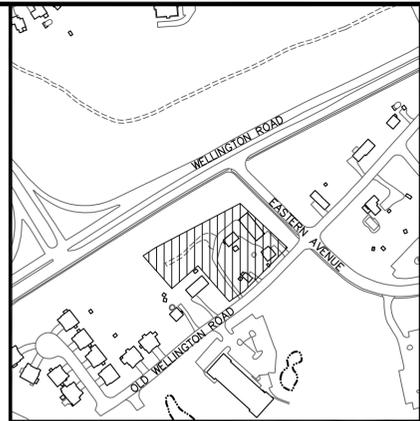


VICINITY MAP
SCALE: 1"=1500'



LOCUS PLAN
SCALE: 1"=300'

RESIDENTIAL SITE PLAN & PLANNED DEVELOPMENT

STARK RESIDENCES AT OLD WELLINGTON

TAX MAP 645 LOTS 4 & 5
534 & 550 OLD WELLINGTON ROAD
MANCHESTER, NEW HAMPSHIRE

OWNER AGREEMENT

IT IS HEREBY AGREED THAT, AS THE OWNER/DEVELOPER OF THE PROPERTY, I WILL CONSTRUCT THE PROJECT AS APPROVED AND AS SHOWN ON THE ENCLOSED PLANS. FURTHER, I AGREE TO MAINTAIN THE SITE IMPROVEMENTS FOR THE DURATION OF THE USE.

Steve Belgin
NAME (PRINT)

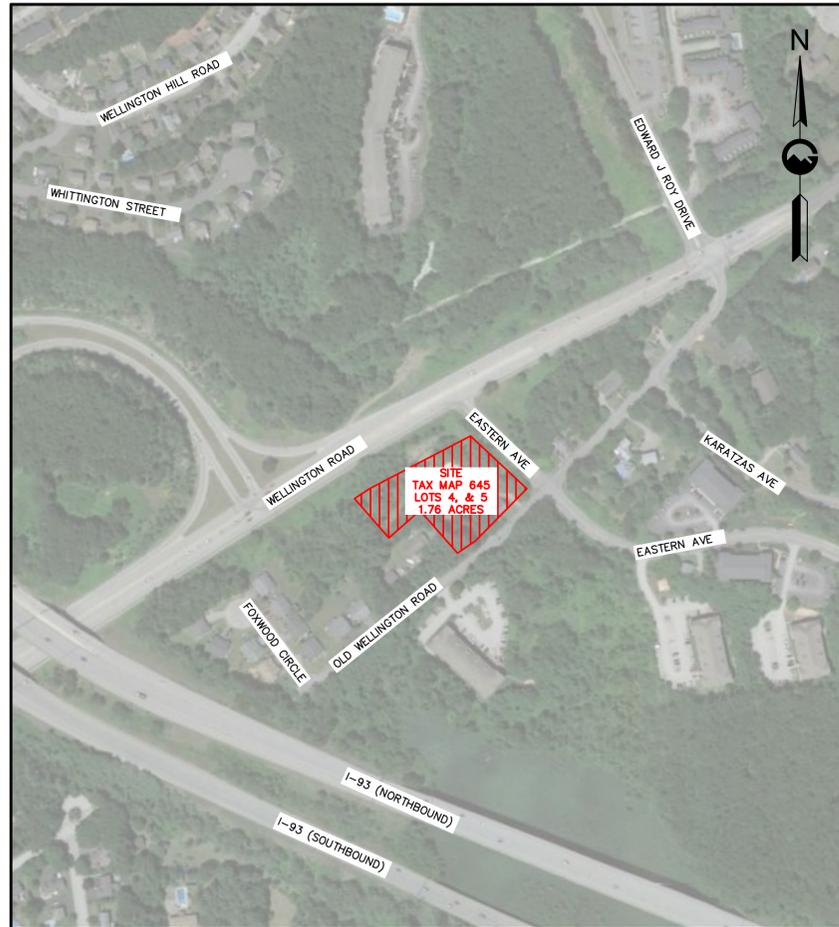
[Signature]
SIGNATURE

8-26-20
DATE



NOTE

PLANNING BOARD APPROVAL OF THIS PLANNED DEVELOPMENT IS LIMITED TO THE REPRESENTATIONS SHOWN WITHIN THIS SET OF DRAWINGS AND DOES NOT ENDORSE ANY SUBSEQUENT PLANS THAT MAY BE PREPARED FOR CONDOMINIUM APPROVAL BY THE STATE. MODIFICATIONS TO THESE PLANS, INCLUDING, BUT NOT LIMITED TO, BUILDING ADDITIONS, ACCESSORY STRUCTURES, AND LIMITED COMMON AREAS ARE SUBJECT TO PLANNING BOARD REVIEW AND APPROVAL. ANY PROPOSED DIVISION OF THIS PARCEL OF LAND THAT MAY BE HELD IN COMMON OWNERSHIP AND SUBSEQUENTLY DIVIDED INTO PARTS AMONG THE SEVERAL OWNERS MAY BE DEEMED A SUBDIVISION AND SUBJECT TO PLANNING BOARD APPROVAL.



AERIAL MAP
SCALE: 1"=250'



Joseph M. Wichert
LLS, INC.
LAND SURVEYOR & SEPTIC SYSTEM DESIGNER



TERRAIN PLANNING & DESIGN LLC
311 KAST HILL ROAD
HOPKINTON, NH 03229
(603) 486-8685



ASPEN ENVIRONMENTAL CONSULTANTS, LLC
41 LIBERTY HILL ROAD, BUILDING 2 SUITE 2
HENNIKER, NH 03242
(603) 848-5606



ALTERNATIVE DESIGNS, INC.
94 OLD GRANITE STREET
MANCHESTER, NH 03101
(603) 645-4388

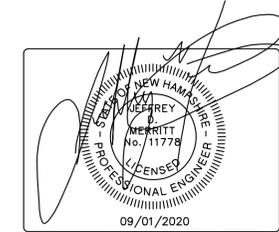
SHEET NO.	INDEX OF PLANS
1	EXISTING CONDITIONS & MERGER PLAN
2	REMOVALS/DEMOLITION PLAN
3	SITE PLAN
4	GRADING AND DRAINAGE PLAN
5	UTILITY PLAN
6	EROSION CONTROL PLAN
7	LIGHTING PLAN
8	LANDSCAPE PLAN
9 - 10	PROFILES
11 - 17	DETAILS
A1 & A3	ARCHITECTURAL ELEVATIONS

GRANITE ENGINEERING

civil engineering • land planning • municipal services

250 Commercial Street, Suite 3008
Manchester, New Hampshire 03101
603.518.8030

www.GraniteEng.com



REVISIONS			
No.	DATE	COMMENTS	BY
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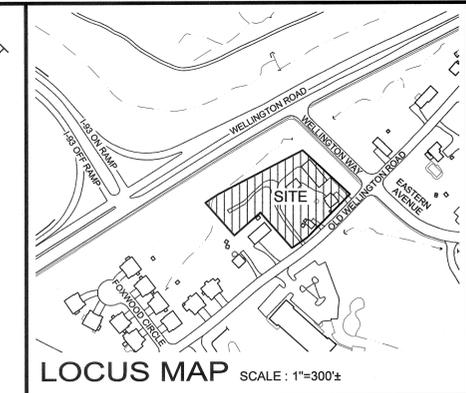
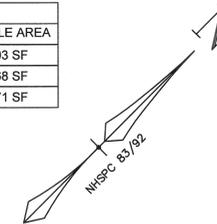
PLAN REFERENCES:

- "SUBDIVISION PLAN OF LAND OF LOIS G. ROY, 422 WELLINGTON ROAD, MANCHESTER N.H.", DATED JULY 1983 AND PREPARED BY JOHN J. GILLIS P.E. L.L.S. HCRD PLAN 16627.
- "JEFFERSON PLACE CONDOMINIUM SITE PLAN, BUILDINGS NO. 40 & 89, EASTERN AVE & KARATZAS AVE, MANCHESTER NH", DATED 14 SEPTEMBER 2006, LAST REVISED 10-1-06 AND PREPARED BY BEALS ASSOCIATES PLLC. HCRD PLAN 35218.
- "PLANS OF PROPOSED FEDERAL AID PROJECT, I-93-1(108)22, N.H. PROJECT NO P-1050-J, INTERSTATE ROUTE 93", RECOMMENDED FOR APPROVAL 5/13/1975, LAST REVISED JUNE 21, 1976 AND PREPARED BY FAY, SPOFFORD & THORNDIKE, INC. ON FILE AT THE NHDOT.
- "RECORDABLE LOT LINE ADJUSTMENT PLAN FOR KEVIN H. BOURGEOIS REVOCABLE TRUST, KEVIN H. BOURGEOIS, TRUSTEE, TAX MAP 645 LOTS 3 & 4, 500 & 534 OLD WELLINGTON ROAD, MANCHESTER, NEW HAMPSHIRE", DATED JUNE 10, 2020 AND PREPARED BY THIS OFFICE. NOT YET APPROVED OR RECORDED.



WETLANDS NOTE:
 WETLANDS WERE DELINEATED USING STANDARDS AND METHODOLOGY APPROVED BY THE ARMY CORPS OF ENGINEERS AND THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES WETLANDS BUREAU. WETLANDS WERE DELINEATED ON JUNE 3, 2020 BY AARON WECHSLER, CWS #250, FROM ASPEN ENVIRONMENTAL CONSULTANTS, LLC.

BUILDABLE AREA TABLE					
LOT #	LOT AREA	AREA > 25%	WETLAND AREA	EASEMENT AREA	BUILDABLE AREA
4	41,518 SF	3,340 SF	2,275 SF	0 SF	35,903 SF
5	35,206 SF	333 SF	5 SF	0 SF	34,868 SF
NEW 4	76,724 SF	3,673 SF	2,280 SF	0 SF	70,771 SF



NOTES:

- THE SUBJECT PARCEL ARE LOTS 4 AND 5 ON THE CITY OF MANCHESTER TAX MAP 645. THE OWNER OF RECORD IS THE KEVIN H. BOURGEOIS REVOCABLE TRUST, KEVIN H. BOURGEOIS, TRUSTEE OF 27 HOPKINS ROAD, NEW BOSTON, NEW HAMPSHIRE. SEE HCRD V. 8826 P. 700 & P. 706 FOR RESPECTIVE DEEDS. APPLICANT: B & T DEVELOPMENT, LLC OF 39 TICKLEFANCY LANE, SALEM, NH 03079.
- THE SUBJECT PARCEL IS ZONED R-SM. FOR RESIDENTIAL USE UP TO 3 UNITS. MINIMUM LOT SIZE IS 10,000 SQ. FT. EACH ADDITIONAL UNIT REQUIRES AN ADDITIONAL 3,500 SQ. FT. MINIMUM LOT FRONTAGE = 75'. SETBACKS ARE AS FOLLOWS: FRONT = 20', SIDE = 10' AND REAR = 30'. NON-RESIDENTIAL MINIMUM LOT SIZE IS 15,000 SQ. FT. MINIMUM LOT FRONTAGE = 150'. SETBACKS ARE AS FOLLOWS: FRONT = 20', SIDE = 20' AND REAR = 30'. THE SETBACKS SHOWN ARE FOR REFERENCE ONLY AND NEED TO BE VERIFIED WITH THE ZONING COMPLIANCE OFFICER.
- THIS PLAN IS THE RESULT OF AN ACTUAL FIELD SURVEY PERFORMED BY THIS OFFICE IN MAY & JUNE OF 2020. I, JOSEPH M. WICHERT, NHLS #783, CERTIFY THAT THE WORK WAS PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION.
- THE INTENT OF THIS PLAN IS TO SHOW THE BOUNDARY OF THE MERGED SUBJECT PARCELS AND THE EXISTING CONDITIONS OF THEM.
- THE SUBJECT PARCEL IS IN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON THE FLOOD INSURANCE RATE MAP, HILLSBOROUGH COUNTY, NEW HAMPSHIRE, MAP NUMBER 33011C0245D, EFFECTIVE DATE SEPTEMBER 25, 2009.
- THE VERTICAL DATUM IS NAVD 1988 AND THE HORIZONTAL DATUM IS NHSPC 1983/1992 (CITY DATUM). THE DATUM WERE ESTABLISHED USING STATIC GPS OBSERVATIONS PERFORMED BY THIS OFFICE IN MAY OF 2020.
- THE UTILITY INFORMATION SHOWN IS BASED ON THE ABOVE GROUND LOCATION OF VISIBLE UTILITIES AND PLANS ON FILE AT THE MANCHESTER HIGHWAY DEPARTMENT AND VARIOUS UTILITIES. THE CONTRACTOR NEEDS TO FIELD VERIFY ALL UTILITIES PRIOR TO ANY CONSTRUCTION. THIS OFFICE DOES NOT GUARANTEE THE LOCATION AND ACCURACY OF THE UTILITY DATA. DIG SAFE SHALL BE CONTACTED 72 HOURS PRIOR TO COMMENCING ANY CONSTRUCTION (811).

SEWER INVERT DATA

SMH 1042
 RIM EL = 341.74
 INV 12" WEST = 333.90
 INV 10" OPP SOUTH = 334.52
 INV 12" EAST = 333.86

SMH 1044
 RIM EL = 345.68
 INV 12" WEST = 338.14 (337.91 UNCORRECTED 14° SLOPE)
 INV 12" EAST = 338.10

SMH 1048
 RIM EL = 352.19
 INV 12" WEST = 343.95 (343.77 UNCORRECTED 12° SLOPE)
 INV 12" EAST = 343.93

DRAINAGE INVERT DATA

DMH 1038
 RIM EL = 340.28

DMH 1049
 RIM EL = 355.79

DMH 1045
 RIM EL = 347.14

DMH 1047
 RIM EL = 350.49

DMH 1048
 RIM EL = 352.19

DMH 1049
 RIM EL = 355.79

DMH 1045
 RIM EL = 347.14

DMH 1047
 RIM EL = 350.49

DMH 1049
 RIM EL = 355.79

DMH 1045
 RIM EL = 347.14

DMH 1047
 RIM EL = 350.49

SYMBOL LEGEND

- 5/8" REBAR W/ID CAP TO BE SET
- IRON ROD FOUND
- BOUND FOUND
- ⊗ FENCE POST
- ⊙ SEWER MANHOLE
- ⊕ UTILITY POLE
- ⊙ LIGHT POLE
- ⊙ WATER SHUT OFF
- ⊙ WATER GATE VALVE
- ⊙ WIRE MESH FENCE
- ⊙ OVERHEAD UTILITY LINE
- ⊙ GUY WIRE
- ⊙ SEWER LINE
- ⊙ WATER LINE
- ⊙ STORM DRAIN LINE
- ⊙ GAS LINE
- ⊙ GUARD RAIL



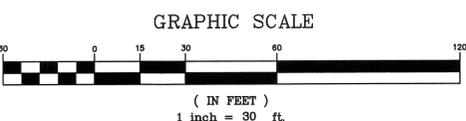
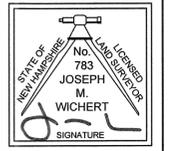
OLD WELLINGTON ROAD
 66' (4 ROD) WIDE R.O.W. - V. 1, P. 29

TAX MAP 645 LOT 10
 OLD WELLINGTON ROAD APARTMENTS
 495 OLD WELLINGTON ROAD
 MANCHESTER, NH 03104
 V. 7300 P. 777

TAX MAP 645A LOT 5
 JEFFERSON PLACE CONDO
 40 EASTERN AVE
 MANCHESTER, NH 03104
 V. 7791 P. 2774

I CERTIFY THAT THIS PLAN IS THE RESULT OF AN ACTUAL FIELD SURVEY MADE WITH A TOPCON GT 503. THE ERROR OF CLOSURE ON ALL LOT LINES WITHIN AND BORDERING THE SUBJECT PROPERTY IS BETTER THAN 1 IN 10,000.

Joseph M. Wichert
 JOSEPH M. WICHERT, LLS
 31 AUG. 2020
 DATE



NO.	DATE	DESCRIPTION	BY

EXISTING CONDITIONS & MERGER PLAN FOR KEVIN H. BOURGEOIS REVOCABLE TRUST
 KEVIN H. BOURGEOIS, TRUSTEE
 APPLICANT: B & T DEVELOPMENT, LLC
TAX MAP 645 LOTS 4 & 5
 534 & 550 OLD WELLINGTON ROAD
 MANCHESTER, NEW HAMPSHIRE
 DATE: AUGUST 10, 2020 SCALE: 1" = 30'

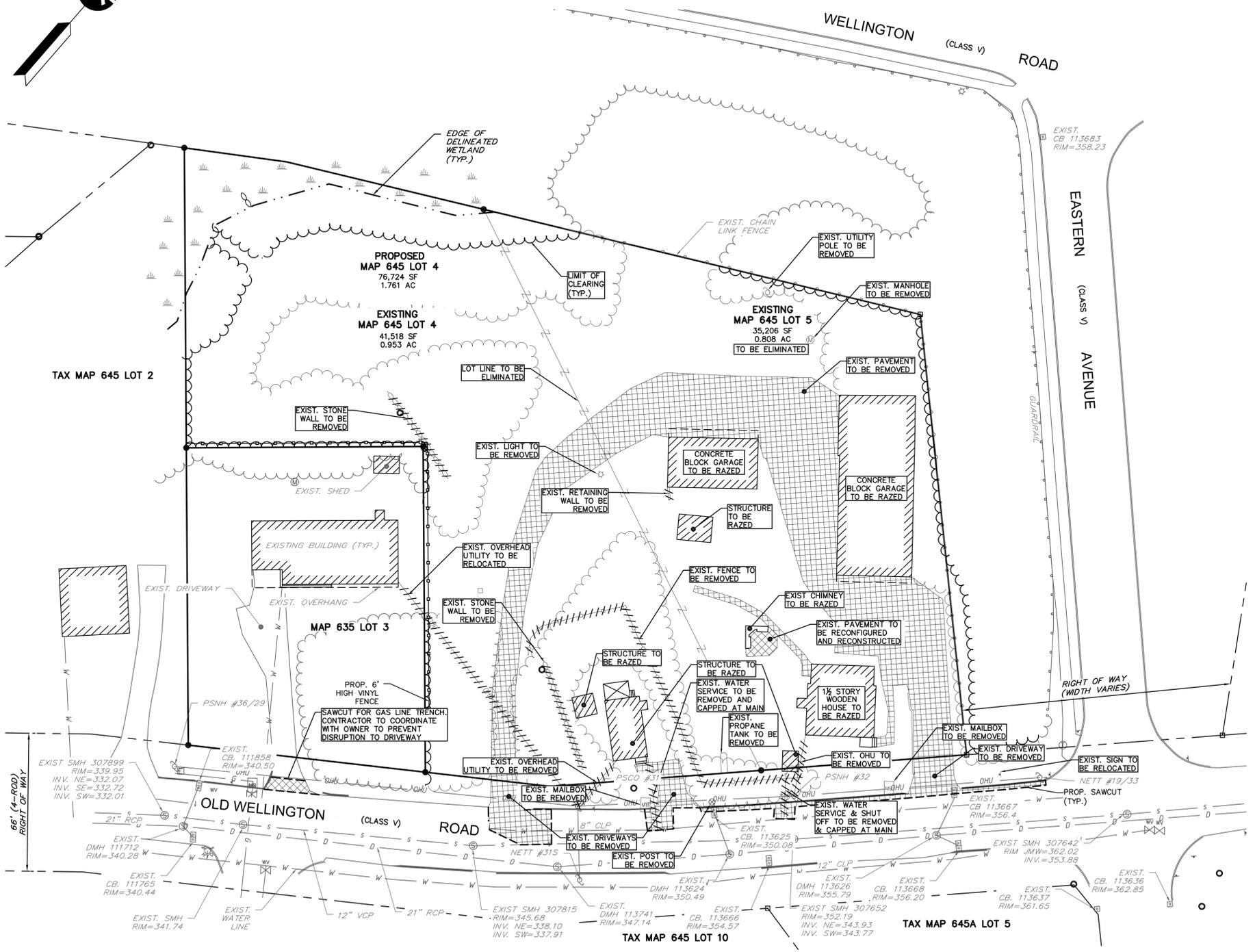
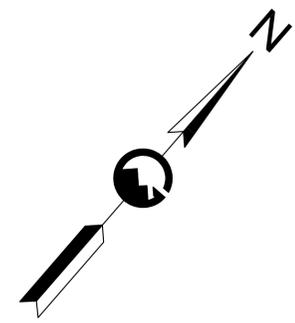
LOT LINE ADJUSTMENT & MERGER PLAN BY:

802 AMHERST STREET
 MANCHESTER, NH 03104
 TEL: (603) 647-4282 OR 736-8203
 FAX: (603) 623-1910
 WEB: WWW.JMWLLS.COM

Joseph M. Wichert
 LLS, INC.

LAND SURVEYOR & SEPTIC SYSTEM DESIGNER

SHEET S1 SHEET 1 OF 17 JOB #2020119



GENERAL NOTES:

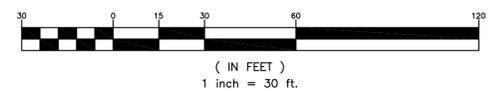
1. THE PURPOSE OF THIS PLAN IS TO MERGE LOT 5 INTO LOT 4 AS SHOWN AND SHOW EXISTING FEATURES ON SITE TO BE REMOVED, SALVAGED, OR REPLACED.
2. ITEMS TO BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
3. ALL EXISTING PAVEMENT AND GRAVEL WITHIN THE CROSS HATCHED AREA IS TO BE REMOVED DURING THE DEMOLITION PHASE OF THE PROJECT. EXCESS MATERIAL FROM THESE AREAS SHALL BE APPROPRIATELY DISPOSED OF OFFSITE.
4. THE CONTRACTOR SHALL CONTROL ALL DUST GENERATED DURING THE REMOVAL PHASE AND CONSTRUCTION PHASE SO THAT NO DUST LEAVES THE SITE.
5. ANY MONUMENTS DISTURBED DURING CONSTRUCTION, WHICH AREN'T CALLED OUT FOR REMOVAL, SHALL BE RESET BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR AT THE SITE CONTRACTORS EXPENSE.
6. THE LOCATION OF ANY UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. GRANITE ENGINEERING, LLC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE, THE CONTRACTOR SHALL CONTACT DIG SAFE AT 811.
7. TEMPORARY EROSION CONTROL MEASURES, INCLUDING SILT FENCE WHERE SHOWN, SHALL BE IN PLACE PRIOR TO THE START OF CONSTRUCTION (SEE EROSION CONTROL PLAN).

LEGEND

- 5/8" REBAR W/ ID CAP TO BE SET
- IRON PIPE FOUND
- EX. CONCRETE BOUND
- ⊕ GAS VALVE
- ⊕ FIRE HYDRANT
- ⊕ UTILITY POLE
- ⊕ SIGN
- ⊕ WATER VALVE
- ⊕ WATER SHUT OFF
- ⊕ SEWER MANHOLE
- ⊕ TELEPHONE MANHOLE
- ⊕ MANHOLE
- ⊕ CATCH BASIN
- ⊕ MAILBOX
- ABUTTER LINE
- PROPERTY LINE
- EX. FENCE
- EX. STOCKADE FENCE
- GUARDRAIL
- STONE WALL
- EX. TREELINE
- PROP. TREELINE
- EDGE OF PAVEMENT
- EX. VERTICAL GRANITE CURB
- EX. BITUMINOUS CURB
- OHU OVERHEAD UTILITIES
- G GAS LINE
- W WATER LINE
- S SEWER LINE
- D DRAINAGE LINE
- PROP. SAW CUT
- Z LOT LINE TO BE ELIMINATED
- ▨ EX. BUILDING
- ▨ PAVEMENT/CONCRETE TO BE REMOVED



GRAPHIC SCALE



NO.	DATE	COMMENTS
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OWNER: KEVIN H. BOURGEOIS REVOCABLE TRUST
 KEVIN H. BOURGEOIS, TRUSTEE
 27 HOPKINS ROAD
 BOSTON, MA 02118
 NHD BR. 8626 Pg. 700

APPLICANT: GRANITE ENGINEERING, LLC
 89 TICKLEFANG LANE
 SALEM, NH 03079

GRANITE ENGINEERING
 civil engineering • land planning • municipal services

250 Commercial Street, Suite 3008
 Manchester, New Hampshire 03101
 603.518.8030

www.GraniteEng.com

STAMP: [Professional Engineer Seal for Kevin H. Bourgeois, License No. 11778, State of New Hampshire, dated 09/01/2020]

LOCATION:
 TAX MAP 645 LOTS 4 & 5
 534 & 550
 OLD WELLINGTON ROAD
 MANCHESTER, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

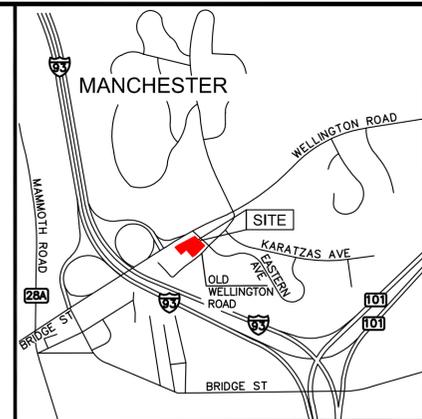
PROJECT:
**STARK RESIDENCES AT
 OLD WELLINGTON**

TITLE:
**REMOVALS/DEMOLITION
 PLAN**

PROJECT No. DATE: 20-0420-1 SEPTEMBER 1, 2020
 SHEET: 2 OF 17
 SCALE: HORIZ. 1"=30'

PLAN REFERENCES:

1. "SUBDIVISION PLAN OF LAND OF LOIS G. ROY, 422 WELLINGTON ROAD, MANCHESTER, N.H.", DATED JULY 1983 AND PREPARED BY JOHN J. GILLIS P.E. L.L.S. HCRD PLAN 18627.
2. "JEFFERSON PLACE CONDOMINIUM SITE PLAN, BUILDINGS NO. 40 & 89, EASTERN AVE & KARATZAS AVE, MANCHESTER NH", DATED 14 SEPTEMBER 2006, LAST REVISED 10-1-06 AND PREPARED BY BEALS ASSOCIATES PLLC. HCRD PLAN 35218.
3. "PLANS OF PROPOSED FEDERAL AID PROJECT, I-93-(108)22, N.H. PROJECT NO P-1050-J, INTERSTATE ROUTE 93", RECOMMENDED FOR APPROVAL 5/13/1975, LAST REVISED JUNE 21, 1976 AND PREPARED BY FAY, SPOFFORD & THORNDIKE, INC. ON FILE AT THE NHDOT.
4. "RECORDABLE LOT LINE ADJUSTMENT PLAN FOR KEVIN H. BOURGEOIS REVOCABLE TRUST, KEVIN H. BOURGEOIS, TRUSTEE, TAX MAP 645 LOTS 3 & 4, 500 & 534 OLD WELLINGTON ROAD, MANCHESTER, NEW HAMPSHIRE", DATED JUNE 10, 2020 AND PREPARED BY JOSEPH M. WICHERT, L.L.S., INC. NOT YET APPROVED OR RECORDED.



