

GULLIVER'S DOGGIE DAYCARE: NEW DOG TRAINING BUILDING

RECEIVED
FEB 15 2018
PLANNING/ZONING

PROJECT LOCATION:
59 Industrial Ave
Williston, VT 05495

Owner
Gulliver's Doggie Daycare
P.O. Box 817
59 Industrial Ave
Williston, VT 05495
P: (802) 860-1144

Architect
Scott + Partners, Inc., Architects
20 Main Street
Essex Junction, VT 05452
P: (802) 879-5153
F: (802) 872-2764
E: joel@scottpartners.com

Drawing List

1. Cover Sheet
2. Plans
3. Exterior Elevations
4. Exterior Elevations
5. Perspectives
6. Building Cross Section



DP 17-02

FINAL PLANS

FOR FINAL APPROVAL
03/01/17

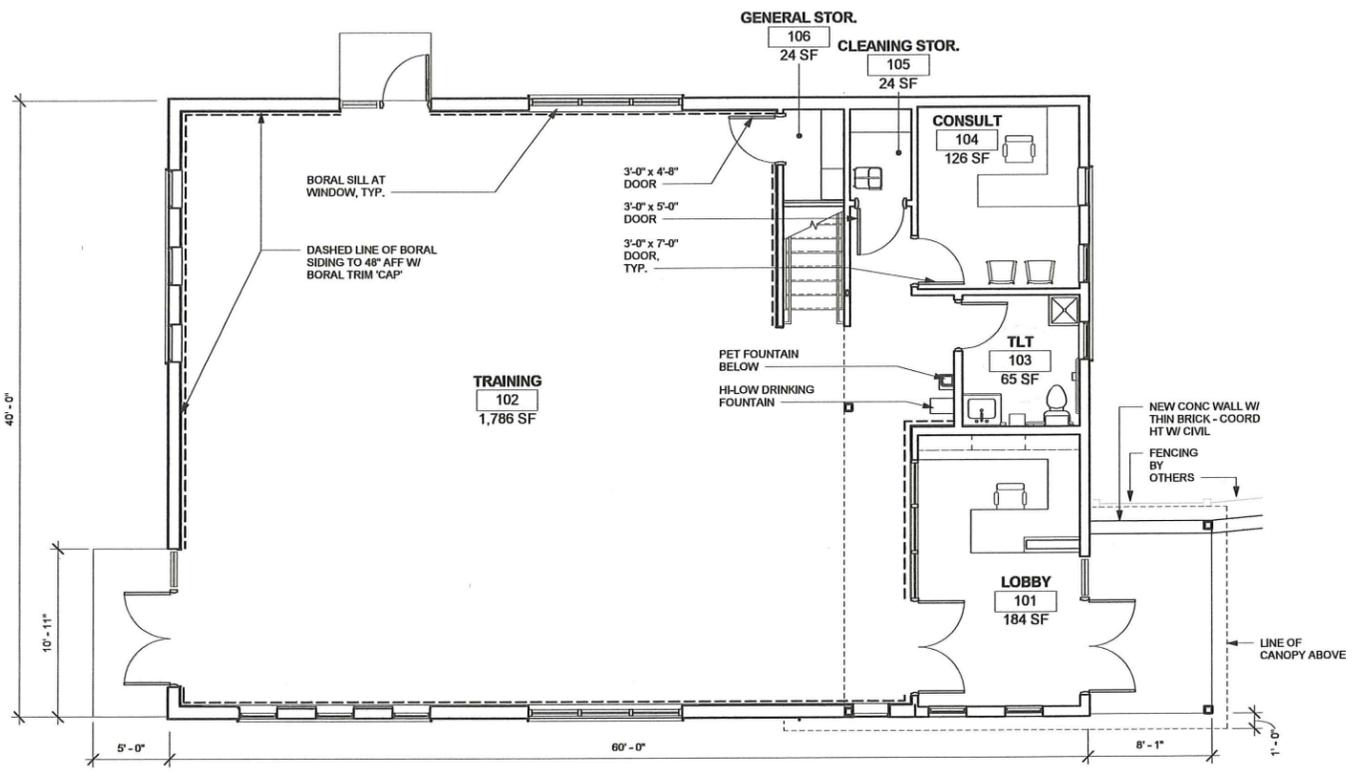
APPROVAL SIGNATURE BLOCK
UPON FINDING THAT THE FINAL PLANS COMPLIED WITH ALL REQUIREMENTS
OF THE WILLISTON DEVELOPMENT BYLAW AND ALL CONDITIONS IMPOSED ON
THE APPROVAL OF DISCRETIONARY PERMIT DP 17-02, THE WILLISTON
DEVELOPMENT REVIEW ADMINISTRATOR APPROVED THE FINAL PLANS FOR
GULLIVER'S DOGGIE DAYCARE ON THE 27TH DAY OF FEBRUARY 2018
Ken Balch
DEVELOPMENT REVIEW BOARD ADMINISTRATOR

APPLICATION NO: DP 17-02
TAX PARCEL NO: 07-097-001-000

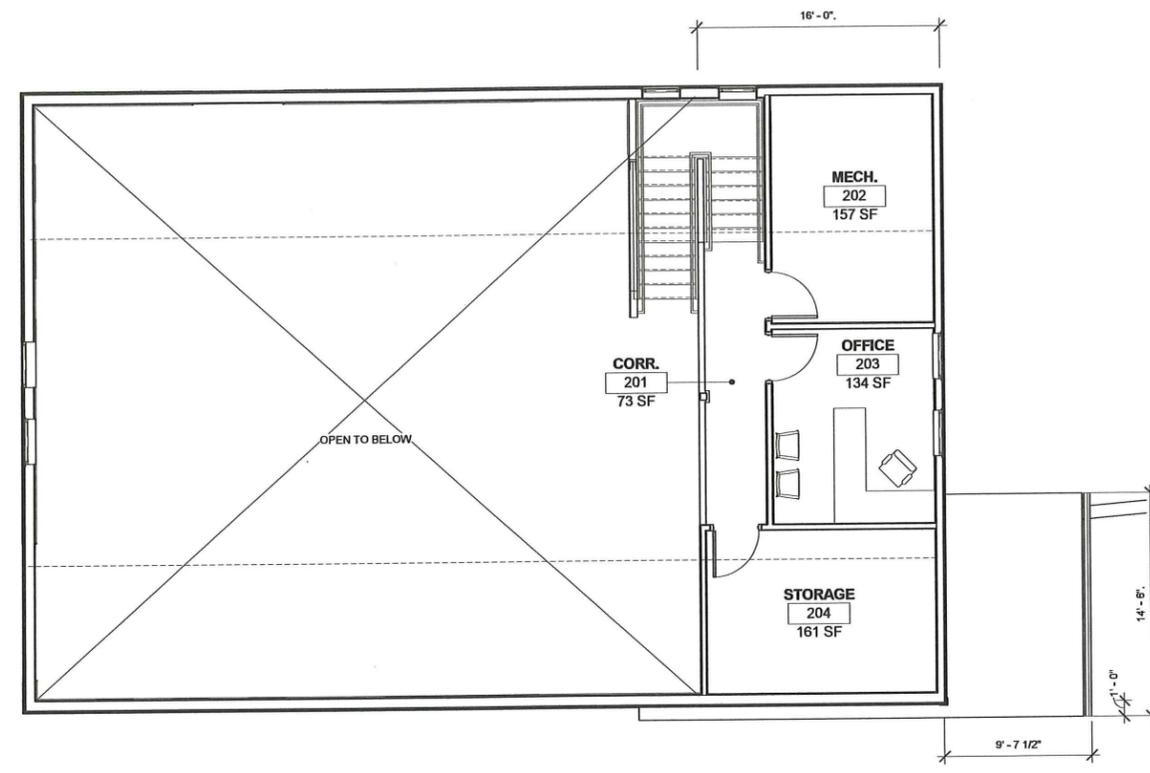
PERMIT SET

SCOTT + PARTNERS
ARCHITECTURE

20 MAIN ST., ESSEX JUNCTION, VT 05452
P: 802.879.5153
F: 802.872.2764
SCOTTPARTNERS.COM



① GROUND FLOOR
3/16" = 1'-0"



② MEZZANINE
3/16" = 1'-0"

GULLIVER'S TRAINING BUILDING

PLANS - FOR FINAL APPROVAL

03/01/17

ALLOWABLE MEZZANINE BY AREA:
 TRAINING ROOM = 1,806 SF
 1/3 OF 1,806 = 602 SF ALLOWABLE
 ACTUAL MEZZANINE AREA = 524 SF

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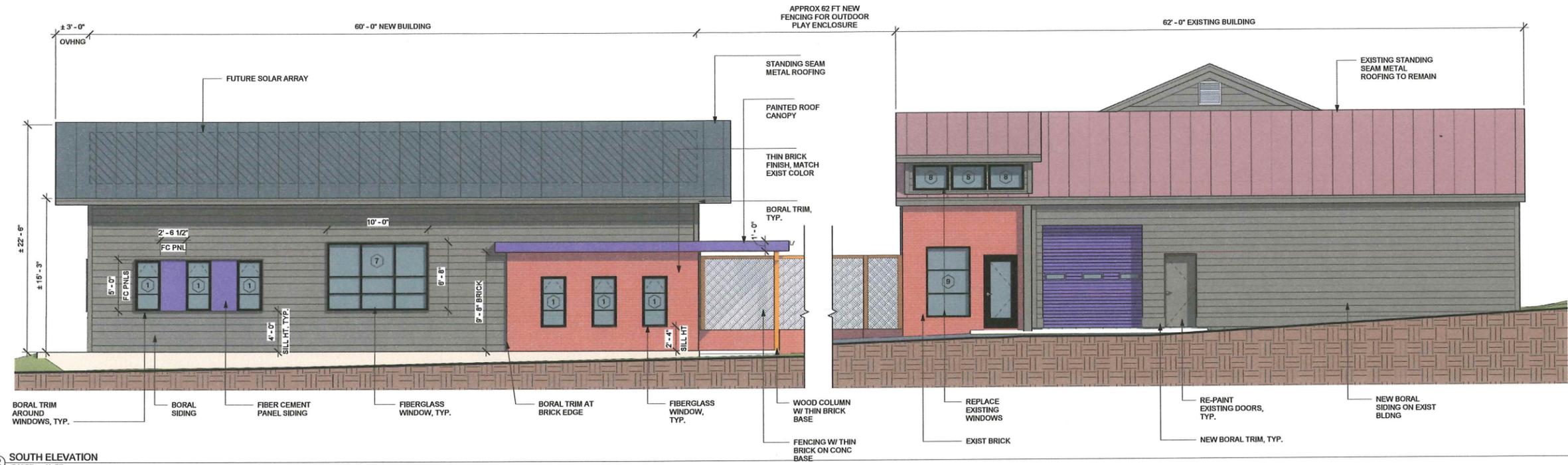
K. Bilki
 DEVELOPMENT REVIEW BOARD ADMINISTRATOR

