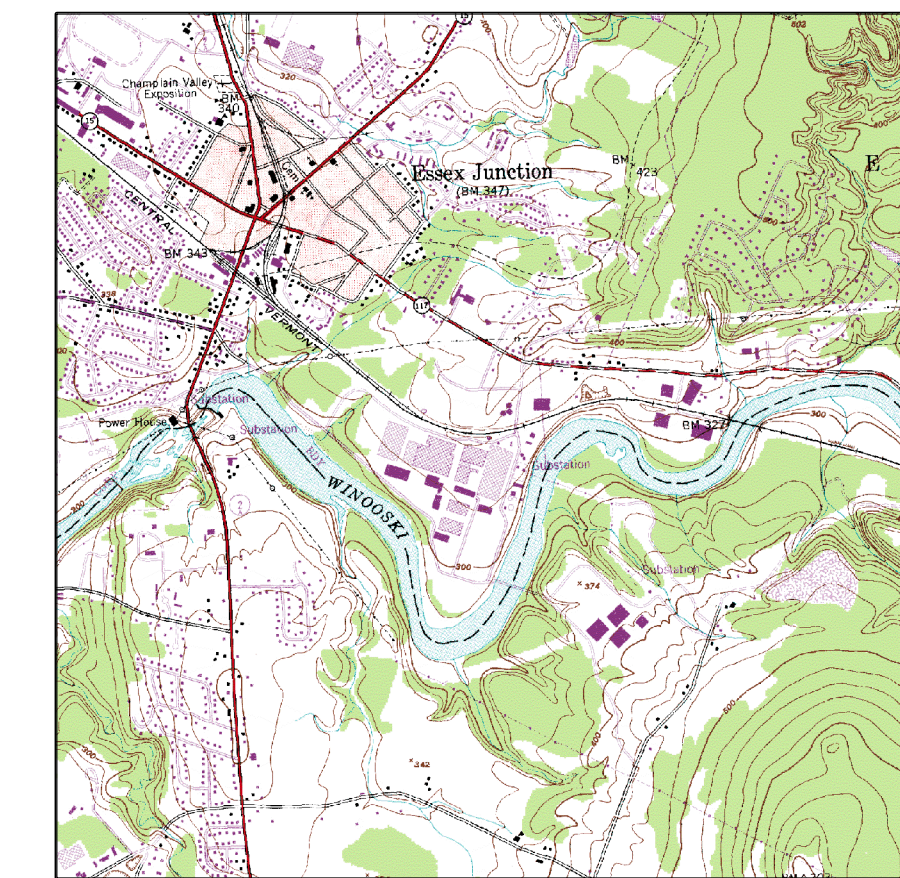
- C-1 EXISTING CONDITIONS PLAN
- C-2 PROPOSED SITE PLAN
- C-3 UTILITY PLAN
- C-4 SEWER AND WATER LINE PROFILES
- C-5 LIGHTING PLAN
- C-6 LANDSCAPING PLAN
- C-7 EROSION CONTROL DETAILS
- C-8 DETAILS
- C-9 STORMTECH SYSTEM DETAILS

NOTES:

ZONING DISTRICT: VILLAGE CENTER
 MINIMUM LOT SIZE: 5,000 SF
 MAXIMUM NUMBER OF DWELLING UNITS TO BE DETERMINED BY THE ABILITY TO MEET THE STANDARDS OF THE LAND DEVELOPMENT CODE, INCLUDING PARKING, SETBACKS, LOT COVERAGE AND BUILDING HEIGHT
 MAXIMUM LOT COVERAGE: TO BE DETERMINED BY THE COMMISSION AS PART OF SITE PLAN REVIEW.
 ENTIRE PARCEL:
 TOTAL PARCEL AREA: ±55,061 SF (1.26 ACRES)
 EXISTING IMPERVIOUS COVER: ± 17,515 SF (0.4 ACRES)
 % EXISTING IMPERVIOUS COVER: ±32%
 PROPOSED IMPERVIOUS COVER: ±35,221 SF (0.81 ACRES)
 % PROPOSED IMPERVIOUS COVER: ±64%
 PROJECT AREA ONLY:
 TOTAL PROJECT AREA: ±28,904 SF (0.66 ACRES)
 EXISTING IMPERVIOUS COVER: ± 1,776 SF (0.04 ACRES)
 % EXISTING IMPERVIOUS COVER: ±6%
 PROPOSED IMPERVIOUS COVER: ±22,839 SF (0.52 ACRES)
 % PROPOSED IMPERVIOUS COVER: ±79%

SOILS DESCRIPTION TABLE

SOIL TYPE	TOTAL ACREAGE	DESCRIPTION	AG VALUE	HSG
AdA	±0.99 AC.	ADAMS AND WINDSOR LOAMY SANDS, 0 TO 5 PERCENT SLOPES	STATEWIDE	A
HnB	±0.27 AC.	HINESBURG FINE SANDY LOAM 3 TO 8 PERCENT SLOPES	PRIME	A



LEGEND

N/F	NOW OR FORMERLY OWNED BY
CB	EXISTING CATCH BASIN
SW	EXISTING WATER SHUT OFF
GV	EXISTING GATE VALVE
PGV	PROPOSED GATE VALVE
SG	EXISTING SIGN
PS	PROPOSED SIGN
UPGW	EXISTING UTILITY POLE & GUY WIRE
EH	EXISTING HYDRANT
PH	PROPOSED HYDRANT
ESM	EXISTING SEWER MANHOLE
PSM	PROPOSED SEWER MANHOLE
ESDM	EXISTING STORM DRAIN MANHOLE
PSDM	PROPOSED STORM DRAIN MANHOLE
ET	EXISTING TREES
TT	TEST PIT LOCATION
IT	INFILTRATION TEST LOCATION
ETS	PROPOSED TREES AND SHRUBS
EL	EXISTING PROPERTY LINE
ESL	EXISTING SOIL BOUNDARY LINE
EROW	PROPOSED RIGHT OF WAY / EASEMENT
SLF	PROPOSED LIMIT OF WORK FENCE
SF	PROPOSED SOLID FENCE
SIF	PROPOSED SILT FENCE
TL	PROPOSED TREE LINE
WL	EXISTING WATER LINE
SS	EXISTING GRAVITY SEWER LINE
SD	EXISTING STORMWATER DRAIN
G	EXISTING GAS LINE
TEL	EXISTING UNDERGROUND TELECOMMUNICATIONS
500	EXISTING CONTOUR
500	PROPOSED CONTOUR
W	PROPOSED WATER LINE
SS	PROPOSED GRAVITY SEWER LINE
SD	PROPOSED STORMWATER DRAIN
G	PROPOSED GAS LINE
UG	PROPOSED UNDERGROUND LINE
TEL	PROPOSED TELEPHONE LINE

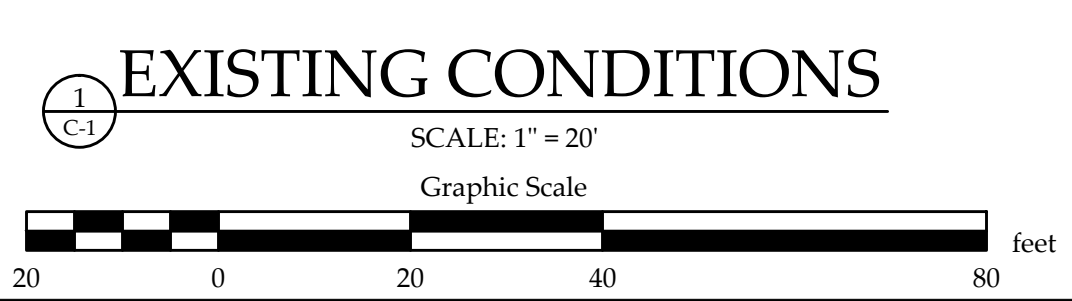
NOTE:
 ALL BOUNDARY LINES PER PLAN REFERENCE #2. RUGGIANO ENGINEERING TAKES NO RESPONSIBILITY FOR ANY ERRORS OR INACCURACIES.

NOTES:
 1) THIS DRAWING IS NOT A BOUNDARY SURVEY PLAT. BOUNDARY LINE INFORMATION SHOWN IS BASED ON PLAN REFERENCE #2. THE PROPERTY LINES, EASEMENTS AND OTHER REAL PROPERTY DESCRIPTIONS PROVIDED ON THIS DRAWING ARE FOR ILLUSTRATION PURPOSES ONLY. THEY DO NOT DEFINE LEGAL RIGHTS OR MEET LEGAL REQUIREMENTS FOR A LAND SURVEY AS DESCRIBED IN V.S.A. TITLE 27 SECTION 140 AND SHALL NOT BE USED IN LIEU OF A SURVEY AS THE BASIS OF ANY LAND TRANSFER OR ESTABLISHMENT OF ANY PROPERTY RIGHT.

- PLAN REFERENCES:**
- 1) "EXISTING CONDITIONS PLAN, MING PROPERTIES PARTNERSHIP, PARK STREET & PARK TERRACE, ESSEX JCT., VERMONT" DATED: 3/6/07, LAST REVISED: 3/21/07, SCALE: 1" = 20', PROJECT NO.: 06120, PREPARED BY LAMORELUX & DICKINSON CONSULTING ENGINEERS, INC. OF ESSEX JUNCTION, VT.
 - 2) "PLAT OF SURVEY MING PROPERTIES PARTNERSHIP PROF. NO. S 9& 11 PARK ST. & NO. S 2 & 2A PARK TERRACE, ESSEX JUNCTION, VT DATED: JUNE 30, 2004, SCALE: 1" = 40', PREPARED BY WARREN A. ROBSTENIEN, REG. VT & NH L.S. OF WINOOSKI, VT.
 - 3) "SITE PLAN - PARK STREET SCHOOL", DATED MAY 1, 2009, SCALE: 1" = 20', PREPARED BY KREBS AND LANSING CONSULTING ENGINEERS, INC. OF COLCHESTER, VT.
- 2) THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING AND DETERMINING THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES OR UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION. APPROPRIATE REMEDIAL ACTION SHALL BE TAKEN BEFORE PROCEEDING WITH THE WORK.
- 3) THIS TOPOGRAPHIC SURVEY WAS CONDUCTED WITHOUT THE BENEFIT OF "DIG SAFE" MARKINGS. UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND ARE NOT WARRANTED TO BE EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT "DIG SAFE" BEFORE COMMENCING ANY WORK AND SHALL PRESERVE ALL EXISTING UTILITIES NOT SPECIFIED TO BE REMOVED OR ABANDONED AS PART OF THE PROJECT.

REVISION: 08/28/17 - UPDATED LEGEND AND CONNOLLY PROPERTY
 REVISION: 03/02/17 - ADDED TEST PIT AND INFILTRATION TEST LOCATIONS, REVISED ZONING NOTES
 REVISION: 01/20/17 - REVISIONS PER VILLAGE ENGINEER COMMENTS, REVISED LEGEND

PRELIMINARY
 NOT FOR CONSTRUCTION
 DATE: 08/28/17

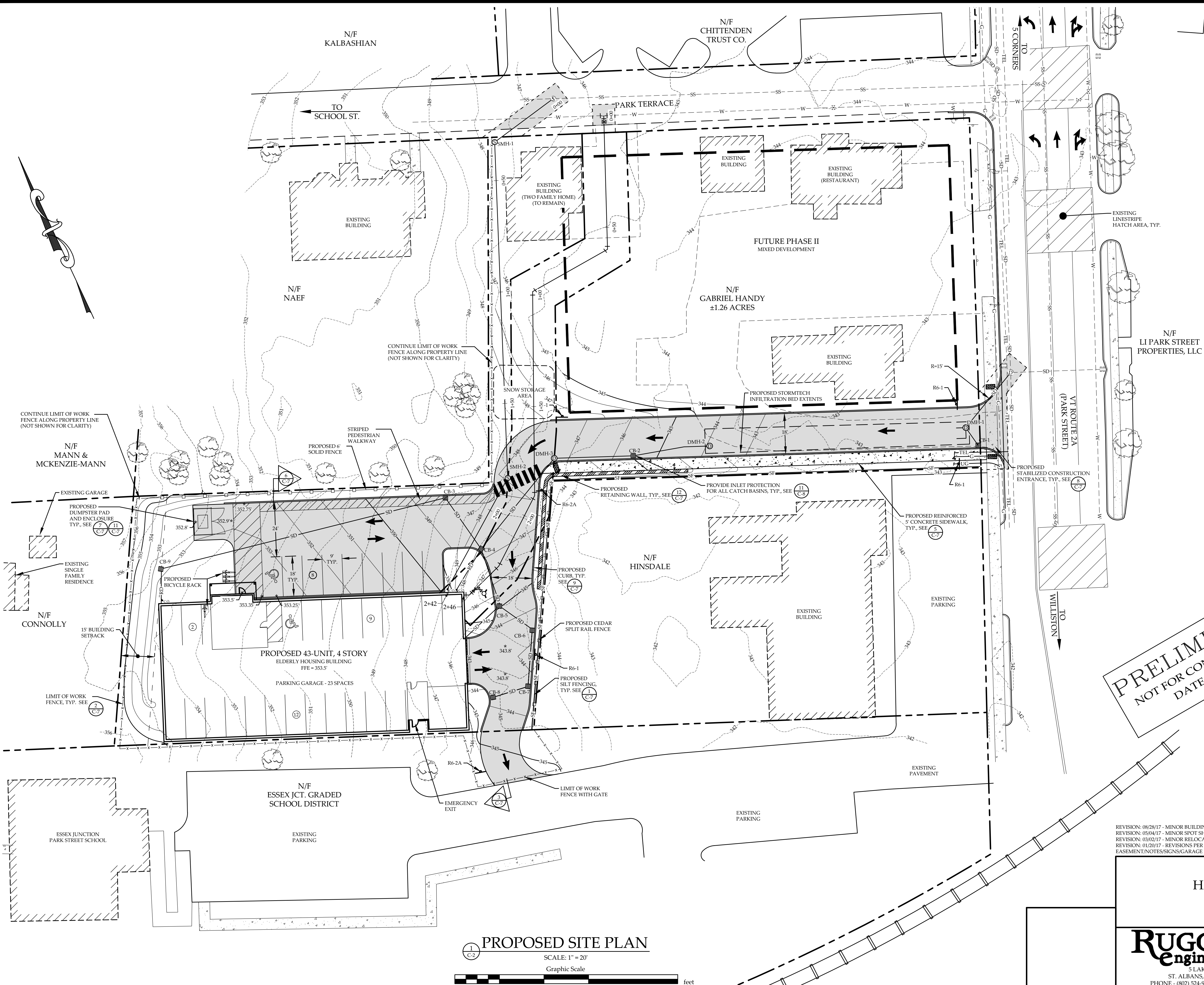


EXISTING CONDITIONS
 HANDY HOTELS & RENTALS, LLC
 9 & 11 PARK STREET
 ESSEX JUNCTION, VERMONT

RUGGIANO Engineering, inc.
 5 LAKE STREET
 ST. ALBANS, VERMONT 05478
 PHONE - (802) 524-9300 FAX - (802) 524-9700
 COPYRIGHT © 2017 - RUGGIANO ENGINEERING, INC.

PROJECT NO.15019
 DRAWN BY.....JGE
 CHECKED BY.....LEW
 SCALE.....1" = 20'
 DATE.....11/11/16

SHEET NO.
C-1
 1 OF 9 SHEETS



SIGN SUMMARY			
M.U.T.C.D. NUMBER	SPECIFICATION		DESCRIPTION
	WIDTH	HEIGHT	
R6-1	36"	12"	ONE WAY
R6-2A	18"	24"	ONE WAY DO NOT ENTER

NOTES:

- ALL BOUNDARY LINES PER PLAN REFERENCE #2. RUGGIANO ENGINEERING TAKES NO RESPONSIBILITY FOR ANY ERRORS OR INACCURACIES.
- CONTRACTOR TO INSTALL AND MAINTAIN LIMIT OF DISTURBANCE DEMARCATION FENCING ON ALL BOUNDARY LINES - NOT TO INCLUDE PUBLIC R.O.W. SEE DETAIL 3/C-7

PRELIMINARY
 NOT FOR CONSTRUCTION
 DATE: 08/28/17

REVISION: 08/28/17 - MINOR BUILDING LOCATION REVISION, REMOVED SIDEWALK AND MINOR LANDSCAPING REVISIONS
 REVISION: 05/04/17 - MINOR SPOT SHOT REVISIONS AROUND HANDICAP PARKING FOR ADA COMPLIANCE
 REVISION: 03/02/17 - MINOR RELOCATION OF PROPOSED WATERLINE PER VILLAGE ENGINEER COMMENTS
 REVISION: 01/20/17 - REVISIONS PER VILLAGE ENGINEER COMMENTS, MODIFIED DRIVEWAYS/RADII, ADD LIMITS OF WORK/WATERLINE EASEMENT/NOTES/SIGNS/GARAGE PARKING, OTHER MINOR REVISIONS.

PROPOSED SITE PLAN
HANDY HOTELS & RENTALS, LLC
 9 & 11 PARK STREET
 ESSEX JUNCTION, VERMONT

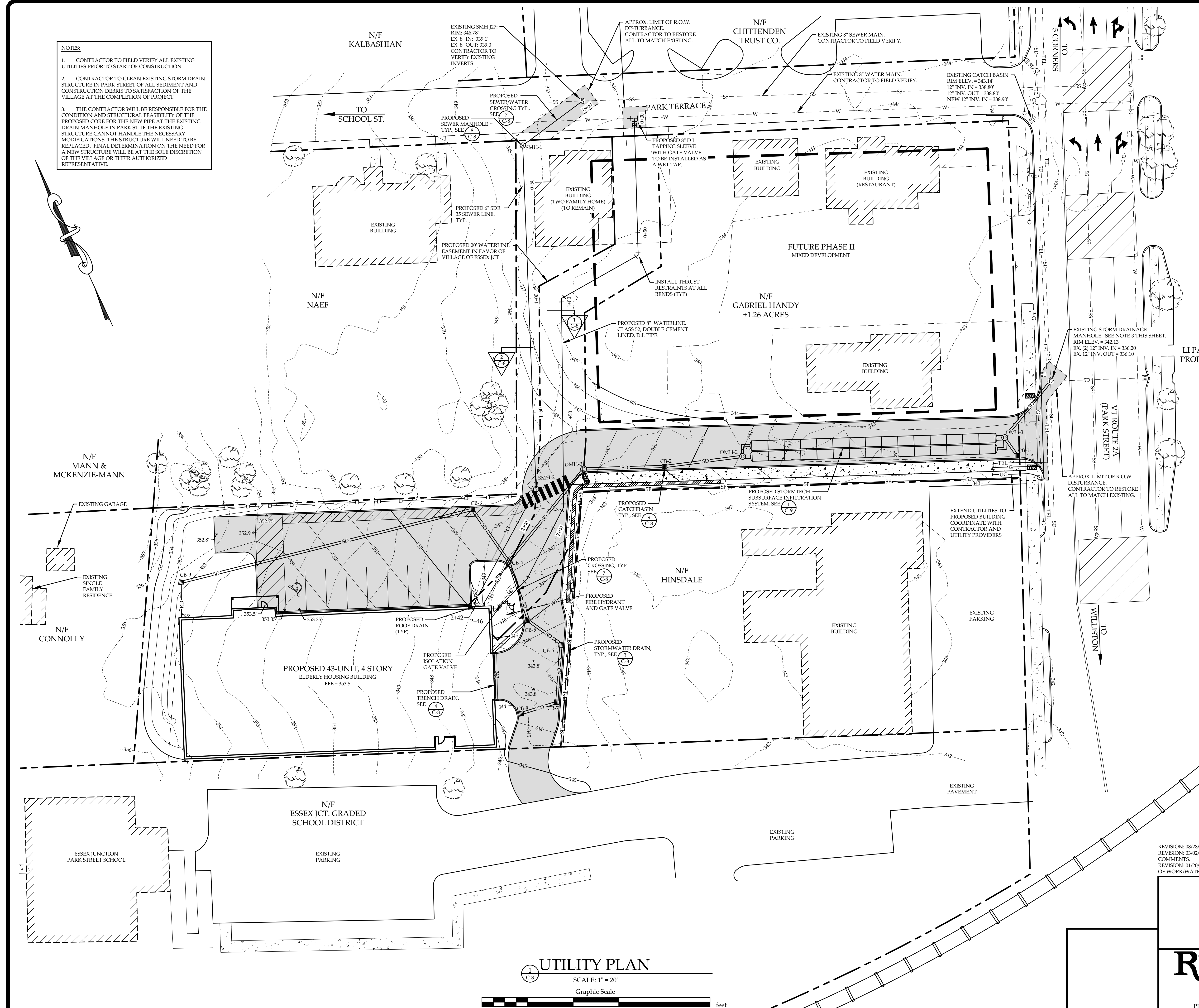
RUGGIANO
 Engineering, inc.
 5 LAKE STREET
 ST. ALBANS, VERMONT 05478
 PHONE - (802) 524-9300 FAX - (802) 524-9700
 COPYRIGHT © 2017 - RUGGIANO ENGINEERING, INC.

PROJECT NO.15019	SHEET NO.
DRAWN BY.....JGE	C-2
CHECKED BY.....LEW	
SCALE.....1" = 20'	
DATE.....11/11/16	

2 OF 9 SHEETS

PROPOSED SITE PLAN
 SCALE: 1" = 20'
 Graphic Scale

- NOTES:**
- CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION.
 - CONTRACTOR TO CLEAN EXISTING STORM DRAIN STRUCTURE IN PARK STREET OF ALL SEDIMENT AND CONSTRUCTION DEBRIS TO SATISFACTION OF THE VILLAGE AT THE COMPLETION OF PROJECT.
 - THE CONTRACTOR WILL BE RESPONSIBLE FOR THE CONDITION AND STRUCTURAL FEASIBILITY OF THE PROPOSED CORE FOR THE NEW PIPE AT THE EXISTING DRAIN MANHOLE IN PARK ST. IF THE EXISTING STRUCTURE CANNOT HANDLE THE NECESSARY MODIFICATIONS, THE STRUCTURE WILL NEED TO BE REPLACED. FINAL DETERMINATION ON THE NEED FOR A NEW STRUCTURE WILL BE AT THE SOLE DISCRETION OF THE VILLAGE OR THEIR AUTHORIZED REPRESENTATIVE.