VICINITY MAP
SCALE: 1"=1500'

GENERAL NOTES:

1. THE PURPOSE OF THIS PLAN IS TO ILLUSTRATE A 20-UNIT TOWNHOUSE DEVELOPMENT ON TAX MAP 645 LOT 4.
2. OWNER OF RECORD:
KEVIN H. BOURGEOIS REVOCABLE TRUST
KEVIN H. BOURGEOIS, TRUSTEE
27 HOPKINS ROAD
NEW BOSTON, NH 03070
HCRD BK. 8826 PG. 700
3. AREA OF EXISTING PARCEL = 76,724 SF OR 1.761 ACRES (THIS PLAN ASSUMES THE APPROVAL OF THE LOT MERGER AND LOT LINE ADJUSTMENT IDENTIFIED AS PLAN REF. NO. 4.)
4. THE ERROR OF CLOSURE FOR THE BOUNDARY IS GREATER THAN 1:10,000 PERFORMED BY JOSEPH M. WICHERT LLS, INC. ON MAY AND JUNE OF 2020.
5. THE SUBJECT PROPERTY IS NOT LOCATED IN THE 100-YR FLOOD PLAIN AS PER THE FLOOD INSURANCE RATE MAP, HILLSBOROUGH COUNTY COMMUNITY PANEL 3301C02450 HAVING AN EFFECTIVE DATE OF SEPTEMBER 25, 2009.
6. THE SUBJECT PROPERTY IS LOCATED ENTIRELY WITHIN THE RESIDENTIAL-SUBURBAN MULTI-FAMILY (R-SM) ZONING DISTRICT AND IS SUBJECT TO THE FOLLOWING DIMENSIONAL REGULATIONS:

DESCRIPTION	REQUIRED	EXISTING LOT 4	EXISTING LOT 5	PROPOSED LOT 4
MINIMUM LOT SIZE	10,000 SF	41,518 SF	35,206 SF	76,724 SF
MINIMUM BUILDABLE AREA	10,000 SF	35,903 SF	34,868 SF	70,771 SF
MINIMUM LOT FRONTAGE	75 FT	308.45 FT	525.92 FT	834.37 FT
FRONT YARD SETBACK	20 FT	9.80 FT	15.27 FT	20.03 FT
SIDE YARD SETBACK	10 FT	36.61 FT	0 FT	14.30 FT
REAR YARD SETBACK	30 FT	N/A	N/A FT	N/A FT
MAXIMUM LOT COVERAGE	60%	7.45%	40.52%	55.59%
BUILDING AREA (FOOTPRINT)	N/A	601 SF	5,586 SF	13,200 SF
BUILDING HEIGHT	45 FT	<45 FT	<45 FT	35.83 FT
MAXIMUM STORIES	3.0	1.5	1.5	2
FLOOR AREA RATIO	0.5	0.02	0.04	0.33
USE	VARIABLES	RESIDENTIAL-SINGLE	RESIDENTIAL-SINGLE	RESIDENTIAL MULTI-FAMILY

- *ASSUMES THE APPROVAL OF THE LOT LINE ADJUSTMENT REFERENCED IN PLAN REFERENCE #4.
- SUBJECT PARCEL WILL BE SERVICED BY CITY OF MANCHESTER WATERWORKS AND MUNICIPAL SEWER.
- THE VERTICAL DATUM IS NAVD 1988 AND THE HORIZONTAL DATUM IS NHPSC 1983/1992 (CITY DATUM). THE DATUMS WERE ESTABLISHED USING STATIC GPS OBSERVATIONS PERFORMED BY JOSEPH M. WICHERT LLS, INC. IN MAY OF 2020.
- THE SUBJECT WEI DELINEATED USING STANDARDS AND METHODOLOGY APPROVED BY THE ARMY CORPS OF ENGINEERS AND THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES WETLANDS BUREAU. WETLANDS WERE DELINEATED ON JUNE 3, 2020 BY AARON WECHSLER, CWS #250, FROM ASPEN ENVIRONMENTAL CONSULTANTS, LLC.
- LOCATION OF ANY UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. GRANITE ENGINEERING, LLC MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR SHALL CONTACT DIG SAFE AT 811.
- PARKING CALCULATIONS:**
PARKING REQUIRED (PHASE I): 2 SPACES/UNIT * 20 UNITS = 40 SPACES
PARKING PROPOSED (PHASE I): 53 SPACES (INCLUDES 3 HANDICAP SPACES)
PARKING PROPOSED (PHASE II): 7 SPACES
- LOADING SPACES REQUIRED: 1 LOADING SPACE REQUIRED
- LOADING SPACES PROPOSED: 1 LOADING SPACE PROPOSED
- IN ACCORDANCE WITH THE SUBDIVISION AND SITE PLAN REGULATIONS OF THE CITY OF MANCHESTER AND RSA # 676:13, ALL IMPROVEMENTS SPECIFIED ON THESE SITE PLANS SHALL BE CONSTRUCTED, COMPLETED, INSPECTED, AND APPROVED BY THE CITY PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY. ANY VIOLATION OF THE CONDITIONS OF APPROVAL STATED ON THIS PLAN MAY RESULT IN FINES AND A REVOCATION OF APPROVAL, PURSUANT TO SUBSECTION 1.7(B) OF THESE REGULATIONS.
- ALL CONDITIONS SUBSEQUENT TO APPROVAL SHALL BE COMPLETED WITHIN TWO YEARS OF THE DATE OF FINAL APPROVAL.
- NO CERTIFICATE OF OCCUPANCY SHALL BE AUTHORIZED UNTIL ALL REQUIRED IMPROVEMENTS HAVE BEEN COMPLETED, UNLESS ADDRESSED BY THE PROVISION OF A FINANCIAL GUARANTEE, PURSUANT TO THE REQUIREMENTS OF SECTION 4.14 OF THE MANCHESTER SUBDIVISION AND SITE PLAN REVIEW REGULATIONS.
- APPROVAL SHALL BE VALID FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACTION BY THE PLANNING BOARD, WITHIN WHICH TIME PERIOD A BUILDING PERMIT MUST BE SECURED, OTHERWISE THIS APPROVAL SHALL LAPSE.
- IF DURING CONSTRUCTION, IT BECOMES APPARENT THAT ADDITIONAL EROSION CONTROL MEASURES ARE REQUIRED TO STOP ANY EROSION ON THE CONSTRUCTION SITE, THE PROPERTY OWNER SHALL BE REQUIRED TO INSTALL THE NECESSARY EROSION PROTECTION AT NO EXPENSE TO THE CITY.
- NO VARIANCES HAVE BEEN ISSUED FOR THIS PROJECT.
- DENSITY CALCULATIONS:
BA = 10,000 SF FOR FIRST 3 UNITS + 3,500-SF FOR EACH ADDITIONAL UNIT
PROPOSED MAP 645 LOT 4
ALLOWED DENSITY = 3 UNITS FOR FIRST 10,000-SF + 60,771-SF/3,500-SF
= 3 + 17.3
= 20.3 UNITS
PROPOSED DENSITY = 20 UNITS
*3,673-SF OF STEEP SLOPES AND 2,280-SF OF WETLAND REMOVED FROM THE DENSITY CALCULATIONS
- SITE LIGHTING SHALL BE SHOWN ON THE PLAN, DIRECTED ONTO SITE, AND SHALL CONFORM WITH ALL APPLICABLE CITY OF MANCHESTER REGULATIONS.
- PLOWED SNOW FROM THE FACILITIES, DRIVEWAY, PARKING LOTS, AND SIDEWALK SHALL BE STORED IN THE DESIGNATED AREAS AND DISPOSED OF IN AN ENVIRONMENTALLY SOUND FASHION AND IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
- SHOULD ANY CONDITION PRECEDENT OR SUBSEQUENT TO THE PLANNING BOARD APPROVAL NOT BE MET IN THE TIME PERIODS PROVIDED FOR IN SUBSECTION 4.13 OF THE MANCHESTER SUBDIVISION AND SITE PLAN REVIEW REGULATIONS, THE PLANNING BOARD SHALL HOLD A HEARING TO REVOKE THE APPROVAL, PURSUANT TO RSA 676:4-a.
- ALL MATERIAL CHANGES TO THE APPROVED PLAN, INCLUDING CHANGES TO SIGNAGE, SHALL BE REVIEWED AND APPROVED BY THE PLANNING BOARD AT A PUBLIC HEARING.
- THE PUBLIC IMPACT FEES FOR THE PROPOSED DWELLING UNIT SHALL BE PAID PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY. THE SCHOOL IMPACT FEE SHALL BE \$1,104 (TOWNHOUSE) AND THE FIRE IMPACT FEE SHALL BE \$511 (TOWNHOUSE).
- AN EXCAVATION PERMIT FROM THE MANCHESTER DEPARTMENT OF PUBLIC WORKS IS REQUIRED FOR ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY. ALL WORK SHALL CONFORM TO THE CITY OF MANCHESTER STANDARD SPECIFICATIONS.
- THIS PROJECT DISTURBS MORE THAN 1-ACRE OF LAND, THEREFORE, THIS PROJECT WILL BE REQUIRED TO OBTAIN A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE AS ISSUED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). A COPY OF THE SWPPP SHALL BE SUBMITTED TO JEREMY BOUVIER AT THE CITY OF MANCHESTER ENVIRONMENTAL PROTECTION DIVISION.
- ALL TOWNHOUSES MUST BE EQUIPPED WITH FIRE SPRINKLERS.
- MAINTENANCE SHED, ELECTRIC VEHICLE CHARGING STATION, AND PHASE II PARKING AREA TO BE CONSTRUCTED AT THE OWNER'S DISCRETION WHEN NEEDED OR DESIRED.
- NO STATE LAND USE PERMITS ARE REQUIRED FOR THIS PROJECT.

LEGEND

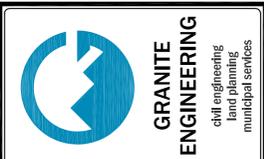
○	IRON PIPE FOUND	—	EX. ZONE LINE
□	EX. CONCRETE BOUND	—	EX. FENCE
⊕	GAS VALVE	—	EX. STOCKADE FENCE
⊕	FIRE HYDRANT	—	PROP. FENCE
⊕	UTILITY POLE	—	GUARDRAIL
⊕	SIGN	—	STONE WALL
⊕	WATER VALVE	—	EDGE OF WETLAND
⊕	WATER SHUT OFF	—	PROP. SNOW STORAGE
⊕	SEWER MANHOLE	—	EX. TREELINE
⊕	DRAINAGE MANHOLE	—	PROP. TREELINE
⊕	TELEPHONE MANHOLE	—	EX. EDGE OF PAVEMENT
⊕	MANHOLE	—	PROP. EDGE OF PAVEMENT
⊕	CATCH BASIN	—	EX. BITUMINOUS CURB
⊕	MAILBOX	—	EX. BUILDING
⊕	PROP. AREA DRAIN	—	ABUTTER LINE
⊕	PROP. CLEAN OUT	—	PROPERTY LINE
⊕	PROP. CONDENSER PAD	—	PROP. BUILDING
⊕	PROP. POLE MOUNTED LIGHT FIXTURE	—	PHASE II SITE WORK
		—	PROP. VERTICAL GRANITE CURB
		—	PROP. SLOPED GRANITE CURB

TAX MAP 645 LOT 10
OLD WELLINGTON ROAD APARTMENTS
1662 ELM STREET, STE 100
MANCHESTER, NH 03101

TAX MAP 645A LOT 5
JEFFERSON PLACE CONDO.
870 N COMMERCIAL STREET
MANCHESTER, NH 03101

DIG SAFE
811
CALL TOLL FREE
DAMAGE PREVENTION SYSTEM
UTLITIES UNDERGROUND

GRAPHIC SCALE
30 0 15 30 60 90 120
(IN FEET)
1 inch = 30 ft.



NO.	DATE	REVISIONS	COMMENTS
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OWNER: KEVIN H. BOURGEOIS REVOCABLE TRUST
KEVIN H. BOURGEOIS, TRUSTEE
27 HOPKINS ROAD
NEW BOSTON, NH 03070
HCRD BK. 8826 PG. 700

APPLICANT: GRANITE ENGINEERING, LLC
895 TUCKERMAN LANE
SALEM, NH 03079

GRANITE ENGINEERING
civil engineering • land planning • municipal services

250 Commercial Street, Suite 3008
Manchester, New Hampshire 03101
603.518.8030
www.GraniteEng.com

STAMP: [Professional Engineer Seal for Joseph M. Wicherth, License No. 11778, dated 09/01/2020]

LOCATION:
TAX MAP 645 LOTS 4 & 5
534 & 550
OLD WELLINGTON ROAD
MANCHESTER, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

PROJECT: **STARTK RESIDENCES AT OLD WELLINGTON**

TITLE: **SITE PLAN**

PROJECT NO. DATE: 20-0420-1 SEPTEMBER 1, 2020
SCALE: HORIZ. 1"=30'

SHEET: 3 OF 17

RESERVED FOR APPROVAL STAMP AND SIGNATURE

CONSTRUCTION NOTES:

1. THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED GRADING AND DRAINAGE SYSTEMS FOR THIS PROJECT.
2. ALL WORK SHALL CONFORM TO THE CITY OF MANCHESTER STANDARD SPECIFICATIONS FOR ROAD, DRAIN & SEWER CONSTRUCTION, APPROVED AND ADOPTED JANUARY 2019. IN THE ABSENCE OF A SPECIFIC CITY SPECIFICATION, CONTRACTOR SHALL FOLLOW THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, APPROVED AND ADOPTED 2016.
3. ALL CATCH BASINS SHALL BE 4' DIAMETER CONCRETE STRUCTURES, UNLESS NOTED OTHERWISE.
4. ALL DRAINAGE PIPES SHOWN SHALL BE HDPE UNLESS OTHERWISE SPECIFIED. CATCH BASIN FRAME AND GRATES SHALL BE TYPE B, AND SUMPS SHALL BE 3 FEET UNLESS OTHERWISE NOTED.
5. ALL AREA DRAINS SHALL BE 12" NYLOPLAST WITH DOME GRATE OR EQUAL.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT 811 AT LEAST 72 HOURS BEFORE DIGGING.
7. ALL DRAINAGE PIPE SHALL BE INSTALLED FOLLOWING MANUFACTURER'S INSTALLATION INSTRUCTIONS.
8. ALL DISTURBED AREAS ARE TO BE LOAMED AND SEEDED.
9. SEE THE EROSION CONTROL PLAN FOR THE LOCATION OF THE TEMPORARY EROSION CONTROL DEVICES.
10. SEE DETAILS FOR DRAINAGE SPECIFICATIONS.
11. MATERIAL STOCKPILES SHALL BE ON LEVEL SITES WITH SILT FENCE INSTALLED AROUND THE PILE. STOCKPILES MUST BE SEEDED AND MULCHED IF STORED MORE THAN 14 DAYS.
12. THIS PROJECT DISTURBS MORE THAN 1-ACRE OF LAND. THEREFORE, THIS PROJECT WILL BE REQUIRED TO OBTAIN A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE AS ISSUED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). A COPY OF THE SWPPP SHALL BE SUBMITTED TO JEREMY BOUVER AT THE CITY OF MANCHESTER ENVIRONMENTAL PROTECTION DIVISION.
13. ALL PROPOSED CATCH BASINS SHALL HAVE A SNOOT OIL AND DEBRIS STOP INSTALLED ON THE OUTLET SIDE OF THE CATCH BASIN OR EQUAL.

LOAM & SEED ALL DISTURBED AREAS (TYP.)

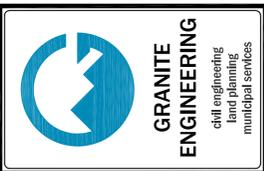
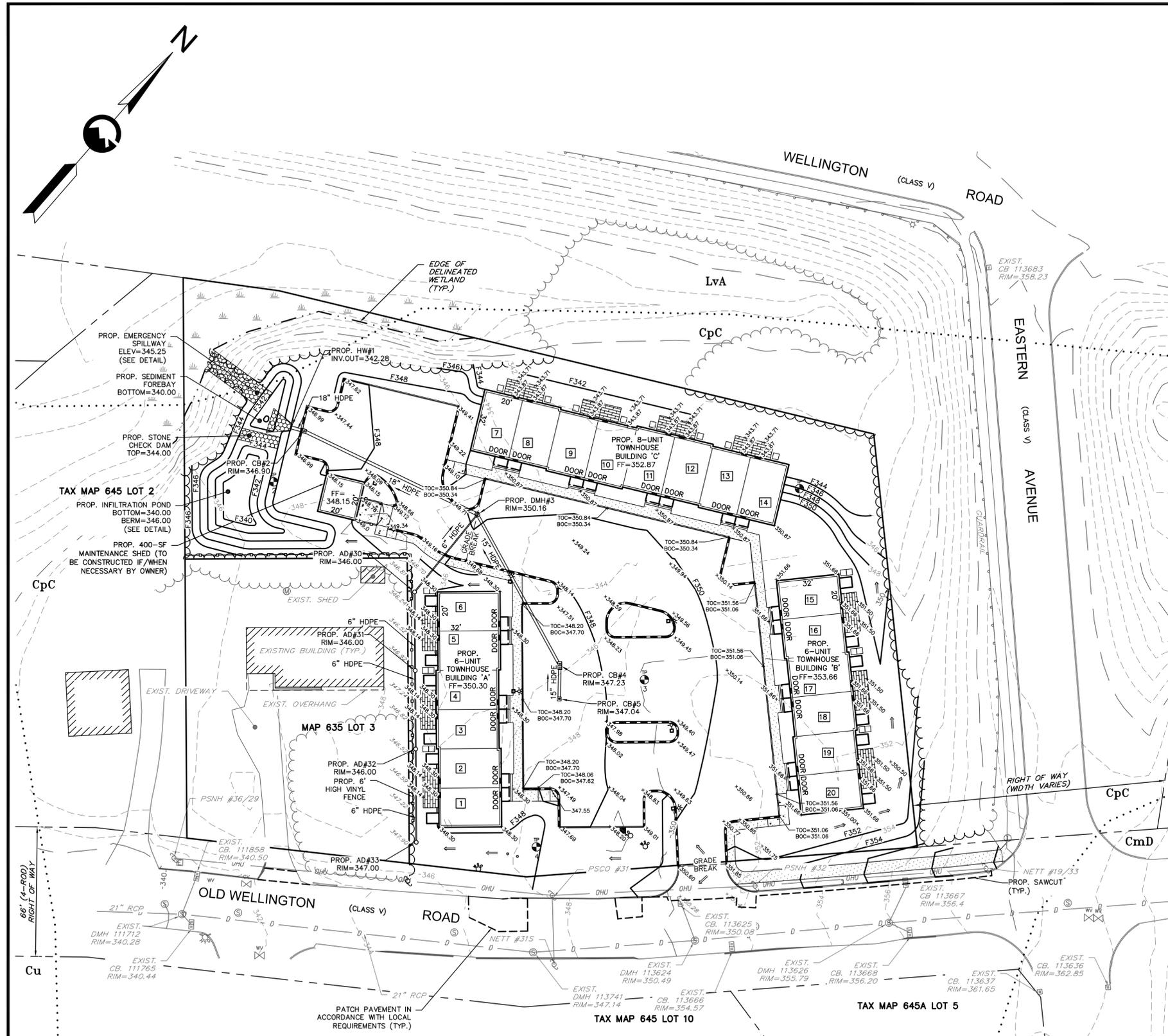
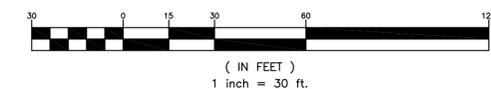
LEGEND

- IRON PIPE FOUND
- EX. CONCRETE BOUND
- GAS VALVE
- FIRE HYDRANT
- UTILITY POLE
- SIGN
- WATER VALVE
- WATER SHUT OFF
- SEWER MANHOLE
- DRAINAGE MANHOLE
- TELEPHONE MANHOLE
- MANHOLE
- CATCH BASIN
- MAILBOX
- PROP. AREA DRAIN
- PROP. CLEAN OUT
- TEST PIT
- ABUTTER LINE
- PROPERTY LINE
- PROP. BUILDING
- EX. FENCE
- EX. STOCKADE FENCE
- GUARDRAIL
- STONE WALL
- EDGE OF WETLAND
- PROP. SNOW STORAGE
- EX. TREELINE
- PROP. TREELINE
- EX. EDGE OF PAVEMENT
- PROP. EDGE OF PAVEMENT
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- SCS SOILS LINE
- PROP. 2 FOOT CONTOURS
- OVERHEAD UTILITIES
- DRAINAGE LINE
- PROP. DRAINAGE
- EX. BUILDING
- PROP. CONCRETE
- PROP. RIPRAP
- PROP. SIDEWALK

SCS SOILS LEGEND

- CpC** CHATFIELD-HOLLIS-CANTON COMPLEX, 8-15% SLOPES
- CmD** CANTON FINE SANDY LOAM, VERY STONY, 15-25% SLOPES
- Cu** SWANSEA MUCKY PEAT, 0-2% SLOPES
- LvA** LEICESTER-WALPOLE COMPLEX, STONY, 0-3% SLOPES

GRAPHIC SCALE



NO.	DATE	COMMENTS
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OWNER:
KEVIN H. BOURGEOIS REVOCABLE TRUST
KEVIN H. BOURGEOIS, TRUSTEE
27 HOPKINS ROAD
BOZEHAM, NH 03070
HGRD BR. 8626 TG. 700

APPLICANT:
D&F DEVELOPMENT LLC
89 TICKLEFANCY LANE
SALEM, NH 03079

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Manchester, New Hampshire 03101
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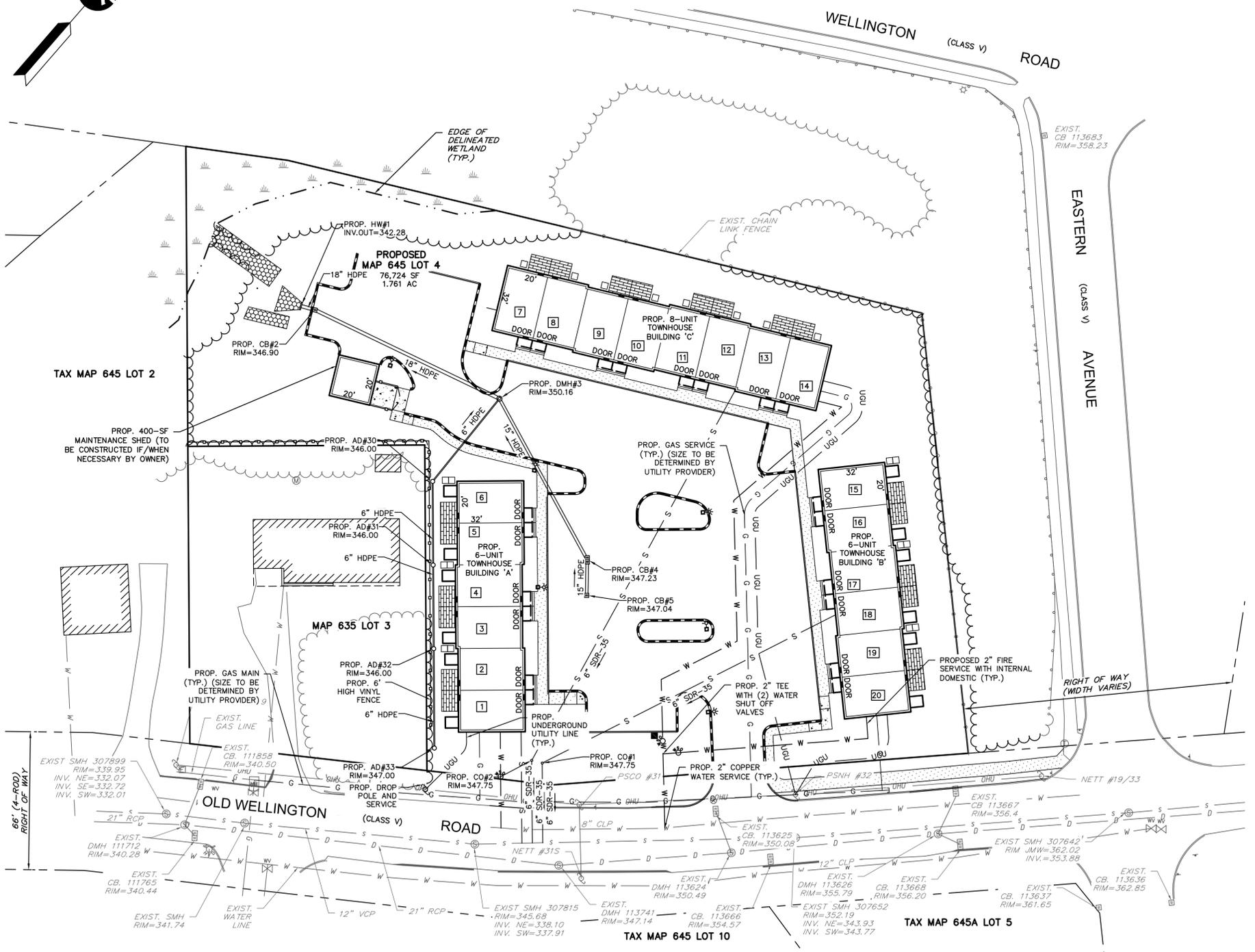
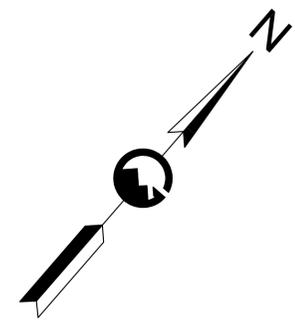
STAMP: [Professional Engineer Seal for Kevin H. Bourgeois, License No. 11778, dated 09/01/2020]

LOCATION:
TAX MAP 645 LOTS 4 & 5
534 & 550
OLD WELLINGTON ROAD
MANCHESTER, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

PROJECT:
STARK RESIDENCES AT OLD WELLINGTON

TITLE:
GRADING AND DRAINAGE PLAN

PROJECT No. / DATE: 20-0420-1 / SEPTEMBER 1, 2020
SHEET: 4 OF 17
SCALE: 1" = 30'



CONSTRUCTION NOTES:

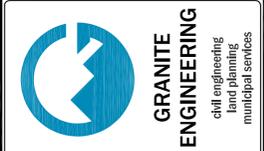
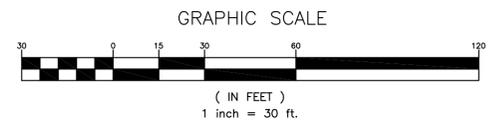
1. THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED UTILITIES FOR THIS PROJECT.
2. ALL WORK SHALL CONFORM TO THE CITY OF MANCHESTER STANDARD SPECIFICATIONS FOR ROAD, DRAIN & SEWER CONSTRUCTION, APPROVED AND ADOPTED JANUARY 2019. IN THE ABSENCE OF A SPECIFIC CITY SPECIFICATION, CONTRACTOR SHALL FOLLOW THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, APPROVED AND ADOPTED 2016.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT 811 AT LEAST 72 HOURS BEFORE DIGGING.
4. APPROXIMATE WATER LINE SHOWN ON THIS PLAN WAS TAKEN FROM THE CITY OF MANCHESTER GIS MAP. THERE WERE NO PAINT MARKS SHOWING ANY WATER LINES AT TIME OF SURVEY.
5. UNDERGROUND ELECTRICAL SHALL BE PROVIDED TO ALL SITE LIGHT POLES.
6. ALL WORKMANSHIP AND MATERIALS INCORPORATED INTO THE CONSTRUCTION OF THE WATER LINES SHALL CONFORM TO ALL THE LOCAL PRECINCT'S STANDARDS, SPECIFICATIONS, RULES, AND REGULATIONS.
7. ALL WORKMANSHIP AND MATERIALS INCORPORATED INTO THE CONSTRUCTION OF THE ELECTRIC AND TELEPHONE LINES SHALL CONFORM WITH THE STANDARDS OF THE LOCAL PROVIDER.
8. CONTRACTOR SHALL COORDINATE WITH LOCAL PROVIDER RELATIVE TO FINAL LAYOUT OF UNDERGROUND UTILITIES.
9. ALL DRAINAGE PIPE SHALL BE INSTALLED FOLLOWING MANUFACTURER'S INSTALLATION INSTRUCTIONS.
10. CONTRACTOR TO VERIFY GAS REQUIREMENTS FOR THE PROPOSED BUILDING PRIOR TO THE START OF CONSTRUCTION.
11. FINAL LAYOUT OF UNDERGROUND UTILITIES TO BE APPROVED BY LOCAL PROVIDER PRIOR TO CONSTRUCTION.
12. WATER SERVICE SIZE SHALL BE CONFIRMED BY FIRE SUPPRESSION ENGINEER PRIOR TO THE INSTALLATION.