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PERMIT SET



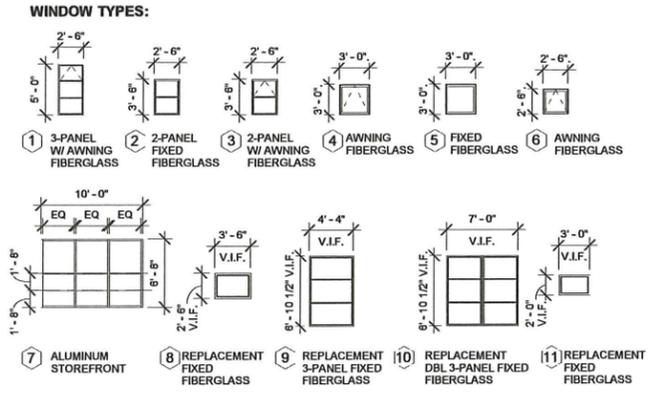
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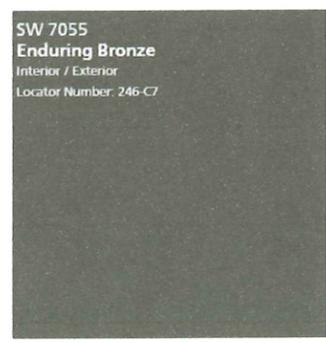
2 SOUTH ELEVATION
3/16" = 1'-0"



1 NORTH ELEVATION
3/16" = 1'-0"



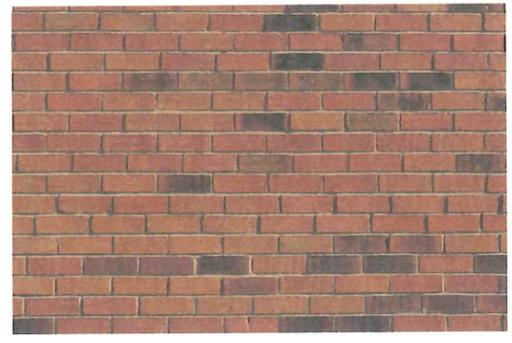
VERIFY ROUGH OPENING AND SILL HEIGHT DIMENSIONS OF ALL EXISTING WINDOWS



PAINT FINISH FOR ALL NEW FIBER CEMENT ACCENT PANELS



PAINT FINISH FOR ALL NEW SIDING + TRIM BOARDS



TRU-BRIX THIN BRICK - TO MATCH EXISTING COLOR



BORAL - TRU EXTERIOR NICKEL GAP SIDING, SKIRT BOARDS + TRIM

GULLIVER'S TRAINING BUILDING

EXTERIOR ELEVATIONS - FOR FINAL APPROVAL

03/01/17

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K. Ball
DEVELOPMENT REVIEW BOARD ADMINISTRATOR

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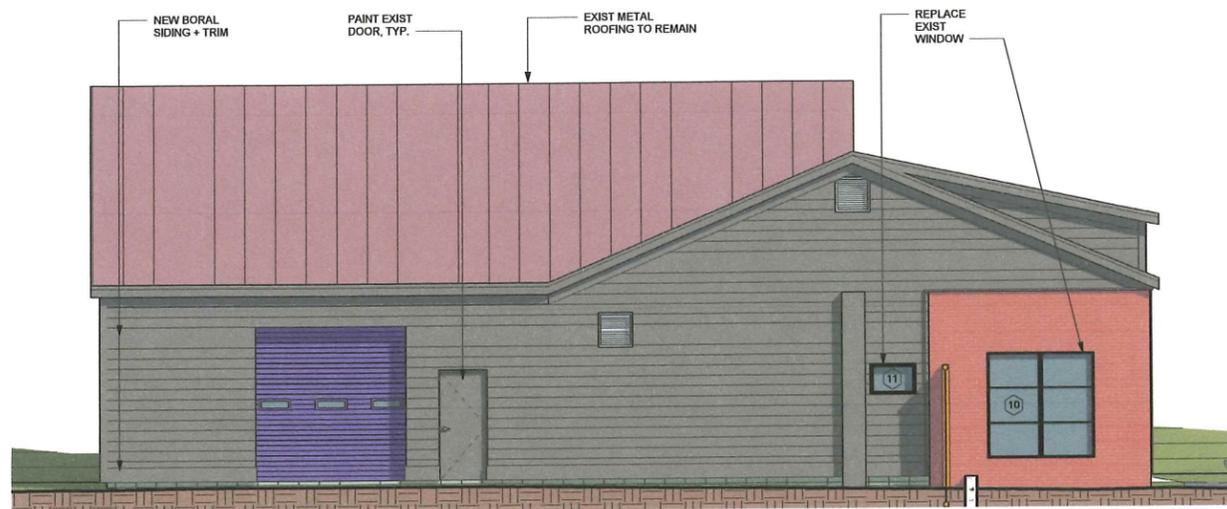
PERMIT SET



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① EAST ELEVATION - EXISTING BUILDING
3/16" = 1'-0"



② WEST ELEVATION - EXISTING BUILDING
3/16" = 1'-0"

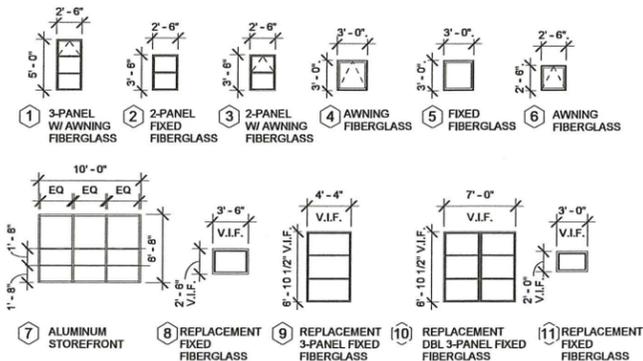


③ EAST ELEVATION - NEW BUILDING
3/16" = 1'-0"

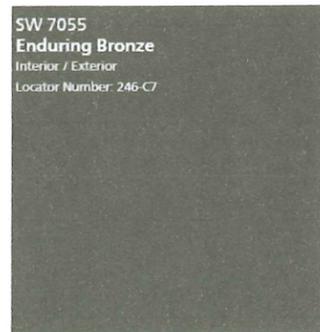


④ WEST ELEVATION - NEW BUILDING
3/16" = 1'-0"

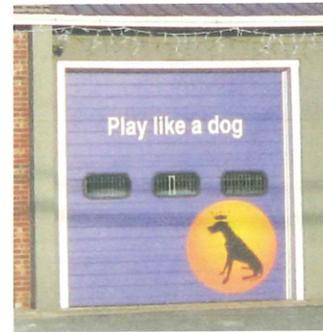
WINDOW TYPES:



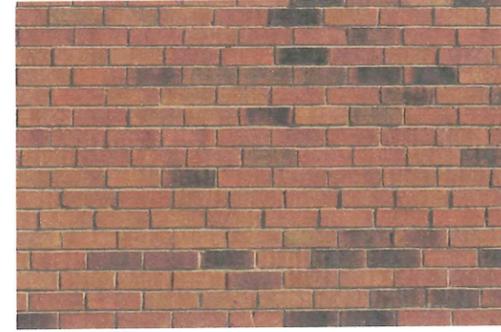
VERIFY ROUGH OPENING AND SILL HEIGHT DIMENSIONS OF ALL EXISTING WINDOWS



PAINT FINISH FOR ALL NEW FIBER CEMENT ACCENT PANELS



PAINT FINISH FOR ALL BORAL SIDING + TRIM BOARDS



TRU-BRIX THIN BRICK - TO MATCH EXISTING COLOR



BORAL - TRU-EXTERIOR NICKEL GAP SIDING, SKIRT BOARDS + TRIM

GULLIVER'S TRAINING BUILDING

EXTERIOR ELEVATIONS - FOR FINAL APPROVAL

03/01/17

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Ken Belk
DEVELOPMENT REVIEW BOARD ADMINISTRATOR

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GULLIVER'S TRAINING BUILDING

PERSPECTIVES - FOR FINAL APPROVAL

03/01/17

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K. Bell
 DEVELOPMENT REVIEW BOARD ADMINISTRATOR

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PERMIT SET



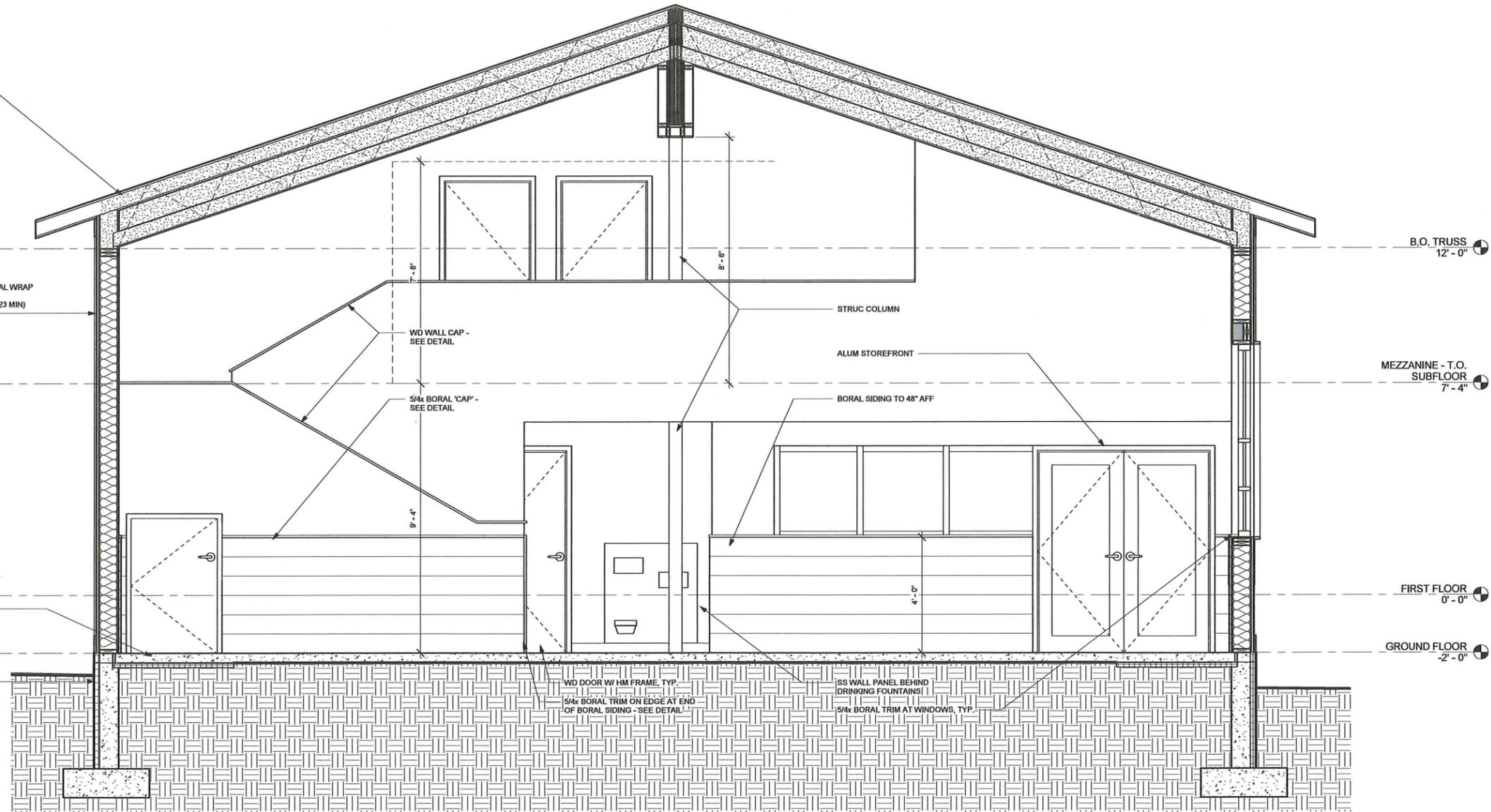
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 SCOTTPARTNERS.COM