DRAINAGE SUMMARY

FROM STRUCTURE	RIM	INV. OUT	TO STRUCTURE	INV. IN	LENGTH	SIZE	TYPE	SLOPE FT/FT
CB-8	343.75	339.75	CB-7	339.67	16'	12"	HDPE	.005
CB-7	343.75	339.57	CB-6	339.44	25'	12"	HDPE	.005
CB-6	343.75	339.34	CB-5	339.26	18'	12"	HDPE	.005
TRENCH	343.0	340.25	CB-5	340.0	19'	8"	HDPE	.010
CB-5	343.0	339.16	CB-4	339.03	27'	18"	HDPE	.005
ROOF DRAIN	-	347.0	CB-4	345.0	22'	6"	HDPE	.080
ROOF DRAIN	-	350.5	CB-9	350.0	13'	6"	HDPE	.005
CB-9	352.5	349.0	CB-3	344.25	132'	12"	HDPE	.034
CB-3	348.25	344.5	CB-4	343.00	28'	18"	HDPE	.046
CB-4	347.25	338.93	DMH-3	338.69	52'	18"	HDPE	.005
DMH-3	347.40	338.59	CB-2	338.39	40'	18"	HDPE	.005
CB-2	345.35	338.29	DMH-2	338.10	22'	18"	HDPE	.009
CB-1	342.25	338.05	DMH-1	338.00	8'	18"	HDPE	.005
DMH-1	342.5	338.00	EX. DMH	336.20	30'	18"	HDPE	.060

SEWER INVERT SUMMARY

FROM STRUCTURE	RIM	INV. OUT	TO STRUCTURE	INV. IN	LENGTH	SIZE	SLOPE FT/FT
FROM BUILDING	-	342.00	SMH-2	341.64	59'	6"	0.006
SMH-2	348.00	341.54	SMH-1	339.64	151'	6"	0.012
SMH-1	347.50	339.54	EXISTING	339.33	33'	6"	0.006

PRELIMINARY
 NOT FOR CONSTRUCTION
 DATE: 08/28/17

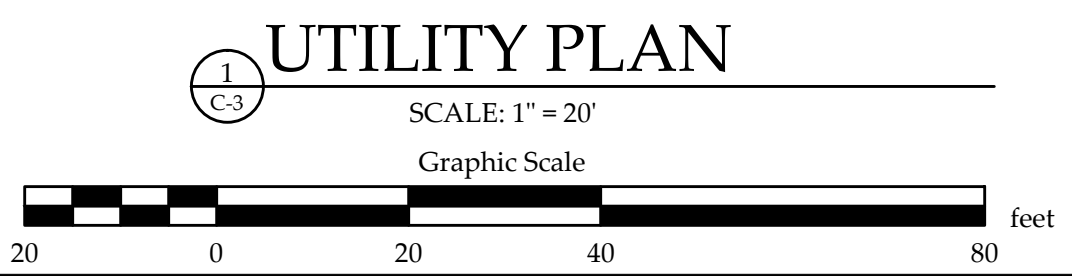
REVISION: 08/28/17 - SHIFTED BUILDING, MINOR CHANGES TO CATCH BASINS AND PIPING
 REVISION: 03/02/17 - REVISIONS TO NOTE SECTION AND MINOR RELOCATION OF PROPOSED WATERLINE PER VILLAGE ENGINEER COMMENTS.
 REVISION: 01/20/17 - REVISIONS PER VILLAGE ENGINEER COMMENTS. MINOR REVISIONS/LABELING TO SEWER/WATER/STORM, ADD LIMITS OF WORK/WATERLINE EASEMENT

UTILITY PLAN
 HANDY HOTELS & RENTALS, LLC
 9 & 11 PARK STREET
 ESSEX JUNCTION, VERMONT

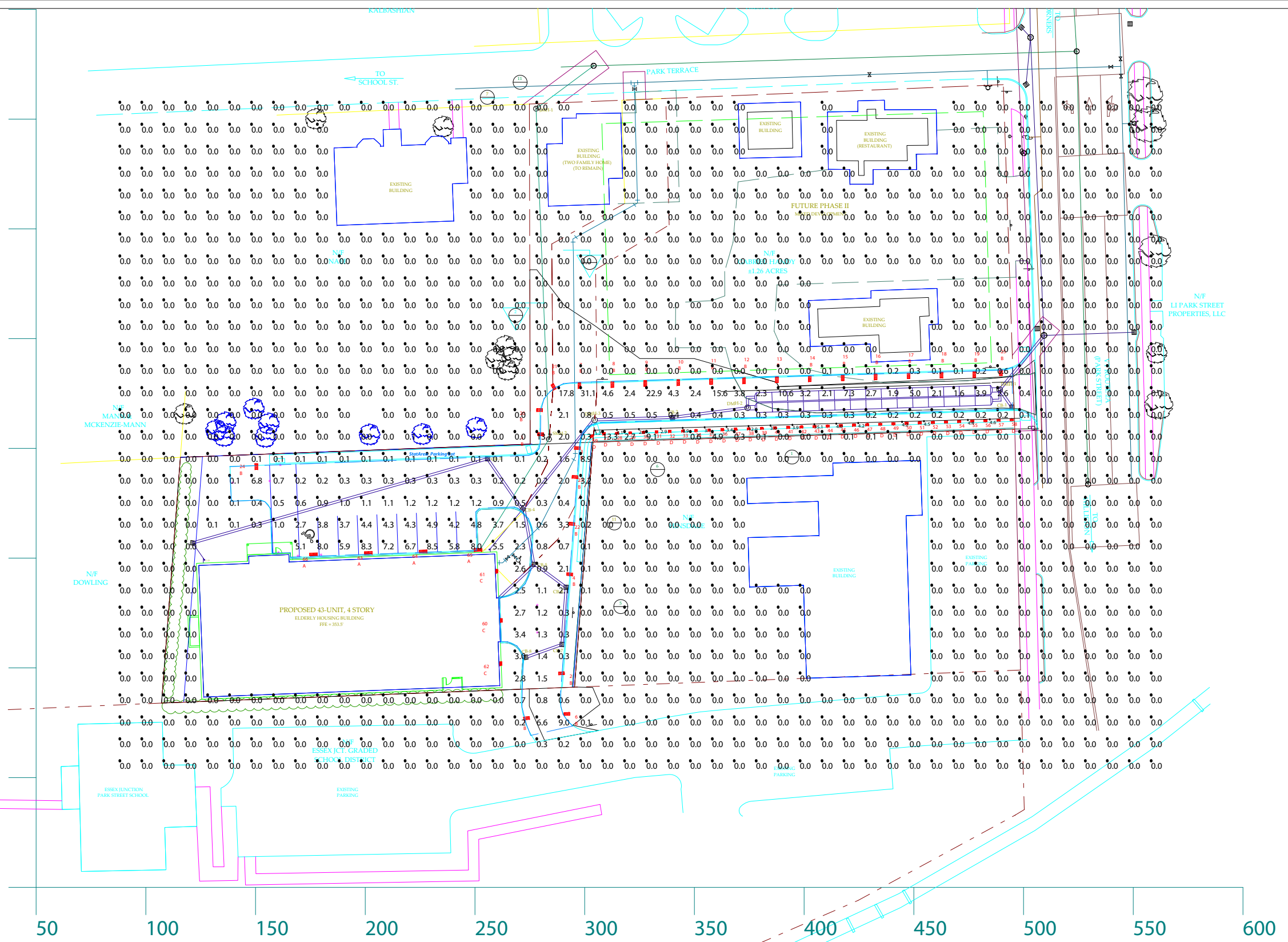
RUGGIANO
 Engineering, inc.
 5 LAKE STREET
 ST. ALBANS, VERMONT 05478
 PHONE - (802) 524-9300 FAX - (802) 524-9700
 COPYRIGHT © 2017 - RUGGIANO ENGINEERING, INC.

PROJECT NO.15019
 DRAWN BY.....JBD
 CHECKED BY.....LEW
 SCALE.....1" = 20'
 DATE.....11/11/16

SHEET NO.
C-3
 3 OF 9 SHEETS



400
350
300
250
200
150
100
50



Scale: 1 inch= 50 Ft.



Prepared For:
Holbrook Associated
35 Reservoir Park Drive
Rockland, MA 02370
Tel: 888-839-1578

Job Name:
Handy Hotels
Essex Junction, VT

Lighting Layout
Version F

Scale: as noted

Date: 3/6/2017 CASE #: 00084708

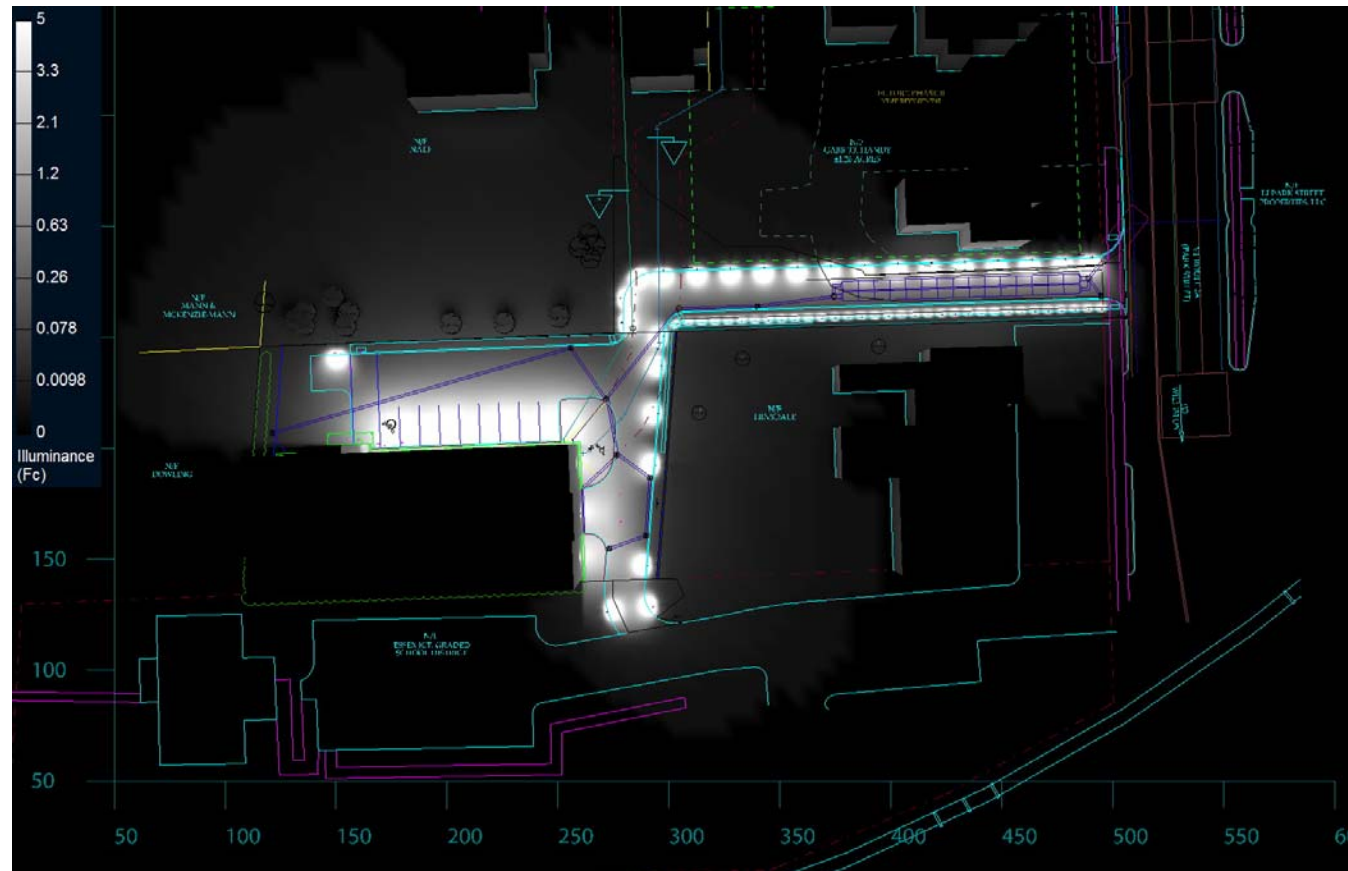
Filename: Handy Hotels 00084708F.AGI

Drawn By: dvento

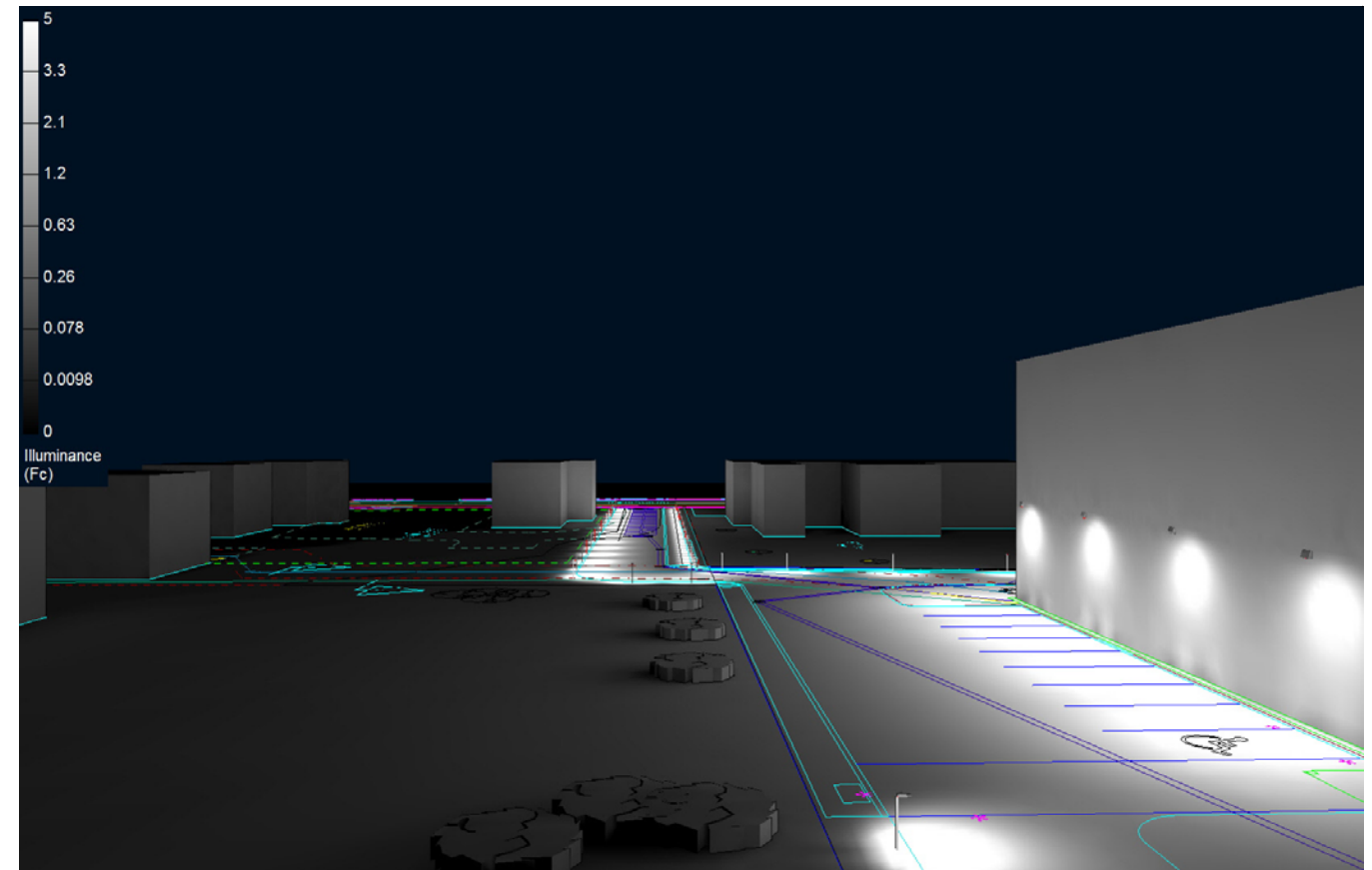
The Lighting Analysis, ezLayout, Energy Analysis and/or Visual Simulation ("Lighting Design") provided by the RAB Lighting Inc. ("RAB") represent an anticipated prediction of lighting system performance based upon design parameters and information supplied by others. These design parameters and information provided by others have not been field verified by RAB and therefore actual measured results may vary from the actual field conditions. RAB recommends that design parameters and other information be field verified to reduce variation.

RAB neither warrants, either implied or stated with regard to actual measured light levels or energy consumption levels as compared to those illustrated by the Lighting Design. RAB neither warrants, either implied or stated, nor represents the appropriateness, completeness or suitability of the Lighting Design intent as compliant with any applicable regulatory code requirements with the exception of those specifically stated on drawings created and submitted by RAB. The Lighting design is issued, in whole or in part, as advisory documents for informational purposes and is not intended for construction nor as being part of a project's construction documentation package.

Filename: Z:\Job Files\Holbrook Associated\Green Mountain Electric\Colchester 110256\Handy Hotels\Working Files\AGI\Handy Hotels 00084708F.AGI







Plan View Render (NTS)



Elevation View Render (NTS)

Calculation Summary											
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Description	PtSpcLr	PtSpcTb	Meter Type
CalcPts_Sidewalk	Illuminance	Fc	5.25	15.1	1.7	3.09	8.88	Readings taken at 0'-0" AFG	10	N.A.	Horizontal
CalcPts_Site Lighting_1	Illuminance	Fc	0.34	31.1	0.0	N.A.	N.A.	Readings taken at 0'-0" AFG	10	10	Horizontal
StatArea_Parking Lot	Illuminance	Fc	2.85	31.1	0.2	14.25	155.50	Readings taken at 0'-0" AFG			

Luminaire Schedule											
Symbol	Qty	Tag	Label	Arrangement	Lum. Lumens	LLF	Description	Lum. Watts	Total Watts	Filename	BUG Rating
	4	A	SLIMFC62N	SINGLE	4104	1.000	LED SLIM Full Cutoff Wallpack 62w 4000K Neutral	61.9	247.6	SLIMFC62N - Neutral - ITL76721.IES	B1-U0-G0
	25	B	BLED13N	SINGLE	1063	1.000	LED Area Light 13w 4000K Neutral	14.8	370	BLED13N - Neutral - ITL82639.IES	B0-U1-G0
	3	C	SLIM12N	SINGLE	1372	1.000	LED SLIM Wallpack 12w 4000K Neutral	13.9	41.7	SLIM12N - Neutral - ITL81603.IES	B1-U0-G0
	33	D	BLED5-18N	SINGLE	155	1.000	LED Bollard 5w 4000K Neutral	5.19	171.27	BLED5N-Neutral - ITL67886.IES	B0-U1-G0

Expanded Luminaire Location Summary						
LumNo	Tag	X	Y	MTG HT	Orient	Tilt
1	B	272.747	126.978	3.5	6.073	0
2	B	290.215	147.566	3.5	184.289	0
3	B	297.448	250.092	3.5	176.152	0
4	B	293.948	192.592	3.5	176.152	0
5	B	279.12	256.463	3.5	359.892	0
6	B	292.715	129.066	3.5	184.289	0
7	B	297.643	279.441	3.5	270	0
8	B	312.636	279.88	3.5	270	0
9	B	327.63	280.32	3.5	270	0
10	B	342.623	280.759	3.5	270	0
11	B	357.617	281.198	3.5	270	0
12	B	372.61	281.637	3.5	270	0
13	B	387.604	282.077	3.5	270	0
14	B	402.598	282.516	3.5	270	0
15	B	417.591	282.955	3.5	270	0
16	B	432.585	283.394	3.5	270	0
17	B	447.578	283.834	3.5	270	0
18	B	462.572	284.273	3.5	270	0
19	B	477.571	284.437	3.5	270	0
20	B	478.676	267.46	3.5	359.892	0
21	B	285.465	278.748	3.5	297.643	0
22	B	294.878	215.544	3.5	176.152	0
23	B	296.355	236.926	3.5	176.152	0
24	B	150.358	242.491	3.5	270.402	0
25	B	489.651	285.303	3.5	270	0
27	D	308.784	256.362	1.5	92.128	0
28	D	314.78	256.568	1.5	92.128	0
29	D	320.777	256.773	1.5	92.128	0
30	D	326.773	256.979	1.5	92.128	0
31	D	332.77	257.185	1.5	92.128	0
32	D	338.766	257.39	1.5	92.128	0
33	D	344.763	257.596	1.5	92.128	0
34	D	350.759	257.801	1.5	92.128	0
35	D	356.756	258.007	1.5	92.128	0
36	D	362.752	258.213	1.5	92.128	0
37	D	368.749	258.418	1.5	92.128	0
38	D	374.745	258.624	1.5	92.128	0
39	D	380.742	258.83	1.5	92.128	0
40	D	386.738	259.035	1.5	92.128	0
41	D	392.735	259.241	1.5	92.128	0
Total Quantity: 65 (40 shown, 1 through 40)						

Expanded Luminaire Location Summary						
LumNo	Tag	X	Y	MTG HT	Orient	Tilt
42	D	398.731	259.446	1.5	92.128	0
43	D	404.728	259.652	1.5	92.128	0
44	D	410.724	259.858	1.5	92.128	0
45	D	416.721	260.063	1.5	92.128	0
46	D	422.717	260.269	1.5	92.128	0
47	D	428.714	260.475	1.5	92.128	0
48	D	434.71	260.68	1.5	92.128	0
49	D	440.706	260.886	1.5	92.128	0
50	D	446.703	261.091	1.5	92.128	0
51	D	452.699	261.297	1.5	92.128	0
52	D	458.696	261.503	1.5	92.128	0
53	D	464.692	261.708	1.5	92.128	0
54	D	470.689	261.914	1.5	92.128	0
55	D	476.685	262.12	1.5	92.128	0
56	D	482.682	262.325	1.5	92.128	0
57	D	488.678	262.531	1.5	92.128	0
58	D	494.675	262.736	1.5	92.128	0
59	D	303.4	255.309	1.5	120.042	0
60	C	261.489	171.601	12	0.122	0
61	C	259.434	193.989	12	0.122	0
62	C	261.269	151.946	12	0.122	0
63	A	201.454	201.977	16	92.209	0
64	A	226.445	202.654	16	92.209	0
65	A	251.435	203.332	16	92.209	0
66	A	176.463	201.299	16	92.209	0
Total Quantity: 65 (25 shown, 41 through 65)						



NOTES:

- * The light loss factor (LLF) is a product of many variables, only lamp lumen depreciation (LLD) has been applied to the calculated results unless otherwise noted. The LLD is the result (quotient) of mean lumens / initial lumens per lamp manufacturers' specifications.
- * Illumination values shown (in footcandles) are the predicted results for planes of calculation either horizontal, vertical or inclined as designated in the calculation summary. Meter orientation is normal to the plane of calculation.
- * The calculated results of this lighting simulation represent an anticipated prediction of system performance. Actual measured results may vary from the anticipated performance and are subject to means and methods which are beyond the control of RAB Lighting Inc.
- * Mounting height determination is job site specific, our lighting simulations assume a mounting height (insertion point of the luminaire symbol) to be taken at the top of the symbol for ceiling mounted luminaires and at the bottom of the symbol for all other luminaire mounting configurations.
- * RAB Lighting Inc. luminaire and product designs are protected under U.S. and International intellectual property laws. Patents issued or pending apply.