WATER CONSTRUCTION NOTES:

1. ALL DISTRIBUTION MATERIALS, INCLUDING MAINS, FITTINGS AND VALVES, TO MEET MANCHESTER WATER WORKS (MWW) REGULATIONS AND SPECIFICATIONS.
2. ALL INSTALLATION AND TESTING OF MATERIALS TO CONFORM TO AWWA STANDARDS FOR POTABLE WATER SYSTEMS.
3. CONTRACTOR TO SUBMIT PLUMBING PLANS TO MANCHESTER WATER WORKS FOR METER SIZING AND METER INSTALLATION LAYOUT.
4. ALL TOWNHOUSES SHALL BE EQUIPPED WITH FIRE SPRINKLERS.

LEGEND

- IRON PIPE FOUND
- EX. CONCRETE BOUND
- GAS VALVE
- FIRE HYDRANT
- UTILITY POLE
- SIGN
- WATER VALVE
- WATER SHUT OFF
- SEWER MANHOLE
- DRAINAGE MANHOLE
- TELEPHONE MANHOLE
- MANHOLE
- CATCH BASIN
- MAILBOX
- PROP. AREA DRAIN
- PROP. CLEAN OUT
- ABUTTER LINE
- PROPERTY LINE
- PROP. BUILDING
- EX. FENCE
- EX. STOCKADE FENCE
- GUARDRAIL
- STONE WALL
- EDGE OF WETLAND
- PROP. SNOW STORAGE
- EX. TREELINE
- PROP. TREELINE
- EX. EDGE OF PAVEMENT
- PROP. EDGE OF PAVEMENT
- OVERHEAD UTILITIES
- GAS LINE
- WATER LINE
- SEWER LINE
- DRAINAGE LINE
- PROP. OVERHEAD UTILITIES
- PROP. GAS LINE
- PROP. WATER LINE
- PROP. SEPTIC LINE
- PROP. DRAINAGE
- EX. BUILDING
- PROP. CONCRETE
- PROP. RIPRAP
- PROP. SIDEWALK



NO.	DATE	REVISIONS	COMMENTS
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OWNER: BOURGEOIS REVOCABLE TRUST
 KEVIN H. BOURGEOIS, TRUSTEE
 27 HOPKINS ROAD
 03075
 603.886.7670

APPLICANT: B&E DEVELOPMENT LLC
 89 TICKLEFANCY LANE
 SALEM, NH 03079

GRANITE ENGINEERING
 civil engineering • land planning • municipal services

250 Commercial Street, Suite 3008
 Manchester, New Hampshire 03101
 603.518.8030
 www.GraniteEng.com

STAMP: [Professional Engineer Seal for Kevin H. Bourgeois, License No. 11778, State of New Hampshire, dated 09/01/2020]

LOCATION:
 TAX MAP 645 LOTS 4 & 5
 534 & 550
 OLD WELLINGTON ROAD
 MANCHESTER, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

PROJECT:
**STARK RESIDENCES AT
 OLD WELLINGTON**

TITLE:
UTILITY PLAN

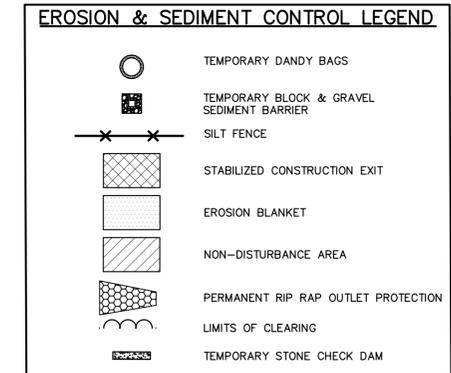
PROJECT No. DATE: 20-0420-1 SEPTEMBER 1, 2020
 SHEET: 5 OF 17
 SCALE: HORIZ. 1"=30'

EROSION CONTROL NOTES:

1. THE PURPOSE OF THIS PLAN IS TO DEPICT THE REQUIRED ONSITE TEMPORARY CONSTRUCTION EROSION CONTROL MEASURES.
2. ALL MEASURES IN THE PLAN SHALL MEET AS A MINIMUM THE BEST MANAGEMENT PRACTICES SET FORTH IN VOLUME 3 OF THE NEW HAMPSHIRE STORMWATER MANUAL "EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION" AS PUBLISHED AND AMENDED BY THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES.
3. WHENEVER PRACTICAL, NATURAL VEGETATION SHALL BE RETAINED, PROTECTED OR SUPPLEMENTED. THE STRIPPING OF VEGETATION SHALL BE DONE IN A MANNER THAT MINIMIZES SOIL EROSION.
4. APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO LAND DISTURBANCE.
5. THE AREA OF DISTURBANCE SHALL BE KEPT TO A MINIMUM. DISTURBED AREAS REMAINING IDLE FOR MORE THAN 30 DAYS SHALL BE STABILIZED.
6. MEASURES SHALL BE TAKEN TO CONTROL EROSION WITHIN THE PROJECT AREA. SEDIMENT IN RUNOFF WATER SHALL BE TRAPPED AND RETAINED WITHIN THE PROJECT AREA USING APPROVED MEASURES.
7. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN FUNCTIONING CONDITION UNTIL FINAL SITE STABILIZATION IS ACCOMPLISHED.
8. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AFTER FINAL SITE STABILIZATION. TRAPPED SEDIMENT AND OTHER DISTURBED SOIL AREAS RESULTING FROM THE REMOVAL OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED WITHIN 30 DAYS UNLESS CONDITIONS DICTATE OTHERWISE.
9. THE CITY OF MANCHESTER SHALL RESERVE THE RIGHT TO REQUIRE FURTHER EROSION CONTROL PRACTICES DURING CONSTRUCTION SHOULD THEY FIND IT NECESSARY.
10. THE RESPONSIBLE PARTY SHALL INSTALL, INSPECT, REPORT, OPERATE, AND MAINTAIN ALL STORMWATER MANAGEMENT AND EROSION CONTROL MEASURES REQUIRED BY THESE PLANS.
11. TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED IN STRICT ACCORDANCE WITH PROJECT PLANS. IN ADDITION, SIMILAR MEASURES SHALL BE INSTALLED WHERE AND WHEN THE FIELD CONDITION, OR FIELD OPERATION OF THE INDIVIDUAL SITE CONTRACTOR MAY WARRANT.
12. ALL DISTURBED AREAS DESIGNATED TO BE TURF SHALL RECEIVE A MINIMUM APPLICATION OF 4 INCHES OF LOAM (COMPACTED THICKNESS), PRIOR TO FINAL SEEDING AND MULCHING.
13. IN THE EVENT THAT, DURING CONSTRUCTION OF ANY PORTION OF THIS PROJECT, A WINTER SHUTDOWN IS NECESSARY, THE CONTRACTOR SHALL STABILIZE ALL INCOMPLETE WORK AND PROVIDE FOR SUITABLE METHODS OF DIVERTING RUNOFF IN ORDER TO ELIMINATE SHEET FLOW ACROSS FROZEN SURFACES.
14. DUST SHALL BE CONTROLLED BY THE USE OF WATER AS NECESSARY THROUGHOUT THE CONSTRUCTION PERIOD, IN ACCORDANCE WITH ENV-A 1000.
15. IN NO WAY ARE THOSE TEMPORARY EROSION CONTROL MEASURES INDICATED ON THESE PLANS TO BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR SHALL USE JUDGEMENT IN INSTALLING SUPPLEMENTARY EROSION CONTROL MEASURES WHERE AND WHEN SPECIFIC SITE CONDITIONS AND/OR CONSTRUCTION METHODOLOGIES MAY WARRANT.

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LOAM & SEED ALL DISTURBED AREAS (TYP.)



OWNER: BOURGEOIS REVOCABLE TRUST
KEVIN H. BOURGEOIS, TRUSTEE
27 HOPKINS ROAD
BOZEHAM, NH 03070
NHD B# 8626 16, 700

APPLICANT: B&E DEVELOPMENT, LLC
89 TICKLEFANCY LANE
SALEM, NH 03079

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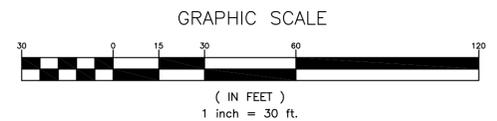
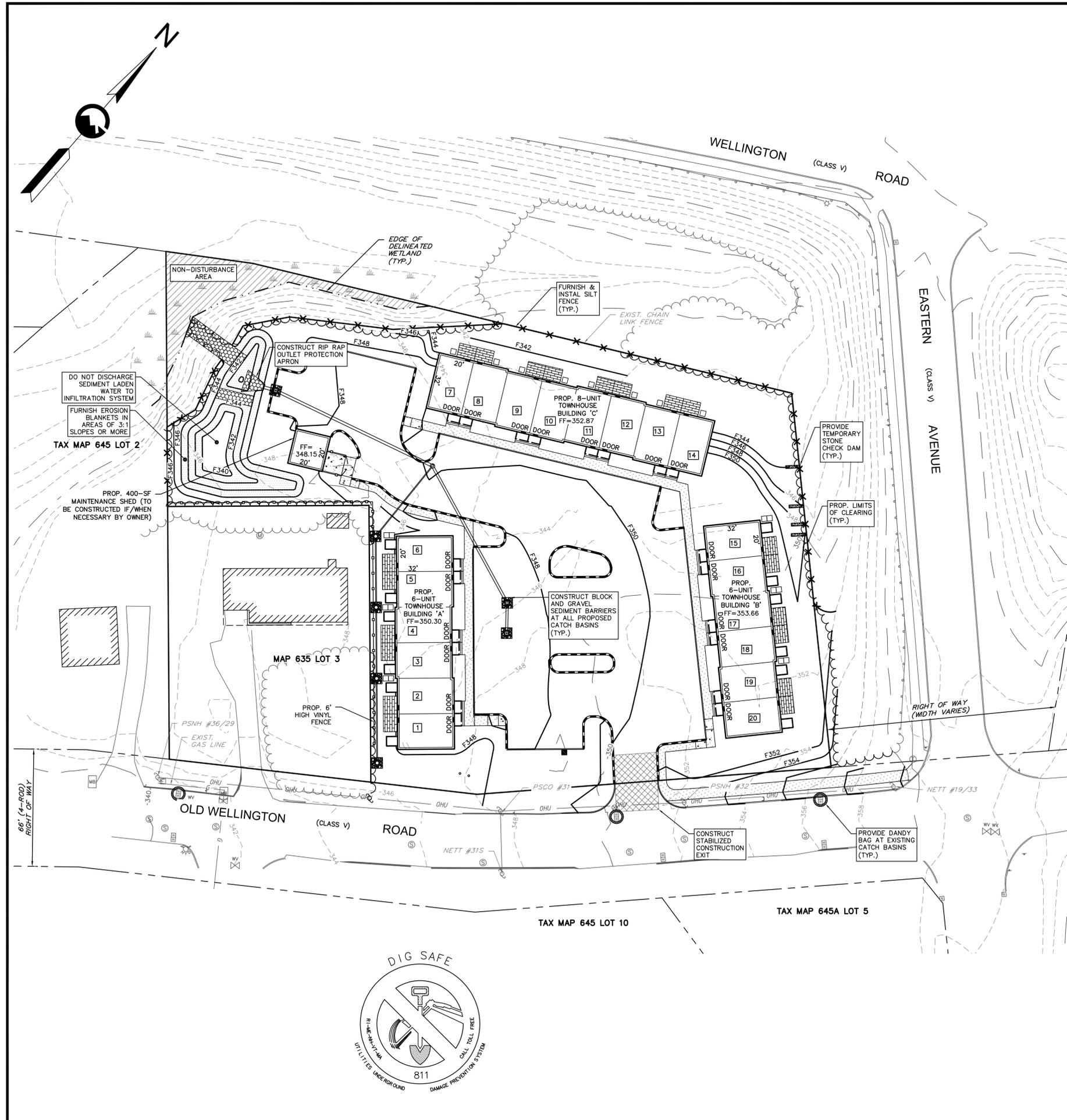
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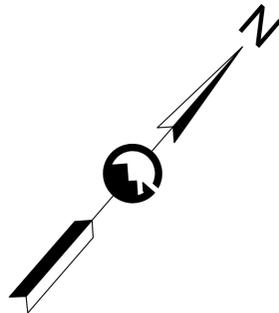
LOCATION:
TAX MAP 645 LOTS 4 & 5
534 & 550
OLD WELLINGTON ROAD
MANCHESTER, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

PROJECT:
STARK RESIDENCES AT OLD WELLINGTON

TITLE:
EROSION CONTROL PLAN

PROJECT No. / DATE: 20-0420-1 / SEPTEMBER 1, 2020
SHEET: 6 OF 17
SCALE: 1" = 30'





GENERAL NOTES:

1. THE PURPOSE OF THIS PLAN IS TO ILLUSTRATE THE PROPOSED LIGHTING FOR THE PROJECT.
2. ALL FIXTURES SHALL BE AS SPECIFIED BY CHARRON, LLC.
3. ALL PROPOSED FIXTURES ARE FULL CUTOFF FIXTURES.
4. ALL FIXTURES ARE 17.5 FT ABOVE FINISHED GRADE.



REVISIONS	
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OWNER: BOURGEOIS REVOCABLE TRUST
KEVIN H. BOURGEOIS, TRUSTEE
27 HOPKINS ROAD
BOSTON, MA 02108
HGRD BR. 8626 16, 700

APPLICANT:
D&F DEVELOPMENT, LLC
89 TICKLEFANCY LANE
SALEM, NH 03079

GRANITE ENGINEERING
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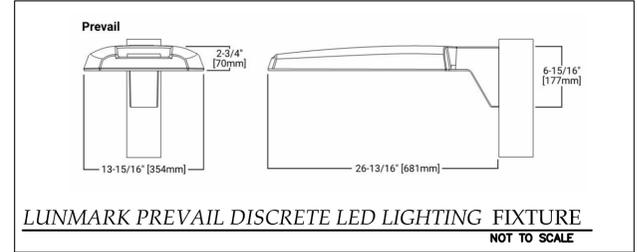
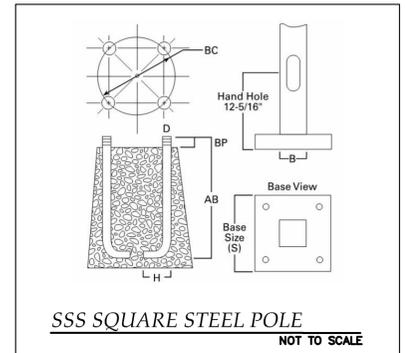
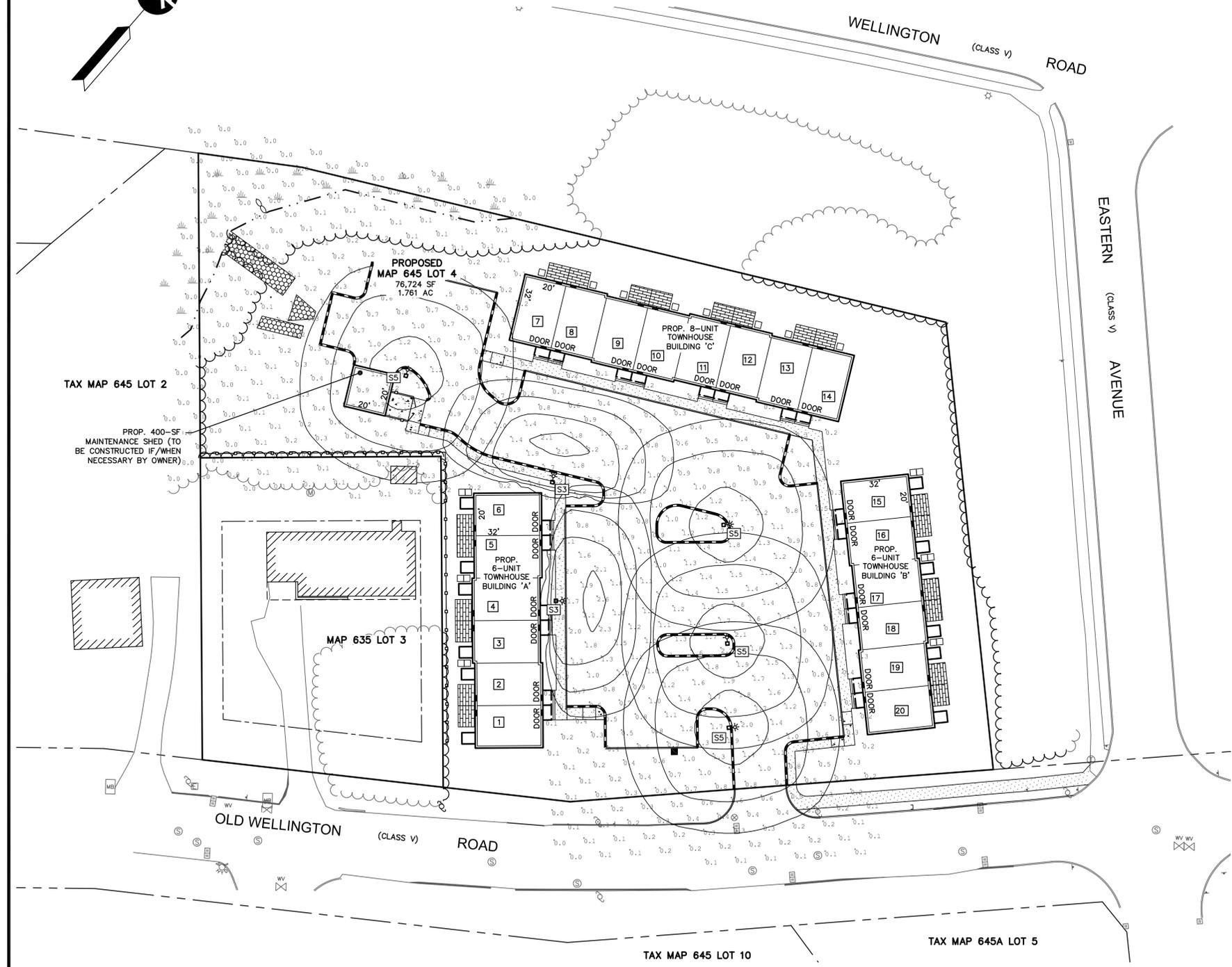
STAMP: [Professional Engineer Seal for Kevin H. Bourgeois, License No. 17778, State of New Hampshire, dated 09/01/2020]

LOCATION:
TAX MAP 645 LOTS 4 & 5
534 & 550
OLD WELLINGTON ROAD
MANCHESTER, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

PROJECT:
**STARK RESIDENCES AT
OLD WELLINGTON**

TITLE:
LIGHTING PLAN

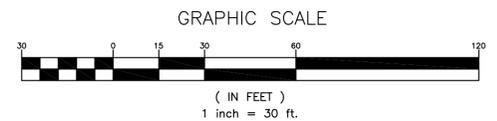
PROJECT No. / DATE: 20-0420-1 / SEPTEMBER 1, 2020
SHEET: 7 OF 17
SCALE: HORIZ. 1" = 30'



ILLUMINANCE (Fc)
AVERAGE = 1.08
MAXIMUM = 2.8
MINIMUM = 0.3
AVG/MIN RATIO = 3.60
MAX/MIN RATIO = 8.67

LUMINAIRE SCHEDULE			
SYMBOL	QTY	LABEL	ARRANGEMENT/ DESCRIPTION
	2	S3	PRV-PA1A-730-U-T3-HSS/ SSS4415SFN1 MTD ON BASE BY OTHERS (17.5' AFG)
	4	S4	PRV-PA1A-730-U-5WQ/ SSS4415SFN1 MTD ON BASE BY OTHERS (17.5' AFG)

THIS PLAN WAS PREPARED IN ASSOCIATION WITH:



GENERAL NOTES:

- BASE PLAN DEVELOPED FROM INFORMATION PROVIDED BY GRANITE ENGINEERING, LLC.
- VERIFY LOCATIONS, ELEVATIONS, AND DIMENSIONS IN THE FIELD, PRIOR TO CONSTRUCTION. VERIFY FIELD CONDITIONS RELATING TO WORK TO BE INSTALLED. NOTIFY LANDSCAPE ARCHITECT OF ANY UNUSUAL OR DIFFICULT CONDITIONS IN A TIMELY FASHION PRIOR TO CONSTRUCTION CONCERNING THE CONDITION IN QUESTION.
- ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF MANCHESTER AND STATE OF NEW HAMPSHIRE. NOTIFY APPROPRIATE AGENCIES AT LEAST 48 HOURS PRIOR TO PERFORMING THE WORK UNDER THEIR JURISDICTION.
- CONTRACTOR IS RESPONSIBLE FOR SECURING AND PAYING FOR ALL CONSTRUCTION PERMITS AND LICENSES REQUIRED TO COMPLETE SITE WORK. CONTRACTOR IS RESPONSIBLE FOR ALL APPROPRIATE INSPECTIONS OF HIS/HER WORK.
- ALL WORK SHALL BE OF WORKMANLIKE QUALITY AND IN CONFORMANCE WITH ALL APPLICABLE CODES. CONTRACTOR SHALL READ ALL ZONING AND ENVIRONMENTAL PERMITS WHICH PERTAIN TO THE PROJECT AND SHALL COMPLY WITH ALL THE CONDITIONS THEREIN.
- NOTIFY LANDSCAPE ARCHITECT AT LEAST 72 HOURS PRIOR TO ANY ROUTINE REQUIRED FIELD OBSERVATION. OBTAIN LANDSCAPE ARCHITECT'S APPROVAL OF THE LAYOUT OF ALL IMPROVEMENTS PRIOR TO CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR REPAIR OF DAMAGE OR DISTURBANCE TO OTHER AREAS WHICH MAY OCCUR AS THE RESULT OF HIS/HER WORK WHETHER WITHIN OR OUTSIDE OF THE CONTRACT LIMIT LINES.
- CONSTRUCTION SHALL FOLLOW THE SEQUENCES AND CONDITIONS ESTABLISHED IN THE SPECIFICATIONS AND PERMITS.
- IT IS INTENDED THAT THE WORK BE EXECUTED IN ACCORDANCE WITH THE BEST CUSTOMARY BUILDING PRACTICES. IF WORK IS REQUIRED IN A MANNER TO MAKE IT IMPOSSIBLE TO PRODUCE FIRST-CLASS WORK OR IF ERRORS, CONFLICTS OR DISCREPANCIES APPEAR AMONG THE CONTRACT DOCUMENTS, INFORM THE LANDSCAPE ARCHITECT IMMEDIATELY AND REQUEST INTERPRETATION BEFORE PROCEEDING WITH THE WORK.
- IF CONTRACTOR FAILS TO MAKE SUCH A STATEMENT AND REQUEST, NO EXCUSE WILL THEREAFTER BE ENTERTAINED, NOR ADDITIONAL EXPENSE BE ACCEPTED, FOR FAILURE TO CARRY OUT WORK IN A SATISFACTORY MANNER. SHOULD CONFLICT OCCUR IN OR BETWEEN DRAWINGS AND SPECIFICATIONS, CONTRACTOR IS DEEMED TO HAVE ESTIMATED ON THE MORE EXPENSIVE WAY OF DOING WORK UNLESS HE/SHE SHALL HAVE OBTAINED A WRITTEN DECISION, BEFORE SUBMITTING HIS BID, AS TO WHICH METHOD OR MATERIALS WILL BE REQUIRED.
- CONTRACTOR IS RESPONSIBLE FOR ALL MATERIALS AND EQUIPMENT STORED AT SITE.
- EROSION AND SEDIMENTATION CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF ANY WORK.
- ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE LANDSCAPE ARCHITECT FOR DIRECTION AND RESOLUTION PRIOR TO ANY FURTHER WORK.
- VISIBLE EXISTING CONDITIONS WHERE FIELD LOCATED, AND UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE. SITE SUBCONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS, DIMENSIONS, AND GRADES, PRIOR TO START OF ANY FOUNDATION OR UTILITY WORK.
- WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL USE CAUTION WHEN SCALING REPRODUCED PLANS. IN CASE OF CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWING AND/OR SPECIFICATION, THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS AT THE SITE. THESE PLANS, PREPARED BY TERRAIN PLANNING & DESIGN LLC, DO NOT EXTEND TO OR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THEIR EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF THE SURVEYOR, ENGINEER OR LANDSCAPE ARCHITECT HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND/OR LOCAL REGULATIONS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE HIMSELF WITH THE SITE AND ALL EXISTING CONDITIONS SURROUNDING IT AND THEREON. THE CONTRACTOR SHALL ADVISE THE APPROPRIATE AUTHORITY OF HIS INTENTIONS AT LEAST 48 HOURS IN ADVANCE.
- THESE PLANS WERE PREPARED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL LANDSCAPE ARCHITECT. TERRAIN PLANNING & DESIGN LLC ASSUMES NO LIABILITY AS A RESULT OF ANY CHANGES OR NON-CONFORMANCE WITH THESE PLANS EXCEPT UPON THE WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT OF RECORD.
- TERRAIN PLANNING & DESIGN LLC ASSUMES NO LIABILITY FOR WORK PERFORMED WITHOUT AN ACCEPTABLE PROGRAM OF TESTING AND INSPECTION AS APPROVED BY THE LANDSCAPE ARCHITECT OF RECORD.
- BASE PREPARATION UNDER ALL HARD SURFACES TO BE COMPACTED TO 98% STANDARD PROCTOR DENSITY.
- SITE CONTRACTOR IS RESPONSIBLE FOR CONTACTING DIG SAFE PRIOR TO ANY EXCAVATION, 1-888-DIG-SAFE.