NEW ROOFING SYSTEM (R-60):
 STANDING SEAM MTL ROOFING
 ICE + WATER SHIELD
 SHEATHING - SEE STRUC
 WD TRUSSES - SEE STRUC
 DENSE PACK CELLULOSE INSUL
 5/8" GWB CEILING FINISH
 1x WD BOARDS (OPTIONAL FINISH)

NEW EXTERIOR WALL SYSTEM:
 BORAL SIDING
 1x3 STAPPING
 WEATHER BARRIER - TYVEK COMMERCIAL WRAP
 1/2" PLYWOOD SHEATHING
 2x8 FRAMING W/ SPRAY FOAM INSUL (R-23 MIN)
 5/8" GWB INT FINISH

CONC SLAB W/ 2" RIGID
 INSUL (R-10 MIN) ON
 CONT VB (STEGO WRAP
 OR APPROVED EQUAL)

6" CONCRETE FOUNDATION WALL
 W/ 2" RIGID INSUL (R-10 MIN) AND
 1/2" FRP PANEL



GULLIVER'S TRAINING BUILDING

SCHEMATIC CROSS SECTION - FOR FINAL APPROVAL

03/01/17

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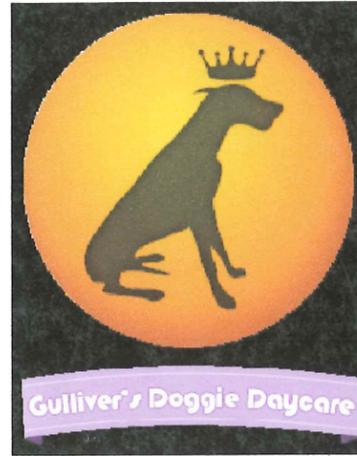
K. Bell
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RECEIVED
FEB 15 2018
PLANNING/ZONING

GULLIVER'S DOGGIE DAYCARE

59 INDUSTRIAL AVENUE
WILLISTON, VT

FEBRUARY 27, 2017
REVISED MAY 22, 2017

DRAWINGS

- C-1ORTHOGRAPHIC PLAN – EXISTING CONDITIONS
- C-2SITE PLAN
- C-3WASTEWATER DISPOSAL PLAN
- C-4WASTEWATER DISPOSAL DETAILS
- C-5EROSION PREVENTION & SEDIMENT CONTROL PLAN
- C-6EROSION PREVENTION & SEDIMENT CONTROL DETAILS
- C-7LANDSCAPE PLAN & DETAILS
- C-8LIGHTING PLAN EXISTING CONDITIONS
- C-9LIGHTING PLAN & DETAILS
- C-10.....SITE DETAILS
- C-11.....SITE DETAILS
- C-12.....SITE SPECIFICATIONS

OWNER

T.A.A.B., INC. dba GULLIVER'S DOGGIE DAYCARE
59 INDUSTRIAL AVENUE
WILLISTON, VERMONT 05495
CONTACT: AMANDA POQUETTE
(802) 860-1144

PROJECT ENGINEER

GREGORY J. BOMBARDIER, P.E.
CHAMPLAIN CONSULTING ENGINEERS
85 PRIM ROAD, P.O. BOX 453
COLCHESTER, VERMONT 05446
(802) 863-8060
(802) 864-1878 FAX

FINAL PLANS

DP 17-02

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PERMIT SET

| REVISION DATE & DESCRIPTION | BY |
|-----------------------------|----|
| 05/22/17 REVISED PER TOWN | 08 |

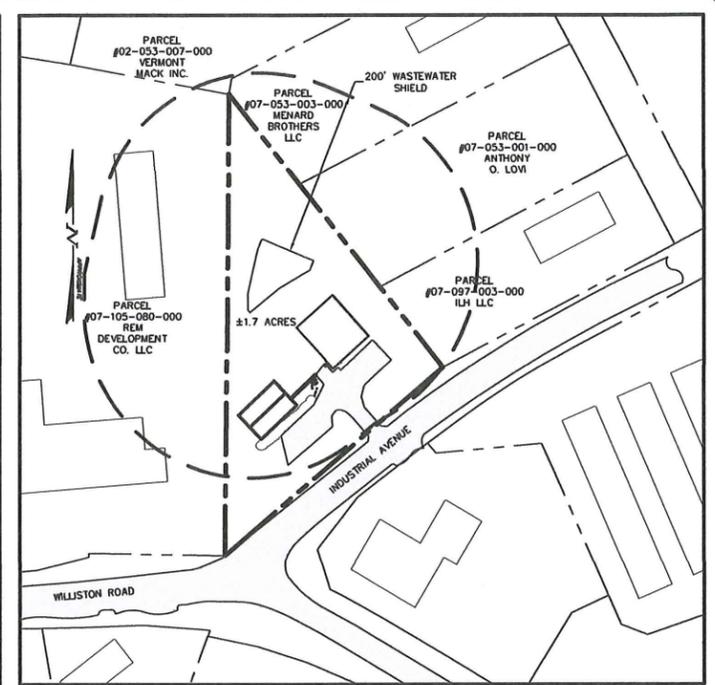
Champlain Consulting ENGINEERS
 185 PRIM ROAD, P.O. BOX 453
 COLCHESTER, VERMONT 05446
 (802) 863-8060 - 864-1878 FAX
 www.champlainconsulting.net
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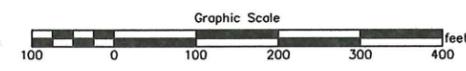
GULLIVER'S DOGGIE DAYCARE
 59 INDUSTRIAL AVENUE
 NEW ACCESSORY STRUCTURE
 WASTEWATER DISPOSAL PLAN
 WILLISTON VERMONT

| | |
|---------|----------|
| DRAWN | CCE |
| CHECKED | GJB |
| SCALE | AS SHOWN |
| DATE | 02/27/17 |
| JOB NO. | 16110 |
| SHEET | |

C-3
 OF 12 SHEETS



BOUNDARY PLAN
 SCALE 1" = 100'



TEST PIT SUMMARY
 (Performed by Champlain Consulting Engineers - 12/09/16)

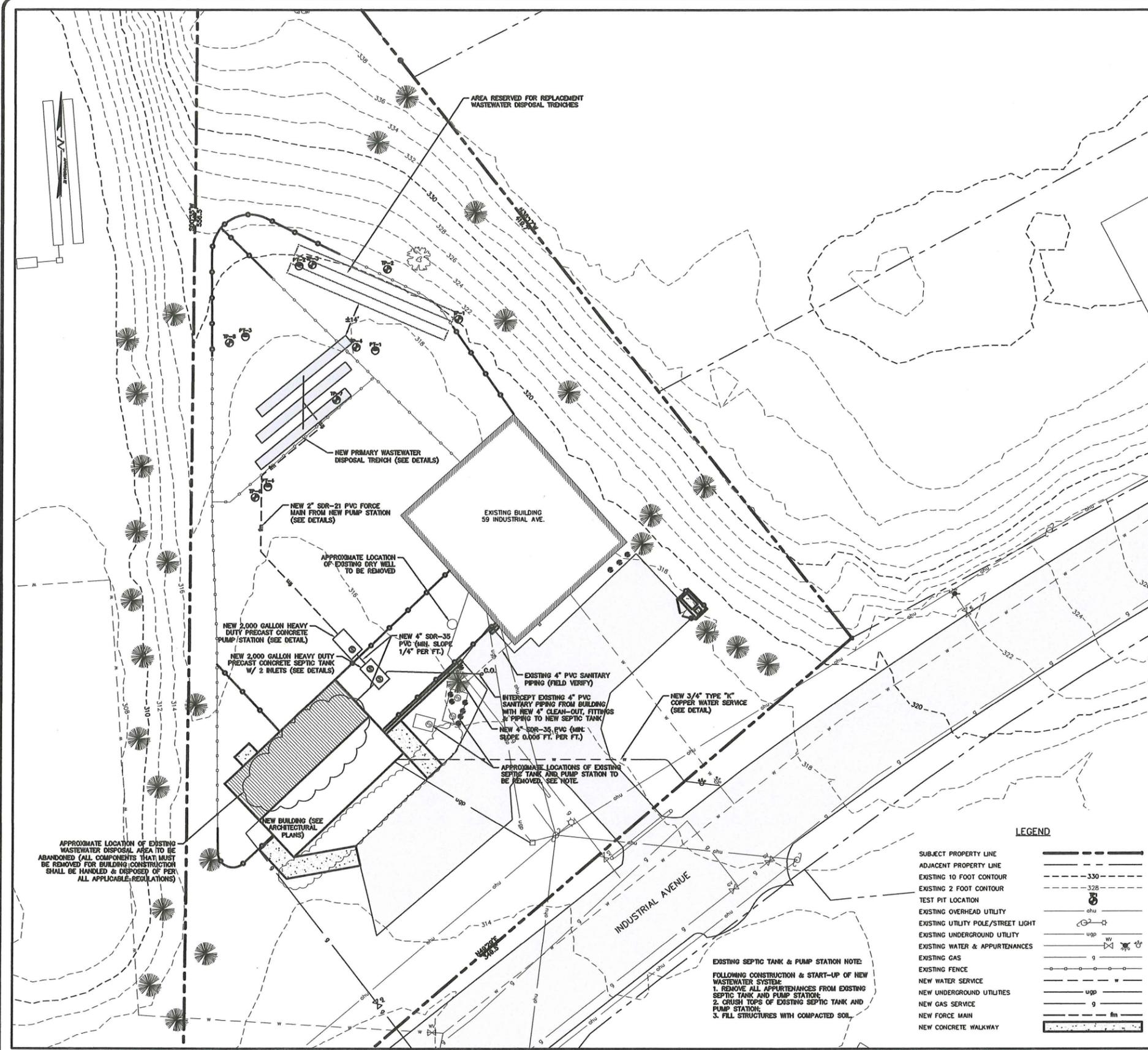
| TP# | Depth | Soil Description |
|------|----------|---|
| TP#1 | 0 - 8" | DARK BROWN SANDY TOPSOIL, FINE ROOTS |
| | 8 - 43" | DARK BROWN FINE SAND, FRIABLE |
| | 43 - 86" | LIGHT BROWN FINE SAND, FRIABLE, DRY NO SHGW, NO WATER, NO LEDGE TO DEPTH |
| TP#2 | 0 - 5" | DARK BROWN SANDY TOPSOIL, FINE ROOTS |
| | 52 - 90" | LIGHT BROWN FINE SAND, FRIABLE, DRY NO SHGW, NO WATER, NO LEDGE TO DEPTH |
| TP#3 | 0 - 9" | DARK BROWN SANDY TOPSOIL, FINE ROOTS |
| | 47 - 88" | LIGHT BROWN FINE SAND, FRIABLE, DRY NO SHGW, NO WATER, NO LEDGE TO DEPTH |
| TP#4 | 0 - 76" | DARK BROWN SAND, FRIABLE NO SHGW, NO WATER, NO LEDGE TO DEPTH |
| TP#5 | 0 - 86" | DARK BROWN SAND, FRIABLE NO SHGW, NO WATER, NO LEDGE TO DEPTH |
| TP#6 | 0 - 74" | DARK BROWN SAND, FRIABLE NO SHGW, NO WATER, NO LEDGE TO DEPTH |
| TP#7 | 0 - 88" | DARK BROWN SAND, FRIABLE NO SHGW, NO WATER, NO LEDGE TO DEPTH |