Prepared For:
 Holbrook Associated
 35 Reservoir Park Drive
 Rockland, MA 02370
 Tel: 888-839-1578

Job Name:
 Handy Hotels
 Essex Junction, VT

Lighting Layout
 Version F

Filename: Z:\Job Files\Holbrook Associated\Green Mountain Electric\Colchester 110256\Handy Hotels\Working Files\AGI\Handy Hotels 00084708F.AGI

Scale: as noted

Date: 3/6/2017 CASE #: 00084708

Filename: Handy Hotels 00084708F.AGI

Drawn By: dvento

The Lighting Analysis, ezLayout, Energy Analysis and/or Visual Simulation ("Lighting Design") provided by the RAB Lighting Inc. ("RAB") represent an anticipated prediction of lighting system performance based upon design parameters and information supplied by others. These design parameters and information provided by others have not been field verified by RAB and therefore actual measured results may vary from the actual field conditions. RAB recommends that design parameters and other information be field verified to reduce variation.

RAB neither warranties, either implied or stated with regard to actual measured light levels or energy consumption levels as compared to those illustrated by the Lighting Design. RAB neither warranties, either implied or stated, nor represents the appropriateness, completeness or suitability of the Lighting Design intent as compliant with any applicable regulatory code requirements with the exception of those specifically stated on drawings created and submitted by RAB. The Lighting design is issued, in whole or in part, as advisory documents for informational purposes and is not intended for construction nor as being part of a project's construction documentation package.



37, 57 and 62 Watt SLIM Wallpacks are designed to cover the footprint of most traditional wallpacks. They are suitable for mounting heights from 20' to 30', and replace HID Wattages from 200W MH to 320W MH. These ultra-high efficiency fixtures are available in cutoff or full cutoff models.

Color: Bronze

Weight: 13.0 lbs

Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type:	Constant Current	Watts:	62W
120V:	0.52A	Color Temp:	4000K
208V:	0.33A	Color Accuracy:	82 CRI
240V:	0.29A	L70 Lifespan:	100000
277V:	0.25A	Lumens:	4,402
Input Watts:	62W	Efficacy:	71 LPW
Efficiency:	N/A		

Technical Specifications

Listings

UL Listing:

Suitable for wet locations. Wall Mount only.

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80, and have received the Department of Energy "Lighting Facts" label.

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.
DLC Product Code: P00001724

Construction

Footprint:

Designed to replace RAB HID WP3/4 wallpacks, both in size and footprint template, so upgrading to LED is easy and seamless.

IP Rating:

Ingress Protection rating of IP66 for dust and water

Cold Weather Starting:

The minimum starting temperature is -40°C/-40°F

Maximum Ambient Temperature:

Suitable for use in 104°F (40°C) ambient temperatures

Thermal Management:

Superior thermal management with internal Air-Flow fins.

Housing:

Precision die-cast aluminum housing and door frame.

Mounting:

Die-cast back box with four (4) conduit entry points and knockout pattern for junction box or direct wall mounting. Hinged housing and bubble level for easy installation.

Cutoff:

Cutoff (7.5°)

Recommended Mounting Height:

Up to 30 ft.

Lens:

Microprismatic diffusion glass lens reduces glare and has smooth and even light distribution.

Reflector:

Specular thermoplastic.

Gaskets:

The unique design of the tight-lock gasket ensures no water or environmental elements will ever get inside the SLIM.

Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contains no VOC or toxic heavy metals.

Green Technology:

Mercury and UV free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOC or toxic heavy metals.

LED Characteristics

LED:

Long-life, high-efficiency, micro-power, surface mount LEDs; binned and mixed for uniform light output and color.

Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

Correlated Color Temp. (Nominal CCT):

4000K

Color Stability:

LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period.

Color Consistency:

7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

Electrical

Driver:

Two Drivers, Constant Current, 100-277V, 50/60Hz, 700mA, 100-277VAC 0.6A, 4kV Surge Protection, Power Factor 99.4%.

THD:

6.1% at 120V, 13.4% at 277V

Other

Accessories:

Available accessories include polyclear and wire guard. Click to see all accessories.

California Title 24:

See SLIM62/BL for a 2013 California Title 24 compliant product. Any additional component requirements will be listed in the Title 24 section under technical specifications on the product page.

Technical Specifications (continued)

Other

Patents:

The design of the SLIM™ is protected by patents pending in US, Canada, China, Taiwan and Mexico.

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish.

Country of Origin:

Designed by RAB in New Jersey and assembled in the USA by RAB's IBEW Local 3 workers.

Buy American Act Compliant:

This product is a COTS item manufactured in the United States, and is compliant with the Buy American Act.

Recovery Act (ARRA) Compliant:

This product complies with the 52.225-21 "Required Use of American Iron, Steel, and Manufactured Goods-- Buy American Act-- Construction Materials (October 2010).

GSA Schedule:

Suitable in accordance with FAR Subpart 25.4.

HID Replacement Range:

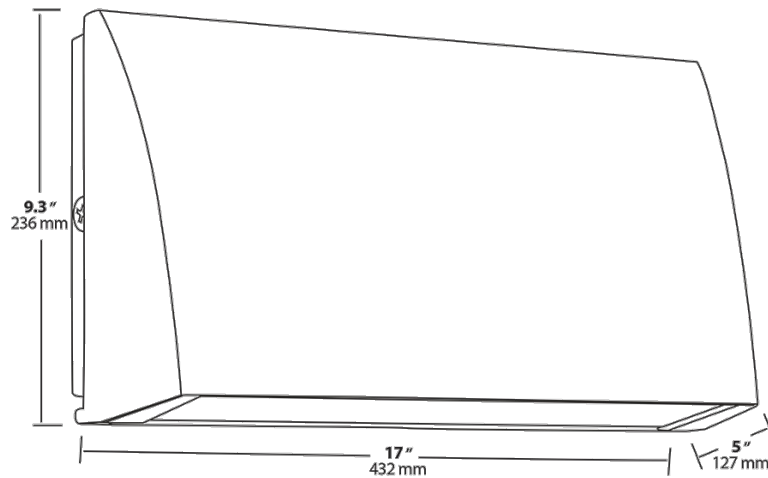
Replaces 320W Metal Halide.

Optical

BUG Rating:

B1 U1 G1

Dimensions



Features

- Covers footprint of most traditional wallpacks
- Easy installation with hinged access, bubble level and multiple conduit entries
- Tight-lock gasket keeps elements out
- 100,000-hour LED lifespan
- 5-Year warranty

Ordering Matrix

Family	Cutoff	Watts	Color Temp	Finish	Photocell	Bi-Level
SLIM	Blank = Standard C = Cutoff FC = Full Cutoff	62 = 62W 57 = 57W 37 = 37W	Blank = 5000K (Cool) Y = 3000K (Warm) N = 4000K (Neutral)	Blank = Bronze W = White	Blank = No Photocell /PC = 120V Button /PC2 = 277V Button /PCS = 120V Swivel /PCS2 = 277V Swivel	Blank = No Bi-Level /BL = Bi-Level (57W & 62W)



42" high rectangular Bollard with (1) 13 Watt (equivalent to a 150 Watt MH) LED fixture for low level lighting applications. Great for pathway lighting! IESNA Full Cutoff, Fully Shielded optics. 5 year warranty.

Color: Bronze

Weight: 19.0 lbs

Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type:	Constant Current	Watts:	13W
120V:	0.13A	Color Temp:	4000K
208V:	0.08A	Color Accuracy:	86 CRI
240V:	0.07A	L70 Lifespan:	100000
277V:	0.06A	Lumens:	673
Input Watts:	15W	Efficacy:	45 LPW
Efficiency:	86%		

Technical Specifications

Listings

UL Listing:

Suitable for wet locations.

IESNA LM-79 & IESNA LM-80 Testing:

RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and 80, and have received the Department of Energy "Lighting Facts" label.

LED Characteristics

Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

Color Temperature:

4000K

Color Accuracy:

86 CRI

Color Consistency:

3-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

Color Stability:

LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period.

Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2015.

Construction

Junction Box:

Junction Box Not Included.

Maximum Ambient Temperature:

Suitable for use in 55°C (131°F) ambient temperatures.

Cold Weather Starting:

The minimum starting temperature is -22° F (-30°C).

Green Technology:

Mercury and UV free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOC or toxic heavy metals.

Thermal Management:

Cast aluminum Thermal Management system for optimal heat sinking. The BLED is designed for cool operation, most efficient output and maximum LED life by minimizing LED junction temperature.

Housing:

Precision die cast aluminum housing, lens frame.

Mounting:

42" Bollard.

Gaskets:

High temperature silicone.

Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contains no VOC or toxic heavy metals.

Anchor Bolt:

The anchor bolts for the BLED's have the following dimensions 1/2 - 13 x 12 1/4" long with 2 3/4" hook.

Electrical

Driver:

Multi-chip 13W high output long life LED Driver Constant Current, Class 2 100V - 277V, 50/60 Hz.

THD:

21.7% at 120V

Surge Protection:

4kV

Optical

Fixture Efficacy:

45 Lumens per Watt

Lumen Maintenance:

The LED will deliver 70% of its initial lumens at 100,000 hours of operation.

BUG Rating:

B1 U0 G0

BUG Rating:

B1 U0 G0

Other

California Title 24:

See BLED13/PC for a 2013 California Title 24 compliant model.

Technical Specifications (continued)

Other

Patents:

The design of the BLED is protected by patents pending in Canada, U.S. Pat. D599,050 and Pat. D599,049, and patents pending in China and Taiwan.

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish.

Country of Origin:

Designed by RAB in New Jersey and assembled in the USA by RAB's IBEW Local 3 workers.

Buy American Act Compliant:

This product is a COTS item manufactured in the United States, and is compliant with the Buy American Act.

Recovery Act (ARRA) Compliant:

This product complies with the 52.225-21 "Required Use of American Iron, Steel, and Manufactured Goods-- Buy American Act-- Construction Materials (October 2010).

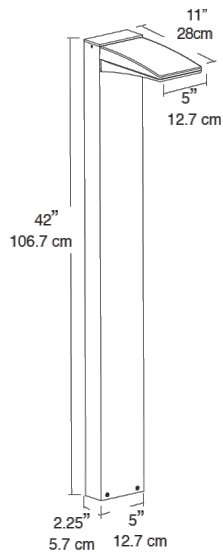
GSA Schedule:

Suitable in accordance with FAR Subpart 25.4.

Equivalency:

Equivalent to 70W Metal Halide.

Dimensions



Features

- High output LED
- 100,000 hour life
- Superior heat sinking with die cast aluminum housing
- Meets ADA Requirements
- Cutting-Edge, Heat-Dissipating Design
- 5-year warranty



12, 18 and 26 Watt SLIM wallpacks are ultra efficient and deliver impressive light distribution with a compact low-profile design that's super easy to install as a downlight or uplight.

Color: Bronze

Weight: 4.5 lbs

Project:
Handy Hotels

Type:
C

Prepared By:
dvento

Date:
030117

Driver Info

Type:	Constant Current
120V:	0.12A
208V:	0.08A
240V:	0.07A
277V:	0.06A
Input Watts:	14W
Efficiency:	86%

LED Info

Watts:	12W
Color Temp:	4000K
Color Accuracy:	82 CRI
L70 Lifespan:	100000
Lumens:	1,372
Efficacy:	99 LPW

Technical Specifications

Listings

UL Listing:

Suitable for wet locations. Suitable for mounting within 1.2m (4ft) of the ground.

ADA Compliant:

SLIM™ is ADA Compliant.

Dark Sky Approved:

The International Dark Sky Association has approved this product as a full cutoff, fully shielded luminaire.

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80, and have received the Department of Energy "Lighting Facts" label.

Construction

IP Rating:

Ingress Protection rating of IP66 for dust and water

Cold Weather Starting:

The minimum starting temperature is -40°C/-40°F

Maximum Ambient Temperature:

Suitable for use in 104°F (40°C) ambient temperatures

Thermal Management:

Superior heat sinking with internal Air-Flow fins.

Housing:

Precision die-cast aluminum housing.

Mounting:

Heavy-duty mounting bracket with hinged housing for easy installation.

Recommended Mounting Height:

Up to 8 ft.

Lens:

Tempered glass lens.

Reflector:

Specular thermoplastic.

Gaskets:

High-temperature silicone

Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contains no VOC or toxic heavy metals.

Green Technology:

Mercury and UV free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOC or toxic heavy metals.

LED Characteristics

LED:

Multi-chip, long-life LED.

Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

Color Consistency:

3-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

Color Stability:

LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period.

Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines for the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2015.

Electrical

Driver:

Constant Current, Class 2, 100-277V, 50/60 Hz., 4KV surge protection, 350mA, 100-240VAC 0.3-0.15 Amps, 277VAC 0.15Amps, Power Factor 99%.

THD:

10.1% at 120V

Other

California Title 24:

SLIM12 complies with 2013 California Title 24 building and electrical codes as a residential outdoor fixture. See SLIM12/PC for a model that complies as a commercial outdoor non-pole-mounted fixture ≤ 30 Watts.

Patents:

The design of the SLIM™ is protected by patents in U.S. Pat D681,864, and pending patents in Canada, China, Taiwan and Mexico.

Country of Origin:

Designed by RAB in New Jersey and assembled in the USA by RAB's IBEW Local 3 workers.

Technical Specifications (continued)

Other

Buy American Act Compliant:

This product is a COTS item manufactured in the United States, and is compliant with the Buy American Act.

Recovery Act (ARRA) Compliant:

This product complies with the 52.225-21 "Required Use of American Iron, Steel, and Manufactured Goods-- Buy American Act-- Construction Materials (October 2010).

GSA Schedule:

Suitable in accordance with FAR Subpart 25.4.

HID Replacement Range:

Replaces 70W Metal Halide.

Optical

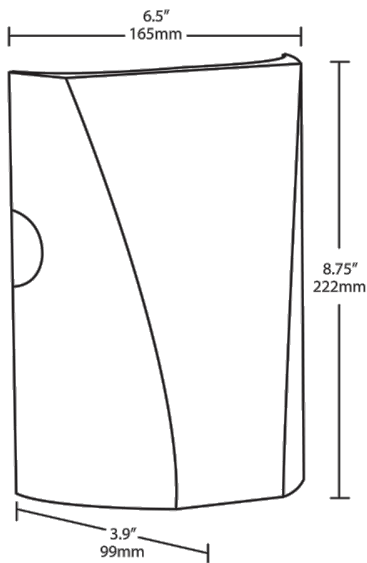
BUG Rating:

B1 U0 G0

BUG Rating:

B1 U0 G0

Dimensions



Features

- Full cutoff, fully shielded LED wallpack
- Can be used as a downlight or uplight
- Contractor friendly features for easy installation
- 100,000-hour LED Life
- 5-Year Warranty

Ordering Matrix

Family	Watts	Color Temp	Finish	Photocell	Dimming
SLIM	26 = 26W 18 = 18W 12 = 12W	Blank = 5000K (Cool) Y = 3000K (Warm) N = 4000K (Neutral)	Blank = Bronze W = White	Blank = No Photocell /PC = 120V Button /PC2 = 277V Button /PCT = 120-277V Twistlock	Blank = No Dimming /D10 = Dimmable



Professional Grade LED Bollards compliment any pathway or landscape design. Low profile 5W Square LED comes in Cool, Warm and Neutral color temperatures. Bollards come in 18, 36 and 42" versions

Color: Bronze

Weight: 7.7 lbs

Project: Handy Hotels	Type: D
Prepared By: dvento	Date: 030117

Driver Info		LED Info	
Type:	Constant Current	Watts:	5W
120V:	0.1A	Color Temp:	4000K
208V:	0.06A	Color Accuracy:	85 CRI
240V:	0.05A	L70 Lifespan:	100000
277V:	N/A	Lumens:	155
Input Watts:	5W	Efficacy:	30 LPW
Efficiency:	96%		

Technical Specifications

Listings

UL Listing:

Suitable for wet locations.

IESNA LM-79 & IESNA LM-80 Testing:

RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and 80, and have received the Department of Energy "Lighting Facts" label.

LED Characteristics

Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

Color Temperature (Nominal CCT):

4000K

Color Accuracy:

85 CRI

Color Consistency:

3-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

Color Stability:

LED color temperature is warranted to shift no more than 200K in CCT over a 5 year period.

Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2015.

Electrical

Driver:

Multi-chip 5W high output long life LED Driver
Constant Current, Class II, 120V-240V, 50/60 Hz, 400mA.

Construction

Thermal Management:

Cast aluminum Thermal Management system for optimal heat sinking. The BLEDD is designed for cool operation, most efficient output and maximum LED life by minimizing LED junction temperature.

Housing:

Precision die cast aluminum housing, lens frame.

Mounting:

18" Bollard

Cold Weather Starting:

The minimum starting temperature is -40°C/-40°F

Maximum Ambient Temperature:

Suitable for use in 104°F (40°C) ambient temperatures

Gaskets:

High temperature silicone.

Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contains no VOC or toxic heavy metals.

Anchor Bolt:

The anchor bolts for the BLEDD's have the following dimensions 1/2 - 13 x 12 1/4" long with 2 3/4" hook.

Green Technology:

Mercury and UV free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOC or toxic heavy metals.

Optical

Lumen Maintenance:

The LED will deliver 70% of its initial lumens at 100,000 hours of operation.

BUG Rating:

B0 U1 G0

Other

California Title 24:

See BLEDD5-18/PC for a 2013 California Title 24 compliant model.

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish.

Country of Origin:

Designed by RAB in New Jersey and assembled in the USA by RAB's IBEW Local 3 workers.

Buy American Act Compliant:

This product is a COTS item manufactured in the United States, and is compliant with the Buy American Act.

Recovery Act (ARRA) Compliant:

This product complies with the 52.225-21 "Required Use of American Iron, Steel, and Manufactured Goods-- Buy American Act-- Construction Materials (October 2010).

GSA Schedule:

Suitable in accordance with FAR Subpart 25.4.

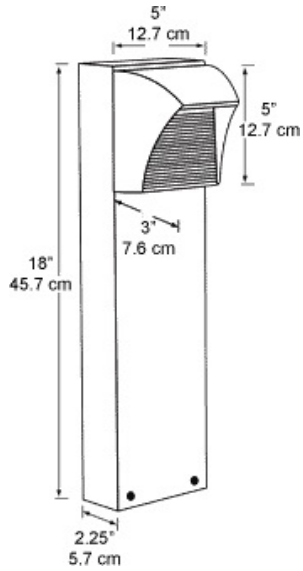
Technical Specifications (continued)

Other

Equivalency:

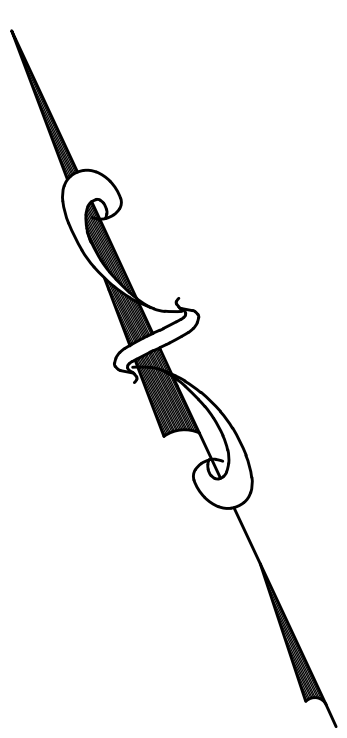
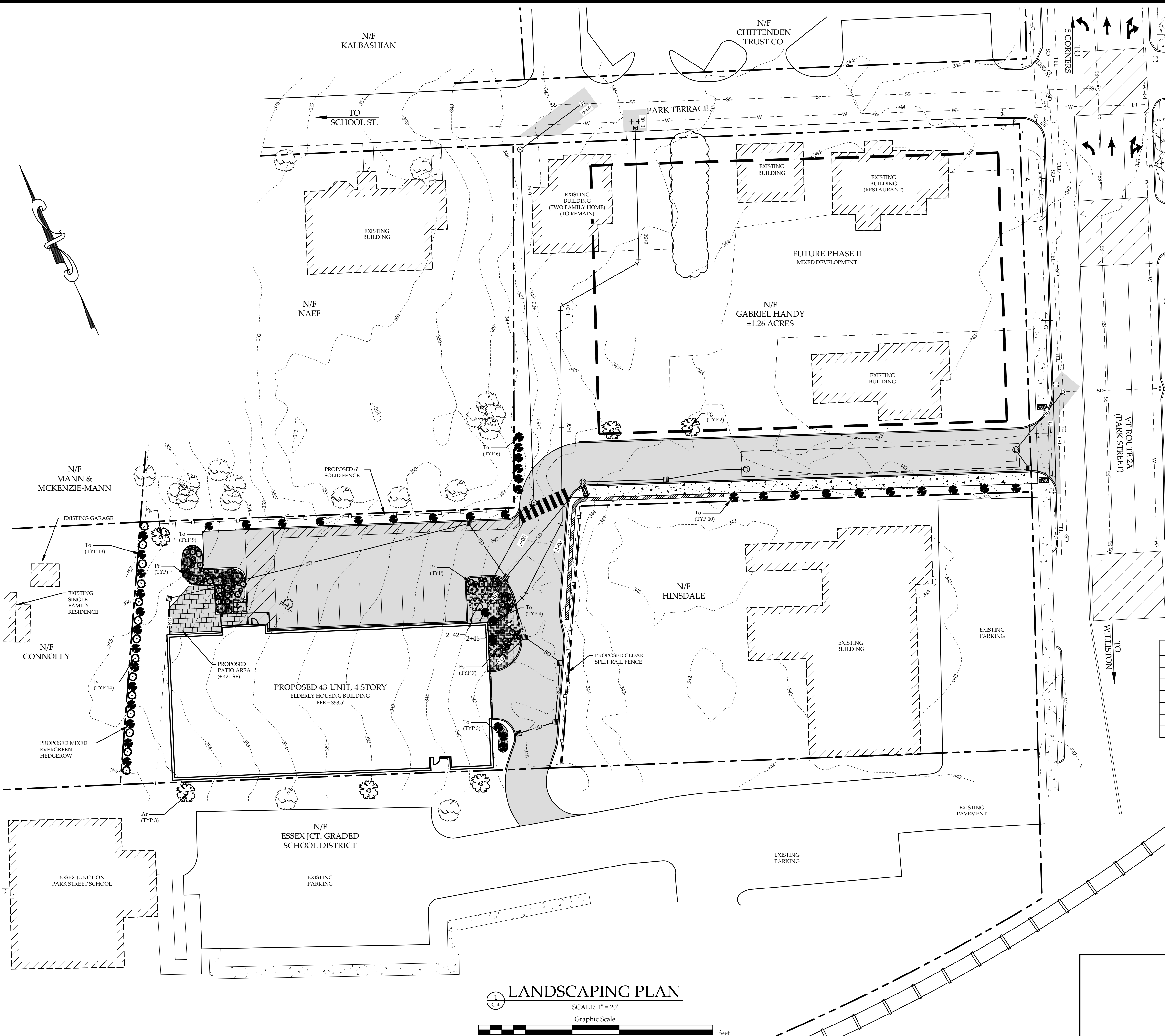
Equivalent to 13W CFL or 60W Incandescent.