PLANTING NOTES:

- CONTRACTOR SHALL OBTAIN APPROVAL FROM LANDSCAPE ARCHITECT PRIOR TO PURCHASING AND/OR INSTALLING SUBSTITUTE PLANT MATERIAL PRIOR TO PURCHASE OF ANY SUBSTITUTE MATERIALS.
- CONSTRUCTION ACCESS WILL BE AS DIRECTED BY LANDSCAPE ARCHITECT. CONTRACTOR IS RESPONSIBLE FOR RESTORATION OF ACCESS ROUTE AND ALL AREAS DISTURBED BY PLANTING OPERATIONS UPON COMPLETION OF CONSTRUCTION OPERATIONS, AT NO ADDITIONAL COST TO THE OWNER.
- LAYOUT OF ALL PLANTING BEDS AND LOCATION OF PLANTS TO BE APPROVED BY LANDSCAPE ARCHITECT ON SITE PRIOR TO CONSTRUCTION AND INSTALLATION.
- CONTRACTOR TO REMOVE ALL DEBRIS GENERATED BY PLANT INSTALLATION. DEBRIS TO BE DISPOSED OF IN A LEGAL MANNER.
- ALL PLANT MATERIAL SHALL BE GUARANTEED TO BE IN GOOD, HEALTHY AND FLOURISHING CONDITION FOR ONE YEAR FROM THE DATE OF FINAL INSTALLATION APPROVAL BY LANDSCAPE ARCHITECT. CONTRACTOR SHALL REPLACE, WITHOUT COST TO OWNER, AND AS SOON AS WEATHER CONDITIONS PERMIT, ALL DEAD AND NON-FLOURISHING PLANTS AS DETERMINED BY THE LANDSCAPE ARCHITECT. REPLACEMENT PLANTS SHALL BE GUARANTEED IDENTICALLY TO ORIGINAL PLANTS, TIME PERIOD COMMENCING FROM DATE OF REPLACEMENT PLANTING APPROVAL BY LANDSCAPE ARCHITECT.
- ALL BEDS TO BE MULCHED WITH 4" DEPTH SHREDDED BARK MULCH UNLESS NOTED OTHERWISE.
- CONTRACTOR TO PROVIDE NECESSARY TEMPORARY IRRIGATION IF NEEDED BASED ON TIME OF YEAR THE PROJECT IS IMPLEMENTED.

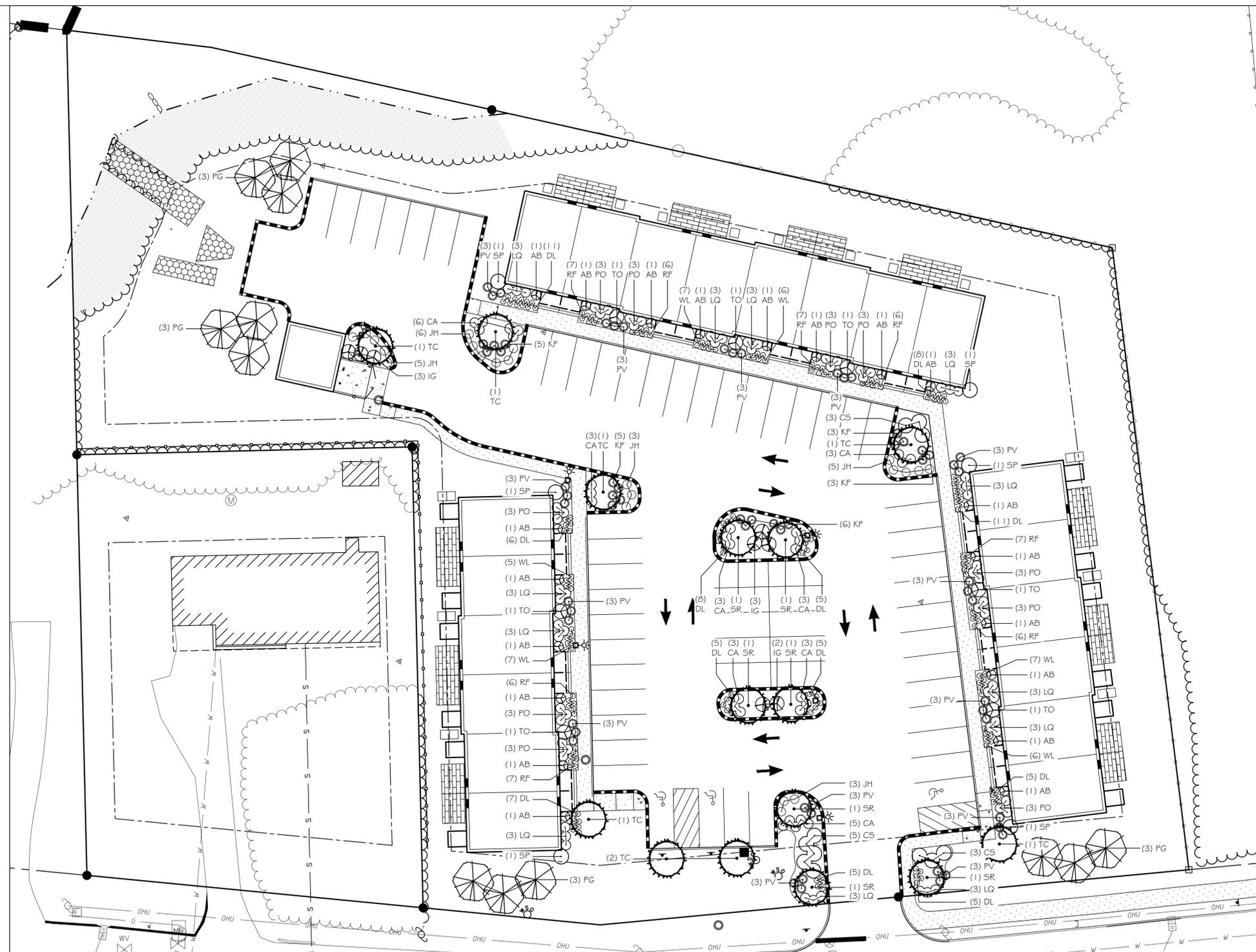
LANDSCAPE CALCULATIONS

REQUIRED PARKING LOT SHADE TREES

PROPOSED PAVED AREA = 22,945 SF
SHADE TREES REQUIRED:
1 SHADE TREE/900 SF FOR FIRST 3,600 SF + 1 SHADE TREE/2,000 SF THEREAFTER
 $22,945 - 3,600 = 19,345/2,000 = 9.7$
 $4 + 10 = 14$ SHADE TREES REQUIRED
SHADE TREES PROVIDED = 15 TREES PROPOSED

INTERNAL LANDSCAPE AREA:

PROPOSED PARKING AREA = 20,790 SF
INTERNAL LANDSCAPE AREA REQUIRED:
5% OF AREA OCCUPIED BY PARKING SPACES AND ASSOCIATED DRIVE AISLES
 $20,790 \times .05 = 1,040$ SF REQUIRED
INTERNAL LANDSCAPE AREA PROVIDED = 2,127 SF (10.2%)



Trees			5-6" B&B	PG	12	40-60'
<i>Picea glauca</i> / White Spruce	5-6" B&B	PG	12			40-60'
<i>Syringa reticulata</i> / Japanese Lilac Tree	3-3.5" CAL.	SR	9			20-30'
<i>Tilia cordata</i> 'Greenspire' / Greenspire Littleleaf Linden	3-3.5" CAL.	TC	6			40-60'
Shrubs						
Azalea 'Bloom A Thon Lavender' / Bloom A Thon Lavender Azalea	#3	AB	20			3-4'
Clethra alnifolia 'Compacta' / Compact Summersweet	#3	CA	29			3-4'
Cornus sericea 'Arctic Fire' / Arctic Fire Red-Osier Dogwood	#3	CS	11			5-6'
Hydrangea paniculata 'Little Quick Fire' / Little Quick Fire Panicle Hydrangea	#3	LQ	36			3-4'
Ilex glabra 'Compacta' / Compact Inkberry	#5	IG	27			5-6'
Physocarpus opulifolius 'Little Devil' / Little Devil Ninebark	#3	PO	30			3-4'
Syringa patula 'Miss Kim' / Miss Kim Lilac	#5	SP	6			8-10'
Thuja occidentalis 'Smaragd' / Emerald Green Arborvitae	#5	TO	7			15-20'
Perennials						
Hemerocallis 'Happy Returns' / Happy Returns Daylily	#1	DL	81			18-24"
Rudbeckia fulgida 'Goldsturm' / Goldsturm Black-Eyed Susan	#1	RF	52			2'
Nepeta 'Walker's Low' / Walker's Low Catmint	#1	WL	38			18"
Grasses						
Calamagrostis a. 'Karl Foerster' / Karl Foerster Feather Reed Grass	#2	KF	22			5'
Panicum virgatum 'Shenandoah' / Shenandoah Switch Grass	#2	PV	42			3-4'
Groundcovers						
Juniperus horizontalis 'Bar Harbor' / Bar Harbor Juniper	#2	JH	22			6-12"



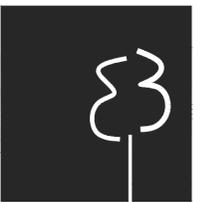
LOAM & SEED ALL DISTURBED AREAS



I, ROMY N. MAURER, HEREBY CERTIFY THAT I AM THE DESIGNER OF THIS LANDSCAPE PLAN AND THAT I AM A PROFESSIONAL LANDSCAPE ARCHITECT LICENSED BY THE STATE OF NEW HAMPSHIRE.

Romy N. Maurer

ROMY N. MAURER, ASLA, PLA, LICENSE #886



terrain
planning & design llc

311 kast hill road
hopkinton, nh 03229
603. 746. 3512
terrainplanning.com

**STARK RESIDENCES
AT WELLINGTON
ROAD**

Site Location:
534 & 550 Old Wellington Rd.
Manchester, NH 03104
Tax Map: 645
Lot #: 4 & 5

Prepared For:
Granite Engineering
250 Commercial Street
Suite 3008
Manchester, NH 03101

**LANDSCAPE
PLAN**

DATE: 08 - 27 - 2020

SCALE: 1" = 20'

PROJECT #: 2070

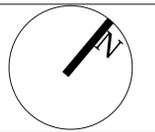
Drawn By: RNM

Checked By: ERB

REVISIONS: DATE:
Revised per Client Comments
08/31/2020

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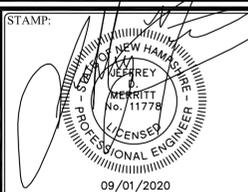
OWNER:
KEVIN H. BOURGEOIS REVOCABLE TRUST
KEVIN H. BOURGEOIS, TRUSTEE
27 HOPKINS ROAD
PO BOX 8828 NH 03070
HIGBURN, NH 03070

APPLICANT:
D&F DEVELOPMENT, LLC
89 TICKLEFANCY LANE
SALEM, NH 03079

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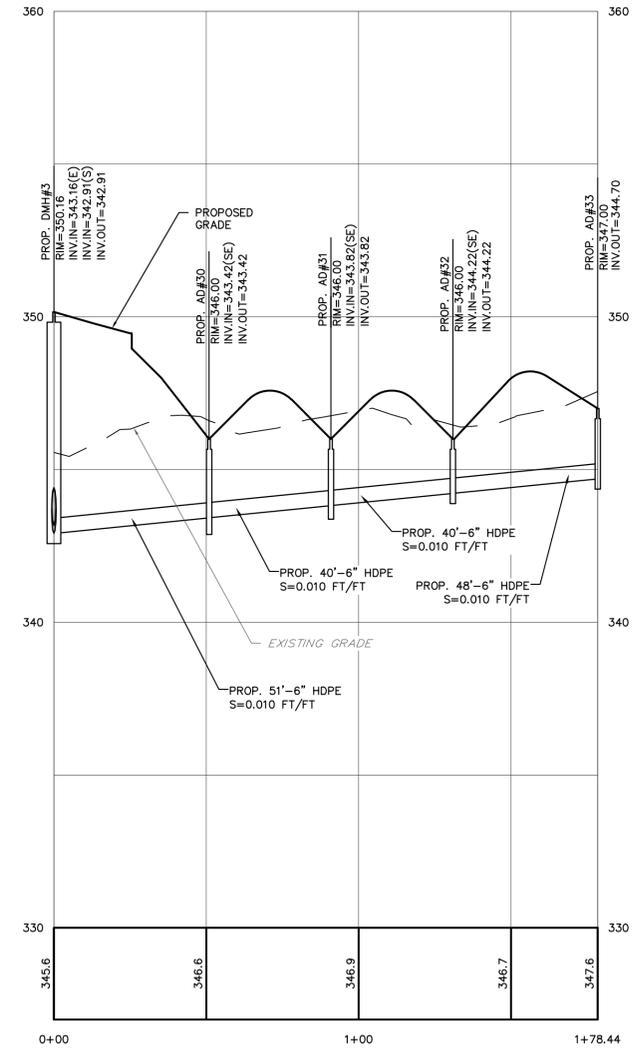
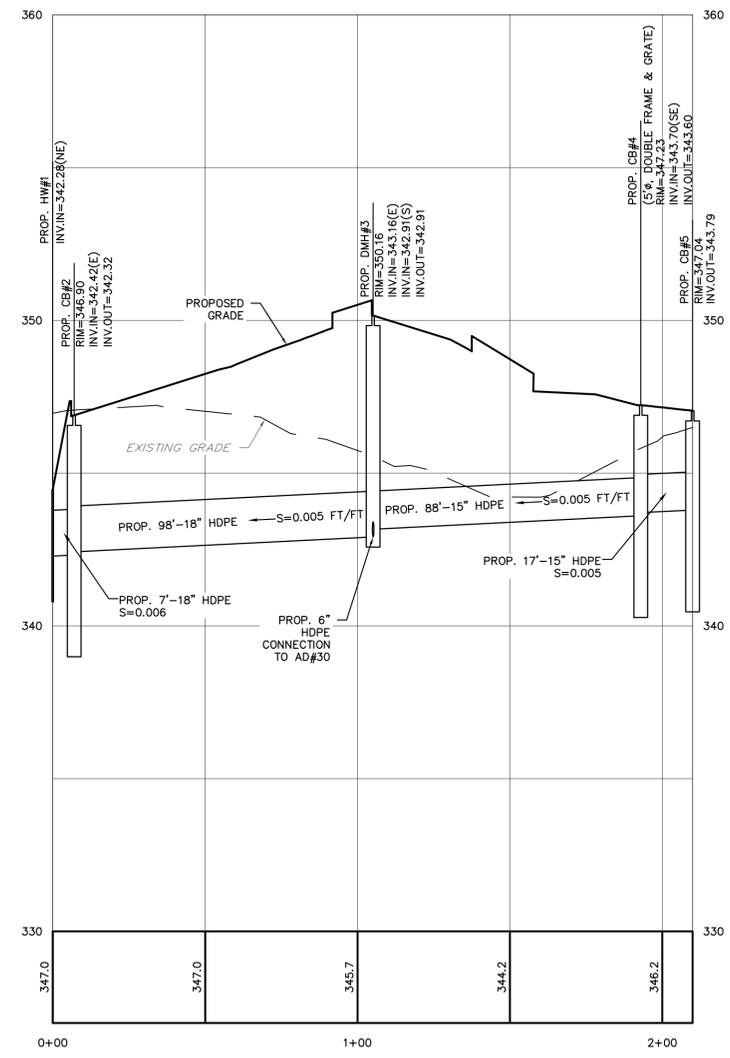
STAMP:

 09/01/2020

LOCATION:
TAX MAP 645 LOTS 4 & 5
534 & 550
OLD WELLINGTON ROAD
MANCHESTER, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

PROJECT:
**STARK RESIDENCES AT
OLD WELLINGTON**

TITLE:
PROFILES

PROJECT No. DATE: SCALE:
20-0420-1 SEPTEMBER 1, 2020 HORIZ.
SHEET: 9 OF 17 1"=30'



DRAINAGE PROFILE (PROPOSED CB#5 TO PROPOSED HW#1)
1"=30' HORZ., 1"=3' VERT.

DRAINAGE PROFILE (PROPOSED AD#33 TO PROPOSED DMH#3)
1"=30' HORZ., 1"=3' VERT.

No.	DATE	REVISIONS	COMMENTS
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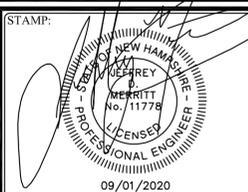
OWNER: KEVIN H. BOURGEOIS REVOCABLE TRUST
27 HOPKINS ROAD
BOSTON, NH 03070
HGRD BR. 8828 Pg. 700

APPLICANT: D&F DEVELOPMENT, LLC
89 TICKLEFANGY LANE
SALEM, NH 03079

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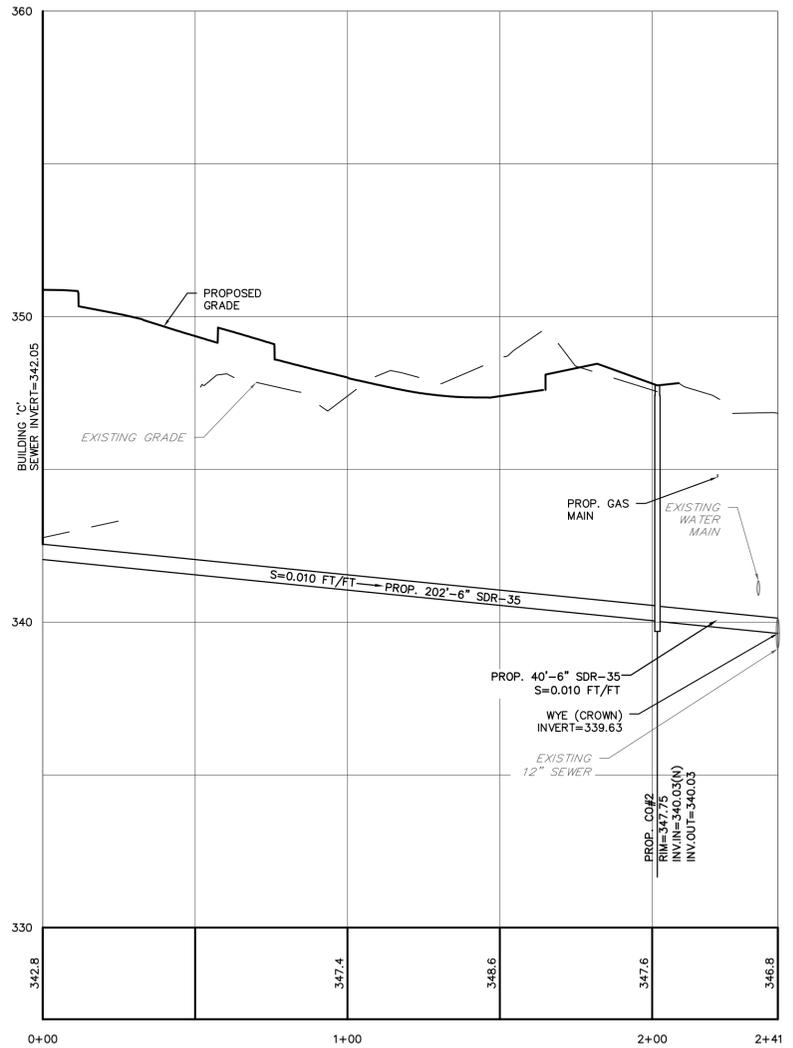
09/01/2020

LOCATION:
TAX MAP 645 LOTS 4 & 5
534 & 550
OLD WELLINGTON ROAD
MANCHESTER, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

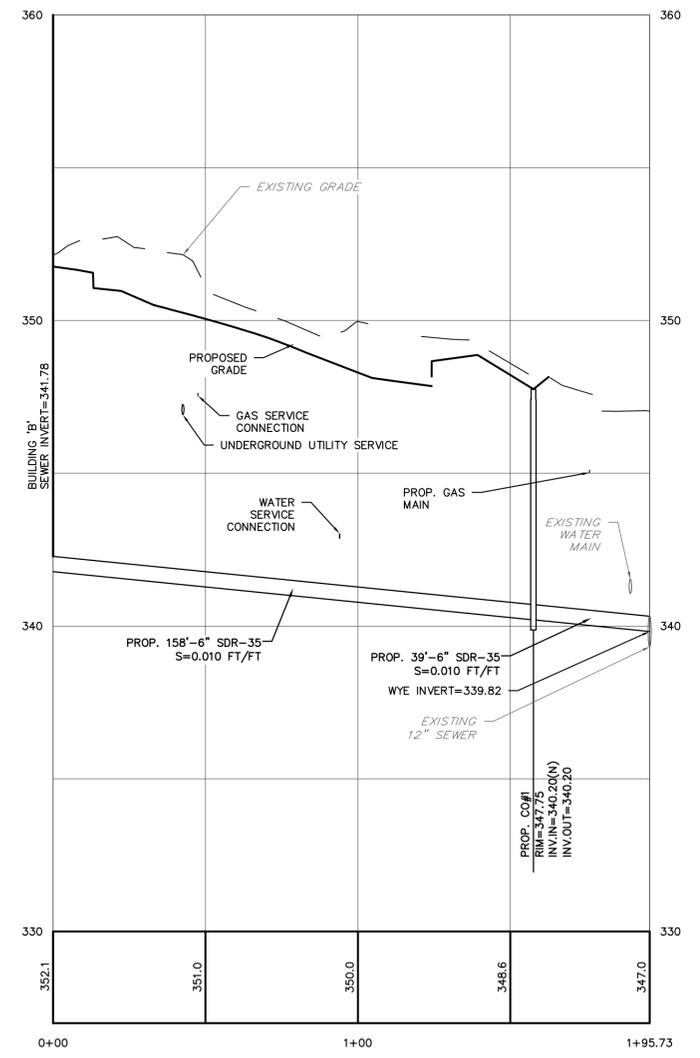
PROJECT:
**STARK RESIDENCES AT
OLD WELLINGTON**

TITLE:
PROFILES

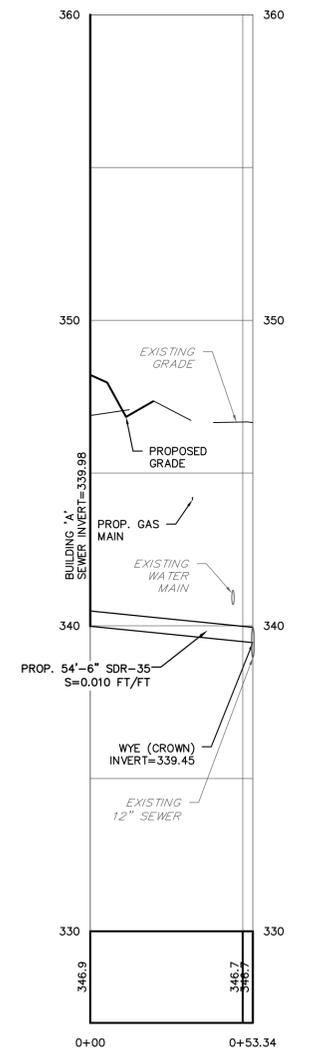
PROJECT No. DATE: 20-0420-1 SEPTEMBER 1, 2020
SHEET: 10 OF 17