PERC TEST SUMMARY

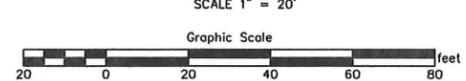
| | |
|------|--------------|
| PT-1 | 1.5 MIN/INCH |
| PT-2 | 1.5 MIN/INCH |
| PT-3 | 1.5 MIN/INCH |
| PT-4 | 1.5 MIN/INCH |

DESIGN NOTES:
 DESIGN FLOW:
 10 EMPLOYEES X 15 GPD/EMPLOYEE = 150 GPD
 4 CLASSES/DAY X 6 PEOPLE/CLASS X 5 GPD = 120 GPD
 1 PET WASHING STATION = 400 GPD
 PET BOARDING = 700 GPD
 TOTAL = 1,370 GPD
 LESS A 10% REDUCTION FOR LOW FLOW FIXTURES = 1,233 GPD
 APPLICATION RATE = 1.5 GPD/SQ. FT.
 AREA REQUIRED = 822 SQ. FT.
 USE 24" DISPOSAL STONE (REDUCTION) = 543 SQ.FT.
 USE (3) 4' X 46" DISPOSAL TRENCH FOR PRIMARY AREA
 USE (2) 4' X 68" DISPOSAL TRENCH FOR REPLACEMENT AREA

NEW PUMP CALCULATIONS:
 REQUIRED FLOW = 22 GPM
 HEAD LOSS = 12' (ELEVATION) + 4' (FRICTION) = 16'
 PROVIDE 22 GPM @ 16' TDH
 USE GOULDS WED3M EFFLUENT PUMP OR APPROVED EQUIVALENT
 DOSE VOLUME = 200 GALLONS/DOSE.



WASTEWATER DISPOSAL PLAN
 SCALE 1" = 20'



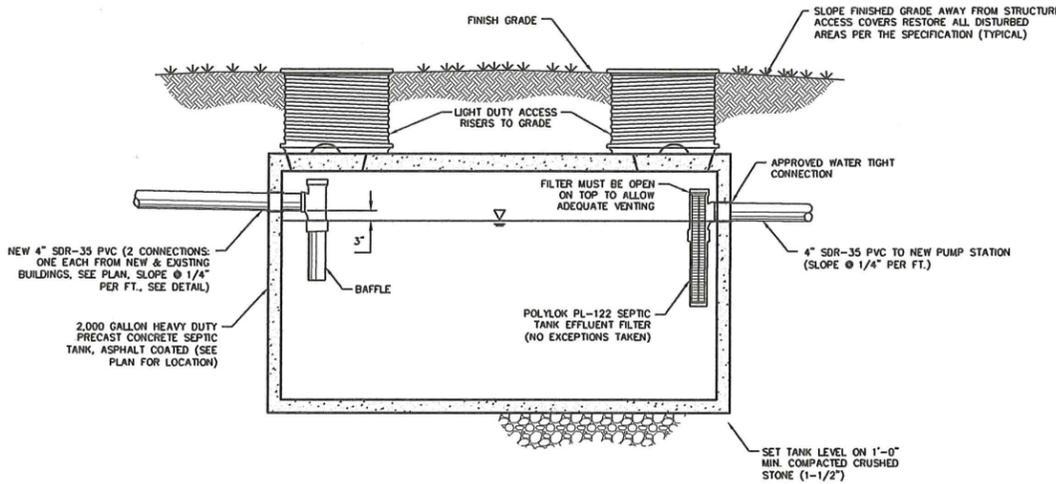
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K. Belbin
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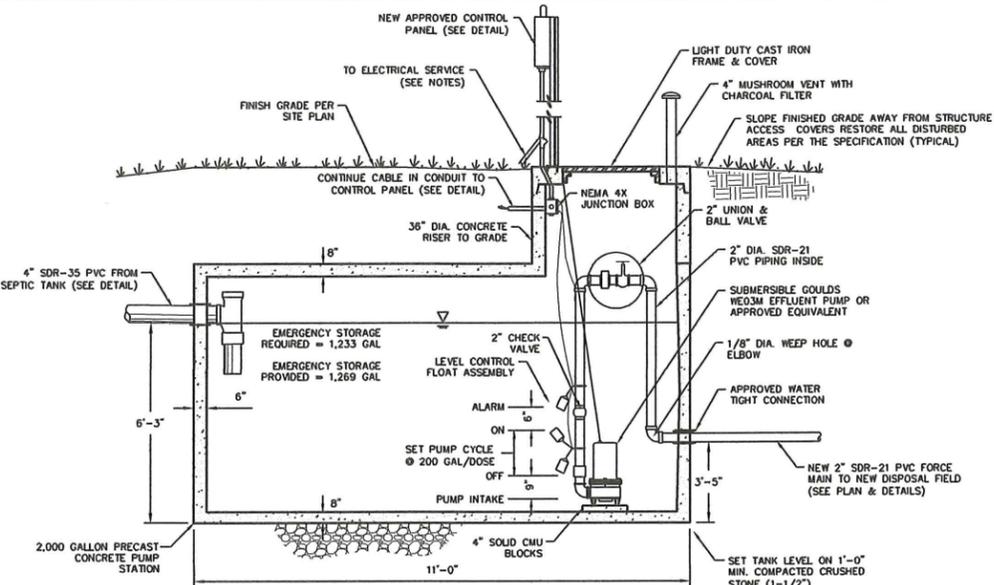
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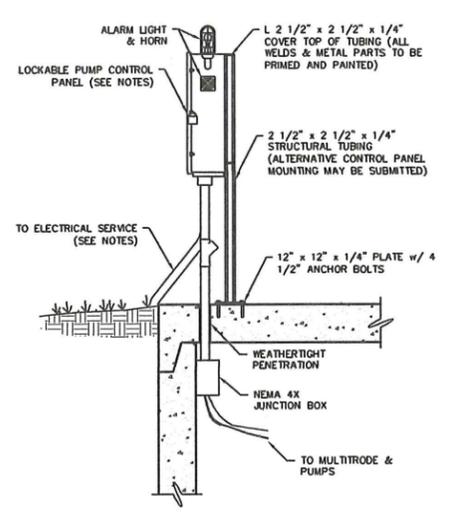
THIS TOPOGRAPHIC SURVEY WAS CONDUCTED WITHOUT THE BENEFIT OF "DIG SAFE" MARKINGS. UTILITIES SHOWN ARE NOT WARRANTED TO BE EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT "DIG SAFE" AT 1-888-344-7233 BEFORE COMMENCING ANY WORK AND SHALL PRESERVE EXISTING UTILITIES WHICH ARE NOT PART OF THE DEMOLITION PLAN.



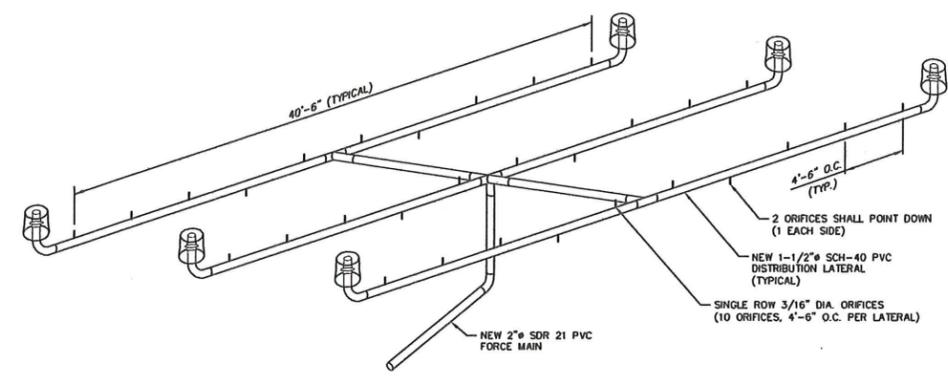
1 TYPICAL 2,000 GALLON HEAVY DUTY SEPTIC TANK WITH EFFLUENT FILTER
N.T.S.



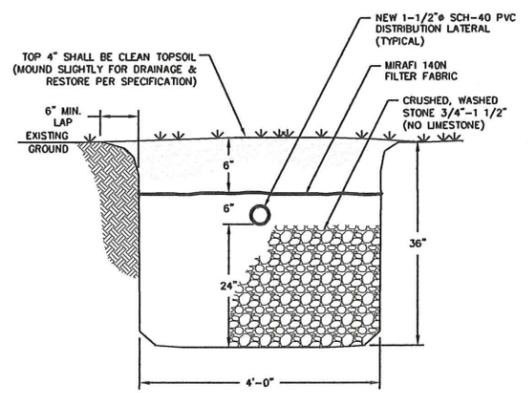
2 TYPICAL 2,000 GALLON HEAVY DUTY PUMP STATION
N.T.S.



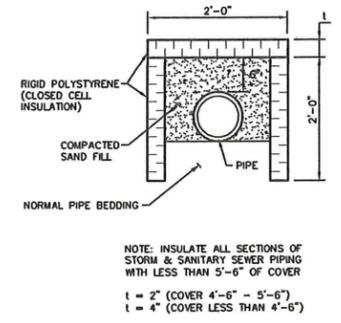
3 CONTROL PANEL DETAIL
N.T.S.