Dimensions



Features

- High output LED
- 100,000 hour life
- Superior heat sinking with die cast aluminum housing
- Meets ADA Requirements



NOTE:
ALL BOUNDARY LINES PER PLAN REFERENCE #2. RUGGIANO ENGINEERING TAKES NO RESPONSIBILITY FOR ANY ERRORS OR INACCURACIES.

LANDSCAPE SCHEDULE						
KEY	QTY.	SCIENTIFIC NAME	COMMON NAME	SIZE	COND.	SPACING
Pf	75	ASSORTED PERENNIAL FLOWERS	IRIS, DAYLILLY, HOSTA	4" POT MIN.	POT	AS SHOWN
To	49	THUJA OCCIDENTALIS	ARBOKVITAE	6'-8'	B&B	4'
Pg	3	PICEA GLEUEA	WHITE SPRUCE	8' - 9'	B&B	AS SHOWN
Es	7	ASSORTED EVERGREEN SHRUBS	DWARF SPRUCE, JUNIPER, ETC.	VARIES	B&B	AS SHOWN
Jv	14	JUNIPERUS VIRGINIANA	EASTERN RED CEDER	6'-8'	B&B	4'
Ar	3	ACER RUBRUM	RED MAPLE	2"-2.5" CAL.	B&B	40'

PRELIMINARY
NOT FOR CONSTRUCTION
DATE: 08/28/17

REVISION: 08/28/17 - BUILDING SHIFT, MINOR LANDSCAPE CHANGES AND ADDITIONS
REVISION: 01/20/17 - REVISIONS PER VILLAGE ENGINEER COMMENTS. MINOR REVISIONS TO LANDSCAPING QUANTITIES AND LOCATIONS.

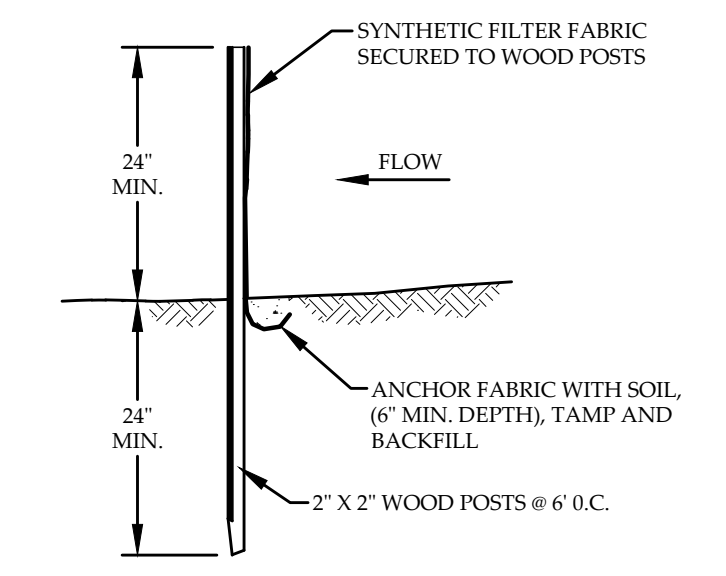
LANDSCAPING PLAN
HANDY HOTELS & RENTALS, LLC
9 & 11 PARK STREET
ESSEX JUNCTION, VERMONT

RUGGIANO
Engineering, inc.
5 LAKE STREET
ST. ALBANS, VERMONT 05478
PHONE - (802) 524-9300 FAX - (802) 524-9700
COPYRIGHT ©2017 - RUGGIANO ENGINEERING, INC.

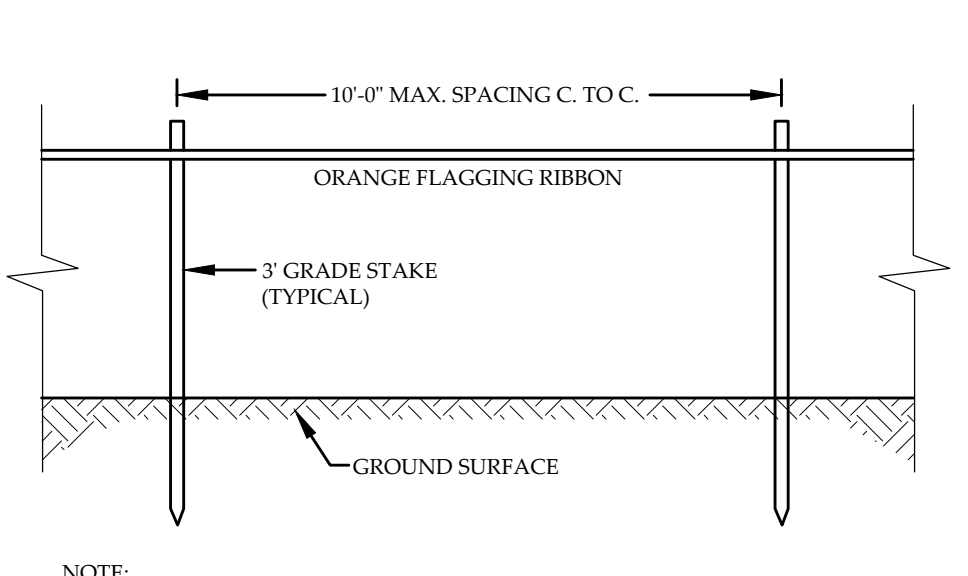
PROJECT NO.15019
DRAWN BY.....JGE
CHECKED BY.....LEW
SCALE.....1" = 20'
DATE.....11/11/16

SHEET NO.
C-6
6 OF 9 SHEETS

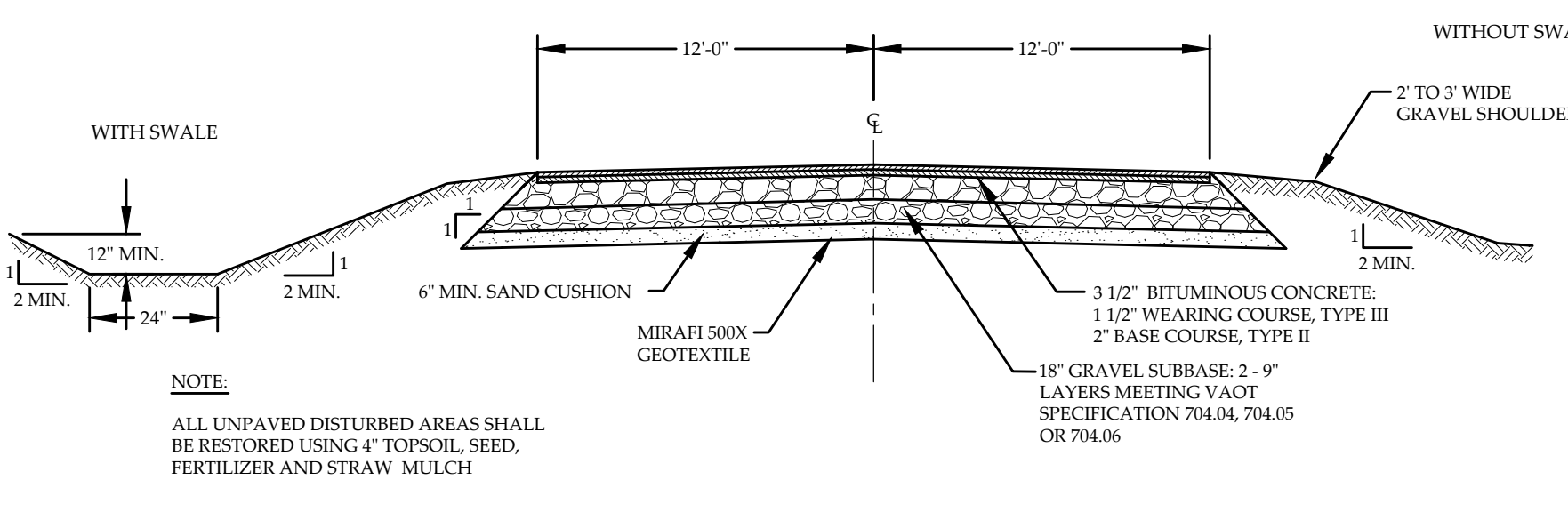
LANDSCAPING PLAN
SCALE: 1" = 20'
Graphic Scale



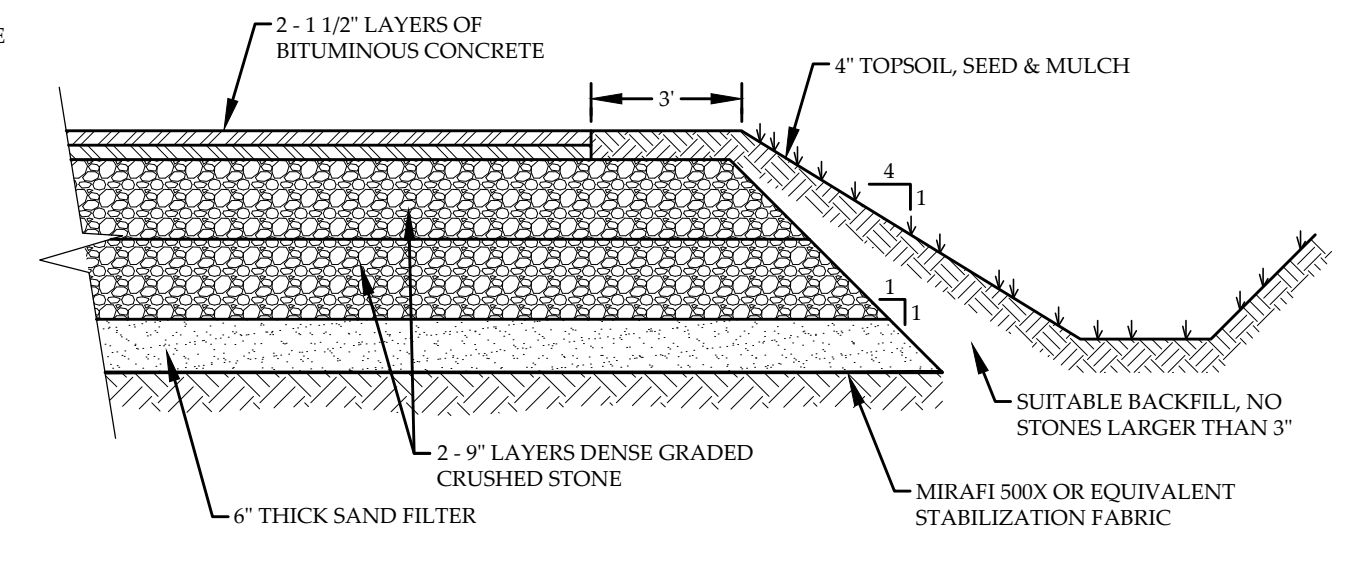
1 C-7 **SILT FENCE DETAIL**
NOT TO SCALE



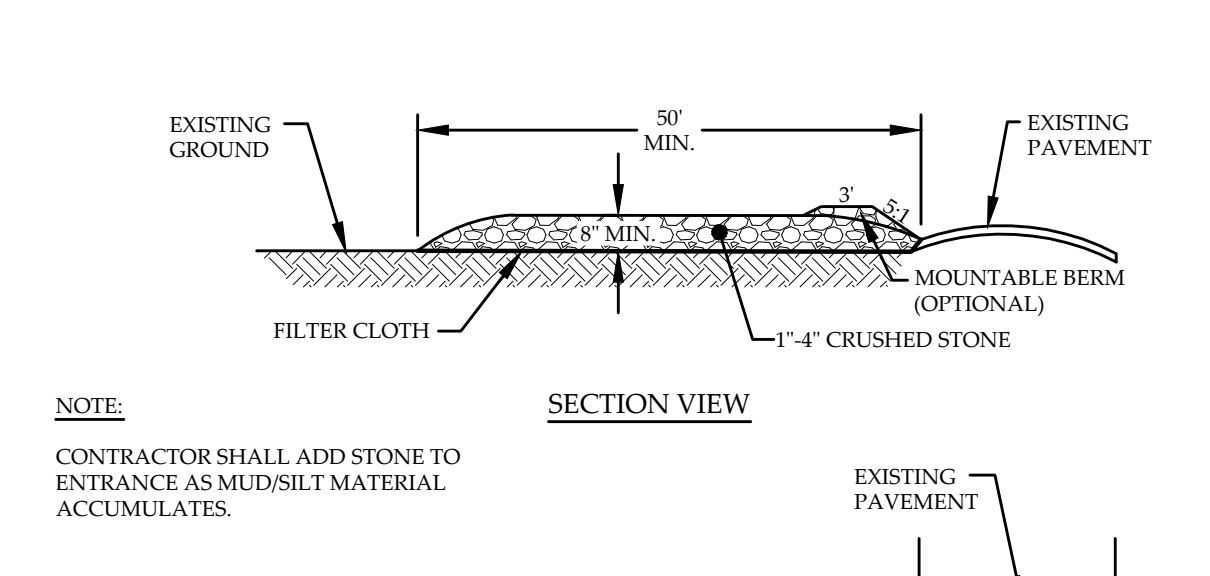
2 C-7 **LIMITS OF DISTURBANCE DEMARCATION**
NOT TO SCALE



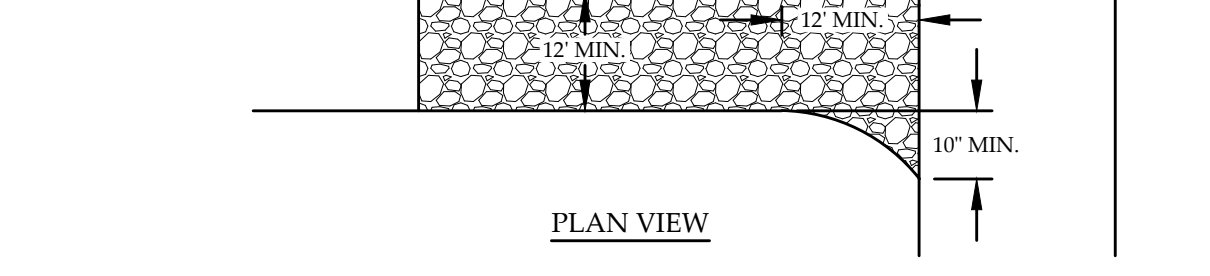
3 C-7 **TYPICAL PAVED ROAD SECTION**
NOT TO SCALE



4 C-7 **TYPICAL PARKING LOT SECTION**
NOT TO SCALE

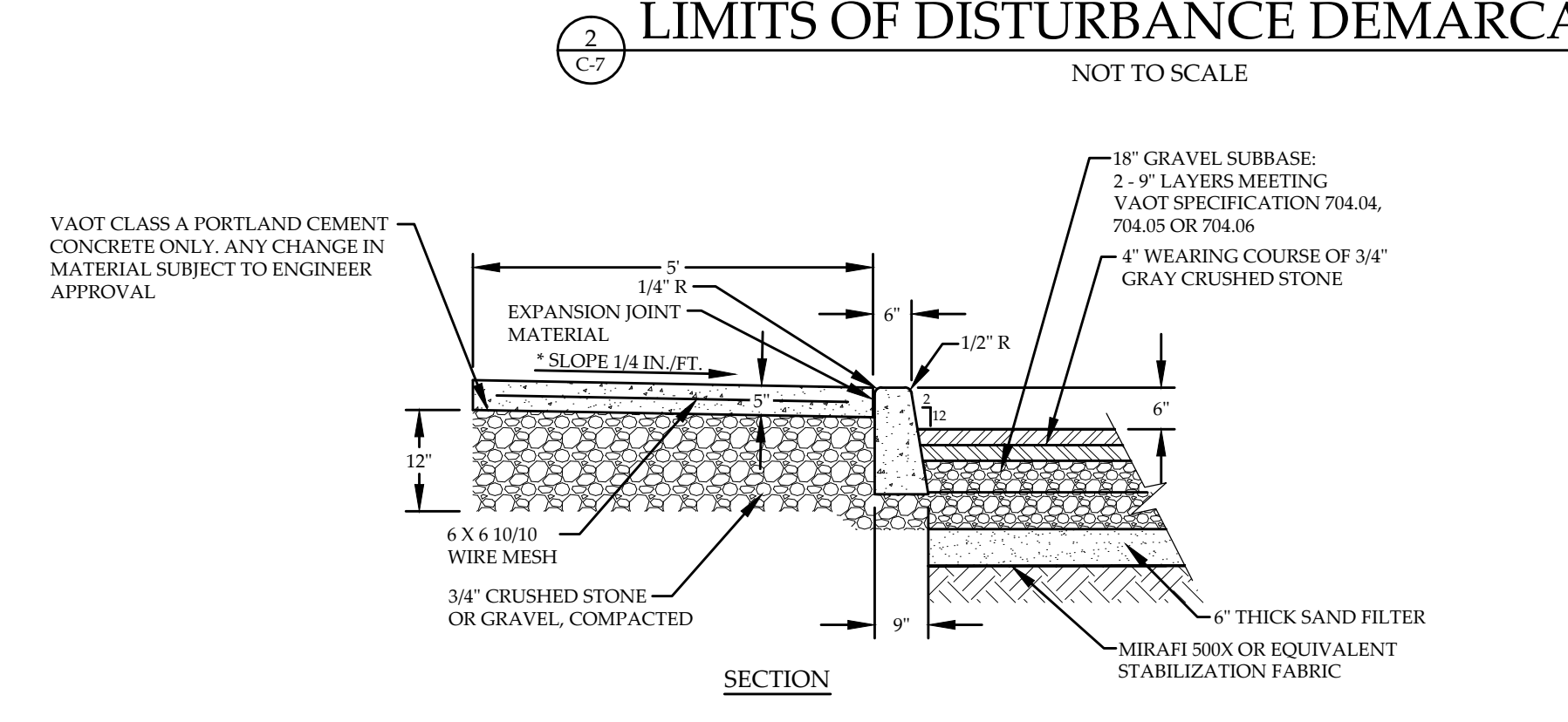


8 C-7 **STABILIZED CONSTRUCTION ENTRANCE**
NOT TO SCALE

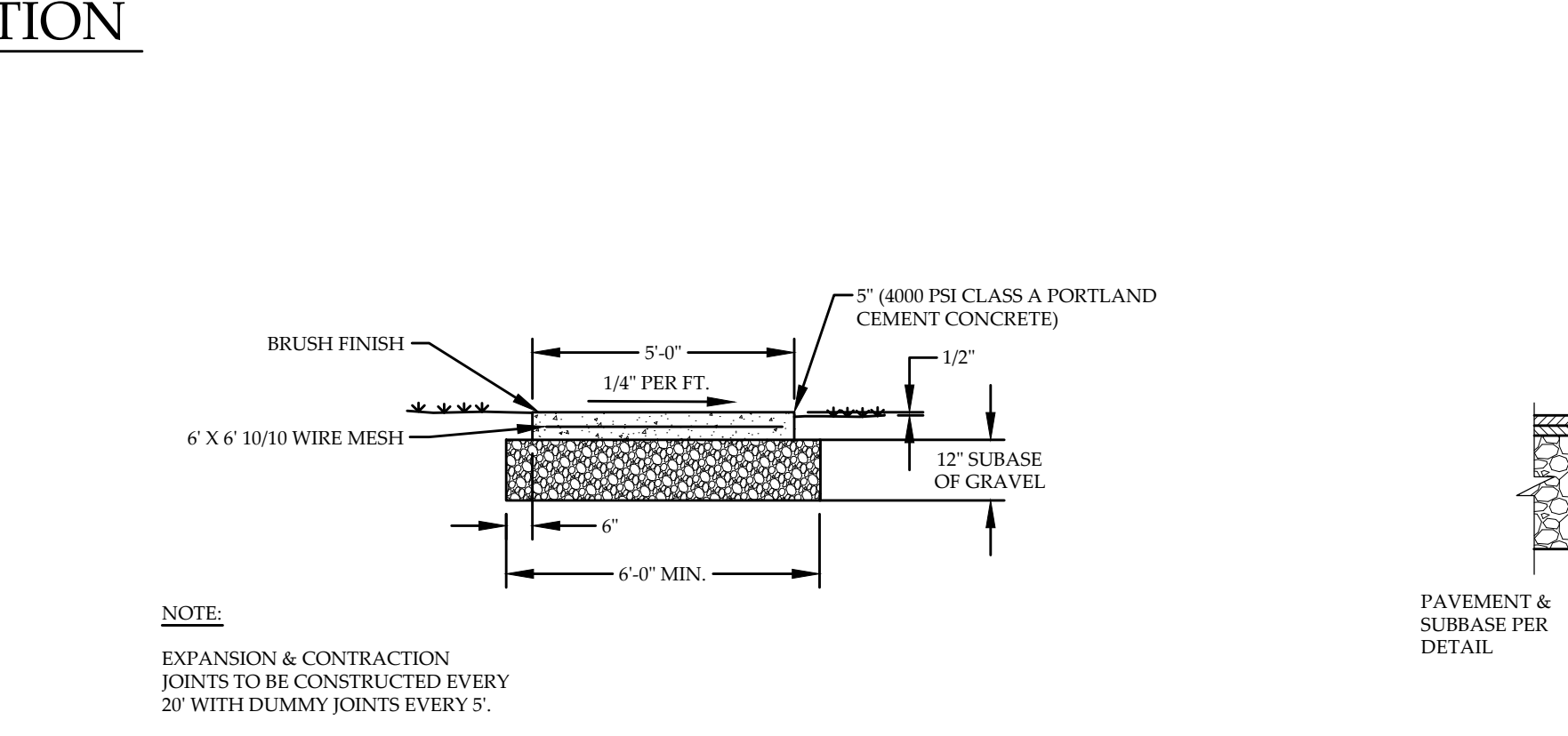


NOTES:

