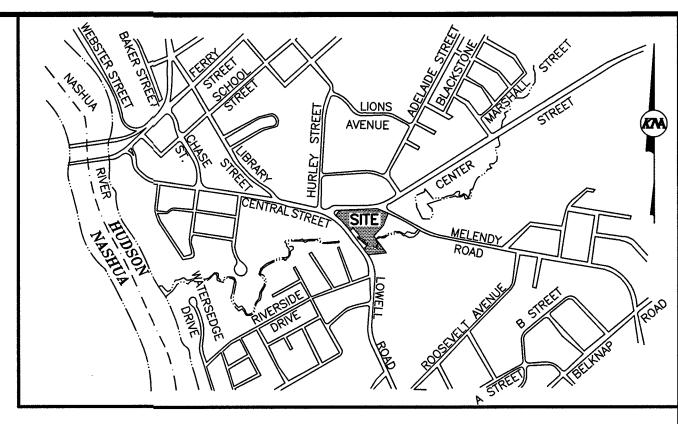




LOWELL ROAD & CENTRAL STREET HUDSON, NEW HAMPSHIRE

MAP 182 LOT 217

NON-RESIDENTIAL SITE PLAN



VICINITY PLAN

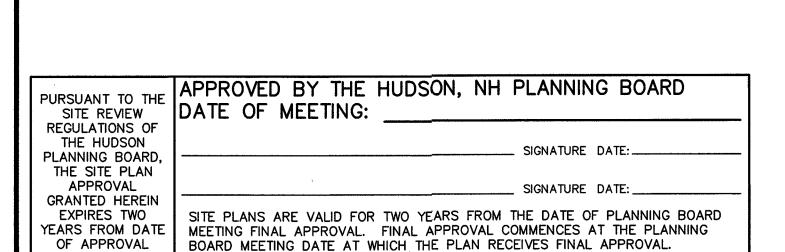
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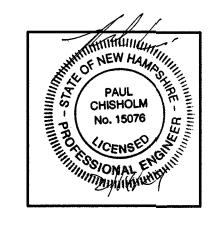
OWNER / APPLICANT:
NOTTINGHAM SQUARE CORPORATION
46 LOWELL ROAD

PREPARED BY:

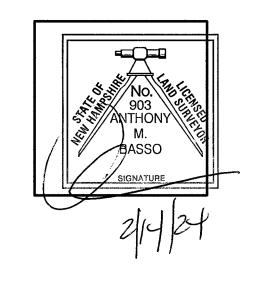
HUDSON, NH 03051

KEACH-NORDSTROM ASSOCIATES, INC. 10 COMMERCE PARK NORTH, SUITE 3 BEDFORD, NEW HAMPSHIRE 03110 (603) 627-2881









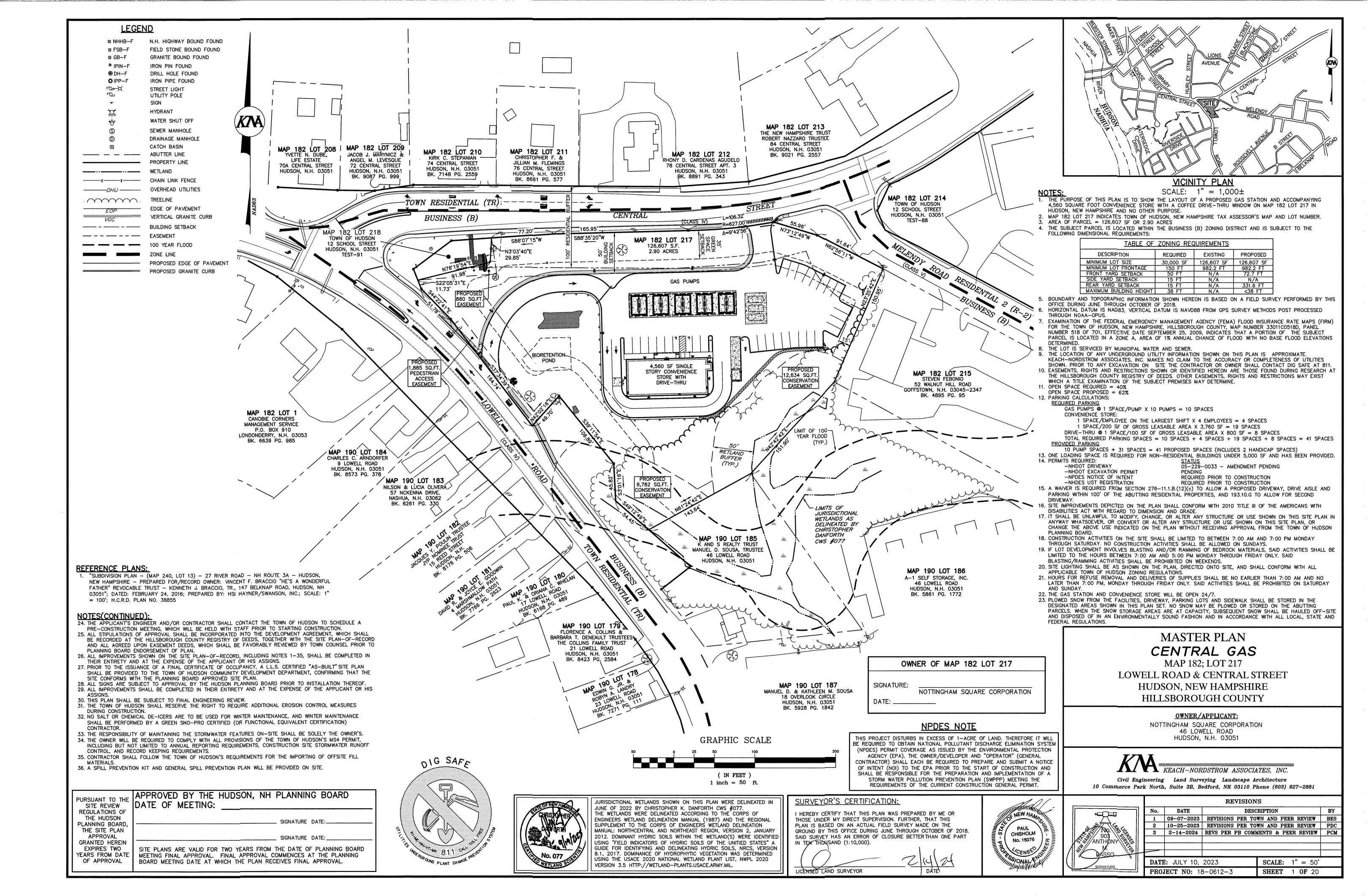
KEACH-NORDSTROM ASSOCIATES, INC.

Civil Engineering Land Surveying Landscape Architecture

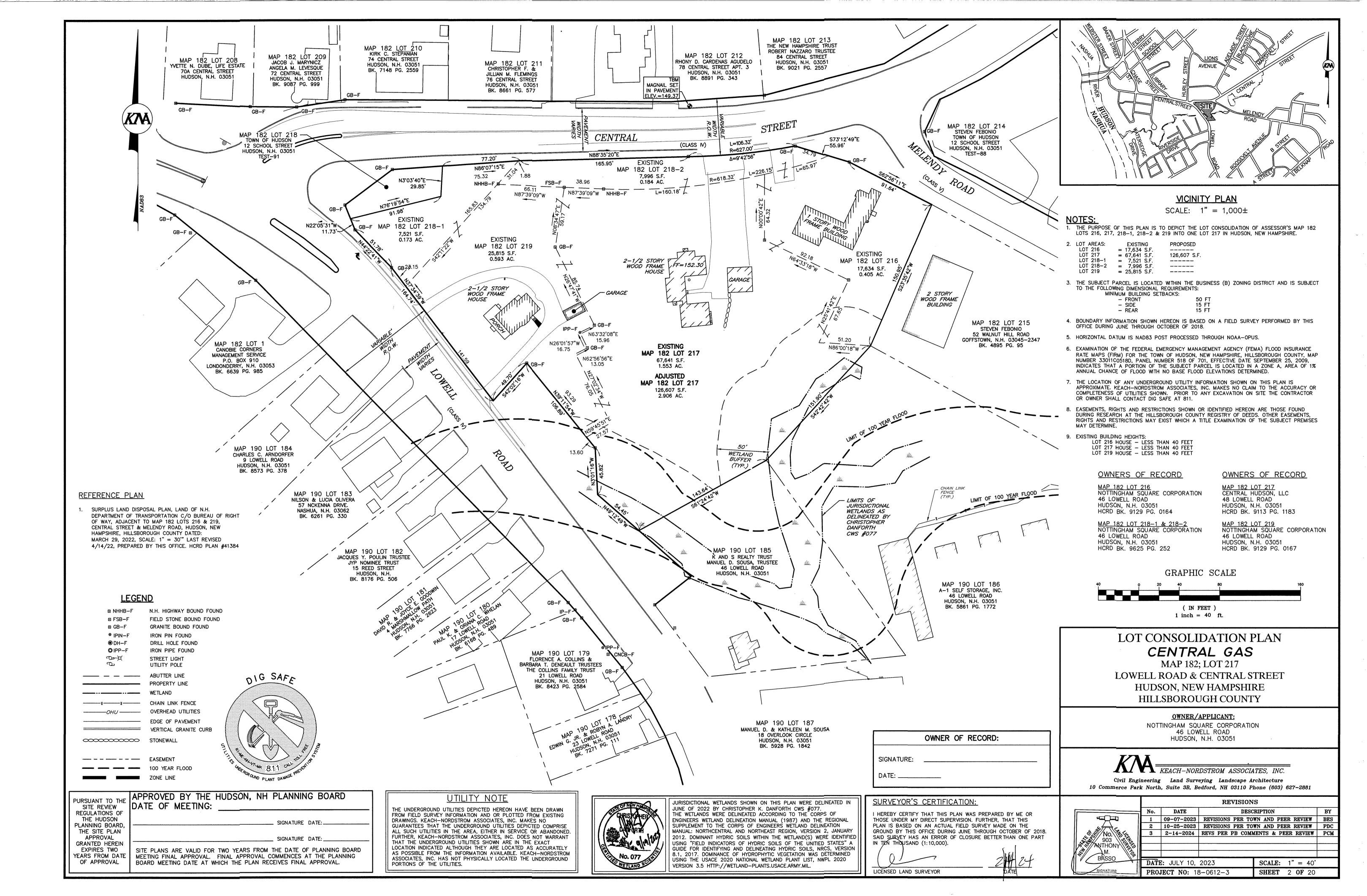
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-288.