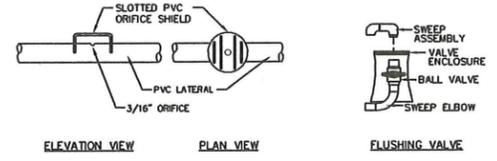
4 TRENCH PIPING DETAIL
N.T.S.



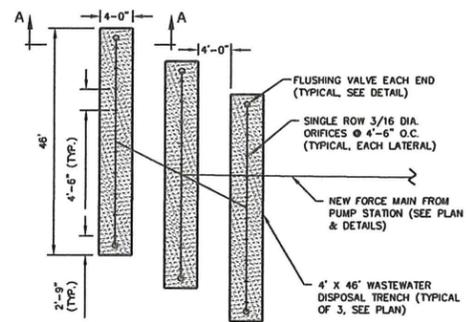
5 DISPOSAL AREA SECTION A-A
N.T.S.



6 SEWER INSULATION DETAIL
N.T.S.



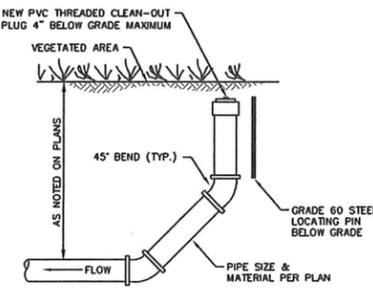
7 ORIFICE SHIELD & FLUSHING VALVE DETAILS
N.T.S.



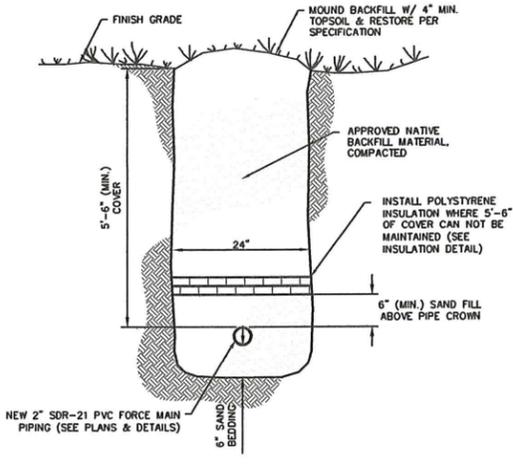
8 DISPOSAL TRENCH PLAN
N.T.S.

CONSTRUCTION NOTES:

1. THE WASTEWATER DISPOSAL SYSTEM DESIGN SHALL BE REVIEWED WITH THE GENERAL CONTRACTOR PRIOR TO CONSTRUCTION.
2. CONSTRUCTION PROGRESS SHALL BE OBSERVED AT CRITICAL PHASES BY A REPRESENTATIVE OF CHAMPLAIN CONSULTING ENGINEERS TO CONFIRM COMPLIANCE WITH THE DRAWINGS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING THE CONSTRUCTION AND REVIEW SCHEDULE. SEVENTY-TWO (72) HOURS ADVANCE NOTICE IS REQUIRED FOR ALL CONSTRUCTION REVIEWS.
3. THE SIDES AND BOTTOMS OF THE DISPOSAL TRENCHES SHALL BE RAKED TO SCARIFY ANY SMEARED SOIL SURFACES FOLLOWING EXCAVATION. ALL LOOSE MATERIAL SHALL THEN BE REMOVED FROM THE DISPOSAL TRENCHES PRIOR TO PLACEMENT OF BEDDING STONE.
4. THE DISTRIBUTION LINES SHALL BE PLACED ON THE CRUSHED STONE BEDDING WITH NO SLOPE, AND COVERED WITH CRUSHED STONE AS PER THE DISPOSAL TRENCH DETAIL AFTER A SUCCESSFUL SOURT TEST. A MINIMUM HEAD OF 1 PSI (2.3 FEET) SHALL BE THE RESIDUAL PRESSURE TESTED FOR.
5. THE AREA AROUND THE WASTEWATER DISPOSAL SYSTEM SHALL BE GRADED TO PROVIDE DIVERSION OF SURFACE RUNOFF WATER FROM THE DISPOSAL AREA.



9 TYPICAL CLEAN-OUT DETAIL
N.T.S.



10 TYPICAL FORCE MAIN TRENCH DETAIL
N.T.S.

All force main shall be pressure and leakage tested. The Contractor shall furnish all gauges, testing plugs, cops, and all other necessary equipment and labor to perform the test. All pressure testing shall be done by an independent third party approved by the Engineer. The Contractor shall develop and maintain for two hours, 150 percent (150%) of the working pressure measured in pounds per square inch (50 psi minimum). Failure to maintain pressure within 5 psi of the specified test pressure for a two hour period constitutes a failure of the section tested. No pipe installation shall be accepted if the leakage is greater than that determined by the following formula:

$$L = \frac{ND\sqrt{P}}{7,400}$$

whichever is Less

$$L = \frac{SD\sqrt{P}}{133,200}$$

S = Length of Pipe Tested
L = Allow Leakage in gals/hr
D = Nominal Diameter of Pipe (")
P = Average Test Pressure (psi)
N = Number of Joints in the Pipeline Tested

Any damaged or defective pipe, fittings, or valves that are discovered during the test shall be repaired or replaced with sound material and the test shall be repeated.

11 PRESSURE PIPE TESTING REQUIREMENTS
N.T.S.

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N.T.S.
K. Zell
DEVELOPMENT REVIEW BOARD ADMINISTRATOR

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| REVISION DATE & DESCRIPTION | BY |
|-----------------------------|-----|
| 05/22/17 REVISED PER TOWN | C-4 |

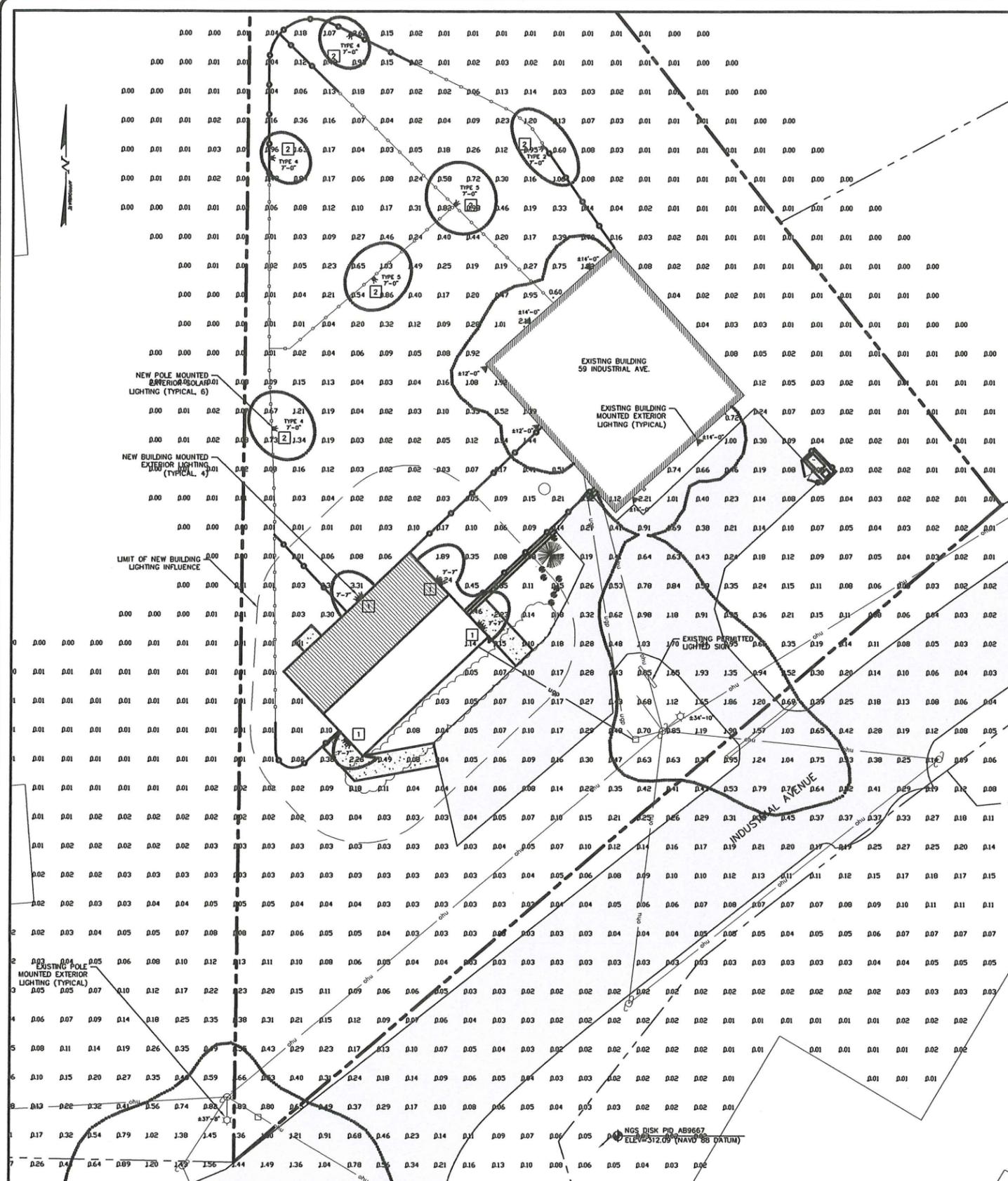
Champlain Consulting ENGINEERS
185 PRIM ROAD, P.O. BOX 453
COLCHESTER, VERMONT 05446
(802) 863-8060 - 864-1878 FAX
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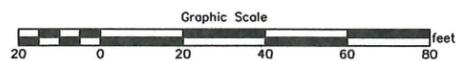
GULLIVER'S DOGGIE DAYCARE
59 INDUSTRIAL AVENUE
NEW ACCESSORY STRUCTURE
WASTEWATER DISPOSAL DETAILS
WILLISTON VERMONT

| | |
|---------|----------|
| DRAWN | CCE |
| CHECKED | GJB |
| SCALE | N.T.S. |
| DATE | 02/27/17 |
| JOB NO. | 16110 |
| SHEET | |

C-4
OF 12 SHEETS



1
C-9
LIGHTING PLAN
SCALE 1" = 20'



THIS TOPOGRAPHIC SURVEY WAS CONDUCTED WITHOUT THE BENEFIT OF "DIG SAFE" MARKINGS. UTILITIES SHOWN ARE NOT WARRANTED TO BE EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT "DIG SAFE" AT 1-888-344-7233 BEFORE COMMENCING ANY WORK AND SHALL PRESERVE EXISTING UTILITIES WHICH ARE NOT PART OF THE DEMOLITION PLAN.