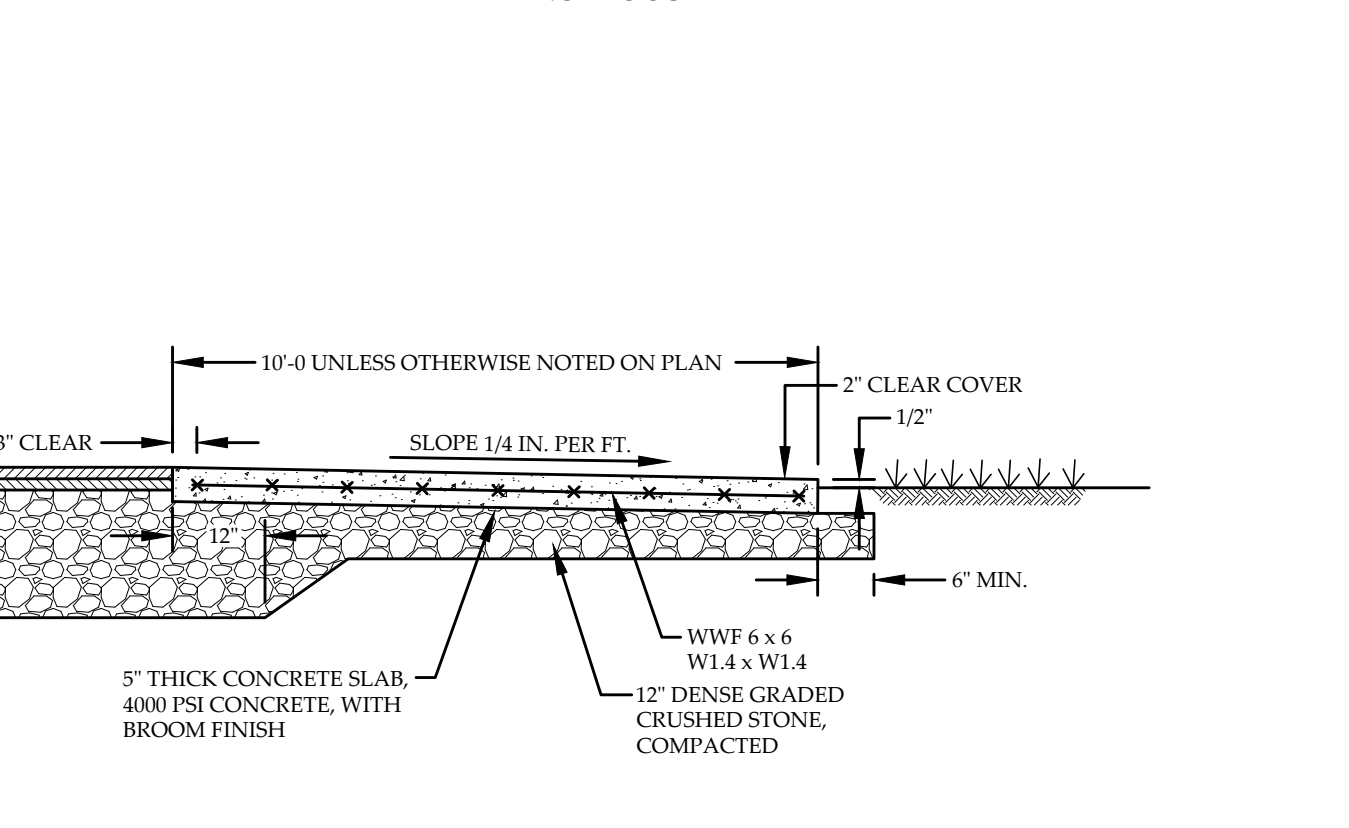
- 1) SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
- 2) MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- 3) WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- 4) PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED ACCORDING TO PERMIT REQUIREMENTS.
- 5) THE GEOTEXTILE FABRIC SHALL MEET THE DESIGN CRITERIA FOR CONSTRUCTION ENTRANCES, OF THE VERMONT STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION AND SEDIMENT CONTROL, PREPARED BY THE STATE OF VERMONT DEPT. OF ENVIRONMENTAL CONSERVATION, DATED 2006.



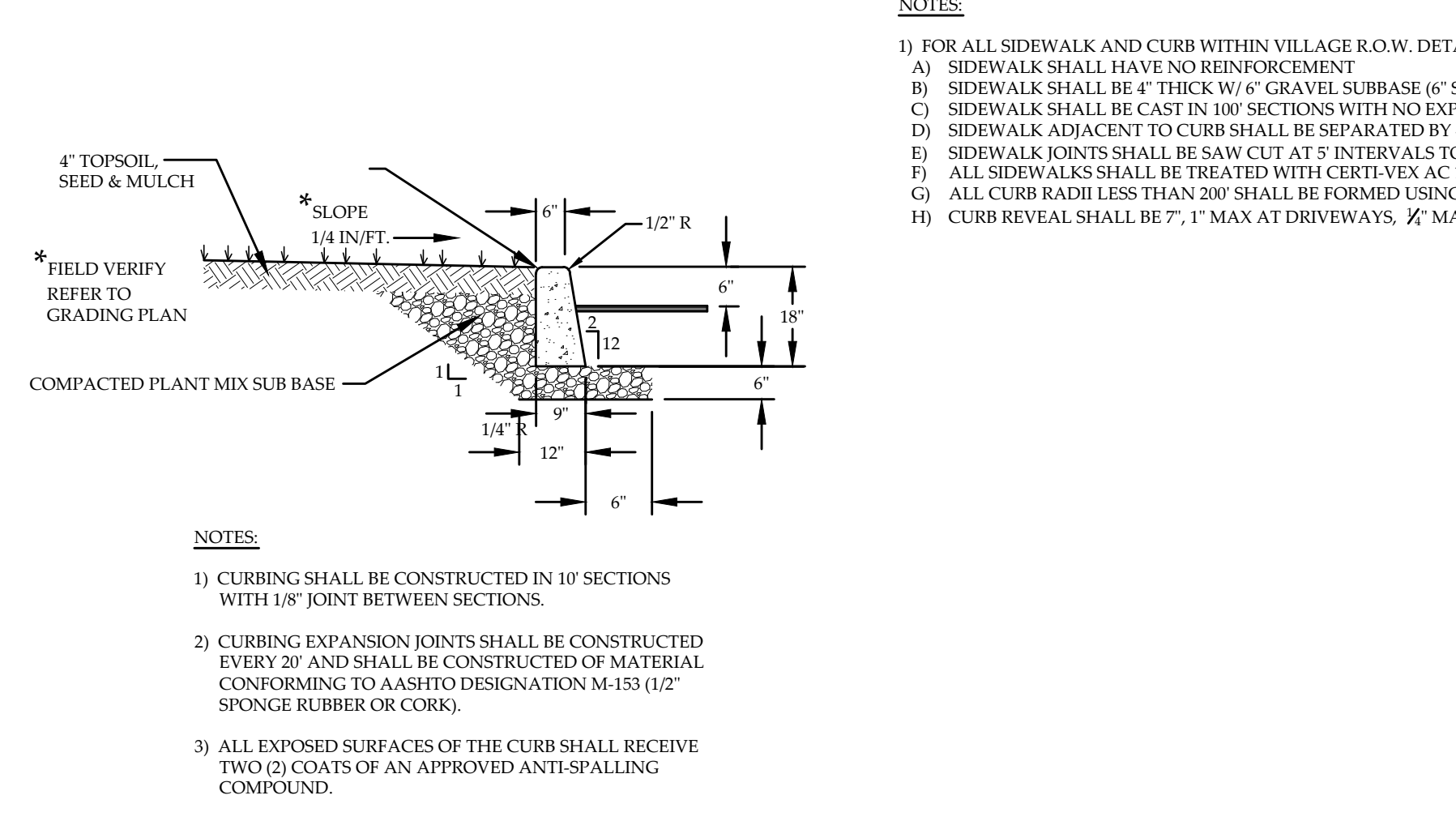
5 C-7 **CONCRETE SIDEWALK & CURB DETAIL**
NOT TO SCALE



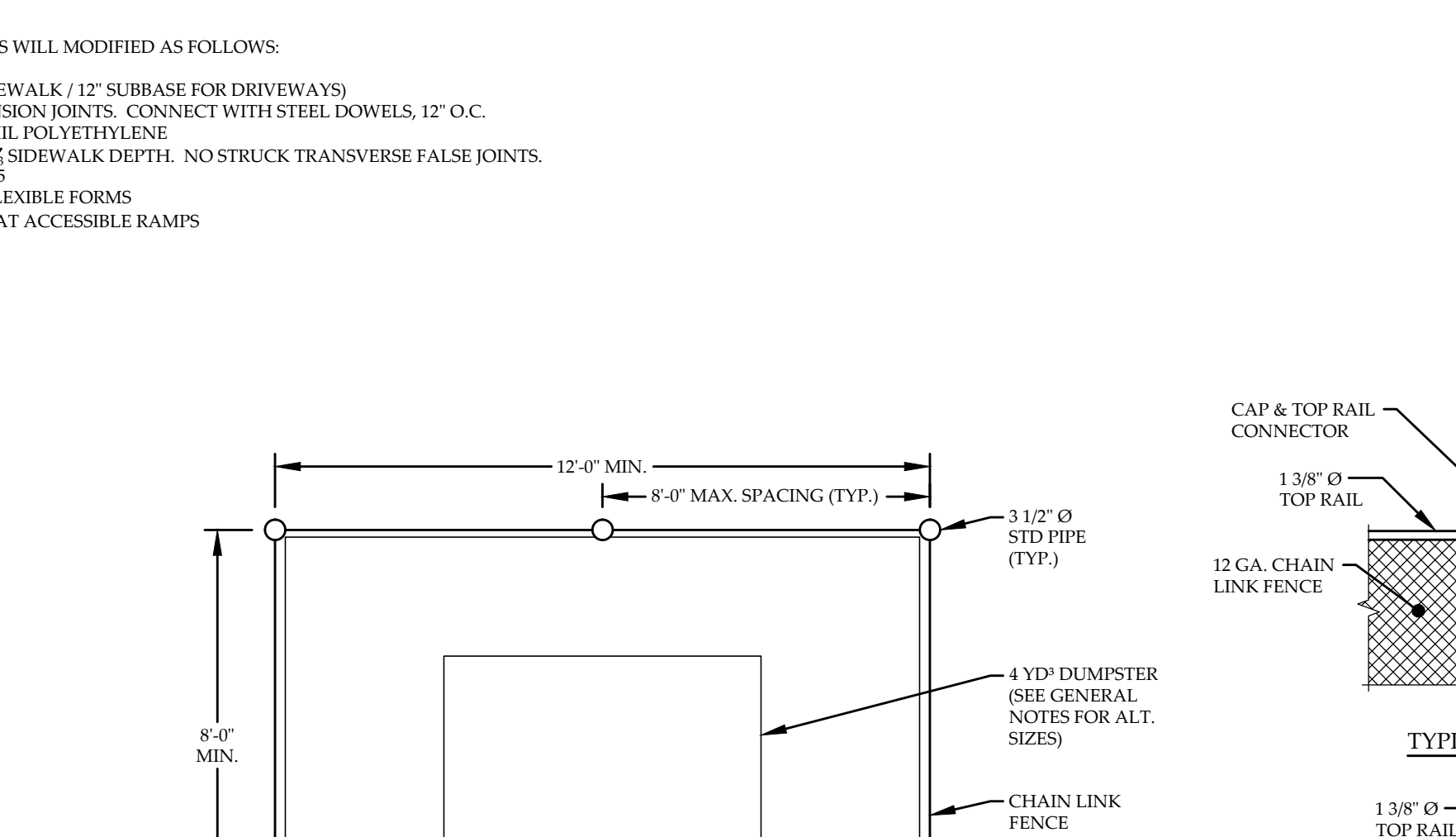
6 C-7 **CONCRETE SIDEWALK CROSS-SECTION**
NOT TO SCALE



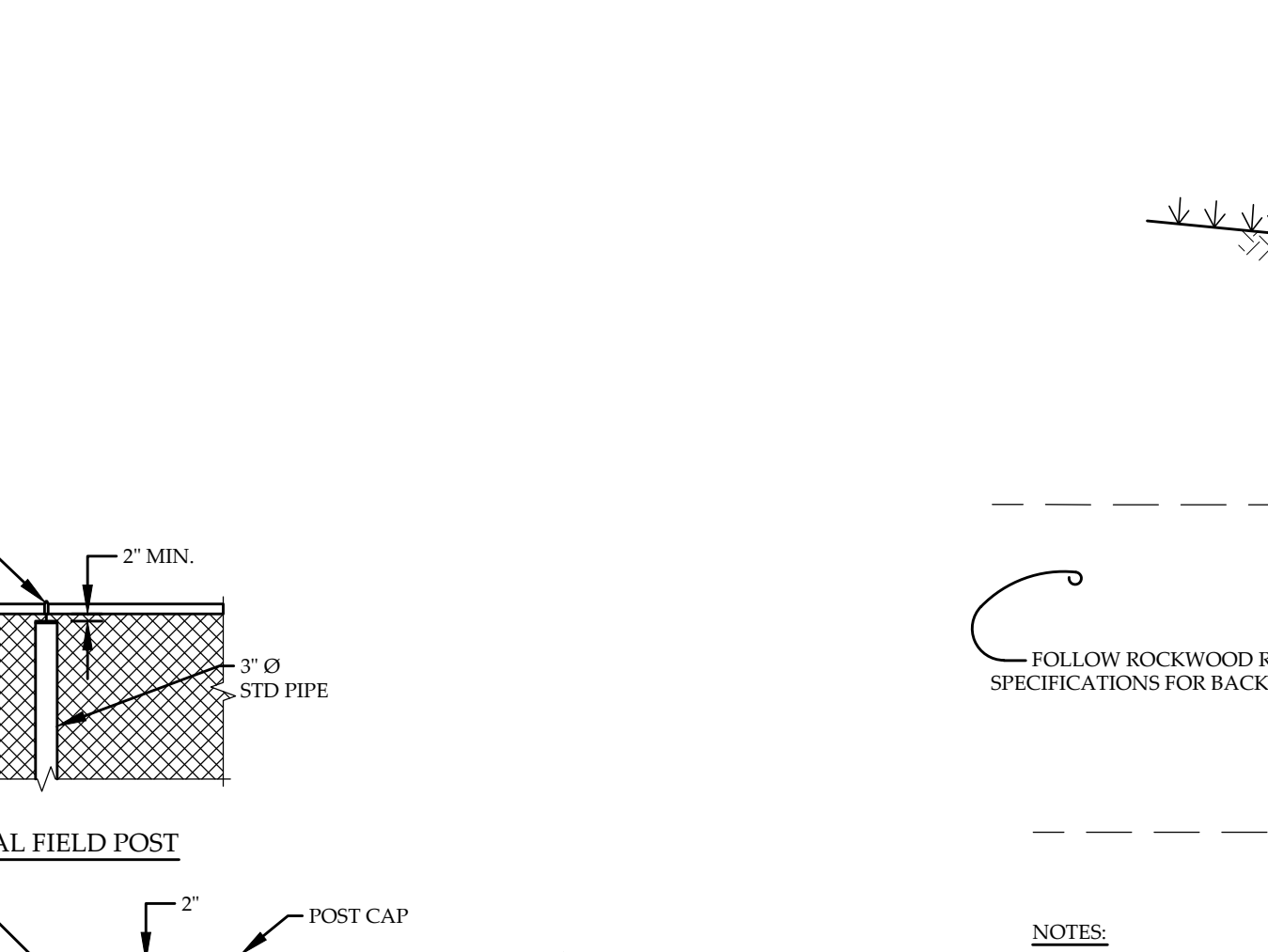
7 C-7 **TYPICAL CONCRETE DUMPSTER SLAB**
NOT TO SCALE



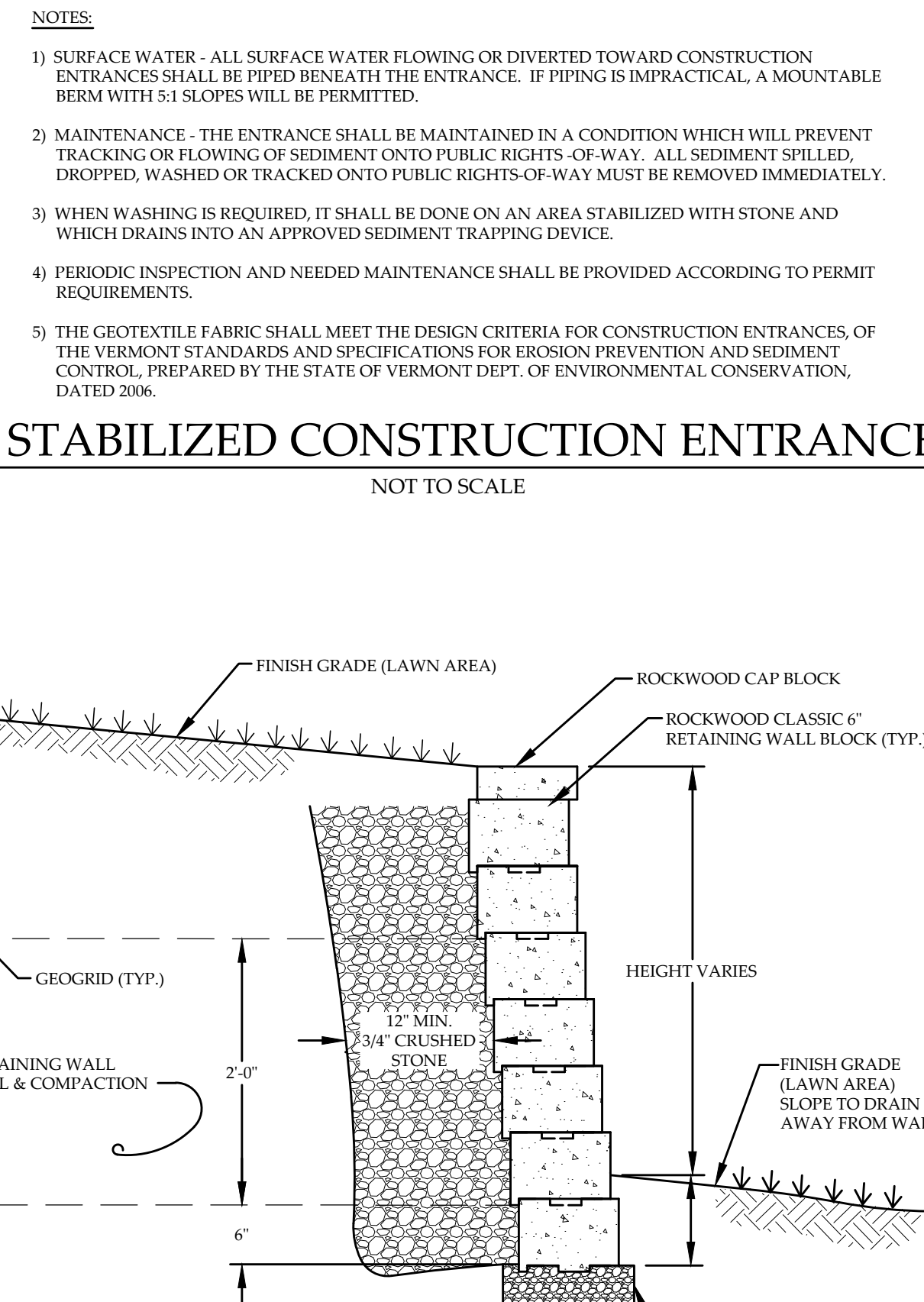
9 C-7 **CONCRETE CURB DETAIL**
NOT TO SCALE



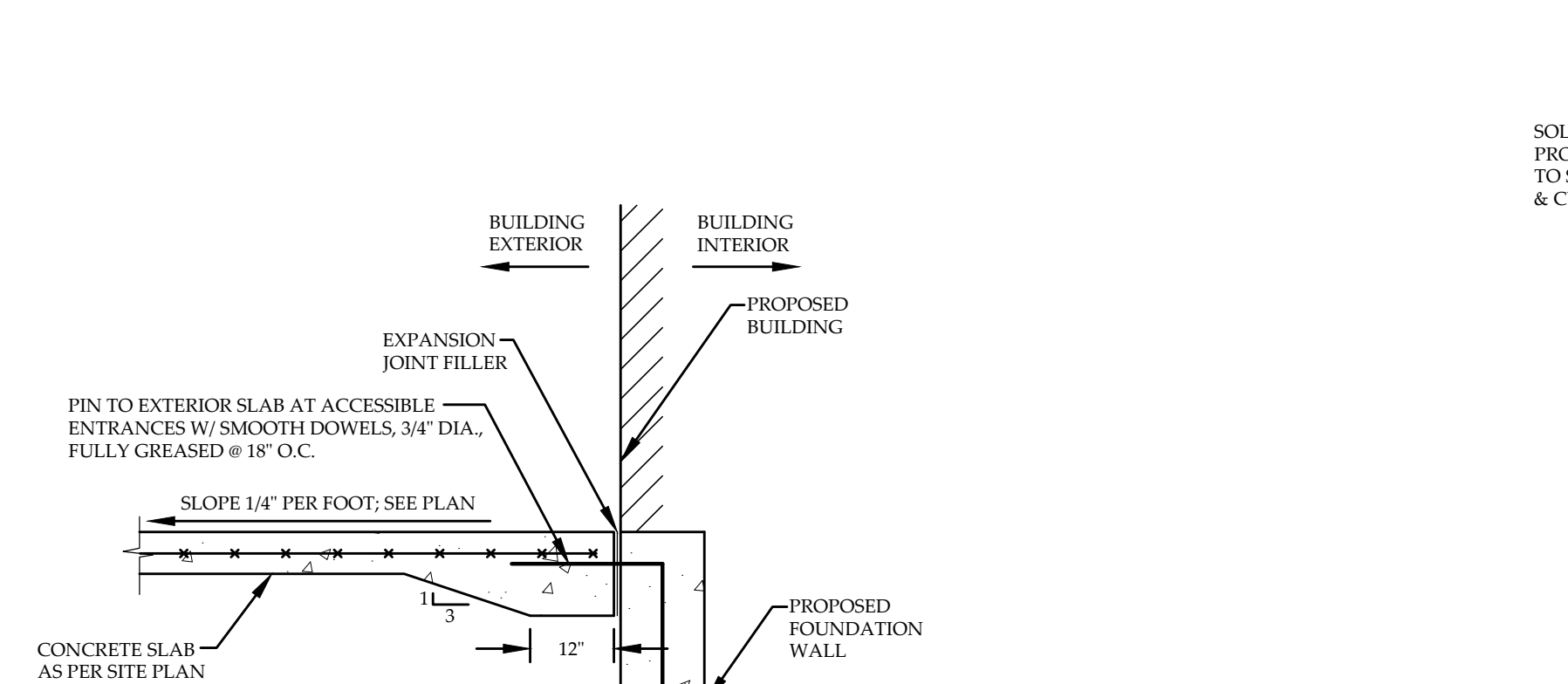
11 C-7 **CHAIN LINK FENCE DUMPSTER ENCLOSURE**
NOT TO SCALE