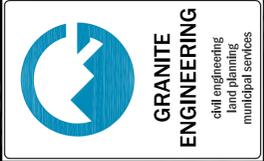
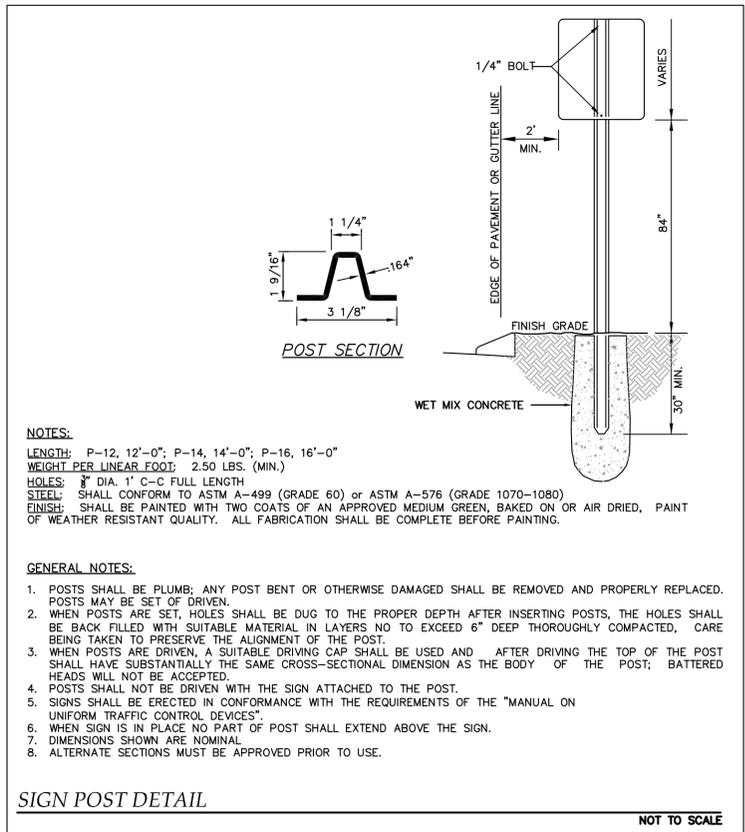
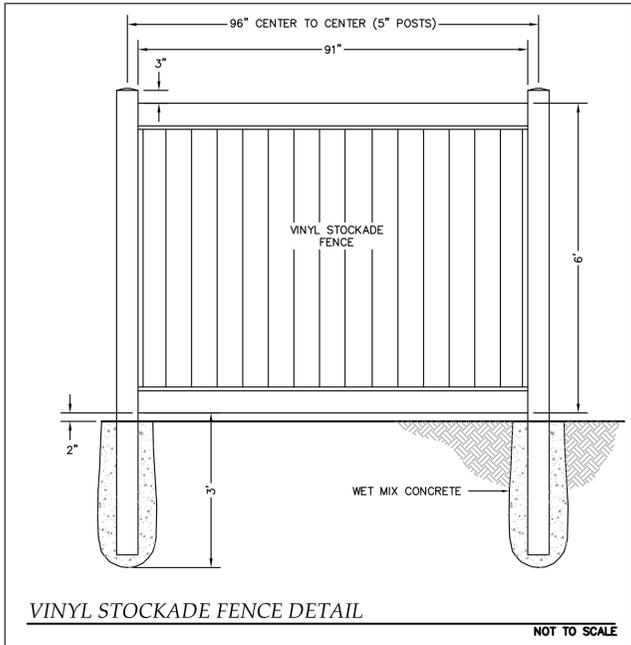
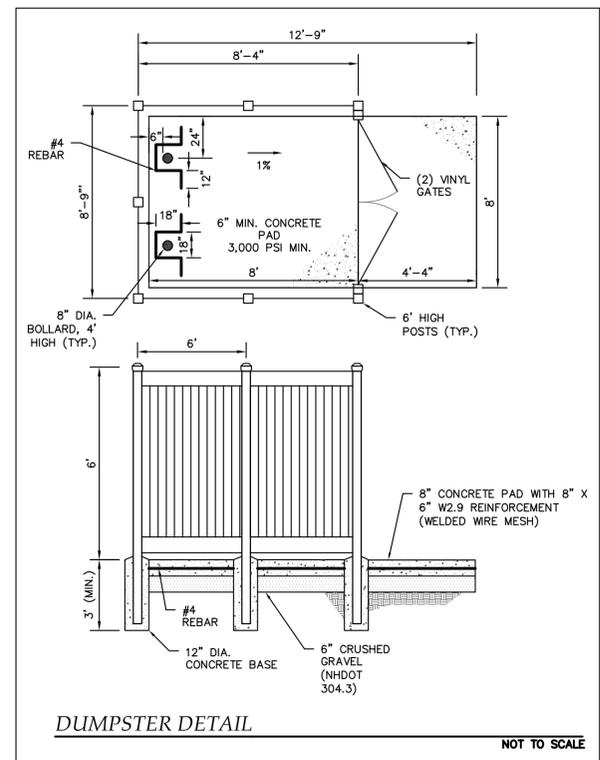
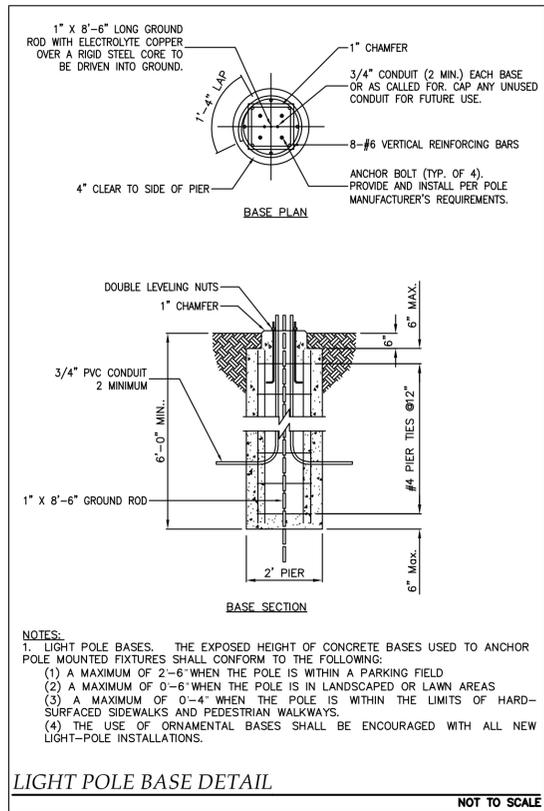
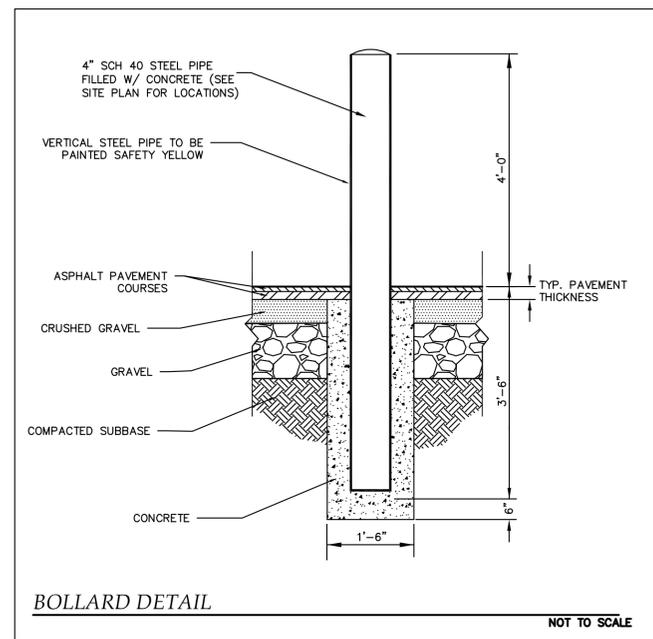
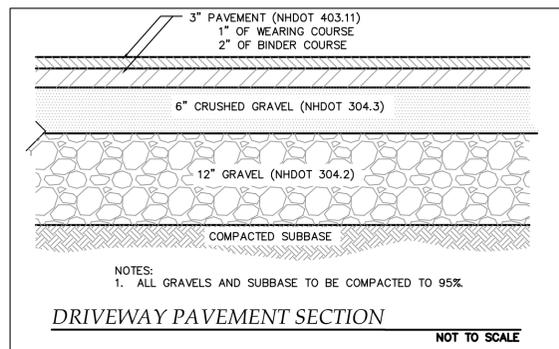
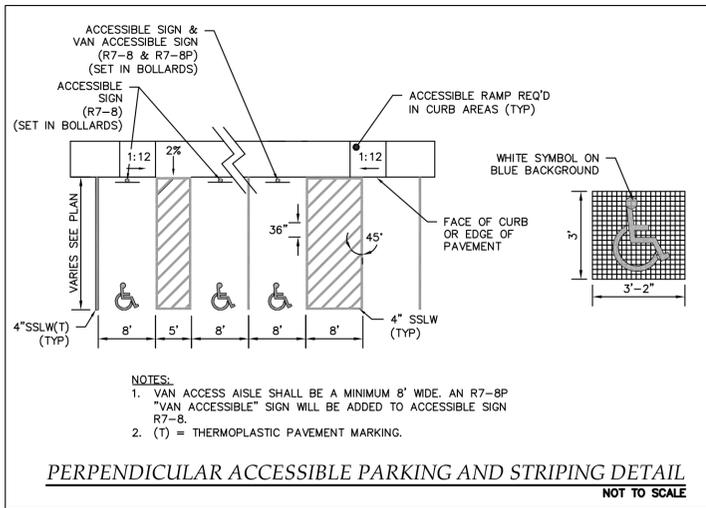
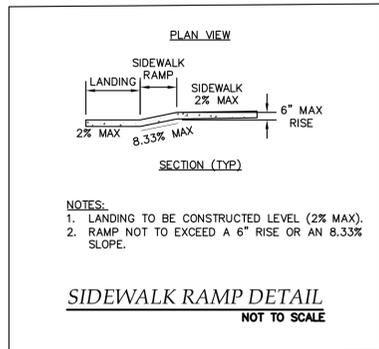
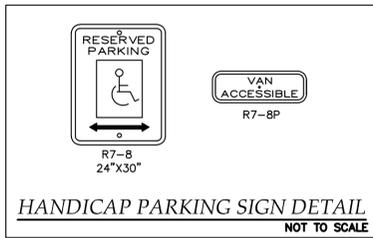
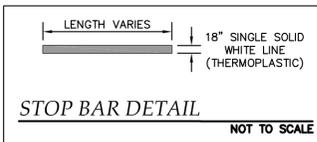
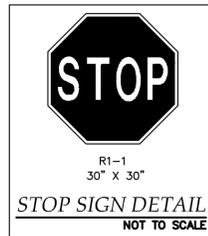
SEWER SERVICE PROFILE (PROPOSED BUILDING 'C')
1"=30' HORZ., 1"=3' VERT.



SEWER SERVICE PROFILE (PROPOSED BUILDING 'B')
1"=30' HORZ., 1"=3' VERT.



SEWER SERVICE PROFILE (PROPOSED BUILDING 'A')
1"=30' HORZ., 1"=3' VERT.



REVISIONS	
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OWNER: BOURGEOIS REVOCABLE TRUST
 KEVIN H. BOURGEOIS, TRUSTEE
 27 HOPKINS ROAD
 BOSTON, MA 02118
 HGR DR. 8626 Pg. 700

APPLICANT:
 B&F DEVELOPMENT, LLC
 89 TICKLEFANG LANE
 SALEM, NH 03079

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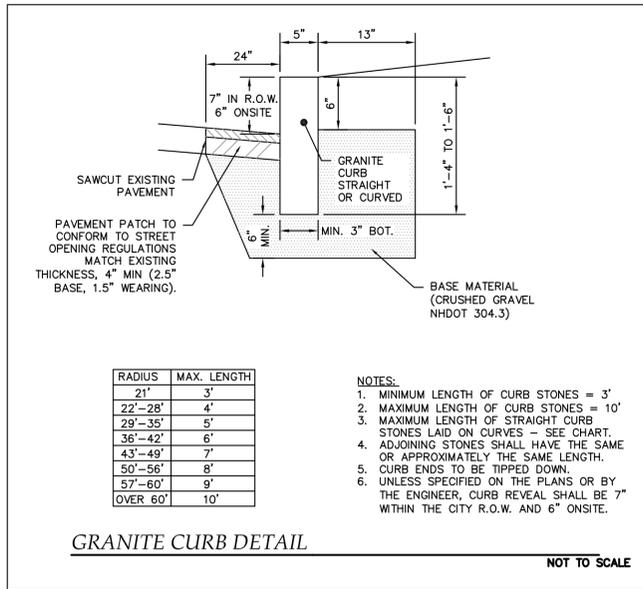
STAMP: [Professional Engineer Seal for Kevin H. Bourgeois, No. 11778, Exp. 09/01/2020]

LOCATION:
 TAX MAP 645 LOTS 4 & 5
 534 & 550
 OLD WELLINGTON ROAD
 MANCHESTER, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

PROJECT:
**STARK RESIDENCES AT
 OLD WELLINGTON**

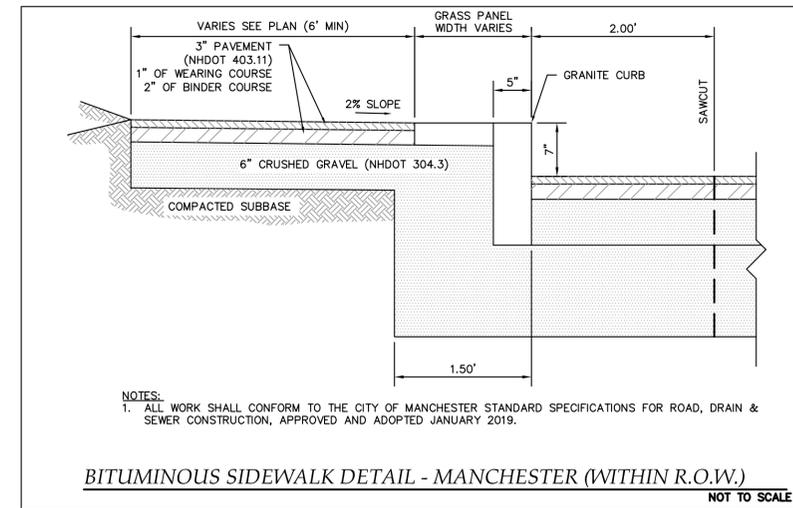
TITLE:
DETAILS

PROJECT No. DATE: 20-0420-1 SEPTEMBER 1, 2020 SCALE: AS SHOWN
 SHEET: 11 OF 17



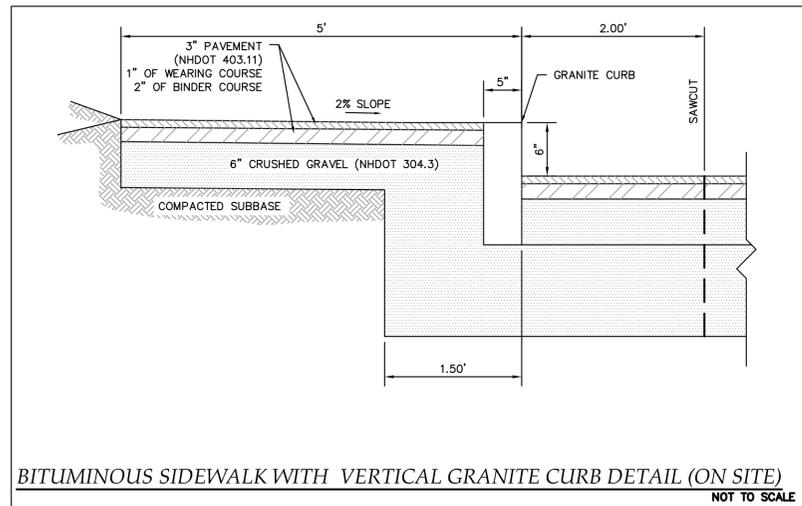
GRANITE CURB DETAIL

NOT TO SCALE



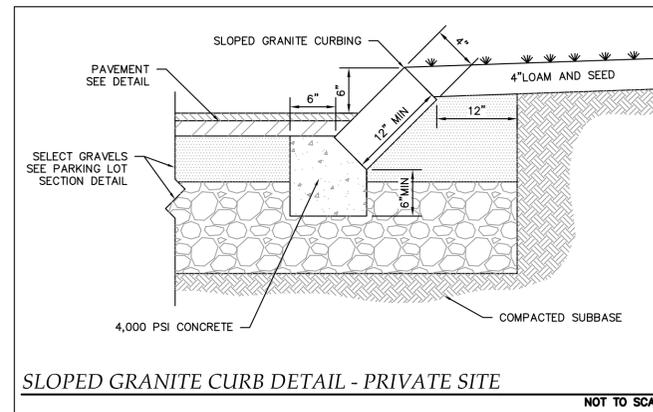
BITUMINOUS SIDEWALK DETAIL - MANCHESTER (WITHIN R.O.W.)

NOT TO SCALE



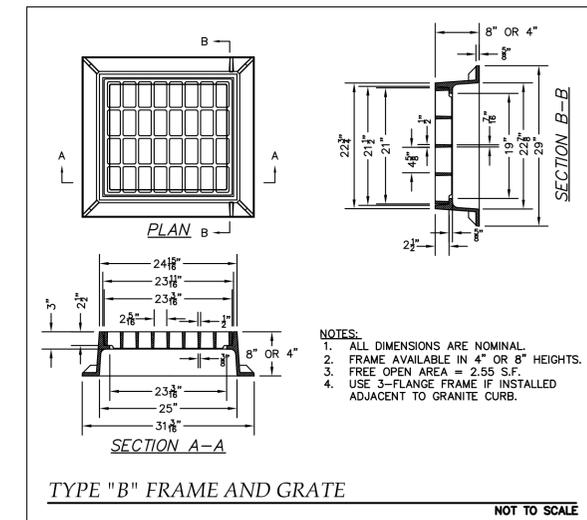
BITUMINOUS SIDEWALK WITH VERTICAL GRANITE CURB DETAIL (ON SITE)

NOT TO SCALE



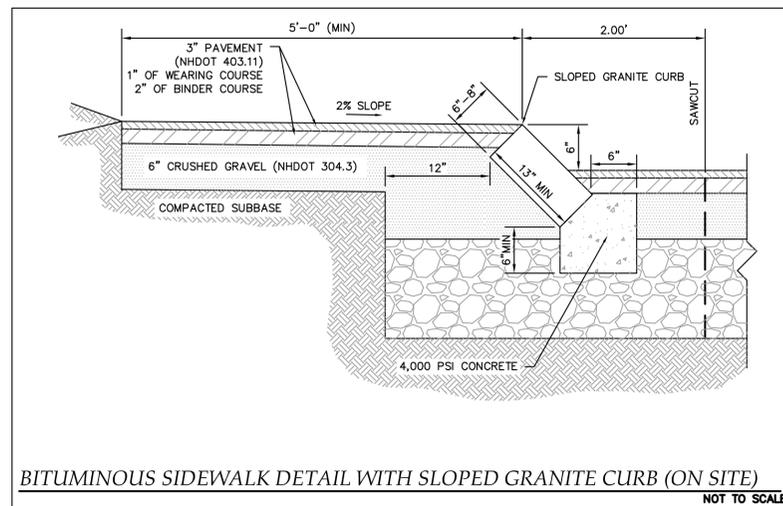
SLOPED GRANITE CURB DETAIL - PRIVATE SITE

NOT TO SCALE



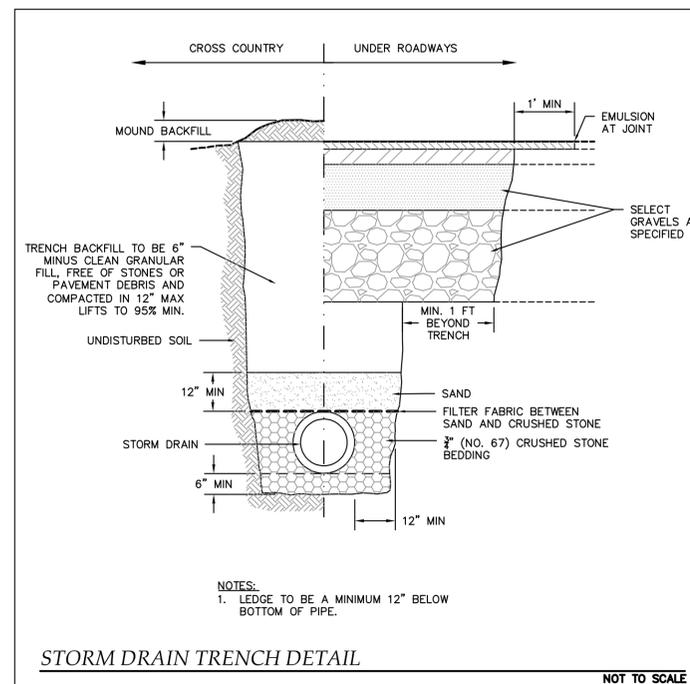
TYPE "B" FRAME AND GRATE

NOT TO SCALE



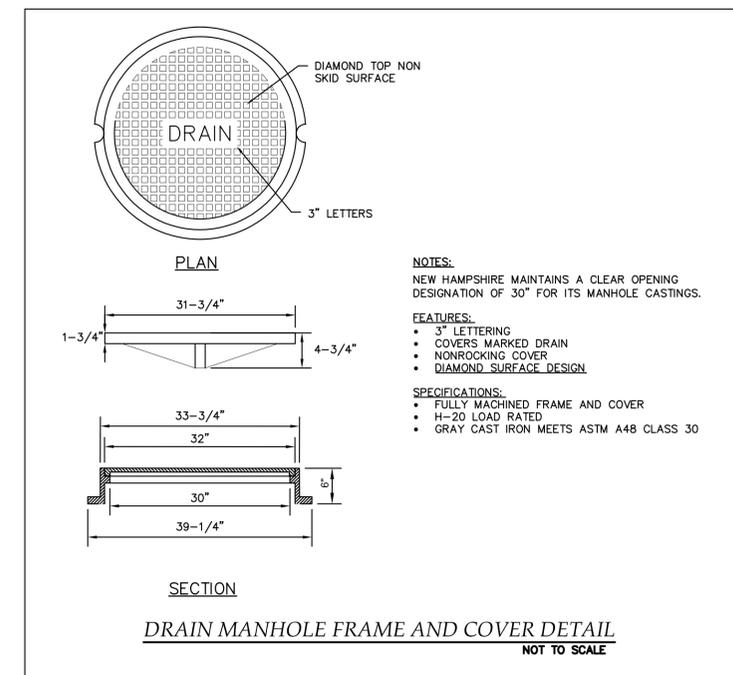
BITUMINOUS SIDEWALK DETAIL WITH SLOPED GRANITE CURB (ON SITE)

NOT TO SCALE



STORM DRAIN TRENCH DETAIL

NOT TO SCALE



DRAIN MANHOLE FRAME AND COVER DETAIL

NOT TO SCALE

NO.	DATE	REVISIONS	COMMENTS
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OWNER: BOURGEOIS REVOCABLE TRUST
KEVIN H. BOURGEOIS, TRUSTEE
27 HOPKINS ROAD
NASHUA, NH 03070
NHDOT BR. 8826 PG. 700

APPLICANT:
D&F DEVELOPMENT, LLC
89 TICKLEFERRY LANE
SALEM, NH 03079

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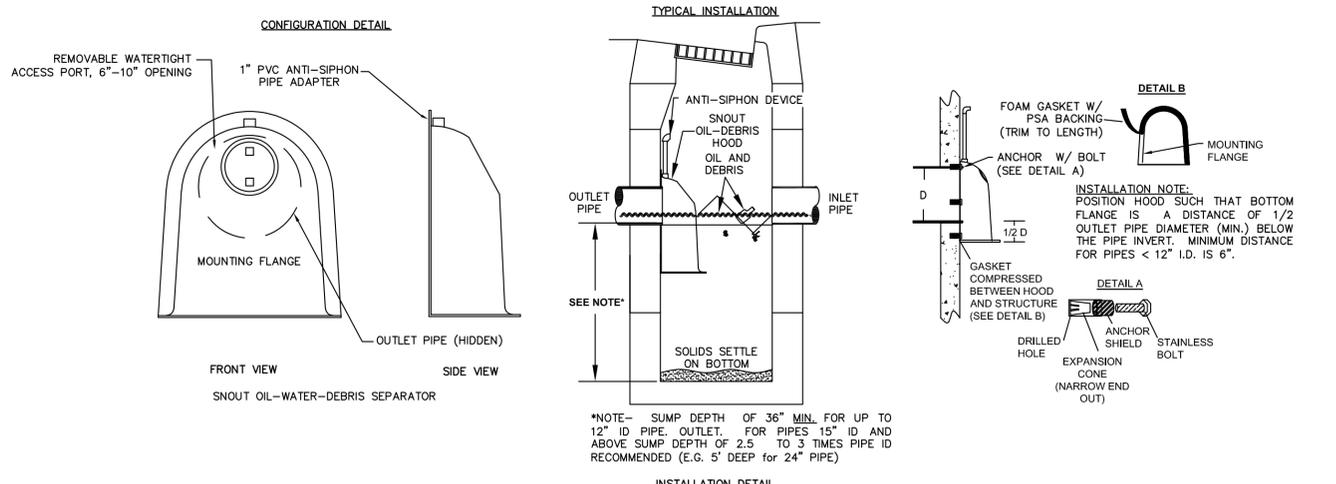
STAMP: [Professional Engineer Seal for Kevin H. Bourgeois, License No. 11778, dated 09/01/2020]

LOCATION:
TAX MAP 645 LOTS 4 & 5
534 & 550
OLD WELLINGTON ROAD
MANCHESTER, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

PROJECT:
STARK RESIDENCES AT OLD WELLINGTON

TITLE:
DETAILS

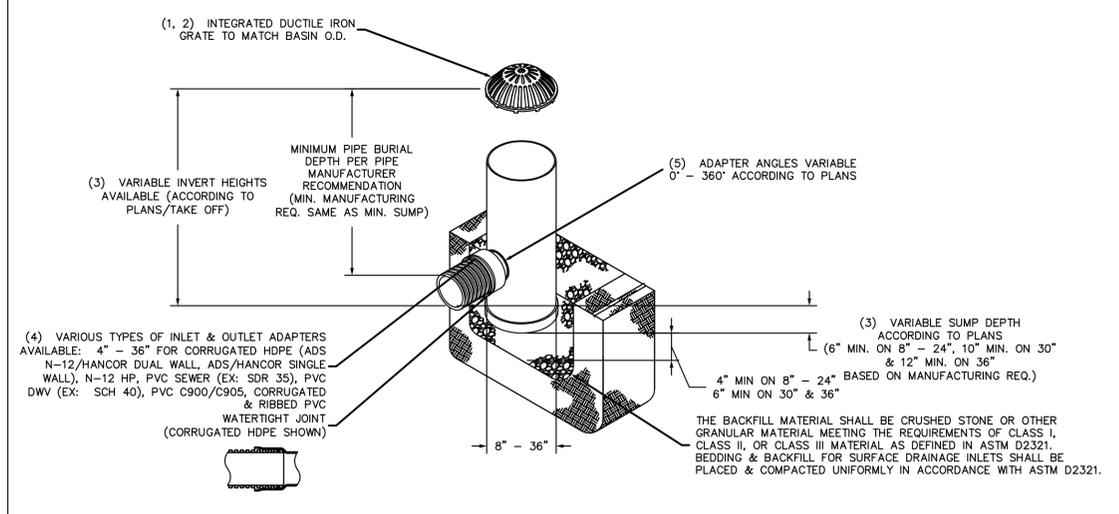
PROJECT No. | DATE: | SCALE:
20-0420-1 | SEPTEMBER 1, 2020 | AS SHOWN
SHEET: | 12 OF 17



- NOTES:**
- ALL HOODS SHALL BE CONSTRUCTED OF A GLASS REINFORCED RESIN COMPOSITE WITH ISO GEL COAT EXTERIOR FINISH WITH A MINIMUM 0.125" LAMINATE THICKNESS.
 - ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT PIPE AND ELBOW AS DRAWN. (SEE CONFIGURATION DETAIL)
 - THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION (SNOU SIZE ALWAYS LARGER THAN PIPE SIZE).
 - THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A MINIMUM DISTANCE EQUAL TO 1/2 THE OUTLET PIPE DIAMETER WITH A MINIMUM DISTANCE OF 6" FOR PIPES <12" I.D.
 - THE ANTI-SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 12" ACCORDING TO STRUCTURE CONFIGURATION.
 - THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL AND PIPE SHALL BE FINISHED FLUSH TO WALL.
 - ALL STRUCTURE JOINTS SHALL BE WATERTIGHT.
 - THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH 3/8" STAINLESS STEEL BOLTS AND OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER. (SEE INSTALLATION DETAIL)
 - INSTALLATION INSTRUCTIONS SHALL BE FURNISHED WITH MANUFACTURER SUPPLIED INSTALLATION KIT. INSTALLATION KIT SHALL INCLUDE:
 - INSTALLATION INSTRUCTIONS
 - PVC ANTI-SIPHON VENT PIPE AND ADAPTER
 - OIL-RESISTANT CRUSHED CELL FOAM GASKET WITH PSA BACKING
 - 3/8" STAINLESS STEEL BOLTS
 - ANCHOR SHIELDS

SNOUT OIL-WATER-DEBRIS SEPARATOR

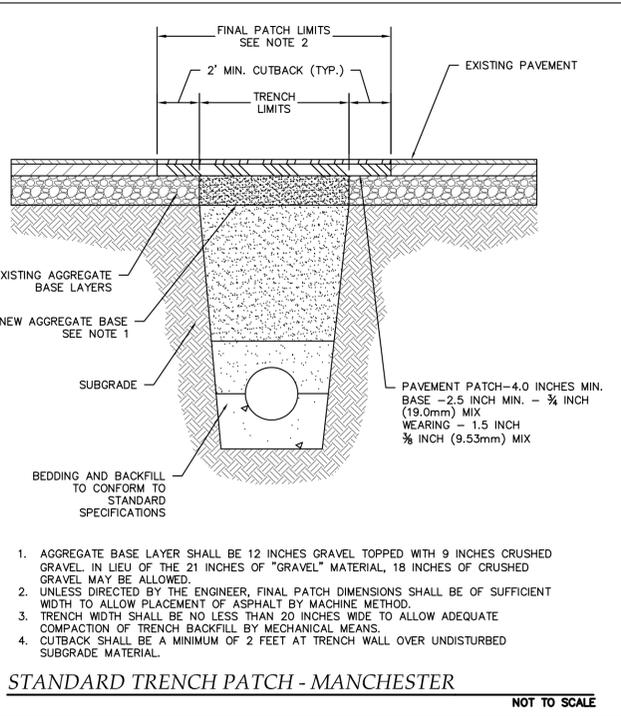
NOT TO SCALE



- NOTES:**
- 8" - 30" DOME GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
 - 8" & 10" DOME GRATES FIT ONTO THE DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7001-110-045.
 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 36").
 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
 - 8" - 30" DOME GRATES HAVE NO LOAD RATING.