LEGEND

EXISTING BUILDING MOUNTED LIGHTING*
 EXISTING POLE MOUNTED LIGHTING*
 NEW BUILDING MOUNTED LIGHTING*
 NEW POLE MOUNTED SOLAR LIGHTING**
 SPOT ILLUMINANCE VALUES (fc)
 0.5 FOOT-CANDLE (fc) ISOLINE

* EXISTING & NEW LIGHTING SYMBOLS ARE SHOWN WITH MOUNTING HEIGHTS.
 ** NEW SOLAR LIGHTING SYMBOLS ARE SHOWN WITH MOUNTING HEIGHT & PHOTOMETRIC TYPE.

WPLED13
 RAB LIGHTING 13 WATT WALLPACK, WPLED13, FINISH MATERIAL TO BE DETERMINED BY OWNER.

LED Info

| Drive Info | LED Info |
|-----------------|----------------|
| Power | 13W |
| Current | 0.25A |
| Voltage | 277V |
| Temp | 100°C |
| Life | 100,000 hrs |
| Beam Angle | 120° |
| Color | 5000K |
| Beam Spread | 120° |
| Beam Diameter | 10.5" |
| Beam Area | 86.6 sq ft |
| Beam Length | 10.5' |
| Beam Width | 10.5' |
| Beam Height | 10.5' |
| Beam Depth | 10.5' |
| Beam Volume | 1158.9 cu ft |
| Beam Weight | 1158.9 lbs |
| Beam Density | 0.101 lb/cu ft |
| Beam Pressure | 0.0001 lb/in² |
| Beam Force | 0.0001 lb |
| Beam Torque | 0.0001 lb-ft |
| Beam Moment | 0.0001 lb-ft² |
| Beam Energy | 0.0001 J |
| Beam Power | 0.0001 W |
| Beam Efficiency | 0.0001 % |

Technical Specifications

UL Listing: Suitable for use in locations as a Downlight, Suitable for Temp. variations as high as 100°F and as low as -40°F. Suitable for use in wet and damp locations.

Lumen Maintenance: IEC L80 at 70°C is 70% at 100,000 hours of operation.

Color Consistency: 7-step Macadam is 1 step better to achieve consistent color-to-color.

Color Stability: L80 at 70°C is 70% at 100,000 hours of operation.

Color Uniformity: R95 is 95% (CIE 1931) of the total area to be illuminated.

Dark Sky Approved: The fixture is Dark Sky Approved and has been approved by the International Dark Sky Association.

Driver: Multi-tap 120V high output LED driver with 100% efficiency.

Surge Protection: 4KV

Color Temperature (Nominal CCT): 5000K

Fixture Efficacy: 71 Lumens per Watt

Color Accuracy: 95 CRI

Finish: Curved stainless steel, silver powder coating, or aluminum (Anodized or painted) and high quality clear or white acrylic lens.

IP Rating: IP65

Dimensions: H: 10.5" W: 10.5" D: 10.5"

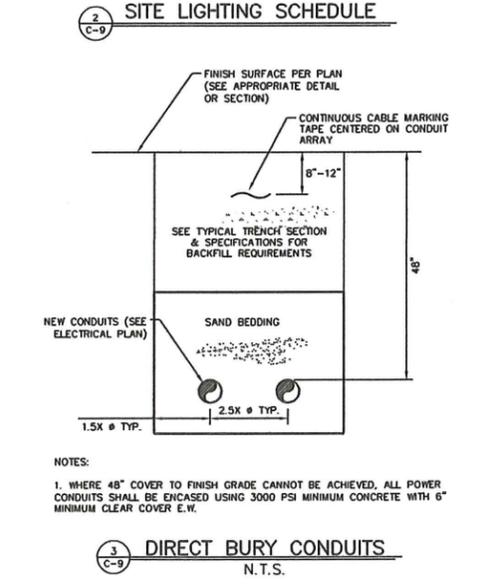
SITE LIGHTING SCHEDULE

| SYMBOL | LABEL | CATALOG # | DESCRIPTION | FIXTURE HEIGHT | COUNT |
|--------|-------|----------------|--|----------------|-------|
| WM | 1 | WPLED13 | RAB LIGHTING 13 WATT WALLPACK, WPLED13, FINISH MATERIAL TO BE DETERMINED BY OWNER. | 7'-7" | 4 |
| W | 2 | PTM8TKX3000K00 | FIRST LIGHT TECHNOLOGIES IPL SERIES SOLAR LED AREA LIGHT. | 7'-0" | 6 |

LUMEN OUTPUT

| | |
|----------|---|
| EXISTING | 6 X 26w @ 61 LUMENS/W + 27,500* = 37,016 LUMENS |
| PROPOSED | EXISTING + 4 X 13w @ 71 LUMENS/W + 6 X 850 LUMENS = 45,808 LUMENS |

- LIGHTING NOTES:**
- ALL EXISTING & PROPOSED BUILDING & SITE LIGHTING FIXTURES ARE FULL CUTOFF, FULLY SHIELDED LUMINAIRE DEVICES.
 - ALL EXTERIOR LIGHTING SHALL BE OFF BETWEEN 10:00 PM & 30 MINUTES PRIOR TO START OF BUSINESS EACH DAY.
 - RAB FIXTURES ARE DARK SKY APPROVED & APPROVED FOR LEED LIGHT POLLUTION REDUCTION CREDITS.
 - NEW LIGHTING FIXTURES & LOCATIONS SHALL BE PER THE APPROVED PLANS ONLY.
 - REDUNDANT AREAS OF 0.00 FOOTCANDLE OMITTED FROM GRIDS.
 - *ASSUMES 250w HIGH PRESSURE SODIUM GMP LUMINAIRE @ 110 LUMENS/W.
 - EXISTING & NEW LIGHTING ANALYSIS PERFORMED USING DIALux EVO VERSION 4.13 LIGHTING DESIGN & CALCULATION SOFTWARE FROM DIAL LIGHTING GmbH.



FIRSTLIGHT
SOLAR LED INTEGRATED ARCHITECTURAL AREA LIGHT

IPL Series

The IPL Series Solar LED Area Light is a modern, sleek, and highly efficient lighting fixture. It is designed for use in a variety of applications, including parking lots, walkways, and outdoor areas. The fixture is made of high-quality materials and is built to last. It is also easy to install and maintain.

Technical Specifications

| Symbol | Label | Catalog # | Description | Fixture Height | Count |
|--------|-------|----------------|---|----------------|-------|
| W | 2 | PTM8TKX3000K00 | FIRST LIGHT TECHNOLOGIES IPL SERIES SOLAR LED AREA LIGHT. | 7'-0" | 6 |

LUMEN OUTPUT

| | |
|----------|---|
| EXISTING | 6 X 26w @ 61 LUMENS/W + 27,500* = 37,016 LUMENS |
| PROPOSED | EXISTING + 4 X 13w @ 71 LUMENS/W + 6 X 850 LUMENS = 45,808 LUMENS |

FIRST LIGHT TECHNOLOGIES
IPL-PTM-BK-TX-3000K-00
SOLAR PATH LIGHTING FIXTURE

APPROVAL SIGNATURE BLOCK

UPON FINDING THAT THE FINAL PLANS COMPLY WITH ALL REQUIREMENTS OF THE WILLISTON DEVELOPMENT BYLAW AND ALL CONDITIONS IMPOSED ON THE APPROVAL OF DISCRETIONARY PERMIT DP 17-02, THE WILLISTON DEVELOPMENT REVIEW ADMINISTRATOR APPROVED THE FINAL PLANS FOR GULLIVER'S DOGGIE DAYCARE ON THE DAY OF _____, 2017.

[Signature]
DEVELOPMENT REVIEW BOARD ADMINISTRATOR

APPLICATION NO: DP 17-02
TAX PARCEL NO: 07-097-001-000

PERMIT SET

REVISION DATE & DESCRIPTION BY

| | | |
|----------|------------------|----|
| 05/22/17 | REVISED PER TOWN | GB |
|----------|------------------|----|

Champlain Consulting ENGINEERS
 185 PRINCIPAL ROAD, P.O. BOX 453
 COLCHESTER, VERMONT 05446
 (802) 863-8000 - 864-1878 FAX
 www.champlain-engineers.com
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STATE OF VERMONT
 GEORGE J. BONDURSKI
 NO. 4496
 REGISTERED PROFESSIONAL ENGINEER

GULLIVER'S DOGGIE DAYCARE
 59 INDUSTRIAL AVENUE
 NEW ACCESSORY STRUCTURE
 LIGHTING PLAN & DETAILS
 WILLISTON VERMONT

DRAWN: CCE
 CHECKED: GJB
 SCALE: 1" = 20'
 DATE: 02/27/17
 JOB NO.: 16110
 SHEET: C-9

OF 12 SHEETS

GENERAL SPECIFICATIONS

The Standard Specifications shall refer to the Town of Williston and the Vermont Agency of Transportation Standard Specifications for Construction (Current Edition). All work shall also be completed in accordance with the Town of Williston's Public Works standards. Any discrepancies with the plans or specifications shall be reported to the Engineer prior to beginning that work.

A. Earthwork

- 1. The site shall be cleared of all debris and vegetation, and all topsoil shall be stripped prior to placing any fill material. Debris and vegetation shall be disposed of at an approved off-site location.
- 2. The excavated material from an site shall not be used within five feet (5') of the building or under parking lots, roads or sidewalks. General imported fill material shall not be longer than two inches (2") or have more than 20% passing the No. 200 sieve. All excess excavated material shall be disposed of at an approved off site location.

B. Paved Areas

- 1. The subgrade shall be prepared in accordance with Section 203.12 of the Standard Specifications.
- 2. Crushed Gravel for Subbase: All materials shall be secured from approved sources. This gravel shall consist of angular and round fragments of hard durable rock of uniform quality throughout, reasonably free from thin shaly pieces, soft or disintegrated stone, dirt, organic or other objectionable matter. The grading requirements shall conform to the following table (Section 704.05A - Fine):

Percentage by Weight Passing Square Mesh Sieves

| | |
|-------------------|----------|
| Sieve Designation | 100 |
| 1 1/2" | 90 - 100 |
| No. 4 | 30 - 60 |
| No. 10 | 0 - 12 |
| No. 200 | 0 - 6 |

The crushed gravel shall be compacted to 95% of the maximum dry density as determined by AASHTO-199.

- 3. Dense Graded Crushed Stone for Subbase: Dense graded crushed stone for subbase shall consist of clean, hard, uniformly graded, crushed stone. It shall be reasonably free from dirt, deleterious material and pieces which are structurally weak and shall meet the following requirements:

a. Source: This material shall be obtained from approved sources and the area from which this material is obtained shall be stripped and cleaned before blasting.

b. Grading: This material shall meet the requirements of the following table (Section 704.06A):

Percentage by Weight Passing Square Mesh Sieves

| | |
|-------------------|----------|
| Sieve Designation | 100 |
| 3 1/2" | 90 |
| 4" | 100 |
| 2" | 75 - 100 |
| 1" | 50 - 80 |
| 3/4" | 30 - 60 |
| No. 4 | 15 - 40 |
| No. 200 | 0 - 6 |

- 4. Granular Backfill: Granular Backfill shall consist of free-draining granular material satisfactorily graded, reasonably free from loam, silt, clay and organic materials and meeting the following criteria:

Percentage by Weight Passing Square Mesh Sieves

| | |
|-------------------|----------|
| Sieve Designation | 100 |
| 3" | 90 |
| 2 1/2" | 75 - 100 |
| No. 4 | 45 - 75 |
| No. 10 | 0 - 12 |
| No. 200 | 0 - 6 |

- 5. Compaction of Granular Backfill: Granular Backfill shall be installed in 6" maximum horizontal lifts and compacted to not less than 95% of the maximum dry density of the material at the optimum moisture content as established by the standard proctor test (ASTM D698).