JULY 10, 2023
LAST REVISED: FEBRUARY 14, 2024
PROJECT NO. 18-0612-3

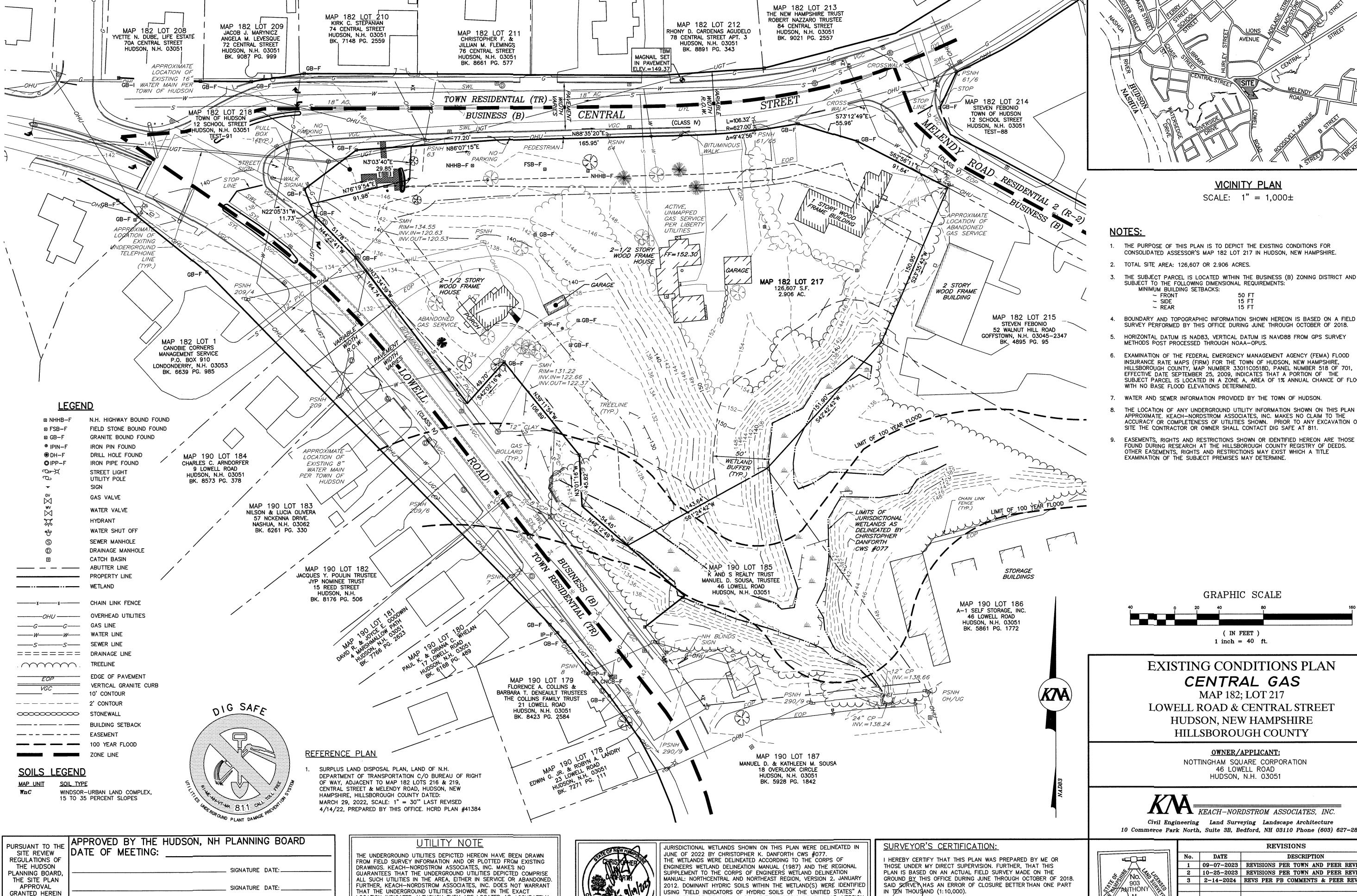
SHEET TITLE	SHEET No.
MASTER PLAN	1
LOT CONSOLIDATION PLAN	2
EXISTING CONDITIONS PLAN	3
REMOVALS/DEMOLITION PLAN	4
NON-RESIDENTIAL SITE PLAN	5
GRADING AND DRAINAGE PLAN	6
UTILITY PLAN	7
EROSION CONTROL PLAN	8
LANDSCAPE PLAN	9
LIGHTING PLAN	10
TRUCK TURNING PLAN	11
EASEMENT PLAN	12
LOWELL ROAD ENTRANCE - DRIVEWAY PROFIL	E 13
SIGHT DISTANCE PLAN & PROFILE	14
SEWER PROFILE	15
CONSTRUCTION DETAILS	16 - 20