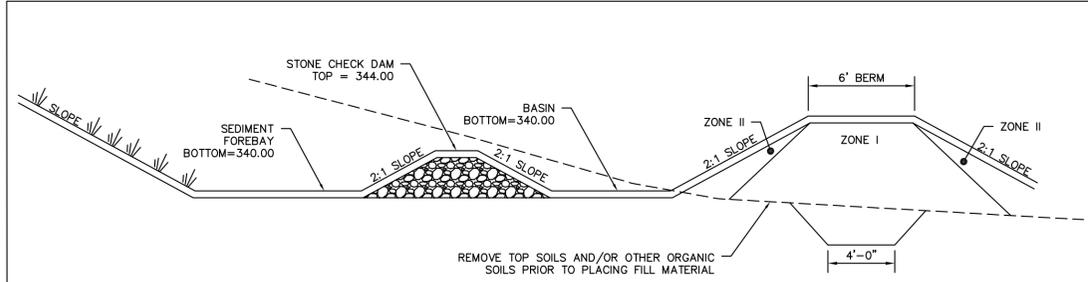
NYLOPLAST AREA DRAIN DETAIL

NOT TO SCALE



STANDARD TRENCH PATCH - MANCHESTER

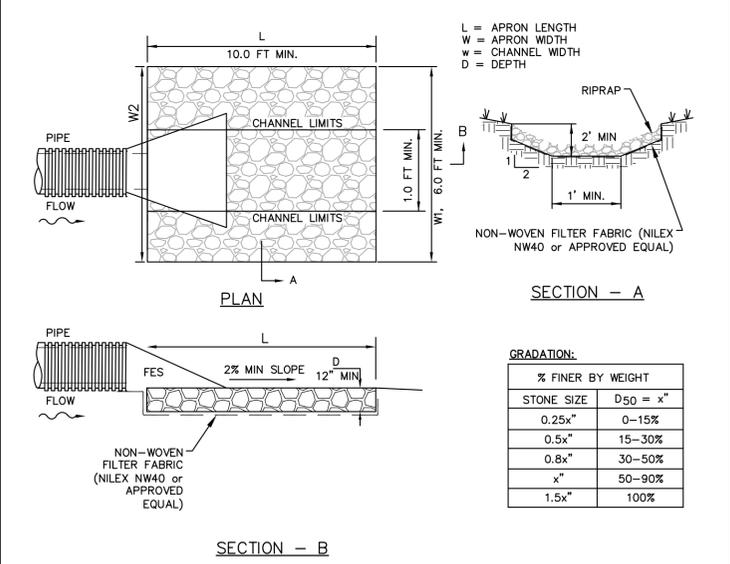
NOT TO SCALE



- NOTES:**
- CONTRACTOR TO NOTIFY DIG-SAFE 72 HOURS PRIOR TO START OF CONSTRUCTION
 - CLEAR AND CUT THE AREA TO THE NECESSARY EXTENT. CONTRACTOR TO PROPERLY DISPOSE OF ALL DEBRIS.
 - ALL SILTATION AND TEMPORARY EROSION CONTROLS MEASURES SHALL BE INSTALLED AS CALLED FOR ON PROJECT PLANS PRIOR TO GRUBBING OF CLEARED AREAS.
 - CONTRACTOR TO COMPLETE GRUBBING AND PROPERLY DISPOSE OF ALL DEBRIS. STOCKPILE ORGANIC MATERIAL SUITABLE FOR USE AS TOPSOIL IN UPLAND AREAS. ALL STOCKPILES TO BE SEEDED AND, IF NECESSARY, SURROUNDED WITH HAY BALES TO PREVENT LOSSES DUE TO EROSION.
 - CONSTRUCT TEMPORARY CULVERTS AS NECESSARY FOR CONSTRUCTION ACTIVITIES. ALL CROSSINGS TO BE PROTECTED BY HAY BALE BARRIERS TO PREVENT EROSION.
 - CONSTRUCT CUT-OFF TRENCH (PART OF ZONE I).
 - CONSTRUCT ZONE I PORTION OF EARTH EMBANKMENT.
 - CONSTRUCT ZONE II PORTION OF EARTH EMBANKMENT.
 - APPLY TOPSOIL TO SLOPES AND OTHER AREAS OF DISTURBANCE BY CONSTRUCTION. TOPSOIL MAY BE NATIVE ORGANIC MATERIAL SCREENED SO AS TO BE FREE OF ALL DELETERIOUS MATERIAL. TOPSOIL SHALL BE A MINIMUM OF 4-INCHES OF COMPACTED THICKNESS. UPON PLACEMENT ON TOPSOIL FINISHED AREAS ARE TO BE LIMED, SEEDED AND MULCHED. CONSTRUCTION PERSONNEL SHALL INSPECT COMPLETED SECTIONS OF WORK ON A REGULAR BASIS AND REMEDY ALL PROBLEM AREAS UNTIL GRASS HAS BECOME ESTABLISHED.
 - MAINTAIN, REPAIR AND REPLACE TEMPORARY EROSION CONTROL MEASURES AS NECESSARY UNTIL THE WHOLE CONSTRUCTION AREA HAS BEEN STABILIZED (MINIMUM ONE WINTER).
 - REMOVE AND SUITABLY DISPOSE OF TEMPORARY EROSION CONTROL MEASURES AFTER STABILIZATION.
 - MONITOR CONSTRUCTION ACTIVITIES TO INSURE THEY ARE PERFORMED IN SUCH WAYS AS TO NOT ENDANGER THE INTEGRITY OF EARTH EMBANKMENTS, STORMWATER CONTROL, AND RIP RAP OUTLET PROTECTION.
 - DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF, WATER FROM EXCAVATIONS) TO PERMANENT INFILTRATION BMPs.
 - DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION COMPONENTS OF THE SYSTEM.
 - AFTER THE BASIN IS EXCAVATED TO THE FINAL DESIGN ELEVATION, THE FLOOR SHOULD BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW TO RESTORE INFILTRATION RATES, FOLLOWED BY A PASS WITH A LEVELING DRAG.
 - IMMEDIATELY AFTER CONSTRUCTING THE BASIN, STABILIZE ITS BOTTOM AND SIDE SLOPES WITH A DENSE TURF OF WATER-TOLERANT GRASS. USE LOW-MAINTENANCE, RAPIDLY GERMINATING GRASSES, SUCH AS FESCUES.
 - DO NOT PLACE INFILTRATION SYSTEMS INTO SERVICE UNTIL THE CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.

ABOVE-GROUND STORMWATER INFILTRATION POND DETAIL

NOT TO SCALE



- NOTES:**
- THE APRON SUBGRADE TO BE PREPARED TO THE GRADES SHOWN ON THE APPROVED PLANS.
 - THE FRACTURED ROCK (RIP-RAP) SHALL CONFORM TO THE SPECIFIED GRADATION (D₅₀=4" MIN.).
 - GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE RIP-RAP PLACEMENT. DAMAGED FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS SHALL BE A MINIMUM OF 12.0 INCHES.
 - RIP-RAP PLACEMENT SHALL BE IN ONE CONTINUOUS LIFT TO THE DEPTH SPECIFIED, AVOIDING MATERIAL SEGREGATION.

MAINTENANCE

THE APRON SHOULD BE INSPECTED AFTER EVERY MAJOR RAIN EVENT (> 3"). IF THE RIPRAP HAS BEEN DISPLACED, UNDERMINED OR DAMAGED, IT SHOULD BE REPAIRED IMMEDIATELY. THE VEGETATED CHANNEL IMMEDIATELY BELOW THE OUTLET SHOULD BE PERIODICALLY INSPECTED FOR DEGRADATION. IF DEGRADATION HAS OCCURRED, REPAIR IMMEDIATELY. THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS AND SEDIMENT THAT COULD IMPAIR UPSTREAM CHANNEL CHARACTERISTICS. ALL DEBRIS OR SEDIMENT SHOULD BE REMOVED OFF SITE AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LAWS.

STRUCTURE	LENGTH	W1	W2	D50	DEPTH
HW#1	12'	12'	5'	4"	10"

OUTLET PROTECTION DETAIL

NOT TO SCALE



NO.	DATE	REVISIONS	BY	
			DATE	COMMENTS
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				

OWNER: KEVIN H. BOURGEOIS REVOCABLE TRUST
 KEVIN H. BOURGEOIS, TRUSTEE
 27 HOPKINS ROAD
 2ND FLOOR
 1700 NH 103ST
 NHEM BR. 0826 Pg. 700

APPLICANT: B&E DEVELOPMENT LLC
 89 TUCKERMAN LANE
 SALEM, NH 03079

GRANITE ENGINEERING
 civil engineering • land planning • municipal services

250 Commercial Street, Suite 3008
 Manchester, New Hampshire 03101
 603.518.8030
 www.GraniteEng.com

STAMP: [Professional Engineer Seal for Kevin H. Bourgeois, License No. 11778, State of New Hampshire, dated 09/01/2020]

LOCATION: TAX MAP 645 LOTS 4 & 5
 534 & 550
 OLD WELLINGTON ROAD
 MANCHESTER, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

PROJECT: STARK RESIDENCES AT OLD WELLINGTON

TITLE: DETAILS

PROJECT No. DATE: 20-0420-1 SEPTEMBER 1, 2020 SCALE: AS SHOWN
 SHEET: 13 OF 17

NO.	DATE	REVISIONS	COMMENTS
1			
2			
3			
4			
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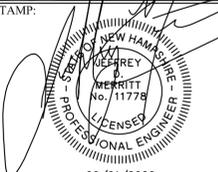
OWNER: BOURGEOIS REVOCABLE TRUST
KEVIN H. BOURGEOIS, TRUSTEE
27 HOPKINS ROAD
NORWOOD, NH 03057
NHDOT BR. 8626 Pg. 700

APPLICANT:
887 DEVLIN DRIVE
99 TUCKERMAN LANE
SALEM, NH 03079

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250 Commercial Street, Suite 3008
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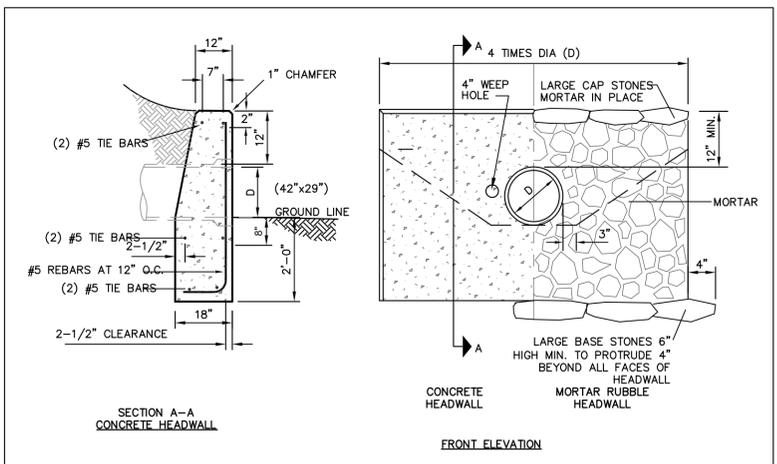
09/01/2020

LOCATION:
TAX MAP 645 LOTS 4 & 5
534 & 550
OLD WELLINGTON ROAD
MANCHESTER, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

PROJECT: **STARK RESIDENCES AT OLD WELLINGTON**

TITLE: **DETAILS**

PROJECT No. DATE: 20-0420-1 SEPTEMBER 1, 2020 SCALE: AS SHOWN
SHEET: 14 OF 17



CLASS B CONCRETE - SCHEDULE FOR REINFORCED CONCRETE

PIPE DIAMETER	12"	15"	18"	24"	30"	36"	42"	48"	54"	60"
NUMBER	4	4	4	4	4	4	4	4	4	4
LENGTH OF BARS	3'-0"	3'-0"	3'-0"	3'-0"	4'-0"	4'-0"	5'-0"	5'-0"	6'-0"	6'-0"

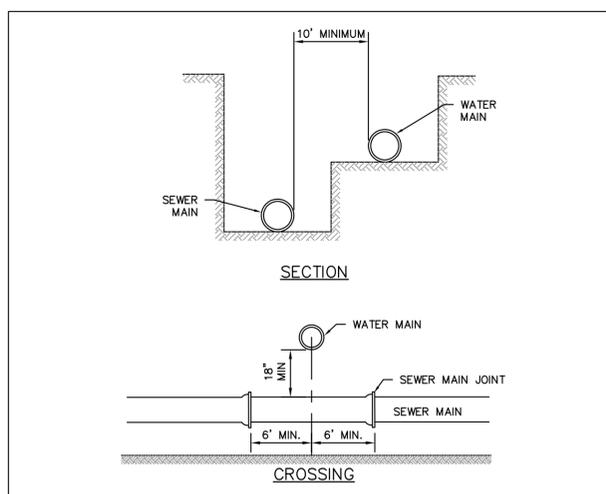
CLASS B CONCRETE - SCHEDULE FOR REINFORCED CONCRETE

PIPE DIAMETER	12"	15"	18"	24"	30"	36"	42"	48"	54"	60"
CONCRETE QUANTITY (YDS)	1.0	1.3	1.8	2.7	3.5	4.9	6.4	8.0	10.0	12.3

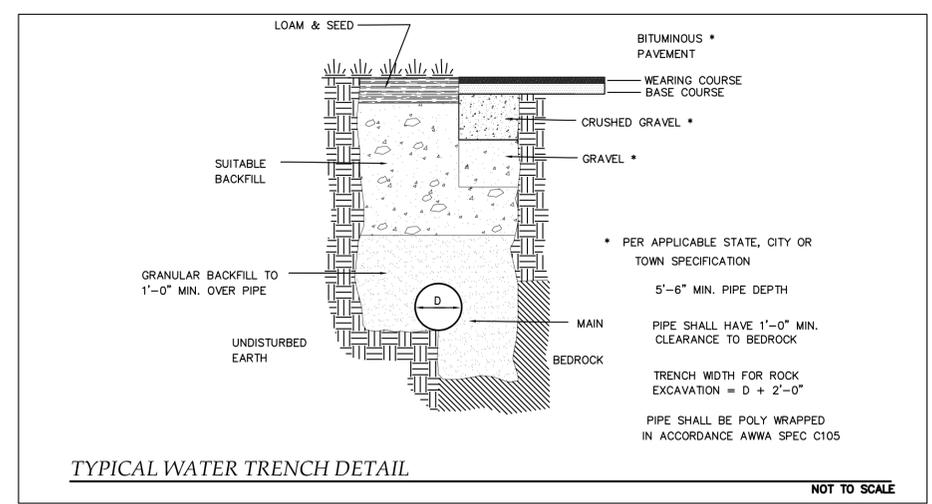
- NOTES:
- FOR DESCRIPTIONS, MATERIALS AND CONSTRUCTION METHODS, SEE LATEST NHDOT SPECIFICATIONS.
 - ALL CONCRETE DIMENSIONS SHOWN ARE MINIMUM.
 - THE PLANNING BOARD RESERVES THE RIGHT TO REQUIRE THAT THE DEVELOPER PROVIDE CAST-IN-PLACE CONCRETE HEADWALLS WITH STONE FACING IF THE CAST-IN-PLACE TYPE IS TO BE USED.

TYPICAL CONCRETE HEADWALL DETAIL

NOT TO SCALE

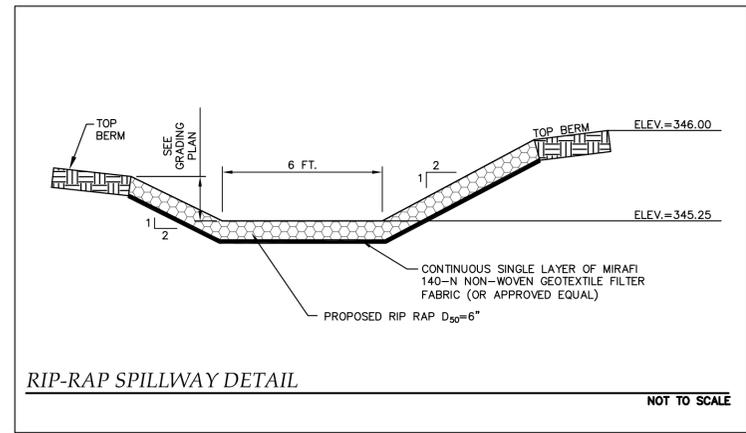


WATER AND SEWER SEPARATION AND CROSSING DETAIL



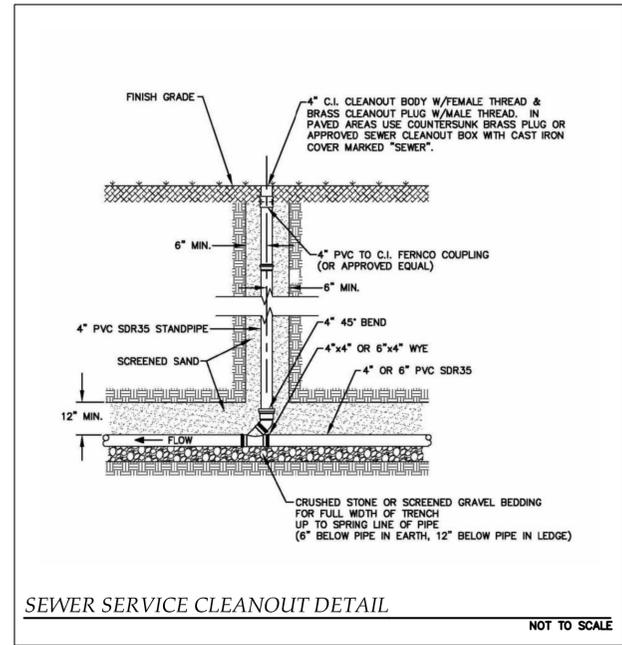
TYPICAL WATER TRENCH DETAIL

NOT TO SCALE



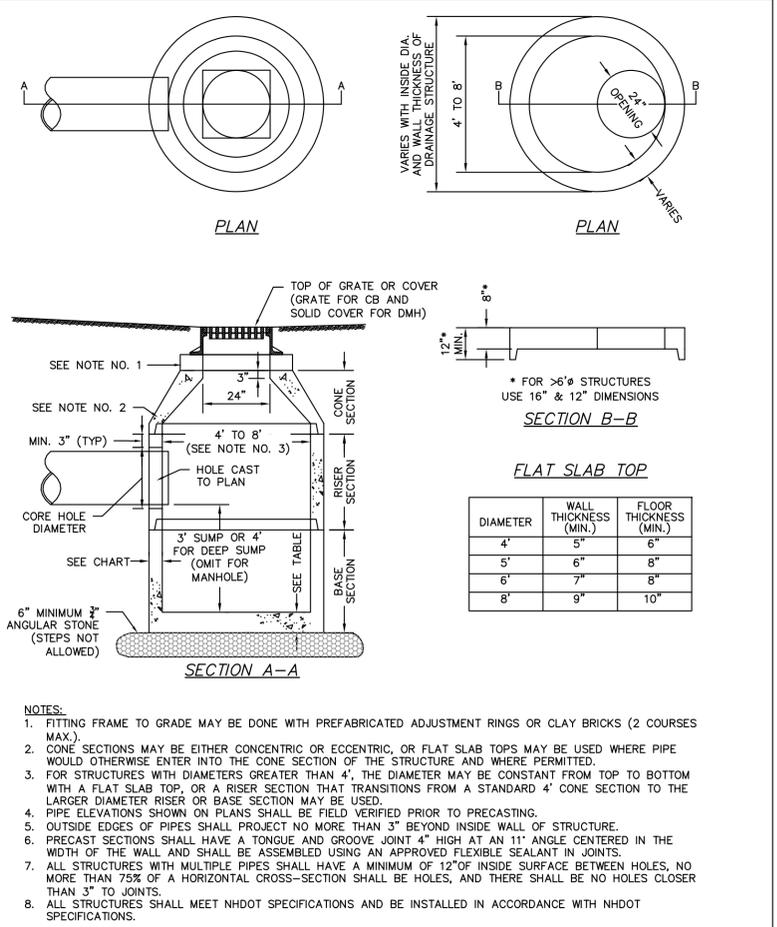
RIP-RAP SPILLWAY DETAIL

NOT TO SCALE



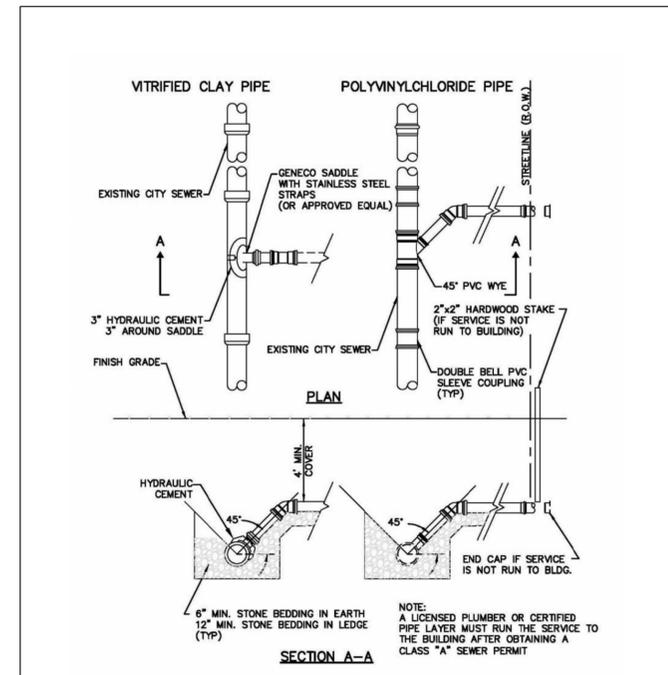
SEWER SERVICE CLEANOUT DETAIL

NOT TO SCALE



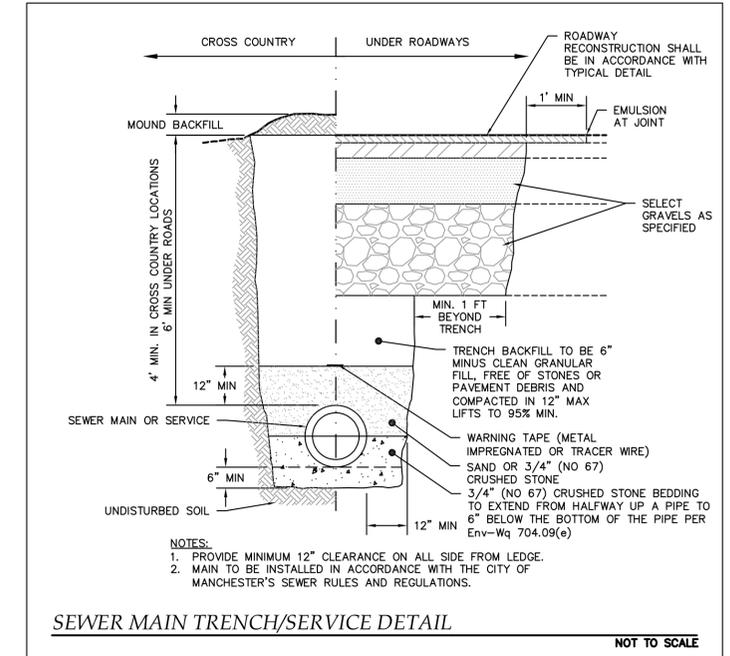
PRECAST REINFORCED CONCRETE CATCH BASIN AND DRAIN MANHOLE

NOT TO SCALE



SEWER SERVICE CONNECTION (TO EXISTING MAINS) DETAIL

NOT TO SCALE



SEWER MAIN TRENCH/SERVICE DETAIL

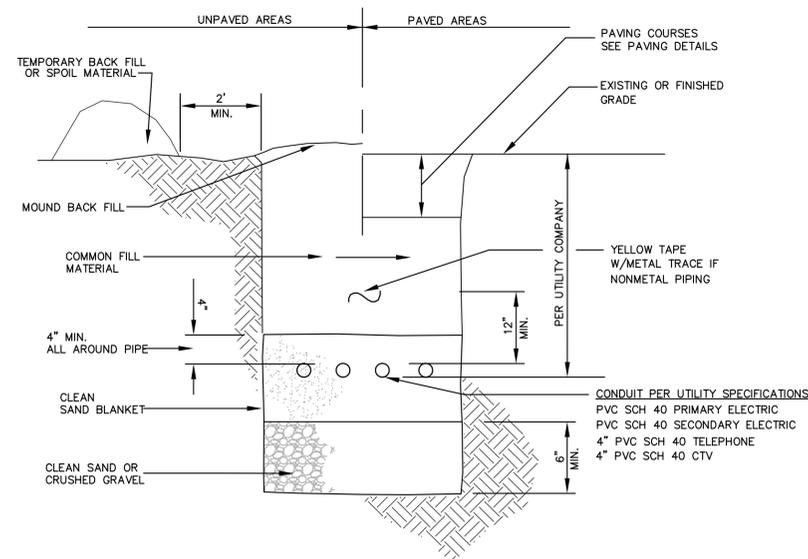
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PROTECTION OF WATER SUPPLY NOTES:

1. THERE SHALL BE NO PHYSICAL CONNECTION BETWEEN A PUBLIC OR PRIVATE POTABLE WATER SUPPLY SYSTEM AND ANY SEWERAGE SUCH THAT SEWAGE OR POLLUTED WATER COULD PASS INTO THE POTABLE SUPPLY. NO WATER PIPE SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF ANY SEWER OR SEWER MANHOLE.
2. NO SEWER SHALL BE LOCATED WITHIN THE APPLICABLE WELL PROTECTIVE RADI ESTABLISHED IN ENV-DW 300 FOR ANY PUBLIC WATER SUPPLY WELL OR WITHIN 75 FEET OF ANY PRIVATE WATER SUPPLY WELL.
3. SEWERS SHALL BE LOCATED AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN.
4. A DEVIATION FROM THE SEPARATION REQUIREMENTS OF (2) OR (3), ABOVE, SHALL BE ALLOWED WHERE NECESSARY TO AVOID CONFLICT WITH SUBSURFACE STRUCTURES, UTILITY CHAMBERS, AND BUILDING FOUNDATIONS, PROVIDED THAT THE SEWER IS CONSTRUCTED WITH FORCE MAIN CONSTRUCTION MATERIALS THAT MEET THE REQUIREMENTS IN ENV-WO 704.08.
5. WHENEVER SEWERS MUST CROSS WATER MAINS, THE SEWER SHALL BE CONSTRUCTED AS FOLLOWS:
 - 5.1. VERTICAL SEPARATION OF THE SEWER AND WATER MAIN SHALL BE NOT LESS THAN 18 INCHES, WITH WATER ABOVE SEWER; AND
 - 5.2. SEWER PIPE JOINTS SHALL BE LOCATED AT LEAST 6 FEET HORIZONTALLY FROM THE WATER MAIN.