- 6. Stabilization Fabric: Stabilization fabric where required by the Engineer shall be MIRAF 500K or equivalent. The fabric shall be installed in accordance with manufacturer's requirements.

C. Grading areas to be paved:

- 1. Perform all rough grading, including excavation, formation of embankments, shaping, sloping, compaction, construction of ditches, disposal of surplus or unsuitable material, and any work necessary to prepare the subgrades of all roadways, walks and parking areas. Grading shall be brought to the bottom of the base course under paved or surfaced areas and to within a minimum of 24 inches of finished grade under side slopes and/or embankment areas to receive room along roadways, walks or parking areas.

- 2. Accomplish all excavation and fill within the slope and grade lines as indicated on the Drawings unless otherwise authorized in writing by the Owner. Parking lots shall be graded to full cross section width at subgrade before placing any type of subbase or pavement except that partial width construction is permissible where necessary for the maintenance of traffic.

- 3. Do not use frozen material in the construction of embankments and do not place embankments or successive layers of embankment upon frozen material.

- 4. Place all embankment material in horizontal layers of uniform thickness across the full width of embankment except when it is impractical to construct full width of the embankment and partial width layers are authorized by the Owner. Do not allow or place stumps, trees, rubbish or other unsuitable material in embankments. Begin layers of embankment at the deepest part of the fill.

- 5. Areas of soft, yielding or otherwise unsuitable material that will not meet compaction requirements shall be removed, replaced with suitable material and properly compacted at no cost to the Owner.

- 6. Place embankments for paved or surface areas in horizontal layers of depths which will result in layers of compacted material not exceeding 8 inches. Compact each layer as specified before placing each new layer. Use effective spreading equipment on each layer to obtain uniform thickness prior to compacting. Each layer shall be kept crowned to shed water to the outside edges of embankment and continuous leveling and manipulating will be required to assure uniform density. Construction equipment shall be routed uniformly over the entire surface of each layer.

- 7. If, during the construction of the embankments, there is any indication that serious bulging, cracking, or unstable movement may occur, the placing of fill shall be stopped or retarded to allow the material to stabilize.

- 8. All swales and drains shall be constructed so they will effectively drain the roadway or parking lot before any subbase or surface course material is placed. In handling materials, tools and equipment, the Contractor shall protect the subgrade from damage. In no case shall vehicles be allowed to travel in a single track and form ruts. If ruts are formed, the subgrade shall be reshaped and compacted and any pockets of clay, sand or soft material that may have been left in the subgrade shall be removed, replaced with approved material and properly compacted at the Contractor's expense. The subgrade shall be kept in such condition that it will drain. Subbase, base or surface material shall not be deposited on the subgrade until the subgrade has been checked and approved by the Owner. After the subgrade has been approved, hauling shall not be done nor equipment moved over the subgrade which will distort the cross section. A tolerance of 1/2 inch above or below the finished subgrade will be allowed provided that this 1/2 inch above or below subgrade is not maintained for a distance longer than 50 feet, and that the required cross section is maintained.

D. Compaction:

- 1. General: Control soil compaction during construction providing minimum percentage of density specified for each area classification.

- 2. Percentage of Maximum Density Requirements: Compact soil to not less than the following percentages of maximum dry density for soils which exhibit a well-defined moisture-density relationship determined in accordance with ASTM D 2049.

- a. Loam or unproved areas: Compact top 6" of subgrade and each layer of backfill or fill material to 90% maximum dry density.

- b. Compaction under paved and surfaced areas: The entire area of each layer shall be uniformly compacted to at least the required minimum density by use of compaction equipment consisting of rollers, compactors or a combination thereof. Earth-moving and other equipment not specifically manufactured for compaction purposes will not be considered as compaction equipment. Each layer for its full width shall be compacted to not less than 90 percent of the maximum dry density as determined by the Standard Method of Test for Moisture-Density Relations of Soils, ASTM-D698, Method C, except that the material in the top two feet of any embankment, immediately below the subgrade shall be compacted to not less than 95 percent of the maximum dry density. The field density determination will be made by a qualified testing laboratory using a nuclear density gauge.

- c. Concrete Slabs: Compact each layer of backfill or material to 95% maximum dry density.

- 3. Moisture control: Where subgrade or a layer of soil material must be moisture conditioned before compaction, uniformly apply water to surface of subgrade, or layer of soil material, to prevent free water appearing on surface during or subsequent to compaction operations. Remove and replace, or scorch and air dry, soil material that is too wet to permit compaction to specified density.

E. Backfill and Fill:

- 1. General: Place acceptable soil material in layers to required subgrade elevation, for each area classification listed below.

- a. In excavations, use satisfactory excavated or borrow material.
- b. Under graded areas, use satisfactory excavated or borrow material.
- c. Under walks and pavements, use subbase materials as shown in details.

- 2. Backfill excavations as promptly as work permits, but not until completion of the following:

- a. Review of construction below finished grade.
- b. Testing, review, and recording locations of underground utilities.
- c. Removal of trash and debris.

- 3. Ground Surface Preparation: Remove vegetation, debris, unsatisfactory soil materials, obstructions, and deleterious materials from ground surface prior to placement of fill. Flow, strip, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so that fill material will bond with existing surface. Where existing ground surface has a density less than that specified under "Compaction" for particular area classification, break up ground surface, pulverize, moisture-condition to optimum moisture content, and compact to required depth and percentage of maximum dry density.

- 4. Placement and Compaction: Place backfill and fill materials in layers not more than 8" in loose depth for material compacted by heavy compaction equipment, and not more than 4" in loose depth for material compacted by hand-operated tampers.

- a. Before compaction, moisten or aerate each layer as necessary to provide optimum moisture content. Compact each layer to required percentage of maximum dry density or relative dry density for each area classification. Do not place backfill or material on surfaces that are muddy, frozen, or contain frost or ice.

- 5. No fill shall be placed within 10' of any tree trunk without approval of the Owner.

SECTION 01340 - SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

- A. Submit Shop Drawings, Product Data, and Samples required by the Contract Documents.

1.02 RELATED DOCUMENTS

- A. The Conditions of the Contract and General Requirements of the Contract Documents apply to the General Contractor, Subcontractors, materials suppliers and all other persons furnishing labor and materials under this Section.

1.03 SHOP DRAWINGS

- A. Drawings shall be presented in a clear and thorough manner.

- 1. Details shall be identified by reference to sheet and detail, or schedule shown on Contract Drawings.

1.04 PRODUCT DATA

- A. Preparation:

- 1. Clearly mark each copy to identify pertinent products or models.
- 2. Show performance characteristics and capacities.
- 3. Show dimensions and clearances required.
- 4. Show wiring or piping diagrams and controls.

- B. Manufacturer's standard schematic drawings and diagrams:

- 1. Modify drawings and diagrams to delete information which is not applicable to the Work.
- 2. Supplement standard information to provide information specifically applicable to the Work.

1.05 SAMPLES

- A. Office samples shall be of sufficient size and quantity to clearly illustrate:

- 1. Functional characteristics of the product, with integrally related parts and adjustment devices.
- 2. Full range of color, texture and pattern.

1.06 CONTRACTOR RESPONSIBILITIES

- A. Review Shop Drawings, Product Data, and Samples prior to submission.

- B. Determine and verify:

- 1. Field measurements.
- 2. Field construction criteria.
- 3. Catalog numbers and similar data.
- 4. Conformance with specifications.

- C. Coordinate each submittal with requirements of the Work and of the Contract Documents.

- D. Notify the Engineer in writing, at time of submission, of any deviations in the submittals from requirements of the Contract Documents.

- E. Begin no fabrication or work which requires submittals until return of submittals with Engineer approval.

1.07 SUBMISSION REQUIREMENTS

- A. Make submittals promptly in accordance with the approved schedule, and in such sequence as to cause no delay in the Work or in the work of any other contractor.

- B. Number of submittals required:

- 1. Shop Drawings: Submit the number of opaque reproductions which the Contractor requires, plus three copies, which will be retained by the Engineer.
- 2. Product Data: Submit the number of copies which the Contractor requires, plus three copies, which will be retained by the Engineer.
- 3. Samples: Submit the number stated in each individual specification section, or as appropriate for review and approval.

- C. Submittals shall contain:

- 1. The date of submission and the dates of any previous submissions.
- 2. The Project title and number.
- 3. Contract Identification.
- 4. The names of:
 - a. Contractor.
 - b. Supplier.
 - c. Manufacturer.
- 5. Identification of the product, with the specification section number.
- 6. Field dimensions, clearly identified as such.
- 7. Relation to adjacent or critical features of the Work or material.
- 8. Applicable standards, such as ASTM or Federal Specification numbers.
- 9. Identification of deviations from the Contract Documents.
- 10. Identification of all revisions on resubmittals.
- 11. A blank space for Contractor and Engineer review stamps.
- 12. Contractor's stamp, initialed or signed, certifying review of the submittal, verification of products, field measurements and field construction criteria, and coordination of the information within the submittal with requirements of the Work and Contract Documents.

1.08 RESUBMISSION REQUIREMENTS

- A. Make any corrections or changes in the submittals required by the Engineer and resubmit until approved.

- B. Shop Drawings and Product Data:

- 1. Revise initial drawings or data, and resubmit as specified for the initial submittal.
- 2. Indicate any changes which have been made other than those requested by the Engineer.

- C. Samples: Submit new samples as required for initial submittal.

1.09 DISTRIBUTION

- A. Distribute reproductions of Shop Drawings and copies of Product Data which carry the Engineer stamp of approval to:

- 1. Job site file.
- 2. Record documents file.
- 3. Other affected contractors.
- 4. Subcontractor's stamp, initialed or signed, certifying review of the submittal, verification of products, field measurements and field construction criteria, and coordination of the information within the submittal with requirements of the Work and Contract Documents.
- 5. Supplier or Fabricator.
- 6. Others as required.

- B. Distribute samples which carry the Engineer stamp of approval as directed by the Engineer.

1.10 ENGINEER DUTIES

- A. Review submittals with reasonable promptness and in accord with the established project schedule.

- B. Affix review stamp and initials or signature, and indicate requirements for resubmittal, or approval of submittal.

- C. Return submittals to the Contractor for distribution, or for resubmissions.