12 C-7 **TYPICAL ROCKWOOD RETAINING WALL SECTION**
NOT TO SCALE



12 C-7 **TYPICAL ROCKWOOD RETAINING WALL SECTION**
NOT TO SCALE



10 C-7 **CONCRETE SIDEWALK & FOUNDATION CONNECTION**
NOT TO SCALE

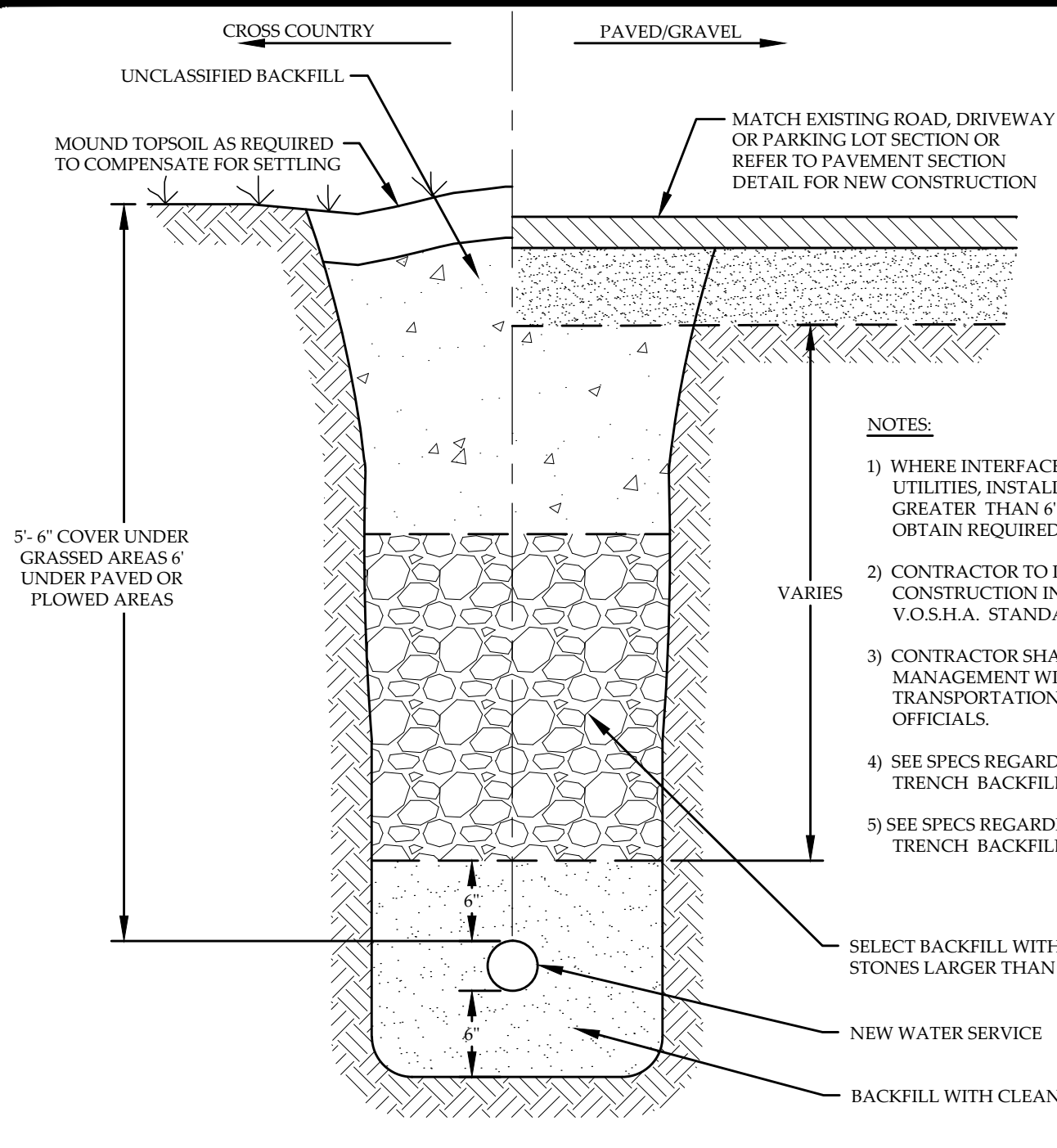
REVISION: 01/2017 - REVISED AND RENUMBERED DETAILS

DETAILS
HANDY HOTELS & RENTALS, LLC
9 & 11 PARK STREET
ESSEX JUNCTION, VERMONT

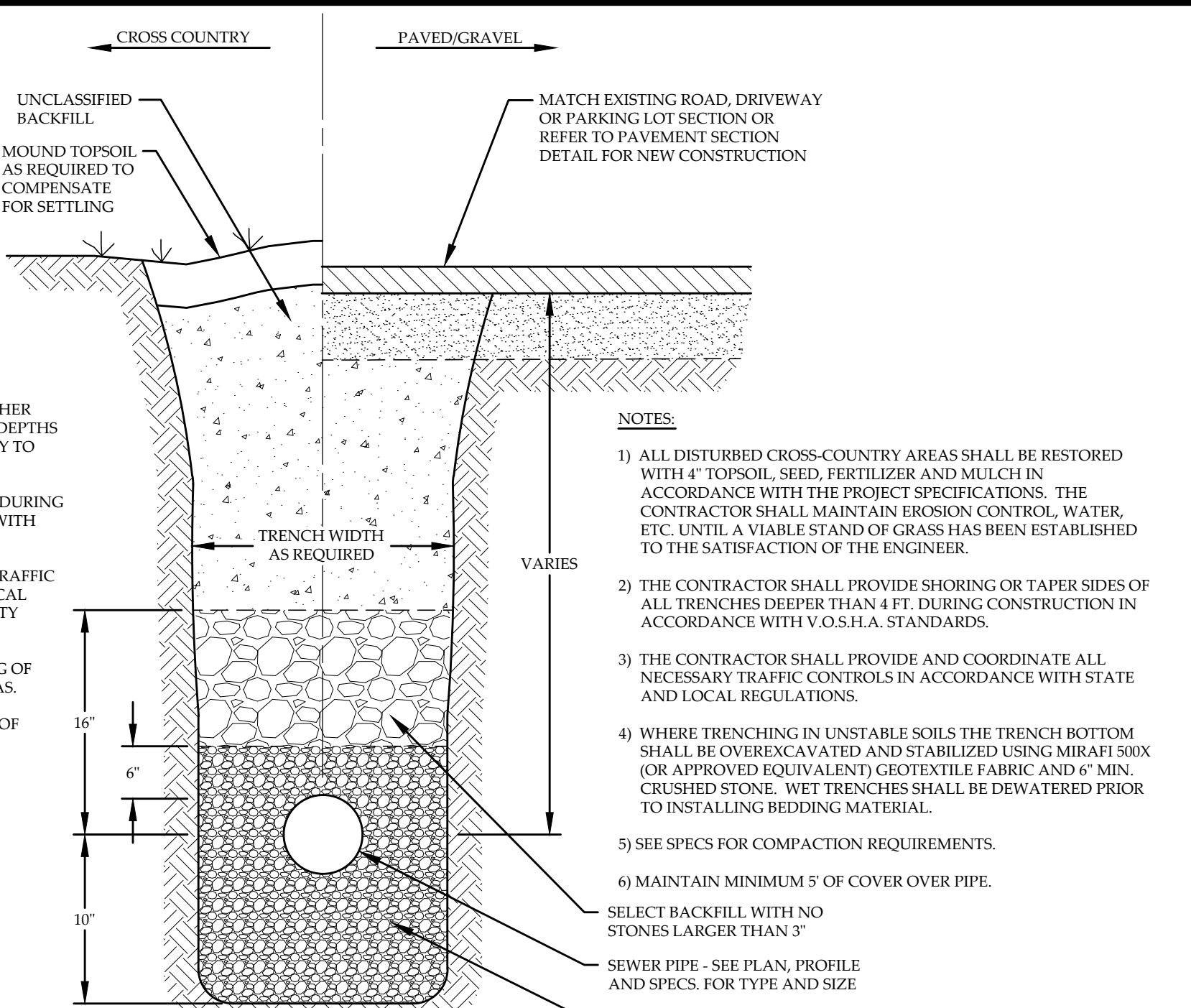
RUGGIANO
Engineering, inc.
5 LAKE STREET
ST. ALBANS, VERMONT 05478
PHONE - (802) 524-9300 FAX - (802) 524-9700
COPYRIGHT © 2017 - RUGGIANO ENGINEERING, INC.

PROJECT NO.15019
DRAWN BY.....JBD
CHECKED BY.....LEW
SCALE.....1" = 20'
DATE.....11/11/16

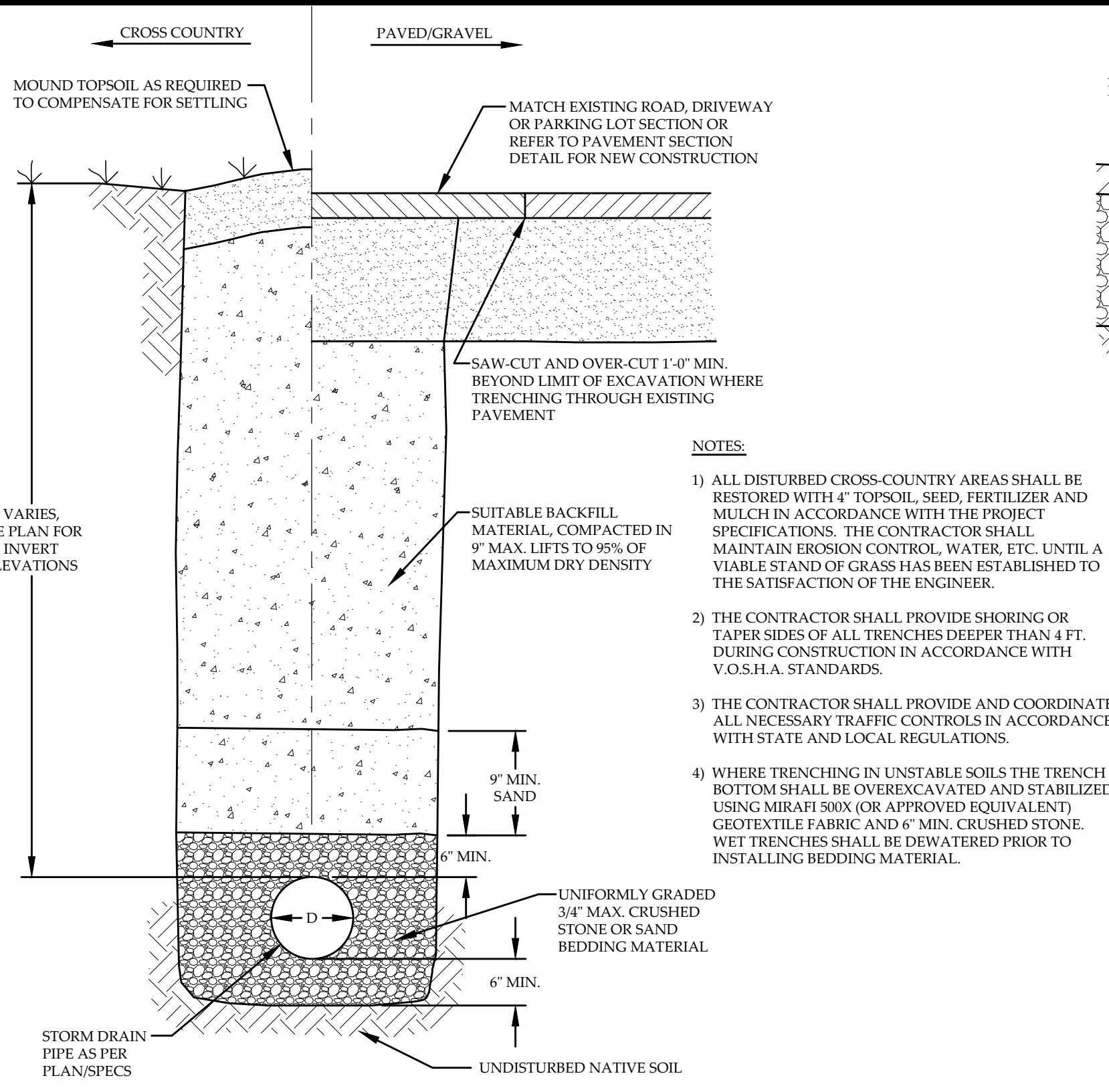
SHEET NO.
C-7
7 OF 9 SHEETS



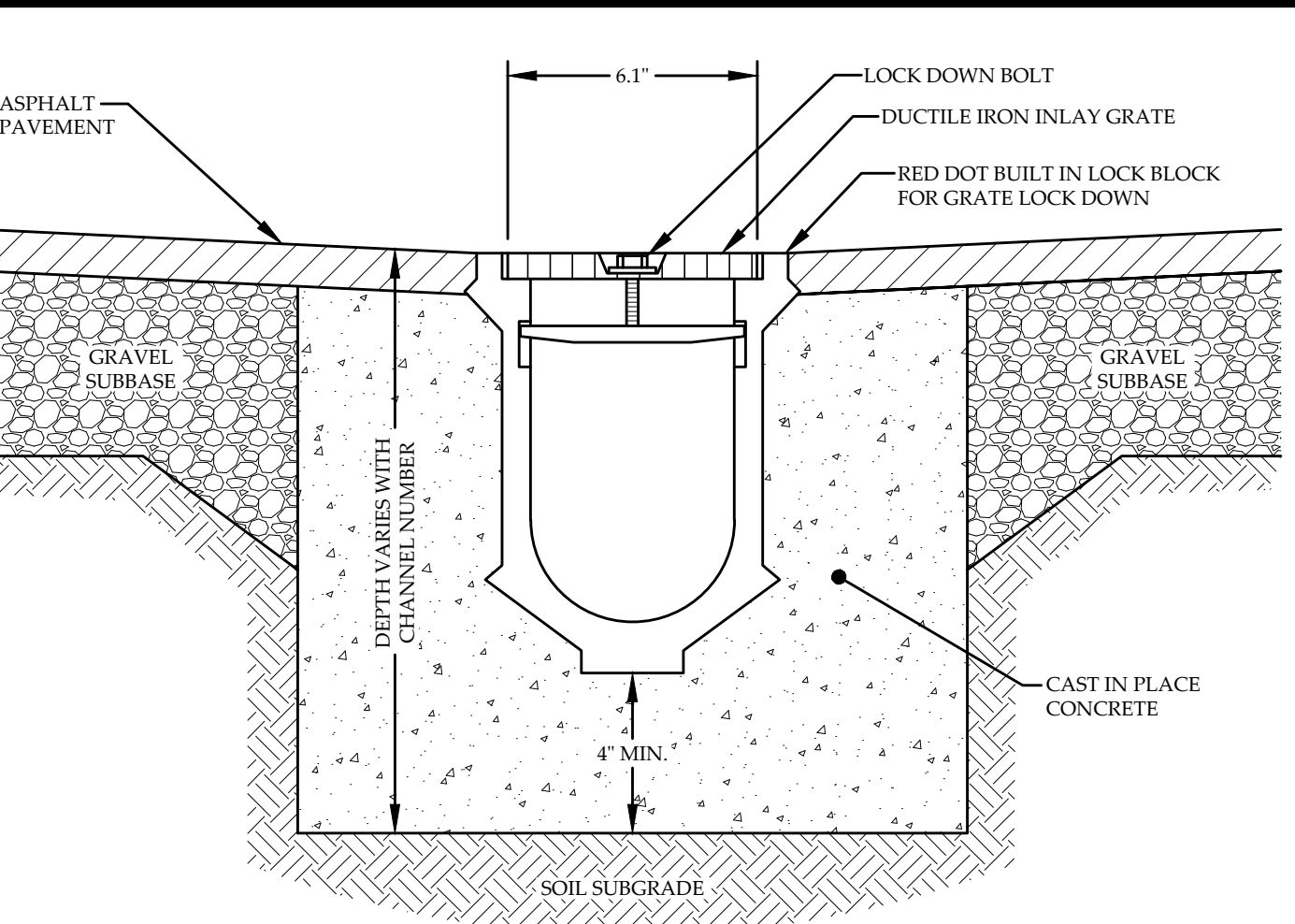
1 C-8
TYPICAL WATER LINE TRENCH
NOT TO SCALE



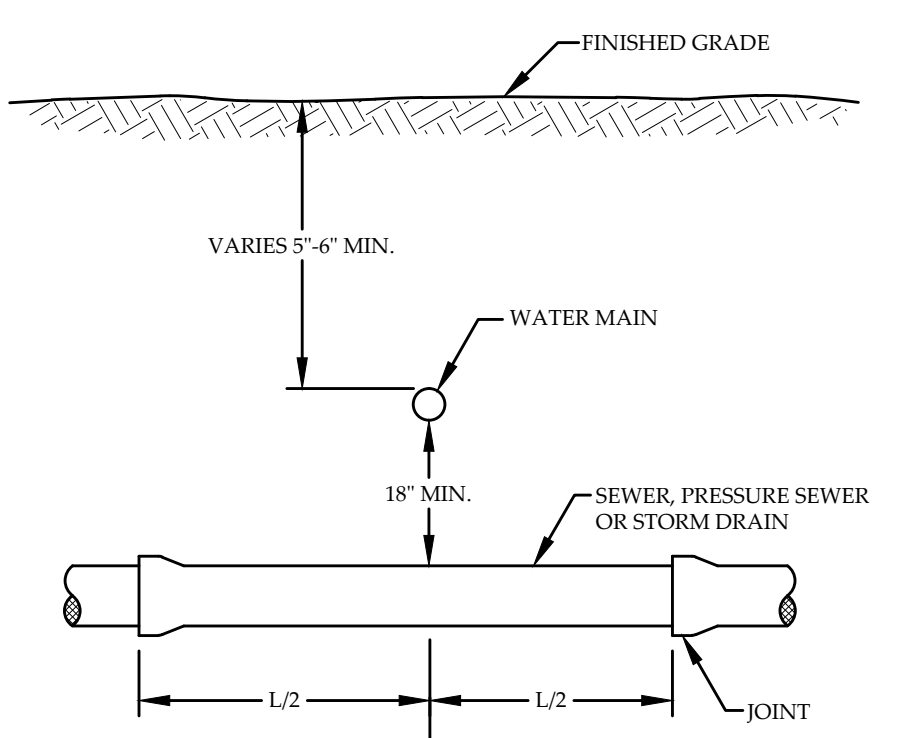
2 C-8
TYPICAL SANITARY SEWER TRENCH
NOT TO SCALE



3 C-8
TYPICAL STORM DRAIN TRENCH
NOT TO SCALE



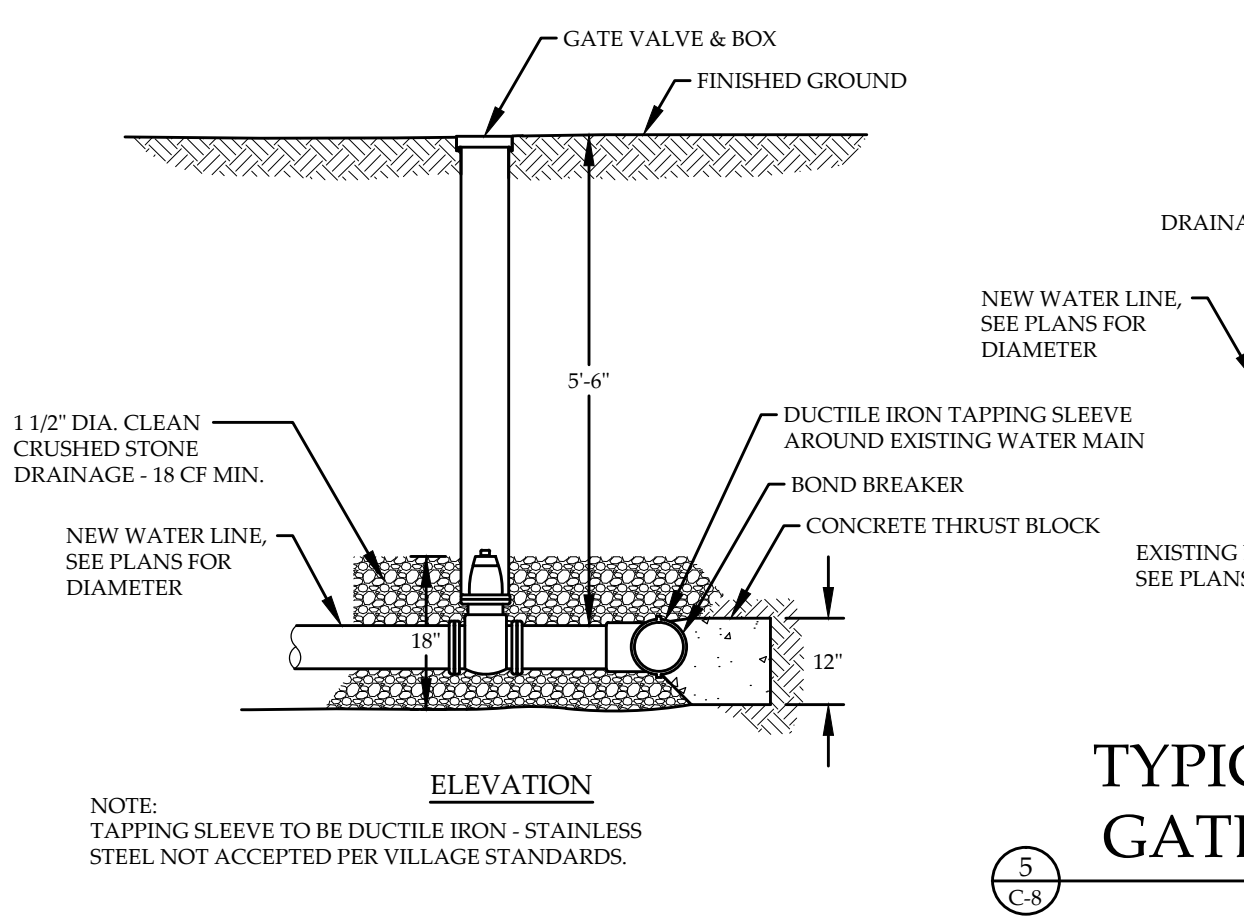
4 C-8
TYPICAL TRENCH DRAIN
NOT TO SCALE



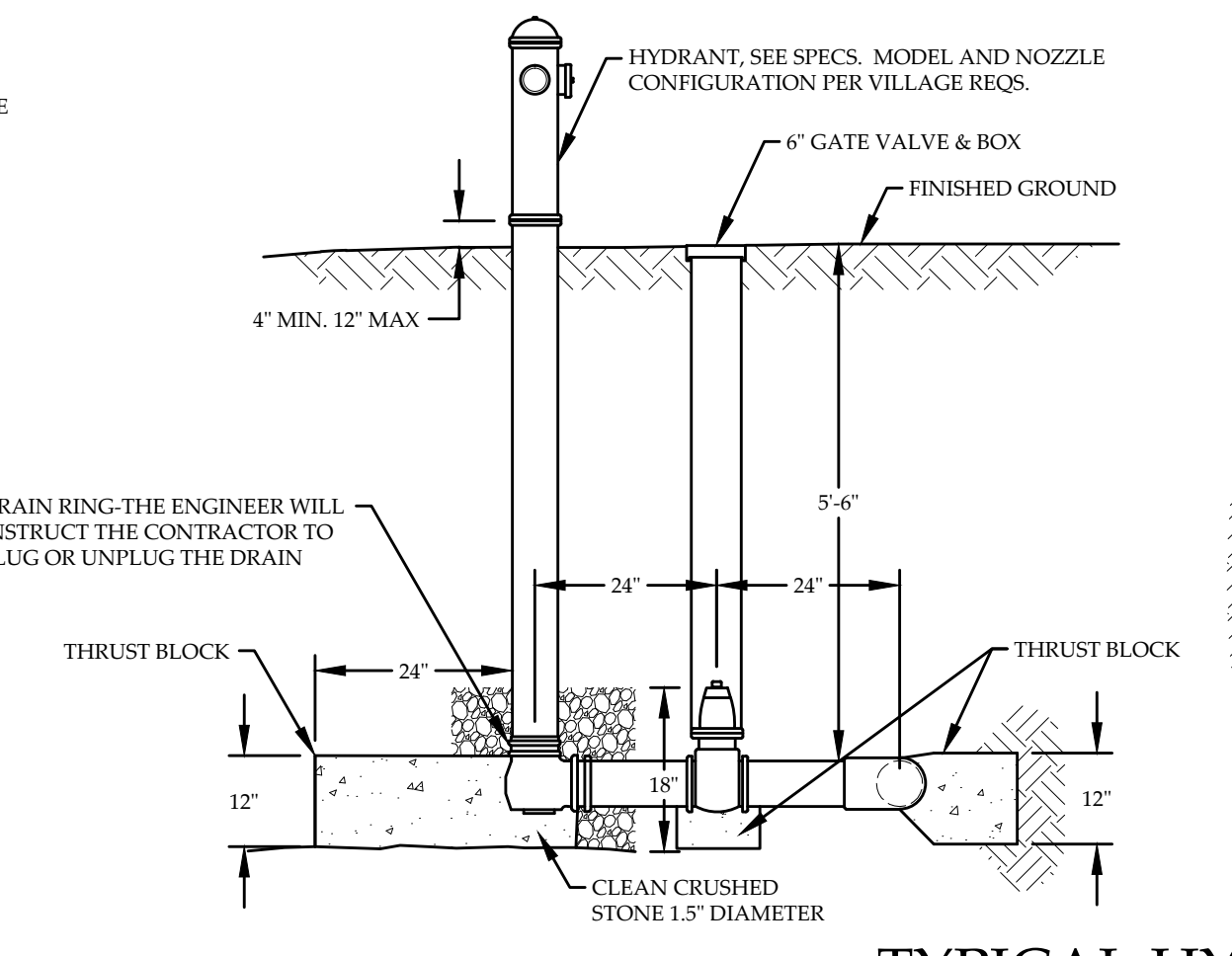
7 C-8
TYPICAL WATER/SEWER CROSSING
NOT TO SCALE