PROTECTION OF WATER SUPPLY NOTES

NOT TO SCALE



NOTES:

1. ALL UTILITY SHAPE, GRADE, ALIGNMENT, AND LOCATION FINAL DESIGN TO BE DETERMINED BY UTILITY PROVIDER.
2. ALL ELECTRICAL, PHONE, AND DATA CONDUIT MATERIALS AND METHODS OF CONSTRUCTION TO COMPLY WITH APPLICABLE UTILITY CONSTRUCTION REGULATIONS.
3. THE ABOVE TYPICAL UTILITY TRENCH DETAIL SERVES AS A GUIDE ONLY.

UTILITY TRENCH DETAIL

NOT TO SCALE

TRENCH CONSTRUCTION NOTES:

1. PIPE TRENCH BEDDING MATERIAL FOR EXCAVATION BELOW GRADE SHALL BE SCREENED GRAVEL OR CRUSHED STONE MEETING THE ASTM C33/C33M STONE SIZE NO. 67 STANDARD IN EFFECT WHEN THE STONE IS USED.
2. SUBJECT TO (2.1), BELOW, THE PIPE SAND BLANKET MATERIAL SHALL BE GRADED SAND FREE FROM ORGANIC MATERIALS, GRADED SUCH THAT 100 PERCENT PASSES A 1/2-INCH SIEVE AND A MAXIMUM OF 15 PERCENT PASSES A #200 SIEVE.
- 2.1. IN LIEU OF THE SAND BLANKET SPECIFIED IN (2), ABOVE, A STONE ENVELOPE 6 INCHES THICK COMPLETELY AROUND THE PIPE USING 3/4-INCH STONE MAY BE USED.
3. PIPE BEDDING MATERIAL SHALL EXTEND FROM A HORIZONTAL PLANE THROUGH THE PIPE AXIS TO 6 INCHES BELOW THE BOTTOM OF THE OUTSIDE SURFACE OF THE PIPE.
4. PIPE SAND BLANKET MATERIAL SHALL COVER THE PIPE A MINIMUM OF 12 INCHES ABOVE THE CROWN OF THE OUTSIDE SURFACE.
5. COMPACTION SHALL BE IN 12-INCH LAYERS FOR BEDDING AND BLANKET MATERIALS.
6. BACKFILL MATERIAL SHALL BE COMPACTED IN NO MORE THAN 3-FOOT THICK LAYERS TO THE GROUND SURFACE EXCEPT FOR ROAD CONSTRUCTION WHERE THE FINAL 3 FEET SHALL BE COMPACTED IN NO MORE THAN 12-INCH THICK LAYERS TO THE ROAD BASE SURFACE.
7. TRENCH BACKFILL MATERIAL IN ROADWAY LOCATIONS SHALL BE NATURAL MATERIALS EXCAVATED FROM THE TRENCH DURING CONSTRUCTION, EXCLUDING: DEBRIS; PIECES OF PAVEMENT; ORGANIC MATTER; TOP SOIL; WET OR SOFT MUCK; PEAT OR CLAY; EXCAVATED LEDGE MATERIAL; ROCKS OVER 6 INCHES IN THE LARGEST DIMENSION; AND ANY MATERIAL NOT APPROVED BY THE ENGINEER.
8. TRENCH BACKFILL AT CROSS-COUNTRY LOCATIONS SHALL BE AS DESCRIBED IN (7), ABOVE, EXCEPT THAT TOP SOIL, LOAM, MUCK OR PEAT MAY BE USED PROVIDED THE COMPLETED CONSTRUCTION WILL BE STABLE, AND PROVIDED THAT ACCESS TO THE SEWER FOR MAINTENANCE AND RECONSTRUCTION IS PRESERVED.
9. BACKFILL SHALL BE MOUNDDED 6 INCHES ABOVE ORIGINAL GROUND AT CROSS COUNTRY LOCATIONS.
10. BASE COURSE FOR TRENCH REPAIR SHALL MEET THE REQUIREMENTS OF DIVISION 300 OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION.
11. WHERE SHEETING IS PLACED ALONGSIDE THE PIPE AND EXTENDS BELOW MID-DIAMETER, THE SHEETING SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION NOT LESS THAN ONE FOOT ABOVE THE TOP OF THE PIPE AND AT LEAST 3 FEET BELOW FINISHED GRADE.
12. TRENCHES FOR SEWER PIPES WITH SLOPES OVER 0.08 FEET PER FOOT, TRENCHES FOR SEWER PIPES BELOW SEASONAL HIGH GROUND WATER LEVEL, AND TRENCHES FOR SEWER PIPES DOWNSTREAM OF AND WITHIN THE HYDRAULIC INFLUENCE OF WATERWAYS OR WETLANDS SHALL HAVE IMPERVIOUS TRENCH DAMS CONSTRUCTED EVERY 300 FEET TO PREVENT POTENTIAL DISTURBANCE TO PIPE BEDDING AND BLANKET MATERIALS.
13. PRECAUTIONS SHALL BE TAKEN TO AVOID GROUNDWATER POOLING AT THE SURFACE BY PROVIDING DRAINAGE TO A SUITABLE OUTLET AT CATCH BASINS OR RUN-OFF SWALES.
14. FOR TRENCHES FOR SEWER PIPES IN LEDGE, EXCAVATION SHALL EXTEND TO AT LEAST 12 INCHES BELOW THE BOTTOM OF THE SEWER PIPE.
15. ALL SEWERS SHALL BE MARKED USING METAL-IMPREGNATED MARKING TAPE OR TRACER WIRE THAT CAN BE LOCATED USING METAL DETECTION EQUIPMENT.

SEWER TRENCH NOTES

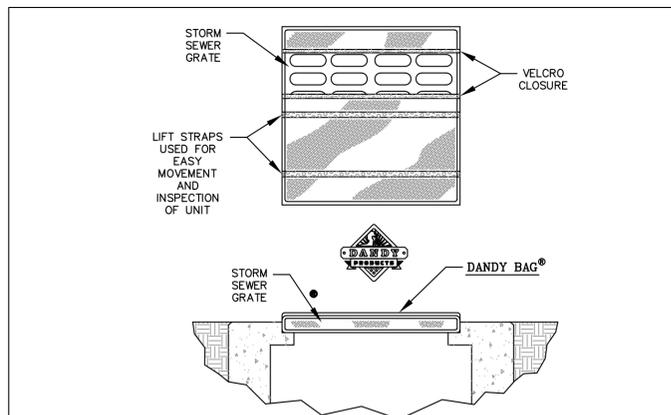
NOT TO SCALE

SEWER SERVICE CONNECTION NOTES:

1. SERVICE CONNECTIONS SHALL USE SANITARY TEE OR WYE FITTINGS FOR ALL NEW SEWER CONSTRUCTION.
2. THE CENTERLINE OF ALL BUILDING CONNECTIONS SHALL ENTER THE TOP HALF OF THE SEWER.
3. ANY SERVICE CONNECTION WITH A VERTICAL RISE UP TO 4 FEET MAY HAVE THE SEWER FITTING SET VERTICALLY.
4. ANY SERVICE CONNECTION WITH A VERTICAL RISE UP TO 12 FEET SHALL EMPLOY NON-ENCASED RISERS THAT PROTECT AGAINST PIPE PENETRATION OR FAILURE AT THE FITTING BY THE USE OF BELL-ON-BELL CONNECTIONS.
5. FOR EXISTING SEWERS WHERE FITTINGS CANNOT BE INSTALLED, SADDLE CONNECTIONS SHALL BE USED.
6. PRESSURE SEWERAGE SHALL HAVE AN ISOLATION VALVE OR CURB STOP VALVE INSTALLED AT THE PROPERTY LINE. IF A CHECK VALVE IS USED AT THE PROPERTY LINE, THE VALVE SHALL BE INSTALLED WITHIN A VAULT TO FACILITATE MAINTENANCE.
7. ROOF DOWNSPOUTS, EXTERIOR OR INTERIOR FOUNDATION DRAINS, SUMP PUMPS, OR OTHER SOURCES OF SURFACE WATER RUN-OFF OR GROUNDWATER SHALL NOT BE DIRECTLY OR INDIRECTLY CONNECTED TO A PUBLIC SEWER.

SEWER SERVICE CONNECTION NOTES

NOT TO SCALE



HI-FLOW DANDY BAG® (SAFETY ORANGE)

Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.62 (365) X 0.89 (200)
Grab Tensile Elongation	ASTM D 4632	%	24 X 10
Puncture Strength	ASTM D 4833	kN (lbs)	0.40 (90)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	3097 (450)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.51 (115) X 0.33 (75)
UV Resistance	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	1/min/m² (gal/min/ft²)	5907 (145)
Permittivity	ASTM D 4491	Sec ⁻¹	2.1

*Note: All Dandy Bags® can be ordered with our optional oil absorbent pillows

DANDY BAG DETAIL

NOT TO SCALE

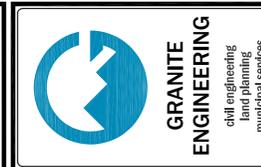
1. ALL AREAS TO BE SEEDED SHALL BE PREPARED TO PROVIDE A REASONABLY FIRM BUT FRIABLE SEED BED.
2. SLOPED AREAS SHALL NOT BE LEFT TOO SMOOTH; THE SURFACE SHALL BE LEFT IN A RUFFLED CONDITION SUCH AS MAY BE PRODUCED BY THE USE OF TRACKED VEHICLES RUN UP AND DOWN THE SLOPES. SMOOTH, COMPACTED SLOPES, SUCH AS FROM BLADING, WHICH MIGHT ALLOW THE FREE FLOW OF WATER DOWN THEM SHALL BE DISKED, HARROWED, DRAGGED WITH A CHAIN OR MAT, MACHINE-RAKED, OR HAND-WORKED TO GIVE THE EFFECT OF MINIATURE TERRACES, PARTICULARLY IN SILTY OR CLAYEY SOILS. THE SLOPES SHALL BE LEFT SMOOTH ENOUGH TO ENABLE MOWING.
3. LAWN AREAS, SUCH AS WHERE LOAM HAS BEEN SPREAD, SHALL BE PREPARED FOR SEEDING. THE LOAM SHALL BE SPREAD UPON THE PREVIOUSLY PREPARED SUBGRADE SURFACE TO THE DEPTH OF 4" ± 1/2" UNLESS OTHERWISE SPECIFIED AND SHALL BE RAKED CAREFULLY TO REMOVE ALL OBJECTIONABLE MATERIALS. LOAM SHALL BE SPREAD IN SUCH A MANNER AS TO ESTABLISH A LOOSE, FRIABLE SEEDBED. IN ORDER TO MAINTAIN A CONSISTENT GRADE, LOAM PLACED ADJACENT TO LAWNS OR WHERE DIRECTED SHALL BE COMPACTED WITH A ROLLER WEIGHING APPROXIMATELY 100 POUNDS PER FOOT OF ROLLER WIDTH. ALL DEPRESSIONS EXPOSED DURING THE ROLLING PROCEDURE SHALL BE FILLED WITH ADDITIONAL LOAM, AND ROLLED.
4. LOAM SHALL CONSIST OF LOOSE FRIABLE TOPSOIL WITH NO ADMIXTURE OF REFUSE OR MATERIAL TOXIC TO PLANT GROWTH. LOAM SHALL BE FREE OF VIABLE PARTS OF PROHIBITED INVASIVE PLANTS LISTED IN TABLE 3800.1 OF PART AGR 3800. LOAM SHALL BE GENERALLY FREE FROM STONES, LUMPS, STUMPS, OR SIMILAR OBJECTS LARGER THAN 2" IN GREATEST DIAMETER, SUBSOIL, ROOTS, AND WEEDS. THE MINIMUM AND MAXIMUM PH VALUE SHALL BE FROM 5.5 TO 7.6. LOAM SHALL CONTAIN A MINIMUM OF 3 PERCENT AND A MAXIMUM OF 10 PERCENT OF ORGANIC MATTER AS DETERMINED BY LOSS BY IGNITION. NOT MORE THAN 65 PERCENT SHALL PASS A NO. 200 SIEVE AS DETERMINED BY THE WASH TEST IN ACCORDANCE WITH ASTM D 1140. IN NO INSTANCE SHALL MORE THAN 20% OF THAT MATERIAL PASSING THE NO. 4 SIEVE CONSIST OF CLAY SIZE PARTICLES.
5. ALL AREAS TO BE SEEDED SHALL MEET THE SPECIFIED GRADES AND SHALL BE FREE OF GROWTH AND DEBRIS.
6. CARE SHALL BE TAKEN TO PREVENT THE FORMATION OF LOW PLACES AND POCKETS WHERE WATER WILL STAND.
7. WHERE RYEGRASS HAS BEEN PLANTED FOR TEMPORARY EROSION CONTROL AND HAS NOT BEEN ELIMINATED PRIOR TO THE COMPLETION OF THE WORK, SUCH AREAS SHALL BE DISC-HARROWED AT LEAST 3" DEEP AND SEEDED WITH PERMANENT GRASSES TO PREVENT THE RYEGRASS FROM RESEEDING AND BECOMING COMPETITIVE WITH AND RETARDING DEVELOPMENT OF THE PERMANENT COVER.
8. SEEDING AND INITIAL FERTILIZING SHALL BE DONE BETWEEN APRIL 1 AND JUNE 1, BETWEEN AUGUST 15 AND OCTOBER 14, OR AS PERMITTED. SEEDING SHALL NOT BE DONE DURING WINDY WEATHER OR WHEN THE GROUND IS FROZEN, EXCESSIVELY WET, OR OTHERWISE UNTILLABLE. IF SEEDING IS DONE DURING JULY OR AUGUST, ADDITIONAL MULCH MATERIAL MAY BE REQUIRED BY THE ENGINEER.
9. FERTILIZER SHALL BE UNIFORMLY APPLIED. THE RATE OF APPLICATION SHALL BE A RATE OF 2.0 POUNDS OF NITROGEN PER 1,000 SQUARE FEET. NOT LESS THAN THREE MONTHS SHALL ELAPSE BETWEEN THE INITIAL FERTILIZATION AND THE REFERTILIZATION. NO REFERTILIZATION WILL BE ALLOWED BETWEEN NOVEMBER 1, OR WHEN THE GROUND HAS FROZEN, AND THE FOLLOWING APRIL 1, OR BETWEEN JUNE 1 AND THE FOLLOWING SEPTEMBER 1. REFERTILIZATION WILL BE ALLOWED BETWEEN AUGUST 15 AND 31 ONLY WHEN IT IS DETERMINED THAT THE PERMANENT GRASSES HAVE DEVELOPED WELL AND FEW WEEDS HAVE APPEARED, AND SUCH REFERTILIZATION WILL NOT TEND TO PROMOTE THE GROWTH OF NOXIOUS WEEDS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING AND CARING FOR SEEDED AREAS UNTIL ACCEPTANCE OF THE WORK. CONTRACTOR SHALL REPAIR AT HIS OWN EXPENSE ANY DAMAGE TO SEEDED AREAS CAUSED BY PEDESTRIAN OR VEHICULAR TRAFFIC OR OTHER CAUSES.
11. THE SEEDED AREAS SHALL BE CAREFULLY AND SUITABLY WATERED AS NECESSARY TO PRODUCE A SATISFACTORY GROWTH.
12. AREAS SEEDED WITH PARK SEED SHALL BE MOWED WHENEVER NECESSARY TO KEEP THE GROWTH BETWEEN 3 AND 6" IN ORDER TO ALLOW LIGHT TO PENETRATE TO THE SHORTER, SLOWER GROWING SPECIES IN THE MIXTURE.
13. AREAS SEEDED WITH SLOPE SEED MAY BE ORDERED MOWED WHENEVER THE CONTRACT EXTENDS INTO A SECOND GROWING SEASON. WEEDS GROWING IN AREAS SEEDED WITH THE SLOPE SEED SHALL BE CUT BACK TO PREVENT THEM FROM DOMINATING THE DESIRED GRASS PLANTS.
14. ACCEPTABLE SEED MIXTURES ARE AS FOLLOWS:

TYPICAL LAWN MIX			
KIND OF SEED	MINIMUM PURITY (%)	MINIMUM GERMINATION (%)	POUNDS/ACRE (TOTAL 120 LBS)
CREeping RED FESCUE	96	85	40
PERENNIAL RYEGRASS	98	90	50
KENTUCKY BLUEGRASS	97	85	25
REDTOP	95	80	5

WILDFLOWER SLOPE SEED (3:1 OR GREATER)			
KIND OF SEED	MINIMUM PURITY (%)	MINIMUM GERMINATION (%)	POUNDS/ACRE (TOTAL 95 LBS)
CREeping RED FESCUE	96	85	35
PERENNIAL RYEGRASS	98	90	30
REDTOP	95	80	5
ALSIKE CLOVER	97	90	5
BIRDSFOOT TREFOIL	98	80	5
LANCE-LEAVED COREOPSIS	95	80	4
OXEYE DAISY	95	80	3
BLACKEYED SUSAN	95	80	4
WILD LUPINE	95	80	4

TYPICAL SLOPE SEED (3:1 OR GREATER)			
KIND OF SEED	MINIMUM PURITY (%)	MINIMUM GERMINATION (%)	POUNDS/ACRE (TOTAL 80 LBS)
CREeping RED FESCUE	96	85	35
PERENNIAL RYEGRASS	98	90	30
REDTOP	95	80	5
ALSIKE CLOVER	97	90	5
BIRDSFOOT TREFOIL	98	80	5

TURF ESTABLISHMENT SPECIFICATIONS



No.	DATE	REVISIONS	
		COMMENTS	BY
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OWNER: BOURGEOIS REVOCABLE TRUST
 KEVIN H. BOURGEOIS, TRUSTEE
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 HIGHBOROUGH, NH 03043
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 PHONE: 603.886.1670

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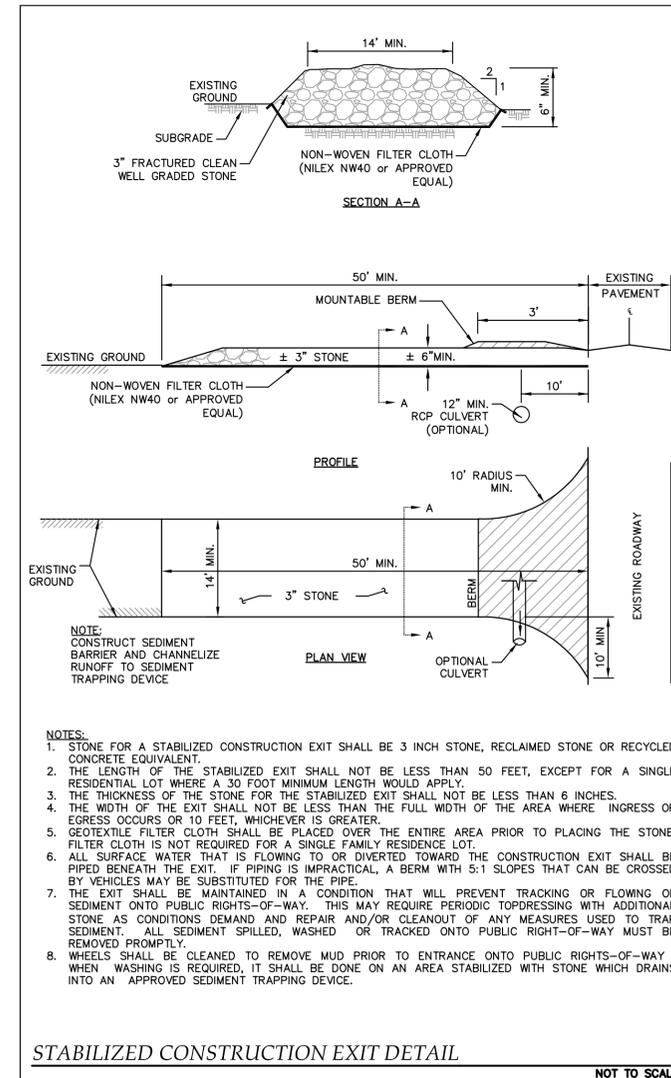
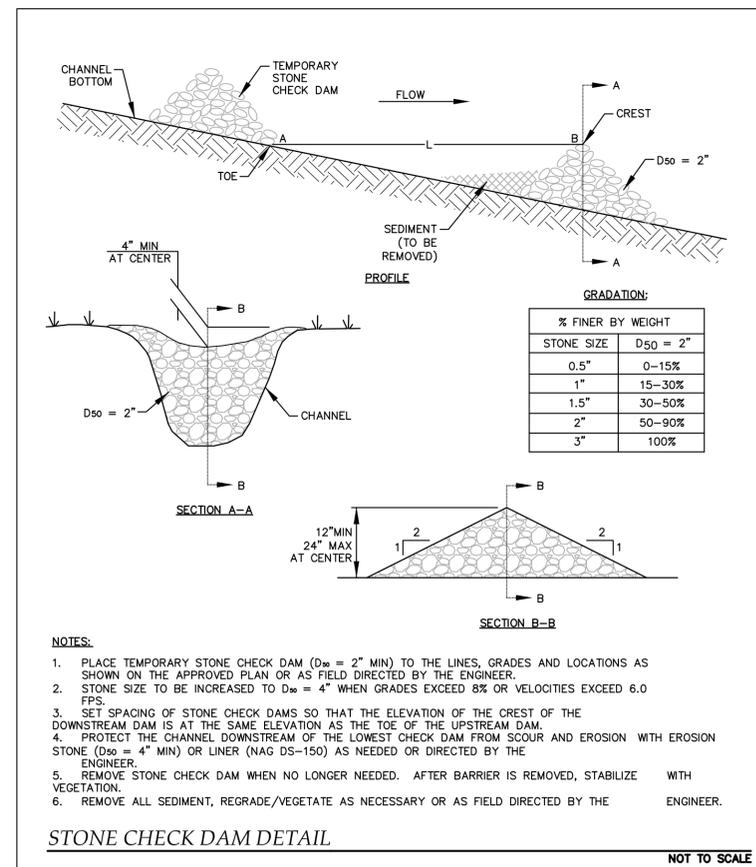
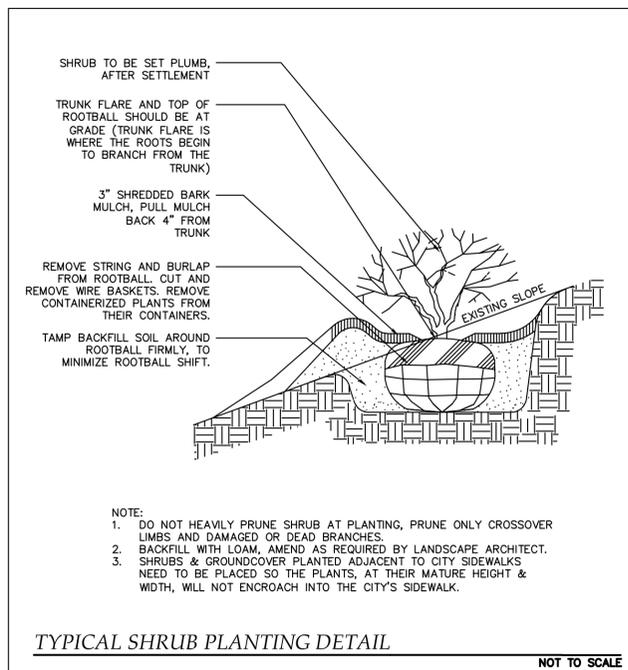
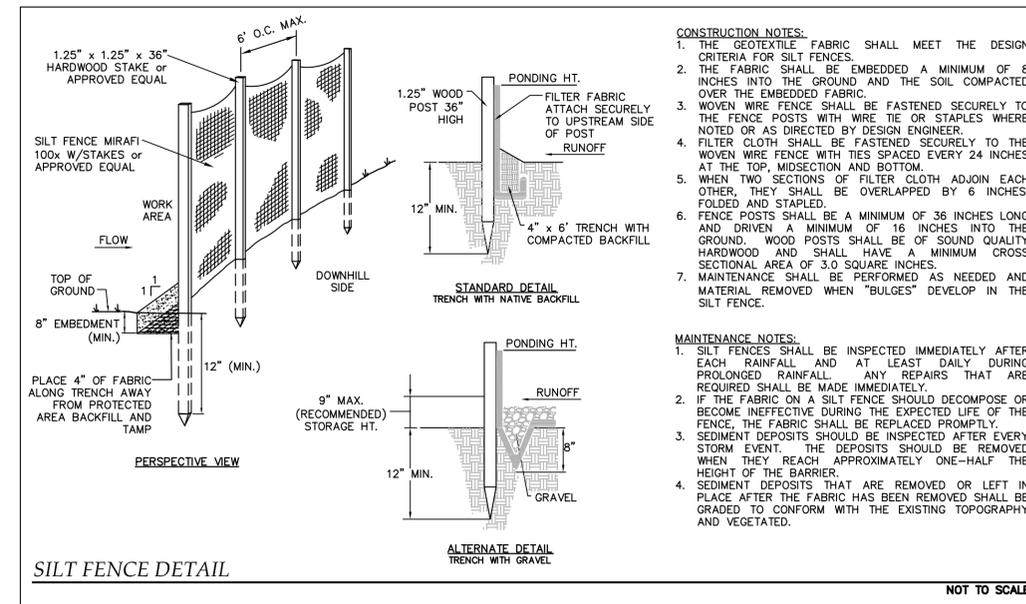
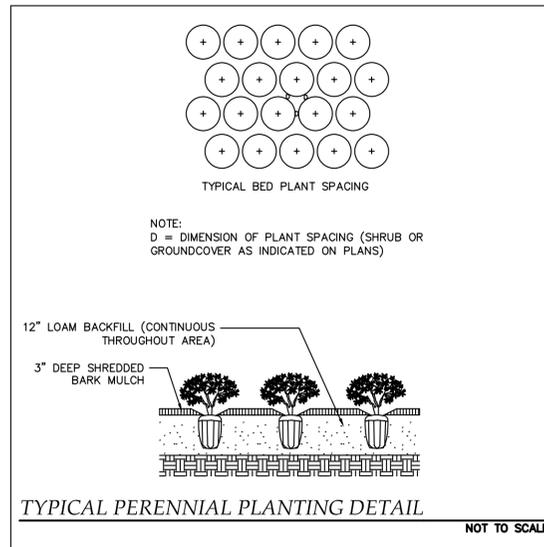
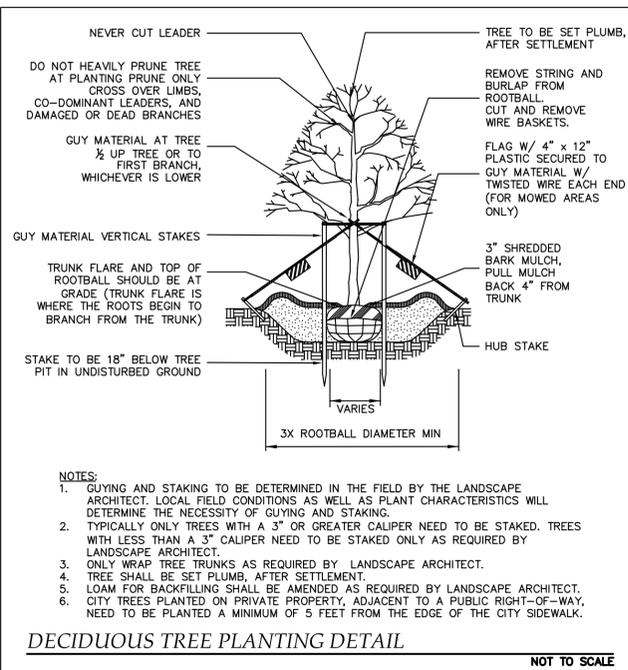
STAMP: [Professional Engineer Seal for Kevin H. Bourgeois, License No. 1778, State of New Hampshire, dated 09/01/2020]