END OF SECTION

SECTION 02010 - DEMOLITION CONTROL

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. The Conditions of the Contract and General Requirements of the Contract Documents apply to the General Contractor, Subcontractors, materials supplier and all other persons furnishing labor and materials under this Section.

1.02 DESCRIPTION OF WORK

- A. Work included: Provide all labor, materials, equipment and incidentals necessary to accomplish the required building and site demolition as indicated on the Contract Documents.

- B. Responsibility: Demolition - Remove: All work as indicated on the Contract Documents, including the following:

- 1. Maintain dust-free atmosphere during demolition and construction phases of this work. It will be the responsibility of the Contractor to devise methods and construct proper barriers to maintain such conditions. Method of execution shall be reviewed and approved by the Owner and/or Engineer.

- D. Adequate precautions shall be taken to protect all personnel and the Owner's property during the progress of the Work.

- E. Methods and scheduling of work shall be approved by the Owner before execution. Coordinate all work with other Contractors.

- F. Any items of value scheduled for removal shall not leave the premises until the Owner has directed for their storage or been appraised of their salvage value and has accepted such value to be credited to the Contract between Owner and General Contractor.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

3.01 DISPOSAL AND DEMOLITION

- A. Debris accumulation from demolition work shall be removed at the end of each working day and be disposed of or recycled in a legally acceptable manner.

END OF SECTION

SECTION 03300 - CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. The Conditions of the Contract and General Requirements of the Contract Documents apply to the General Contractor, Subcontractors, materials suppliers and all other persons furnishing labor and materials under this Section.

1.02 DESCRIPTION OF WORK

- A. Furnish all forms and falsework required for cast-in-place concrete shown on the Contract Drawings, except those items and operations specifically excluded as follows:

- 1. Furnishing and setting sleeves for plumbing work.
- 2. Furnishing and setting sleeves for heating work.
- 3. Furnishing and setting sleeves and boxes for electrical work.

- B. Furnish and place all steel reinforcing for cast-in-place concrete as required by Contract Drawings, except for items specifically excluded.

- C. Furnish and install all concrete shown on the Drawings and/or as specified herein.

- D. Install anchor bolts, leveling plates and bearing plates for structural steel. Furnish and place grout for structural steel work.

1.03 QUALITY ASSURANCE

- A. Perform all work of this section in accordance with all applicable portions of the American Concrete Institute "Recommended Practice for Concrete Formwork", (ACI 347); "Building Code Requirements for Reinforced Concrete", (ACI 318); "Recommended Practice for Placing Reinforcing Bars", (CRS 63); "Recommended Practice for Placing Bar Supports", (CRS 65); "Manual of Standard Practice for Detailing Reinforced Concrete Structures", (ACI 315); "Specification for Structural Concrete for Buildings", (ACI 309); "Recommended Practice for Measuring, Mixing, Transporting and Placing Concrete", (ACI 304); Local Building Codes; as specified and recommended by ACI "Field Reference Manual", (SP-15), including, "Recommended Practice for Hot Weather and Cold Weather Concrete", (ACI 305 and ACI 306) and as amended and supplemented by these Specifications.

- B. Tests: During the course of the work, compression test cylinders shall be made and tested by testing laboratory approved by the Engineer. Test specimens shall be made, stored and tested in accordance with ASTM C31. Four test specimens for each 50 cubic yards of concrete, or on a per day pour basis when pouring less than 50 cubic yards. One cylinder shall be tested at 7 days and three at 28 days. Tests to be performed by testing laboratory employed by Owner.

- C. Mix Proportion and Design: Design mix prepared by trial batch or field experience in accordance with ACI 211.1 shall be submitted to the Engineer for approval.

- D. Finisher's Qualifications: Minimum of five (5) years experience on comparable concrete projects.

1.04 SUBMITTALS

- A. Submit shop and location drawings for Engineer approval in accordance with Section 01340. Show size, strength, bending and locations of all bars; indicate typical clearances, laps and splices and required accessories.

- B. Submit five (5) copies of Design Mix. Mix design shall be current within the past 12 months.

1.05 PRODUCT HANDLING, DELIVERY AND STORAGE

- A. Deliver and store all products in strict accordance with current ACI recommended standards.

PART 2 - PRODUCTS

2.01 FORMWORK

- A. Formwork:
 - 1. Studs, wales, shores, braces, mudalls and stakes of wood species, lumber grades and size required by form design.
 - 2. Plywood Sheathing: Exterior grade Douglas Fir Plywood, 3/4" thick.
 - 3. Form Ties: Bolts or rods, adjustable type, designed to leave no less than 1 inch from finished concrete surfaces.
 - 4. Metal Forms: As approved by Engineer.

- B. Reinforcement:
 - 1. Concrete: Transit Mix, conforming to all requirements of ASTM C94. Addition of water to batching will not be permitted.
 - 2. Portland Cement: Shall conform to ASTM C150, Type I or II. Do not change sources or manufacturers. Use Type II only for concrete slabs.
 - 3. Sand: Conforming to ASTM C33; no change in source during construction.
 - 4. Course Aggregate: Conforming to ASTM C33; 1" to No. 4 sieve.
 - 5. Water: Clean, clear, suitable for drinking.
 - 6. Vapor Barrier: 6 mil polyethylene sheeting or approved equivalent.
 - 7. Expansion Joint Fillers: Asphalt-impregnated fiberboard.
 - 8. Other admixtures: Air-entraining admixtures, ASTM C260, no other allowed unless specifically approved in advance by Architect/Engineer.
 - 9. Concrete: Minimum compressive strength of not less than 3,000 psi at twenty-eight (28) days for all walls, footings and piers; minimum compressive strength of not less than 4,000 psi at twenty-eight (28) days for all slabs-on-grade, concrete walks, curbs & mechanical pads.
 - 10. Slump of point of placement for concrete containing HRWR admixture (super plasticizer) shall not exceed 8", after addition of moisture, or less as required to prevent aggregate segregation.
 - 11. Proportions: In accordance with ACI 318.
 - 12. Water-cement ratios:
 - Min. Compressive Strength: 3,000psi
 - Min. Cement Content: 450 lb./yd.
 - Max. Water/Cement Ratio: 0.56
 - Min. Compressive Strength: 4,000psi
 - Min. Cement Content: 550 lb./yd.
 - Max. Water/Cement Ratio: 0.45
 - 13. Air Content: Concrete subject to freezing and thawing after curing: 4% to 8%. All other concrete 2% to 4%.
 - 14. Concrete shall conform to the following:
 - Sampling: ASTM C172
 - Slump: ASTM C143
 - with Air Content: ASTM C231
 - Compressive Strength: ASTM C39

2.02 FINISHES

- A. Cure and Sealing Compound of plasticizing resins and chlorinated rubber conforming to requirements of ASTM C309 and AASHTO M 148. 15 mils. 2. Waterproof paper.

2.03 HARDENERS

- A. Colorless solution of low surface tension containing chemically active concrete hardening agents that penetrate and react chemically with the free lime on and below the surface to permanently densify and harden the concrete.

- a. "Surfhard": Euclid Chemical Co.
- b. "Lapidolith": Sonneborn-Contech.
- c. "Sealed": Master Builders.

- E. Finishes:
 - 1. Portland Cement: ASTM C150, Type I.
 - 2. Sand shall be durable mason sand with 100 percent passing at No. 16 sieve.
 - 3. Water shall be clear and free of dissolved compounds that may adversely affect the quality of the concrete.
 - 4. Slices:
 - a. Field mix ingredients in accordance with manufacturer's instructions.
 - b. Dry-pack mix shall consist of one part cement to four parts sand with sufficient water to permit a dense compact ball when molded with hand.
 - c. Slurry mix shall consist of one part cement to 1-1/2 parts sand.

- F. Use of Calcium Chloride or any admixture containing Chloride ions for concrete poured on metal deck is strictly prohibited.

- G. Non-Shrink, Non-Metallic Grout (For Structural Steel Work): Five Star Grout by U.S. Grout Company or approved equivalent.

SECTION 02030 - EXTERIOR PLANTS

PART 1 - GENERAL

1.01 SECTION REQUIREMENTS

- A. Submittals: Product certificates and planting schedule.
- B. Comply with ANSI Z60.1, "American Standard for Nursery Stock," for trees, shrubs, ground covers, and plants.
- C. Maintain trees and shrubs for 12 months. Maintain ground covers and plants for three months.

PART 2 - PRODUCTS

2.01 PLANTING MATERIALS

- A. Balled and Burlapped Trees and Shrubs: Well-shaped, fully branched, healthy, vigorous nursery-grown stock.
- B. Ground Covers and Plants: Established and well rooted in removable containers or integral pot plants.

2.02 SOIL AND AMENDMENTS

- A. Topsoil: ASTM D 5268, free of stones 1/2 inch or larger.
- B. Lime: ASTM C 602, Class T, agricultural limestone.
- C. Peat Humus: Finely divided or granular texture, with a pH range of 6 to 7.5, consisting of partially decomposed moss peat (other than sphagnum), peat humus, or reed-sedge peat.

- D. Sand/soil or Ground-Bark Humus: Decomposed, nitrogen treated, of uniform texture, free of foreign objects and toxic materials.
- E. Bone-meal: Commercial, raw, finely ground; minimum of 4 percent nitrogen and 20 percent phosphoric acid.
- F. Superphosphate: Commercial, phosphate mixture, soluble; minimum of 20 percent available phosphoric acid.

- G. Commercial Fertilizer: Commercial-grade complete fertilizer, consisting of 1 lb/1000 sq. ft. of actual nitrogen, 4 percent phosphorous, and 2 percent potassium, by weight.
- H. Slow-Release Fertilizer: Granular fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium; 5 percent nitrogen, 10 percent phosphorous, and 5 percent potassium; by weight.

- I. Organic Mulch: Ground or shredded bark, wood or bark chips, soft hay or threshed straw, or shredded hardwood.
- J. Peat Mulch: Peat moss in natural, shredded, or granulated form, of fine texture, with a pH range of 4 to 6.
- K. Mineral Mulch: Hard, durable riverbed gravel or crushed stone, washed, free of foreign substances, 1-1/2 inches maximum, 3/4 inch minimum.

- L. Weed-Control Barrier: Polypropylene or polyester nonwoven fabric.

2.03 MISCELLANEOUS

- A. Steel Edging: ASTM A 569, rolled edge, pointed steel edging, including accessories and stakes; 3/16 inch wide by 4 inches deep.
- B. Aluminum Edging: ASTM B 221, alloy 6061-T6, interlocking, mill finish, extruded-aluminum, including accessories and stakes; 3/16 inch wide by 4 inches deep.
- C. Polyethylene Edging: Grooved, rounded top, base-black extruded-polyethylene edging, including accessories and stakes; 1/10 inch thick by 5 inches deep.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Planting Soil: Mix soil amendments and fertilizers with clean topsoil or loam indicated.</