NOTES:

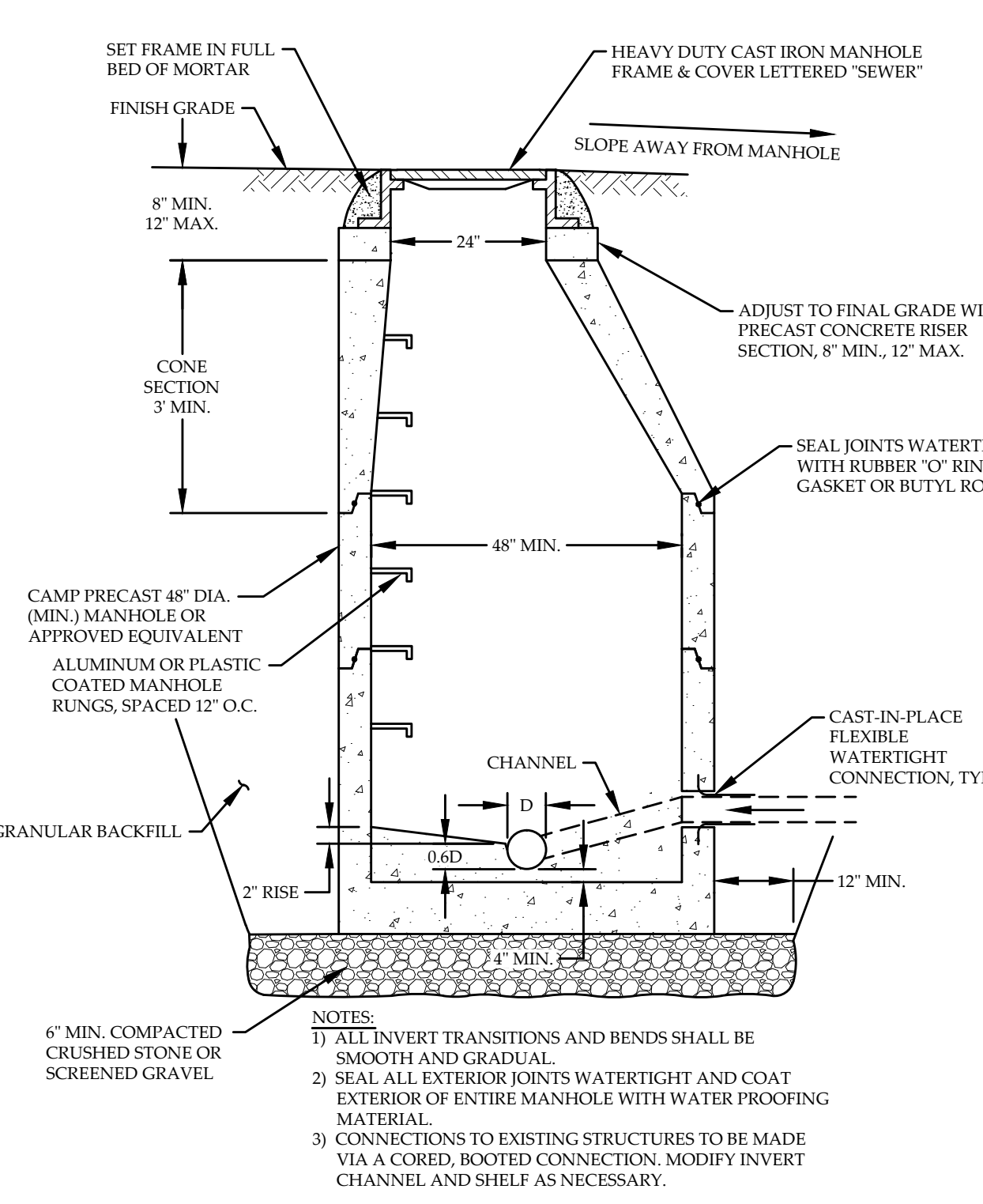
- USE FULL LENGTH OF WATER MAIN AND POSITION JOINTS AS FAR FROM SEWER AS POSSIBLE.
- IF SEWER IS ABOVE MAIN, MAINTAIN 18" VERTICAL SEPARATION (MINIMUM) AND ENCASE SEWER IN CONCRETE, EXTENDING BEYOND THE FIRST JOINT IN BOTH DIRECTIONS.
- WHEN IT IS IMPOSSIBLE TO MAINTAIN THE 18" VERTICAL SEPARATION, AND IF APPROVED BY THE ENGINEER, THE SEWER PIPE MUST ALSO BE CONSTRUCTED TO WATER MAIN STANDARDS FOR A MINIMUM DISTANCE OF 20 FEET EITHER SIDE OF THE CROSSING, OR A TOTAL OF THREE PIPE LENGTHS, WHICHEVER IS GREATER. THE SECTION CONSTRUCTED TO WATER MAIN STANDARDS MUST BE PRESSURE TESTED TO MAINTAIN 50 PSI FOR 15 MINUTES WITHOUT LEAKAGE PRIOR TO BACKFILLING BEYOND 1 FOOT ABOVE THE PIPE TO ASSURE WATER TIGHTNESS.



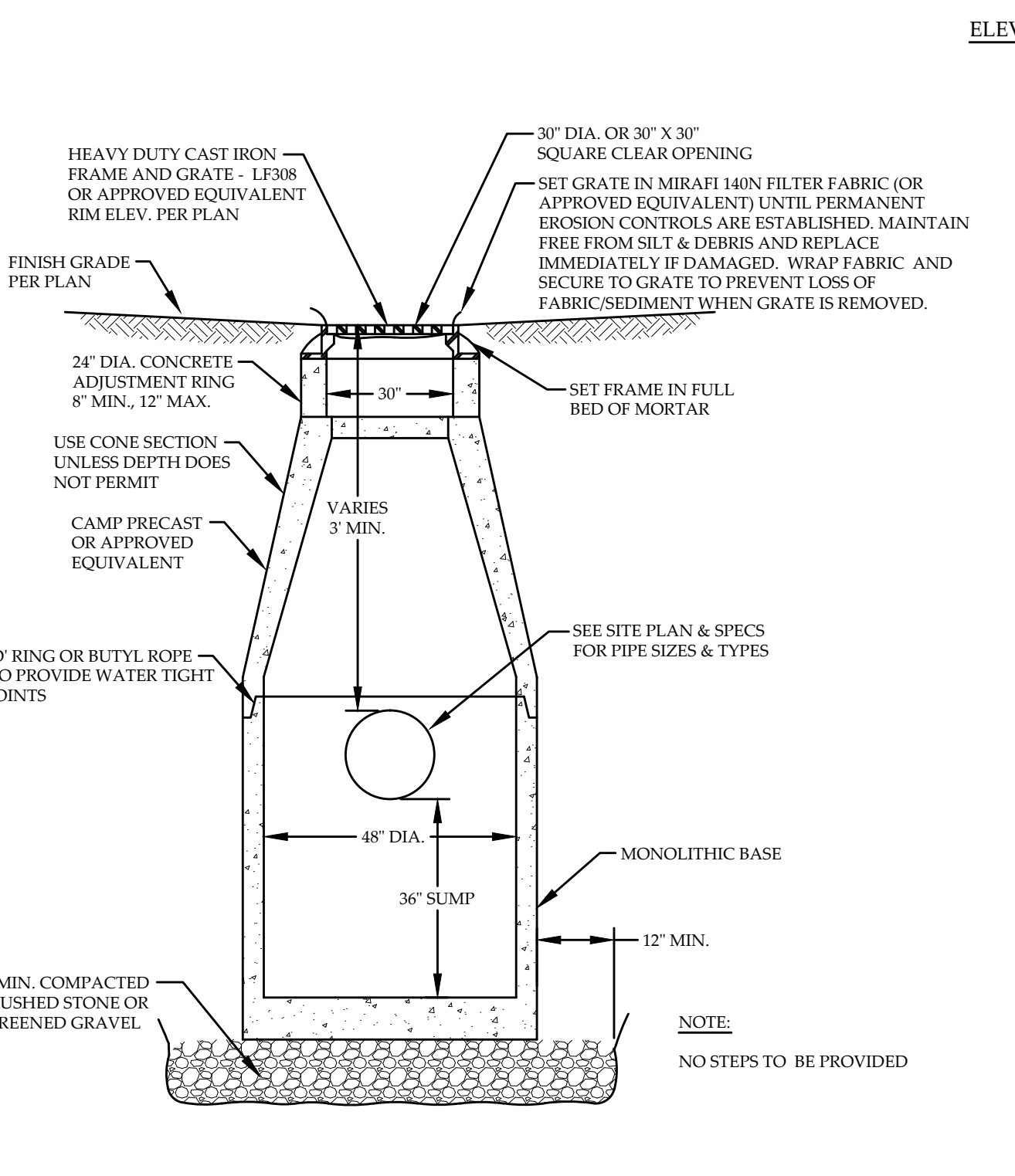
5 C-8
TYPICAL TAPPING SLEEVE & GATE VALVE CONNECTION
NOT TO SCALE



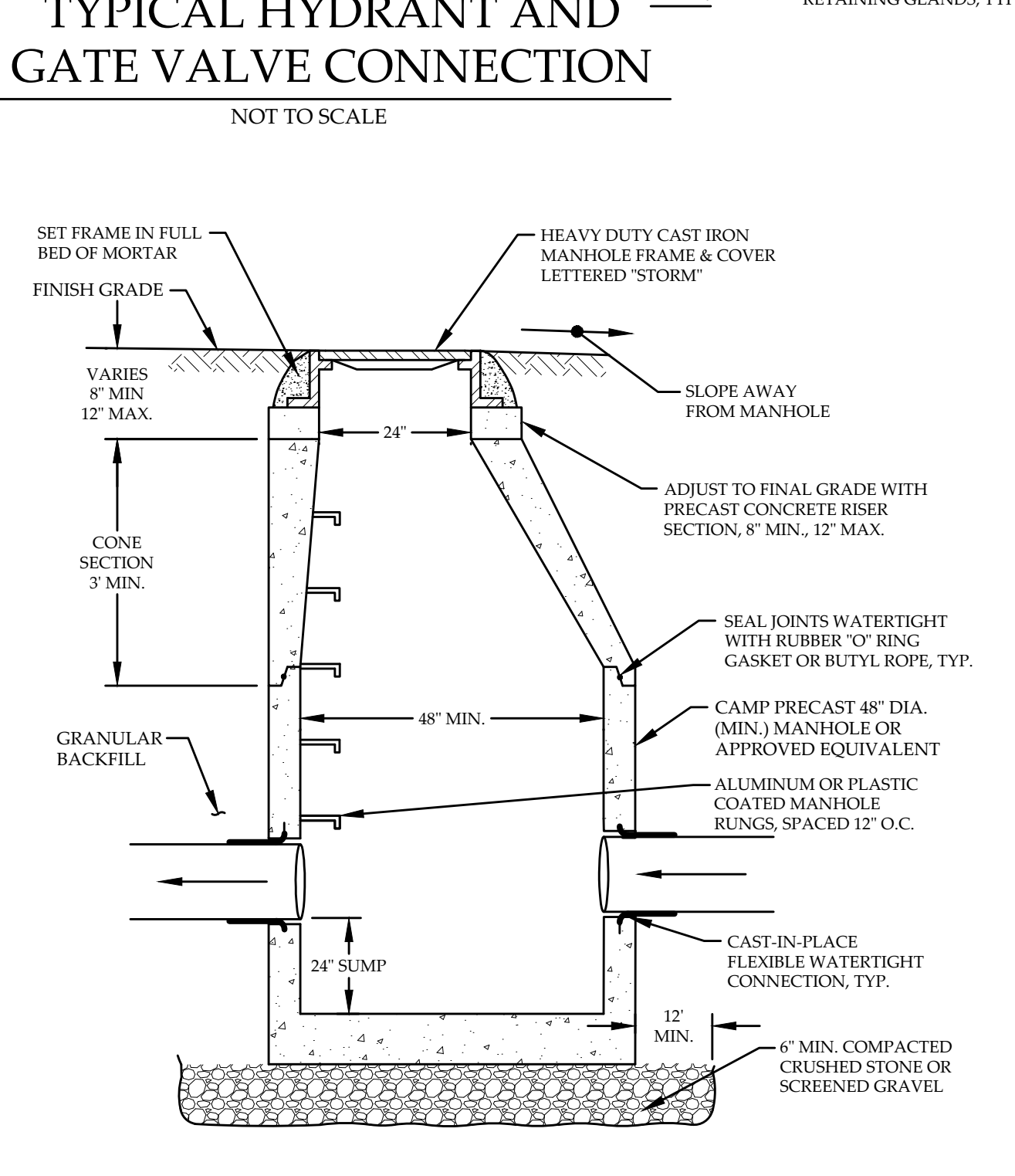
6 C-8
TYPICAL HYDRANT AND GATE VALVE CONNECTION
NOT TO SCALE



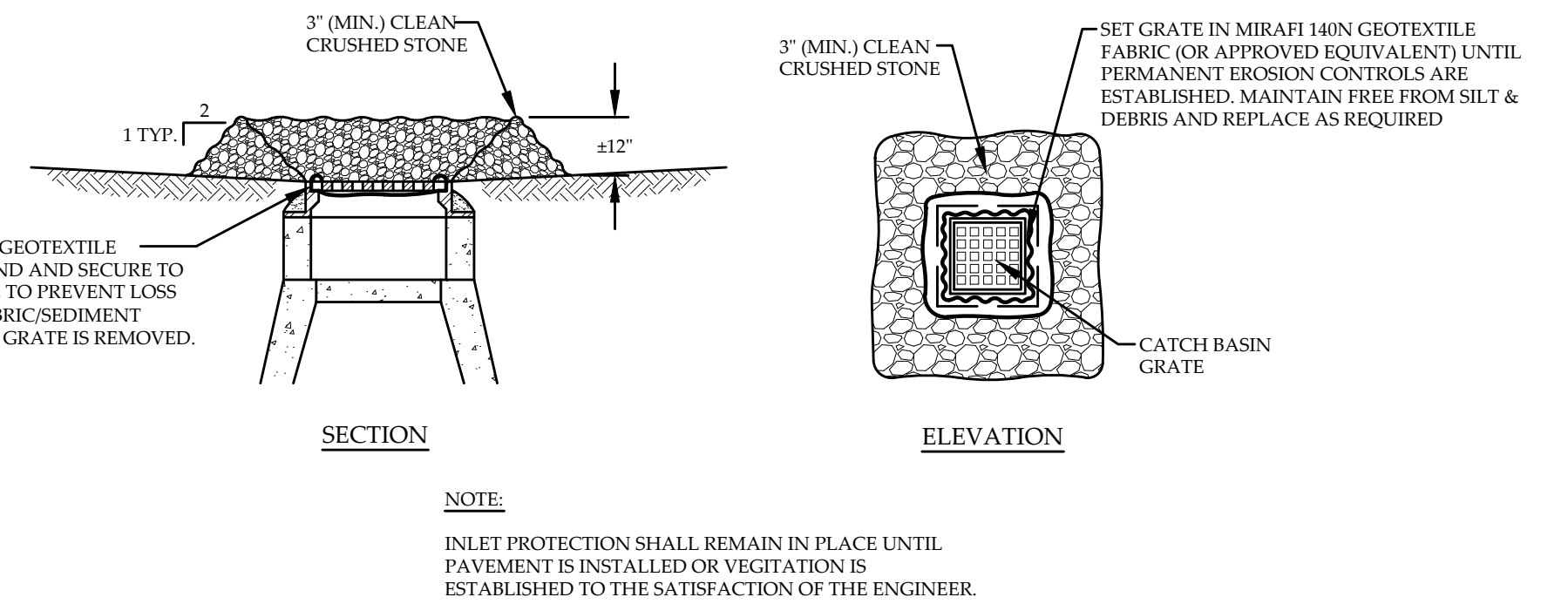
8 C-8
TYPICAL SANITARY MANHOLE
NOT TO SCALE



9 C-8
TYPICAL CATCH BASIN
NOT TO SCALE



10 C-8
TYPICAL STORM DRAIN MANHOLE
NOT TO SCALE



11 C-8
CATCH BASIN INLET PROTECTION, STONE TYPE
NOT TO SCALE

REVISION: 03/02/17 - REVISED DETAILS #8&10 PER COMMENTS FROM VILLAGE ENGINEER
REVISION: 01/20/17 - REVISED AND RENUMBERED DETAILS, ADDED #5, #10

DETAILS
HANDY HOTELS & RENTALS, LLC
9 & 11 PARK STREET
ESSEX JUNCTION, VERMONT

RUGGIANO
Engineering, inc.

5 LAKE STREET
ST. ALBANS, VERMONT 05478
PHONE - (802) 524-9300 FAX - (802) 524-9700
COPYRIGHT © 2017 - RUGGIANO ENGINEERING, INC.

PROJECT NO.15019
DRAWN BY.....JBD
CHECKED BY.....LEW
SCALE.....1" = 20'
DATE.....11/11/16

SHEET NO.
C-8
8 OF 9 SHEETS

STORMWATER CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH SC-740, SC-310, OR APPROVED EQUAL.
- CHAMBERS SHALL BE MANUFACTURED FROM VIRGIN POLYPROPYLENE OR POLYETHYLENE RESINS. CHAMBER ROWS SHALL PROVIDE CONTINUOUS UNSTRUCTURED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- 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 PRESENCES.
- CHAMBERS SHALL MEET ASTM F2922 (POLYETHYLENE) OR ASTM F2418 (POLYPROPYLENE), STANDARD SPECIFICATION FOR THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS. CHAMBERS SHALL BE DESIGNED AND ALLOWABLE LOADS DETERMINED IN ACCORDANCE WITH ASTM F2787, STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS.
- ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. THE CHAMBER MANUFACTURER SHALL SUBMIT THE FOLLOWING UPON REQUEST TO THE SITE DESIGN ENGINEER FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE:
 - A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY AASHTO FOR THERMOPLASTIC PIPE.
 - A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL 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 OR ASTM F2922 MUST BE USED AS PART OF THE AASHTO STRUCTURAL EVALUATION TO VERIFY LONG-TERM PERFORMANCE.
 - STRUCTURAL CROSS-SECTION DETAIL ON WHICH THE STRUCTURAL EVALUATION IS BASED.
- CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-310/SC-740 SYSTEM

- STORMTECH SC-310 & SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
- STORMTECH SC-310 & SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE 'STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE'.
- CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
 - STONESHOOTER LOCATED OFF THE CHAMBER BED.
 - BACKFILL AS ROWS ARE USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
 - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
- THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
- JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEALED PRIOR TO PLACING STONE.
- MAINTAIN MINIMUM 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
- EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4" - 2" (20-50 mm).
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
- ADS RECOMMENDS THE USE OF FLEXSTORM CATCH IT INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

- STORMTECH SC-310 & SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE 'STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE'.
- THE USE OF CONSTRUCTION EQUIPMENT OVER SC-310 & SC-740 CHAMBERS IS LIMITED:
 - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
 - NO RUBBER Tired LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE 'STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE'.
 - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE 'STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE'.
 - FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

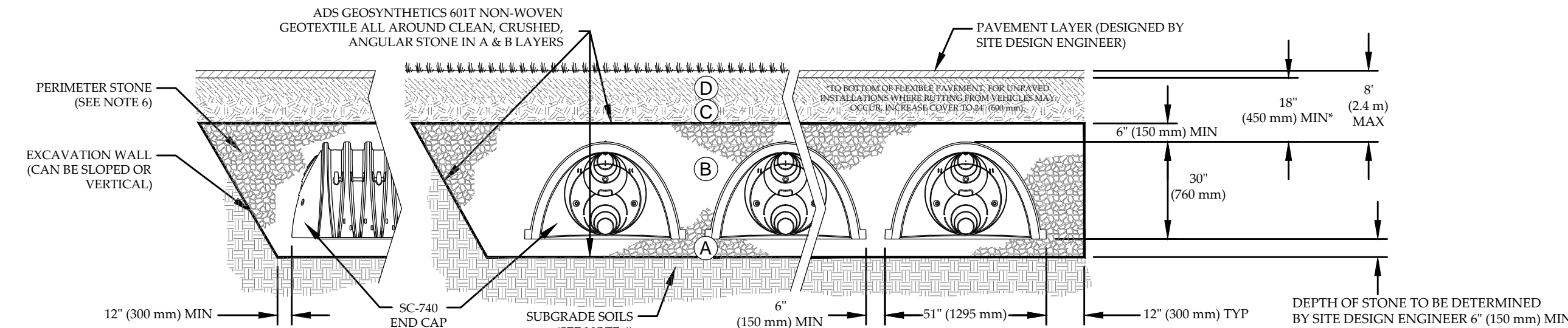
USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE 'DUMP AND PUSH' METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE TO LAYER 'D' TO 6" (150 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'C' LAYER.	AASHTO M145 ¹ A-1, A-2-4, A-3 OR AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIAL. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (5,443 kg). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ¹

- PLEASE NOTE:
- 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."
 - STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
 - WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.