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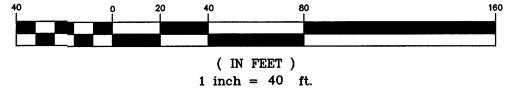


VICINITY PLAN

SCALE: $1" = 1,000 \pm$

- THE PURPOSE OF THIS PLAN IS TO DEPICT THE EXISTING CONDITIONS FOR
- TOTAL SITE AREA: 126,607 OR 2.906 ACRES.
- THE SUBJECT PARCEL IS LOCATED WITHIN THE BUSINESS (B) ZONING DISTRICT AND IS SUBJECT TO THE FOLLOWING DIMENSIONAL REQUIREMENTS:
- BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON A FIELD SURVEY PERFORMED BY THIS OFFICE DURING JUNE THROUGH OCTOBER OF 2018.
- HORIZONTAL DATUM IS NAD83, VERTICAL DATUM IS NAVD88 FROM GPS SURVEY METHODS POST PROCESSED THROUGH NOAA—OPUS.
- 6. EXAMINATION OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAPS (FIRM) FOR THE TOWN OF HUDSON, NEW HAMPSHIRE, HILLSBOROUGH COUNTY, MAP NUMBER 33011C0518D, PANEL NUMBER 518 OF 701, EFFECTIVE DATE SEPTEMBER 25, 2009, INDICATES THAT A PORTION OF THE SUBJECT PARCEL IS LOCATED IN A ZONE A, AREA OF 1% ANNUAL CHANCE OF FLOOD
- WATER AND SEWER INFORMATION PROVIDED BY THE TOWN OF HUDSON.
- THE LOCATION OF ANY UNDERGROUND UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR OR OWNER SHALL CONTACT DIG SAFE AT 811.
- FOUND DURING RESEARCH AT THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS. OTHER EASEMENTS, RIGHTS AND RESTRICTIONS MAY EXIST WHICH A TITLE EXAMINATION OF THE SUBJECT PREMISES MAY DETERMINE.