LOCATION:
 TAX MAP 645 LOTS 4 & 5
 534 & 550
 OLD WELLINGTON ROAD
 MANCHESTER, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

PROJECT: **STARK RESIDENCES AT OLD WELLINGTON**

TITLE: **DETAILS**

PROJECT No. 20-0420-1 DATE: SEPTEMBER 1, 2020 SCALE: AS SHOWN
 SHEET: 15 OF 17



REVISIONS		BY	DATE	COMMENTS
No.	1			
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OWNER: BOURGEOIS REVOCABLE TRUST
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NHED BR. 8626 Pg. 700

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09/01/2020

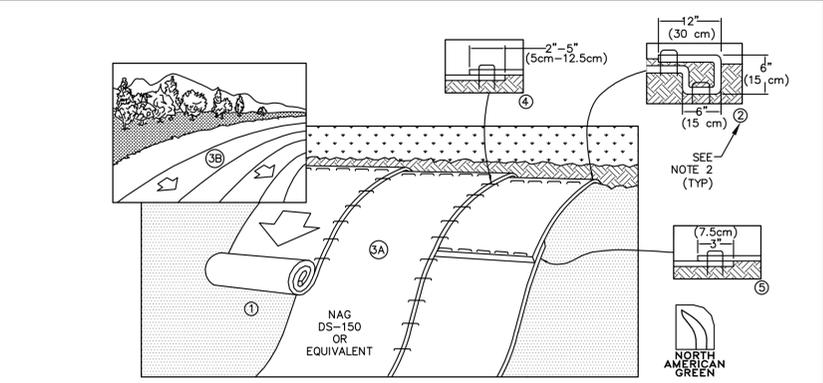
LOCATION:
TAX MAP 645 LOTS 4 & 5
534 & 550
OLD WELLINGTON ROAD
MANCHESTER, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

PROJECT:
STARK RESIDENCES AT OLD WELLINGTON

TITLE: **DETAILS**

PROJECT No. DATE: 20-0420-1 SEPTEMBER 1, 2020 SCALE: AS SHOWN
SHEET: 16 OF 17

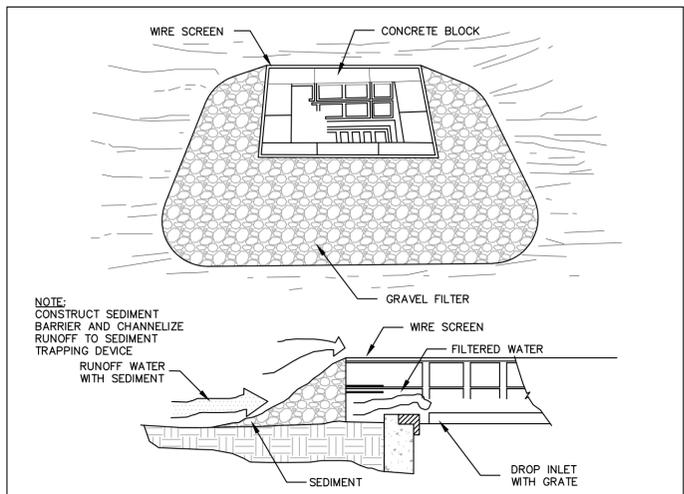
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- NOTES:**
- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
 - BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.
 - ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
 - THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" (5cm-12.5cm) OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5cm) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30cm) APART ACROSS ENTIRE BLANKET WIDTH. NOTE: *IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

EROSION CONTROL BLANKET DETAIL

NOT TO SCALE



NOTE: CONSTRUCT SEDIMENT BARRIER AND CHANNELIZE RUNOFF TO SEDIMENT TRAPPING DEVICE

BLOCK AND GRAVEL SEDIMENT BARRIER DETAIL

NOT TO SCALE

- EARTHWORK SHALL BE LIMITED TO THE AREAS WITHIN THE LIMITS OF CLEARING AS SHOWN ON THE PLAN. NO GIVEN AREA OF THE SITE SHALL BE LEFT IN AN UNSTABILIZED CONDITION FOR A PERIOD OF TIME EXCEEDING THIRTY (30) CALENDAR DAYS.
- THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION.
- PERIMETER CONTROLS MUST BE INSTALLED PRIOR TO EARTHWORK.
- EROSION CONTROL MEASURES USED SHALL BE INSPECTED AT LEAST WEEKLY AND WITHIN 24 HOURS AFTER 0.25" OF RAINFALL OR MORE. ALL DEFICIENCIES SHALL BE FIXED IN ORDER TO KEEP OPERATION EFFECTIVE. THEY SHALL BE CLEANED AND MAINTAINED AND OTHERWISE KEPT IN AN EFFECTIVE OPERATING MANNER THROUGHOUT THE CONSTRUCTION PERIOD.
- ALL STORMWATER PRACTICES AND DRAINAGE SWALES ARE TO BE INSTALLED PRIOR TO ROUGH GRADING OF THE SITE. THEY SHOULD BE FULLY STABILIZED PRIOR TO RECEIVING STORMWATER. PERIODIC INSPECTION AND MAINTENANCE TO MAINTAIN DESIGN INTENT IS REQUIRED.
- ALL DISTURBED AREAS DESIGNATED TO BE TURF SHALL RECEIVE THE REQUIRED AMOUNT OF LOAM (COMPACTED THICKNESS), PRIOR TO FINAL SEEDING AND MULCHING.
- IF DURING CONSTRUCTION A WINTER SHUTDOWN IS NECESSARY, THE CONTRACTOR SHALL STABILIZE ALL INCOMPLETE WORK AND PROVIDE FOR SUITABLE METHODS OF DIVERTING RUNOFF IN ORDER TO ELIMINATE SHEET FLOW ACROSS FROZEN SURFACES.
- AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 - A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED; OR
 - A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED.
- ALL DUST SHALL BE CONTROLLED BY THE USE OF WATER IN ACCORDANCE WITH ENV-A 1000.
- IF, DURING CONSTRUCTION, IT BECOMES APPARENT THAT ADDITIONAL EROSION AND SEDIMENT CONTROL DEVICES ARE REQUIRED, THE OWNER SHALL BE REQUIRED TO INSTALL THE NECESSARY DEVICES OR CONSULT WITH THE ENGINEER.
- JUST MATING INSTALLED TO CONFORM WITH THE RECOMMENDED BEST MANAGEMENT PRACTICE OUTLINED IN "MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS" ON ALL 3:1 SLOPES OR GREATER.
- ALL ROADWAYS AND PARKING AREAS SHALL BE STABILIZED WITHIN 72 HOURS.
- CUT AND FILL SLOPES SHALL BE SEED AND MULCHED WITHIN 72 HOURS.

EROSION CONTROL NOTES

- CONTACT DIG SAFE AT LEAST 72 HOURS BEFORE ANY EXCAVATION WORK.
- CUT AND CLEAR TREES AND BRUSH WITHIN LIMITS OF CLEARING SHOWN ON PLAN.
- INSTALL ALL APPLICABLE TEMPORARY EROSION CONTROL MEASURES PRIOR TO COMMENCEMENT OF ANY EARTHMOVING OPERATIONS. THE STABILIZED CONSTRUCTION EXIT SHALL BE IN PLACE AS SHOWN ON THE PROJECT PLANS.
- REMOVE STUMPS FROM THE SITE FOR SITE GRADING TO COMMENCE. ALL STUMPS AND SIMILAR ORGANIC DEBRIS SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR UNLESS A STUMP DUMP IS NOTED ON THE PLAN. NATIVE ORGANIC SOIL MATERIALS SUITABLE FOR USE AS TOPSOIL SHALL BE STOCKPILED WITHIN AREAS OUT OF THE WAY OF OTHER CONSTRUCTIONS ACTIVITIES AND DRAINAGE FLOW. STOCKPILES SHALL BE TEMPORARILY SEEDDED WITH WINTER RYE AND BE SURROUNDED BY PERIMETER CONTROLS TO PREVENT EROSION.
- COMMENCE EARTHWORK OPERATIONS. ALL PERMANENT EROSION CONTROL MEASURES AND DETENTION FACILITIES SHOULD BE INSTALLED PRIOR TO GRADING FOR PROJECT.
- ALL DRAINAGE SYSTEMS AND OTHER UTILITIES SHOULD BE CONSTRUCTED FROM LOW GRADE TO HIGH GRADE. INCOMPLETE WORK SHALL BE PROTECTED FROM SILTATION BY THE USE OF PERIMETER CONTROLS UNTIL THE SITE HAS BECOME FULLY STABILIZED.
- AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 - A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED; OR
 - A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED.
- IF, DURING CONSTRUCTION, IT BECOMES APPARENT THAT ADDITIONAL EROSION AND SEDIMENT CONTROL DEVICES ARE REQUIRED, THE OWNER SHALL BE REQUIRED TO INSTALL THE NECESSARY DEVICES OR CONSULT WITH THE ENGINEER.
- ALL STORMWATER FLOWS SHALL NOT BE DIRECTED TO THE STORMWATER MEASURES UNTIL ALL CONTRIBUTING AREA HAVE BEEN DEEMED STABLE.
- BEGIN THE CONSTRUCTION OF GRAVEL AND CRUSHED GRAVEL COURSES OVER PROPOSED DRIVEWAY, WALKS, AND PARKING AREAS AND COMPACT IN SPECIFIED LIFT THICKNESS AND COMPACTION RATES.
- COMPLETE GRADING ACTIVITIES AND WHEN COMPLETE, BEGIN TOPSOILING PROPOSED TURF AREAS USING STOCKPILED LOAM SUPPLEMENTED WITH BORROW LOAM, IF NECESSARY, TO LEAVE THE SPECIFIED THICKNESS.
- FINE GRADE ALL TURF AREAS AND COMPLETE PERMANENT SEEDING AND LANDSCAPING BY HYDROSEEDING WITH THE SPECIFIED SEED MIXTURE IMMEDIATELY AFTER FINE GRADING IS COMPLETED. ALL AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISH GRADE.
- INSTALL THE FINAL BINDER COURSE OF PAVEMENT.
- INSTALL THE FINAL WEARING COURSE OF PAVEMENT OVER THE BINDER COURSE.
- COMPLETE INSTALLATION OF LANDSCAPING, SIGNAGE, AND OTHER SITE AMENITIES.
- REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER SEEDING AREAS HAVE ESTABLISHED THEMSELVES.

CONSTRUCTION SEQUENCE

- ALL PROPOSED POST-DEVELOPMENT VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE PLACEMENT OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT BE DONE OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
- ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
- AFTER OCTOBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL (NHDOT 304.3).

WINTER CONSTRUCTION NOTES

TP #1	TP #2	TP #3	LP #4	TP #5	LP #6
LOGGED BY JDM WITNESS: N/A DATE: 8/13/20 RATE: N/A IMPERVIOUS: NONE ESHWT: NONE WATER: NONE	LOGGED BY JDM WITNESS: N/A DATE: 8/13/20 RATE: N/A IMPERVIOUS: NONE ESHWT: NONE WATER: NONE	LOGGED BY JDM WITNESS: N/A DATE: 8/13/20 RATE: N/A IMPERVIOUS: NONE ESHWT: NONE WATER: NONE	LOGGED BY JDM WITNESS: N/A DATE: 8/13/20 RATE: N/A IMPERVIOUS: NONE ESHWT: NONE WATER: NONE	LOGGED BY JDM WITNESS: N/A DATE: 8/13/20 RATE: N/A IMPERVIOUS: NONE ESHWT: NONE WATER: NONE	LOGGED BY JDM WITNESS: N/A DATE: 8/13/20 RATE: N/A IMPERVIOUS: NONE ESHWT: NONE WATER: NONE
FOREST MATERIAL/LOAM 0'-0"	FOREST MATERIAL/LEAF LITTER 0'-7"	FOREST MATERIAL/LEAF LITTER 0'-2"		LOAM 0'-6"	FOREST MATERIAL/LEAF LITTER 0'-3"
FILL, MEDIUM SAND,, WEAK MEDIUM GRANULAR, LOOSE, NO MOTTLES 10'-40"	LOAM 7'-12"	LOAM 2'-8"	FILL 0'-59"	FILL, FINE SAND, W/ DEBRIS 6'-96"	LOAM 3'-10"
BURIED LOAM, 40'-47"	A HORIZON, SANDY LOAM, GRANULAR, FRIABLE, NO MOTTLES 12'-28"	FILL, DEBRIS 8'-54"		A HORIZON, MEDIUM SAND, DAMP, FRIABLE, TRACE COBBLES, MOTTLES AT 120" 96'-120"	A HORIZON, FINE SAND W/ COBBLES, FRIABLE, NO MOTTLES 10'-28"
C HORIZON, LOAM, GRANULAR, LOOSE 47'-55"	B HORIZON, MEDIUM COARSE SAND, GRANULAR, LOOSE, NO MOTTLES, VERY STONEY 28'-45"		NATIVE MATERIAL 58'-72"		B HORIZON, COARSE SAND W/ COBBLES, FRIABLE, NO MOTTLES 26'-40"
BOTTOM OF HOLE LEDGE	BOTTOM OF HOLE LEDGE/STONE	BOTTOM OF HOLE REFUSAL @ BOULDER	BOTTOM OF HOLE	BOTTOM OF HOLE	C HORIZON, COARSE SAND W/ LARGE COBBLES, FRIABLE, NO MOTTLES 40'-62"

TEST PIT LOGS

NOT TO SCALE

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STAMP: [Professional Engineer Seal for Kevin H. Bourgeois, License No. 11778, State of New Hampshire, dated 09/01/2020]

LOCATION:
TAX MAP 645 LOTS 4 & 5
534 & 550
OLD WELLINGTON ROAD
MANCHESTER, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

PROJECT:
STARK RESIDENCES AT OLD WELLINGTON

TITLE:
DETAILS



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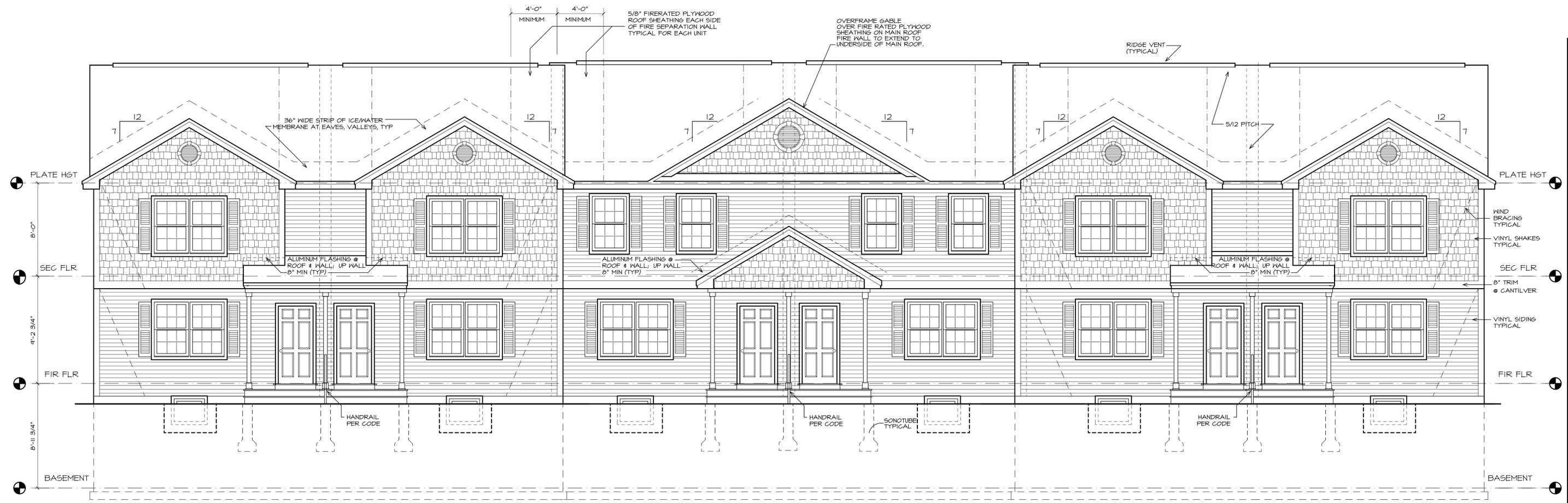
6 UNIT TOWNHOUSE PROJECT
 STARK RESIDENCES AT OLD WELLINGTON

Contractor to check & verify all dimensions & structural members before construction. All construction shall be in strict compliance with the State of New Hampshire or Massachusetts Building Codes, whichever applicable.

REVISIONS

16-052
 OCT 25 2016
 SHEET 1 OF 7

A1



FRONT TOWNHOUSE ELEVATION
 SCALE: 1/4" = 1'-0"

UNIT A: 3 BEDROOM / 1-1/2 BATH TOWNHOME	
FIRST FLOOR	640 S.F.
SECOND FLOOR	617 S.F.
TOTAL	1297 S.F.

UNIT B: 3 BEDROOM / 1-1/2 BATH TOWNHOME	
FIRST FLOOR	640 S.F.
SECOND FLOOR	617 S.F.
TOTAL	1297 S.F.

UNIT C: 3 BEDROOM / 1-1/2 BATH TOWNHOME	
FIRST FLOOR	640 S.F.
SECOND FLOOR	620 S.F.
TOTAL	1300 S.F.

UNIT D: 3 BEDROOM / 1-1/2 BATH TOWNHOME	
FIRST FLOOR	640 S.F.
SECOND FLOOR	620 S.F.
TOTAL	1300 S.F.

UNIT E: 3 BEDROOM / 1-1/2 BATH TOWNHOME	
FIRST FLOOR	640 S.F.
SECOND FLOOR	617 S.F.
TOTAL	1297 S.F.

UNIT F: 3 BEDROOM / 1-1/2 BATH TOWNHOME	
FIRST FLOOR	640 S.F.
SECOND FLOOR	617 S.F.
TOTAL	1297 S.F.

NEW 6 UNIT TOWNHOUSE FOR
Stark Residences at Old Wellington
 MANCHESTER, NH



Alternative Designs Inc.

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REVISIONS

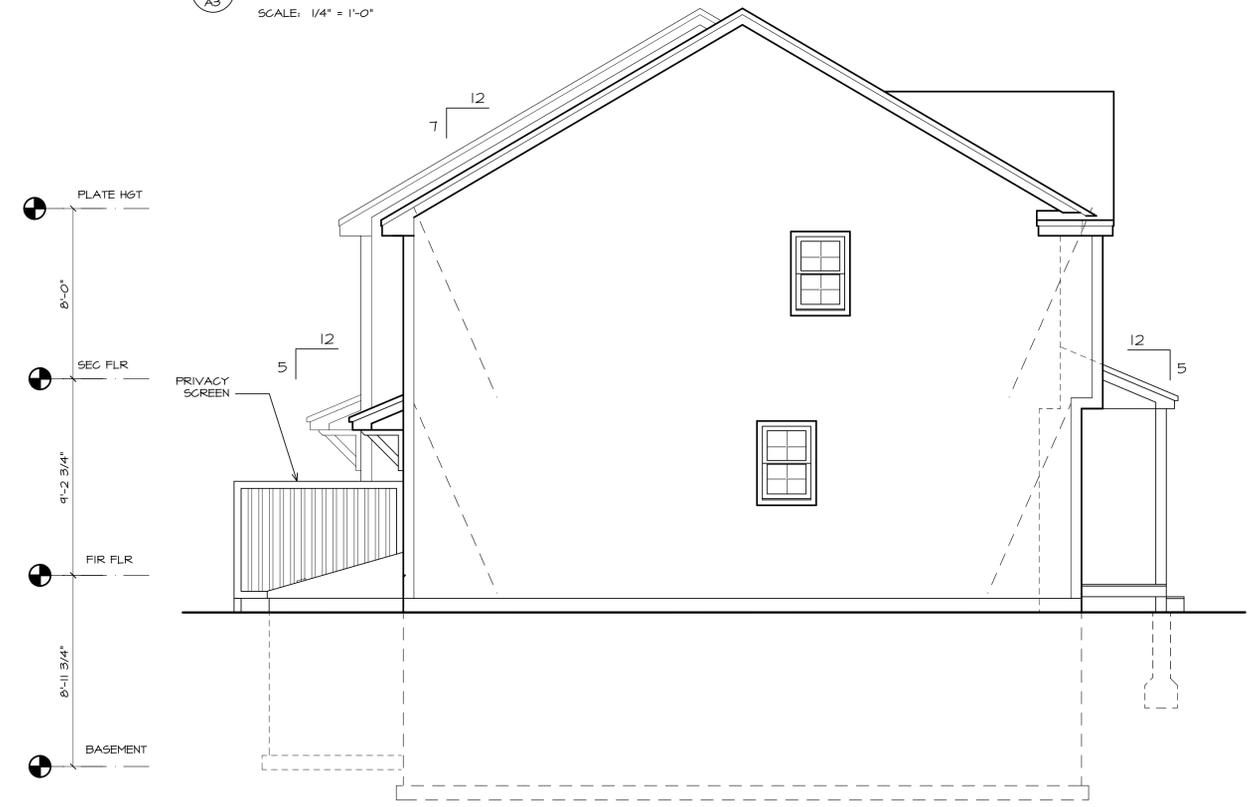
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16-052
OCT 25 2016
SHEET 3 OF 7

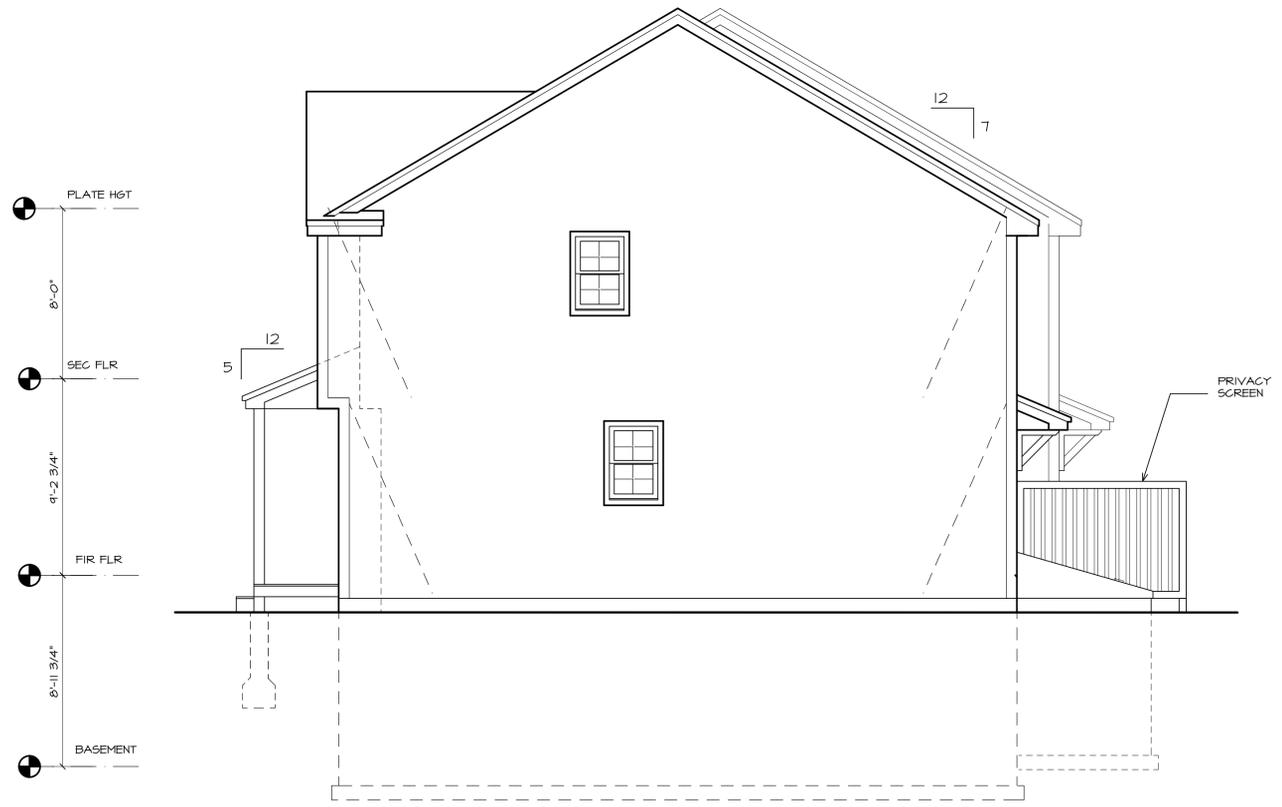
A3



1
A3
REAR TOWNHOUSE ELEVATION
SCALE: 1/4" = 1'-0"



2
A3
LEFT SIDE ELEVATION
SCALE: 1/4" = 1'-0"



3
A3
RIGHT SIDE ELEVATION
SCALE: 1/4" = 1'-0"