NOTES:

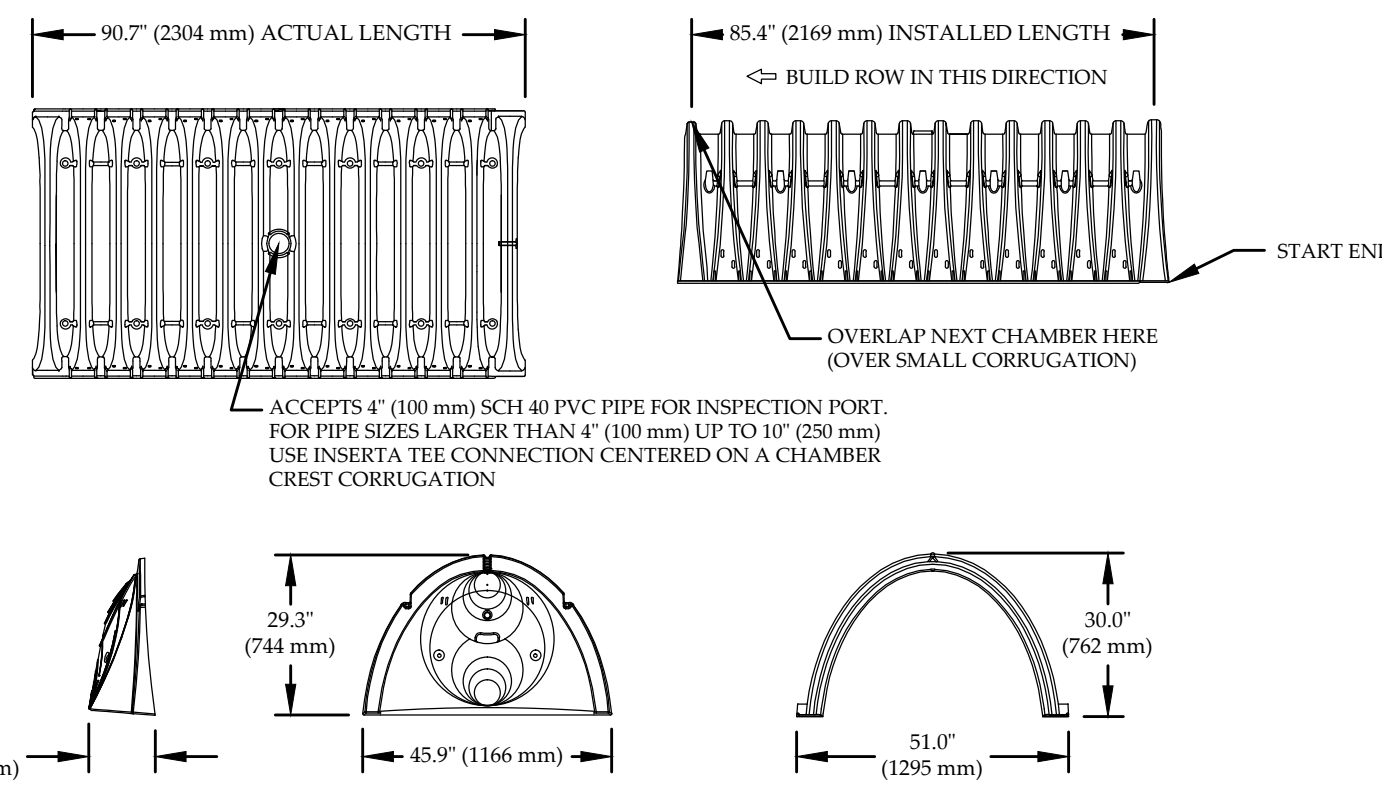
- SC-740 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS, OR ASTM F2922 STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS.
- SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS.
- "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- ONCE LAYER 'C' IS PLACED, ANY SOIL MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT
- INSPECTION PORTS (IF PRESENT)
 - REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
 - REMOVE AND CLEAN FLESTORM FILTER IF INSTALLED
 - USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
 - LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
 - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
 - ALL ISOLATOR ROWS
 - REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW
 - USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE
 - MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
 - FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
 - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS
- A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
 - APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
 - VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS. INSPECTION INTERVAL SHALL BE NO LESS THAN 1 PER YEAR. ALL INSPECTION REPORTS SHALL BE SUBMITTED TO THE VILLAGE OF ESSEX JCT.
- CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



NOMINAL CHAMBER SPECIFICATIONS

SIZE (X H X INSTALLED LENGTH)	CHAMBER STORAGE	MINIMUM INSTALLED STORAGE*	WEIGHT
6" X 6" X 10.9'	45.9 CUBIC FEET (1.30 m ³)	74.9 CUBIC FEET (2.12 m ³)	75.0 lbs. (33.6 kg)
6" X 6" X 12.2'	45.9 CUBIC FEET (1.30 m ³)	74.9 CUBIC FEET (2.12 m ³)	75.0 lbs. (33.6 kg)
6" X 6" X 13.4'	45.9 CUBIC FEET (1.30 m ³)	74.9 CUBIC FEET (2.12 m ³)	75.0 lbs. (33.6 kg)
6" X 6" X 14.5'	45.9 CUBIC FEET (1.30 m ³)	74.9 CUBIC FEET (2.12 m ³)	75.0 lbs. (33.6 kg)
6" X 6" X 15.7'	45.9 CUBIC FEET (1.30 m ³)	74.9 CUBIC FEET (2.12 m ³)	75.0 lbs. (33.6 kg)
6" X 6" X 17.0'	45.9 CUBIC FEET (1.30 m ³)	74.9 CUBIC FEET (2.12 m ³)	75.0 lbs. (33.6 kg)
6" X 6" X 18.3'	45.9 CUBIC FEET (1.30 m ³)	74.9 CUBIC FEET (2.12 m ³)	75.0 lbs. (33.6 kg)
6" X 6" X 19.6'	45.9 CUBIC FEET (1.30 m ³)	74.9 CUBIC FEET (2.12 m ³)	75.0 lbs. (33.6 kg)
6" X 6" X 20.9'	45.9 CUBIC FEET (1.30 m ³)	74.9 CUBIC FEET (2.12 m ³)	75.0 lbs. (33.6 kg)

*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS

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
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9' (277 mm)	18.5' (470 mm)	---
SC740EPE06B / SC740EPE06BPC	---	---	---	0.5' (13 mm)
SC740EPE08T / SC740EPE08TPC	8" (200 mm)	12.2' (310 mm)	16.5' (419 mm)	---
SC740EPE08B / SC740EPE08BPC	---	---	---	0.6' (15 mm)
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4' (340 mm)	14.5' (368 mm)	---
SC740EPE10B / SC740EPE10BPC	---	---	---	0.7' (18 mm)
SC740EPE12T / SC740EPE12TPC	12" (300 mm)	14.7' (373 mm)	12.5' (318 mm)	---
SC740EPE12B / SC740EPE12BPC	---	---	---	1.2' (30 mm)
SC740EPE15T / SC740EPE15TPC	15" (375 mm)	18.4' (467 mm)	9.0' (229 mm)	---
SC740EPE15B / SC740EPE15BPC	---	---	---	1.3' (33 mm)
SC740EPE18T / SC740EPE18TPC	18" (450 mm)	19.7' (500 mm)	5.0' (127 mm)	---
SC740EPE18B / SC740EPE18BPC	---	---	---	1.6' (41 mm)
SC740EPE24B	24" (600 mm)	18.5' (470 mm)	---	0.1' (3 mm)

ALL STUBS, EXCEPT FOR THE SC740EPE24B THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SETS LEVEL.

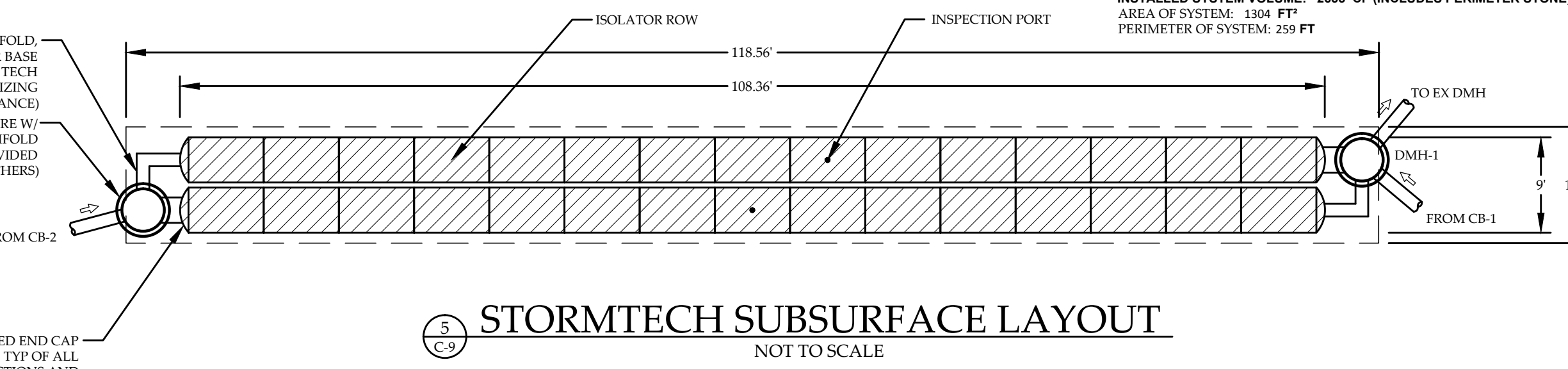
NOTE: ALL DIMENSIONS ARE NOMINAL

SC-740 TECHNICAL SPECIFICATION

NOT TO SCALE

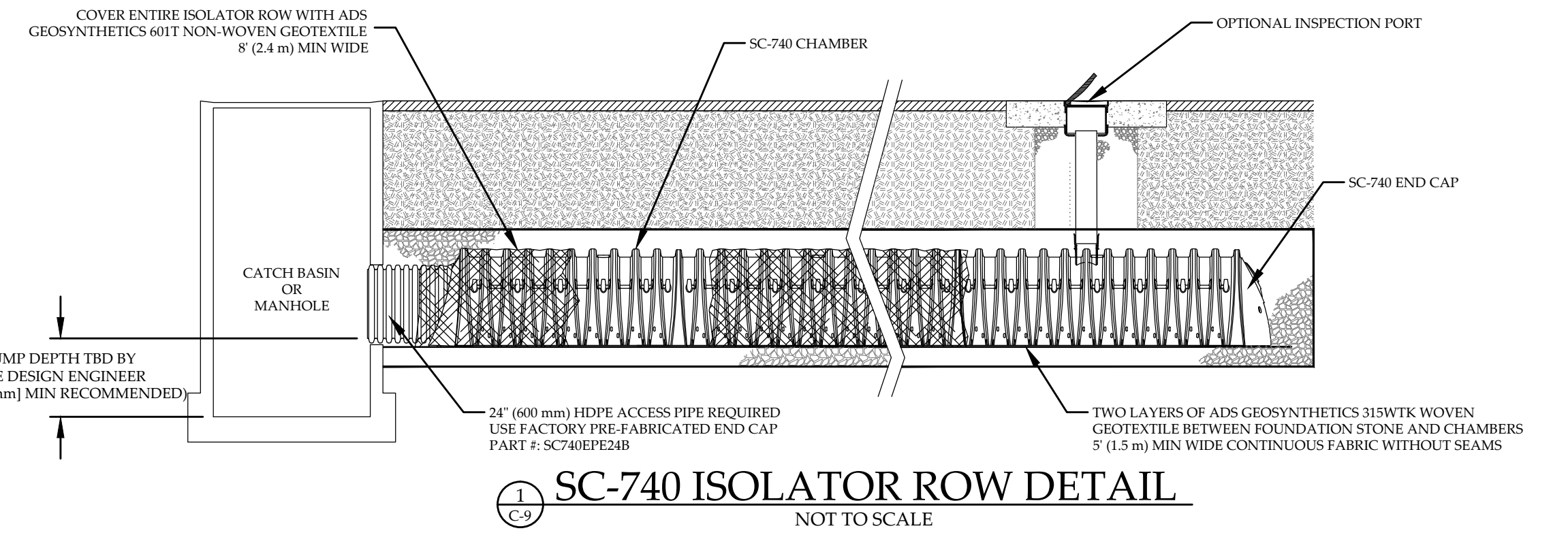
NOTES:

- STORMTECH SC-740 CHAMBERS
- STORMTECH SC-740 END CAPS
- INSTALLED WITH 6" COVER STONE, 6" BASE STONE, 40% STONE VOID
- INSTALLED SYSTEM VOLUME: 2663 CF (INCLUDES PERIMETER STONE)
- AREA OF SYSTEM: 1304 FT²
- PERIMETER OF SYSTEM: 259 FT



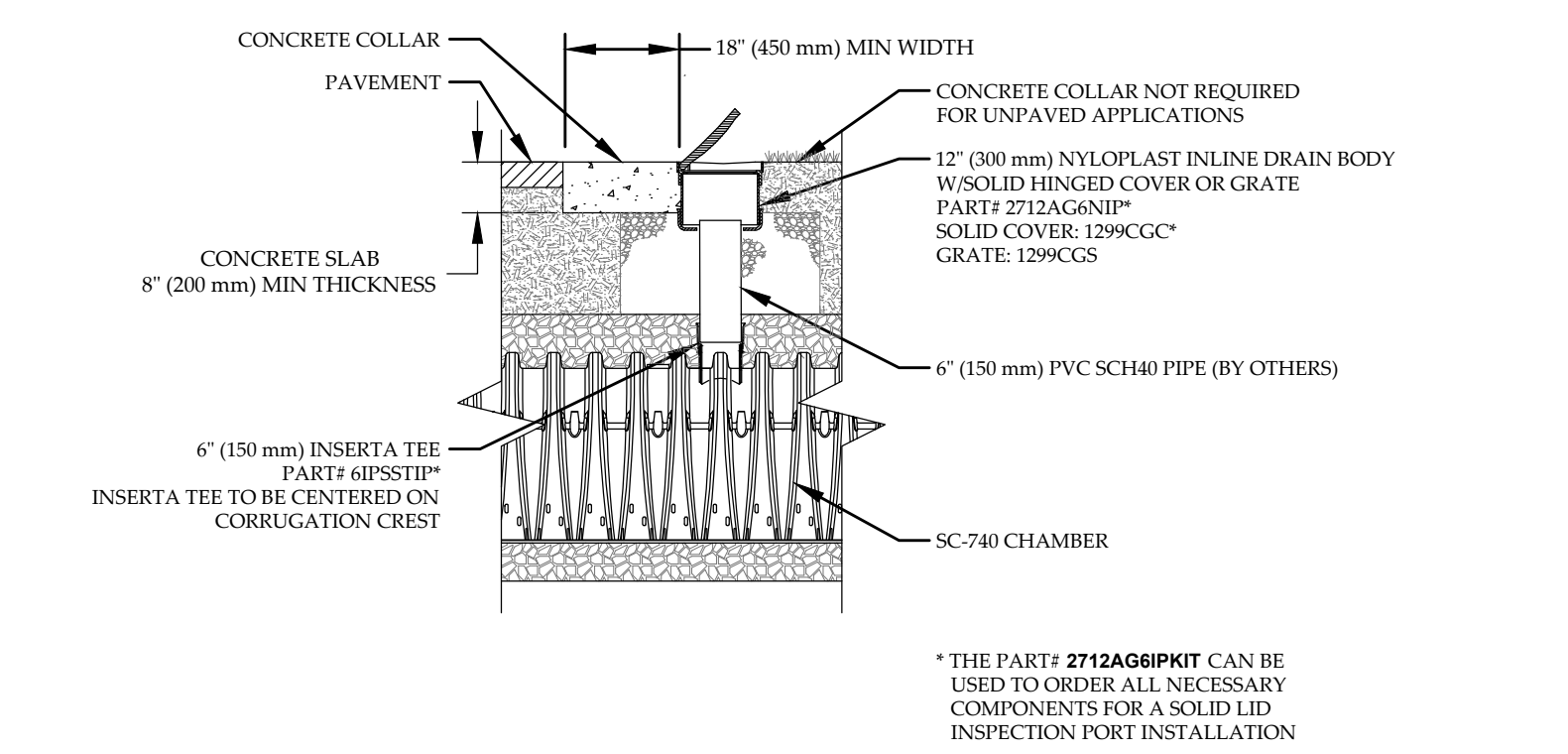
STORMTECH SUBSURFACE LAYOUT

NOT TO SCALE



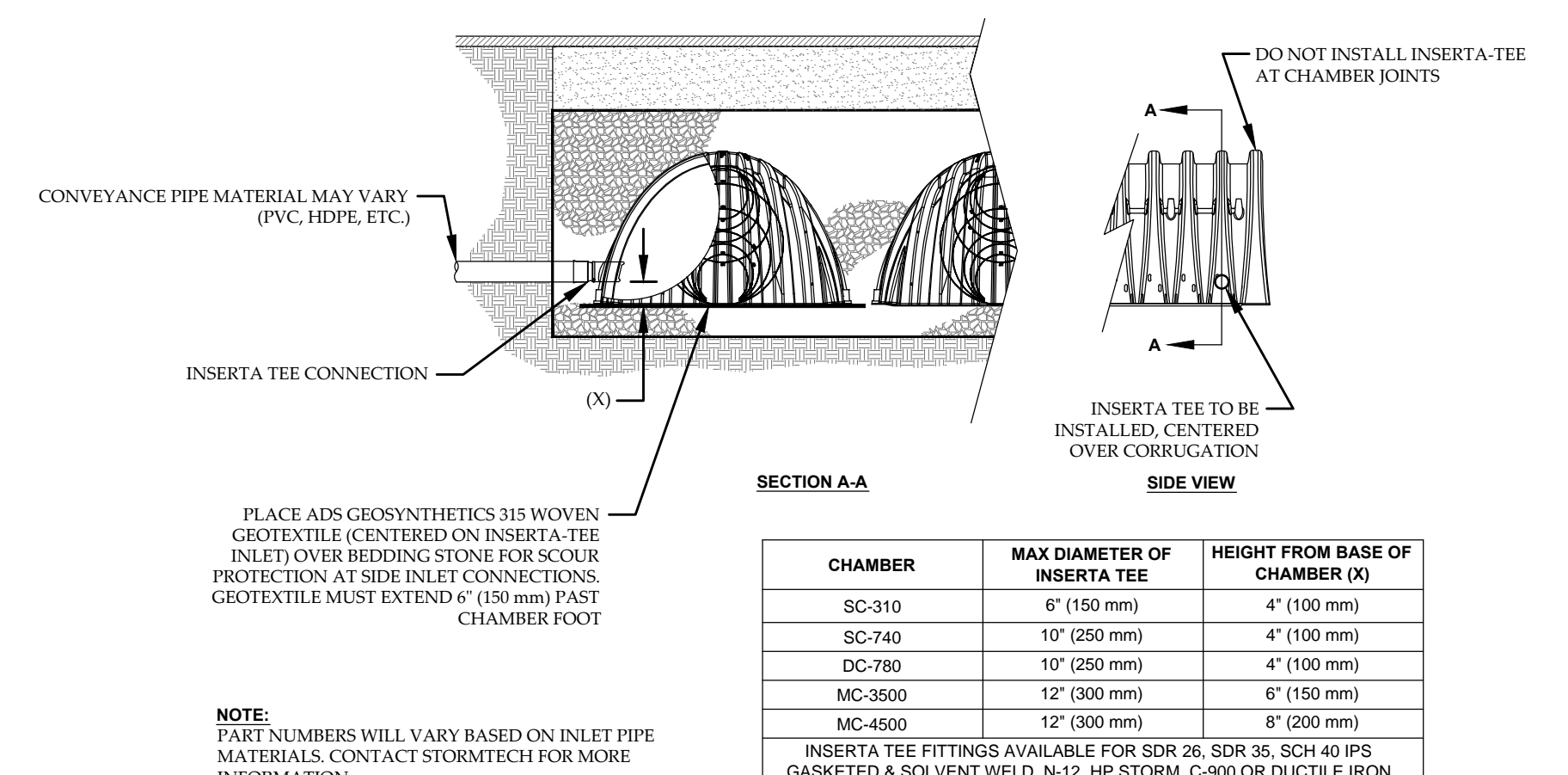
SC-740 ISOLATOR ROW DETAIL

NOT TO SCALE



SC-740 6" INSPECTION PORT DETAIL

NOT TO SCALE



INSERTA TEE DETAIL

NOT TO SCALE

REVISION: 03/02/17 - REVISED DETAILS TO REMOVE FLEXSTORM INSERTS
REVISION: 01/20/17 - REVISED PER VILLAGE ENGINEER COMMENTS, REVISED MAINTENANCE NOTE

STORMTECH DETAILS
HANDY HOTELS & RENTALS, LLC
9 & 11 PARK STREET
ESSEX JUNCTION, VERMONT

RUGGIANO
engineering, inc.
5 LAKE STREET
ST. ALBANS, VERMONT 05478
PHONE - (802) 524-9300 FAX - (802) 524-9700
COPYRIGHT © 2017 - RUGGIANO ENGINEERING, INC.

PROJECT NO.15019
DRAWN BYJFN
CHECKED BYLEW
SCALE1" = 20'
DATE11/11/16

SHEET NO.
C-9
9 OF 9 SHEETS