GRAPHIC SCALE



EXISTING CONDITIONS PLAN

MAP 182; LOT 217

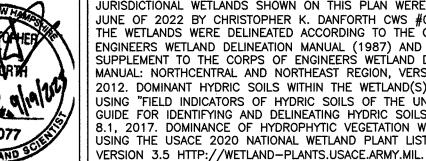
LOWELL ROAD & CENTRAL STREET HUDSON, NEW HAMPSHIRE HILLSBOROUGH COUNTY

OWNER/APPLICANT:

NOTTINGHAM SQUARE CORPORATION 46 LOWELL ROAD

KEACH-NORDSTROM ASSOCIATES, INC.

Civil Engineering Land Surveying Landscape Architecture 10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881



LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY.

AS POSSIBLE FROM THE INFORMATION AVAILABLE. KEACH-NORDSTROM

ASSOCIATES, INC. HAS NOT PHYSICALLY LOCATED THE UNDERGROUND

PORTIONS OF THE UTILITIES.

EXPIRES TWO

OF APPROVAL

SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD

BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

YEARS FROM DATE | MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING

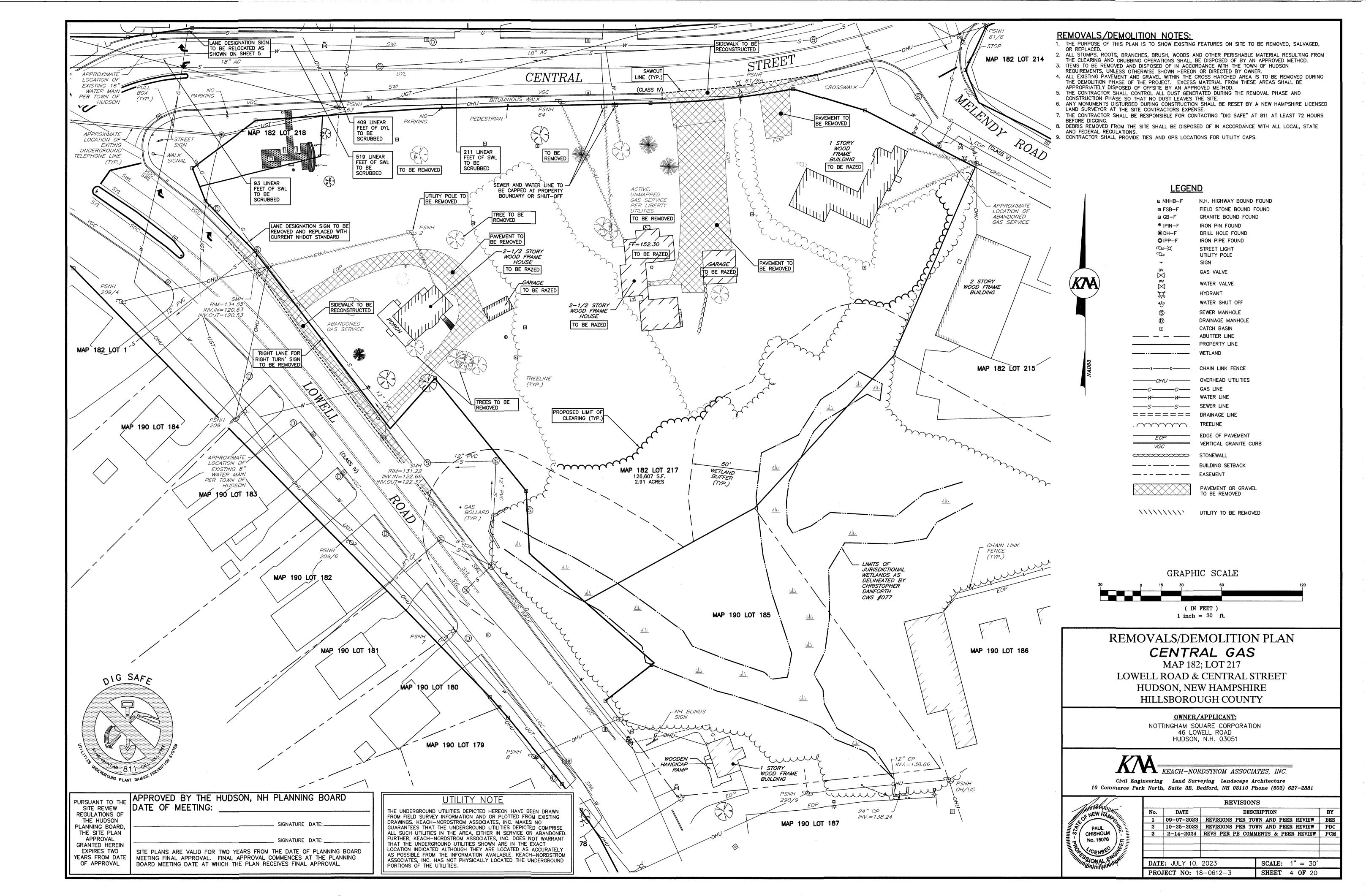
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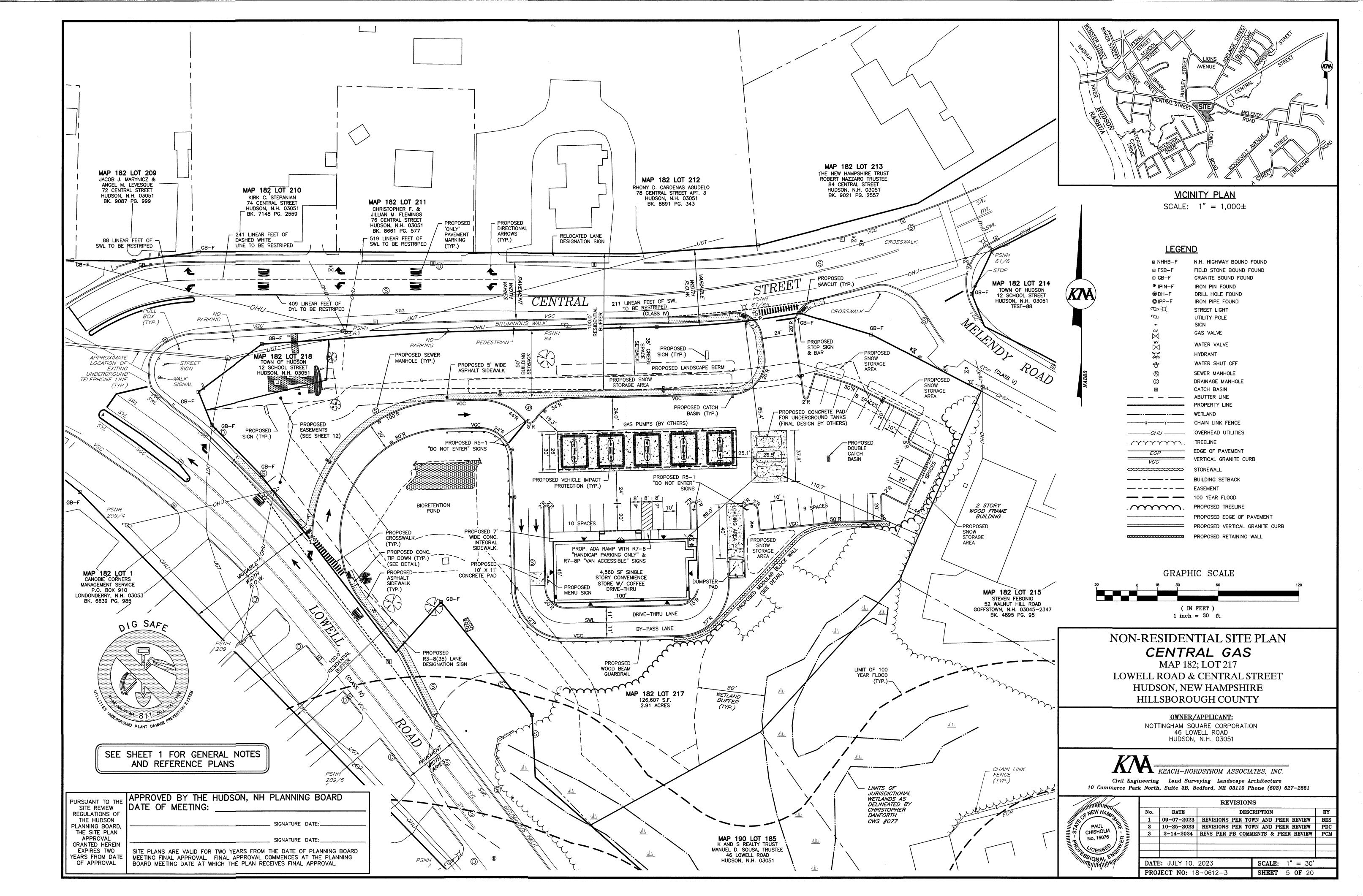
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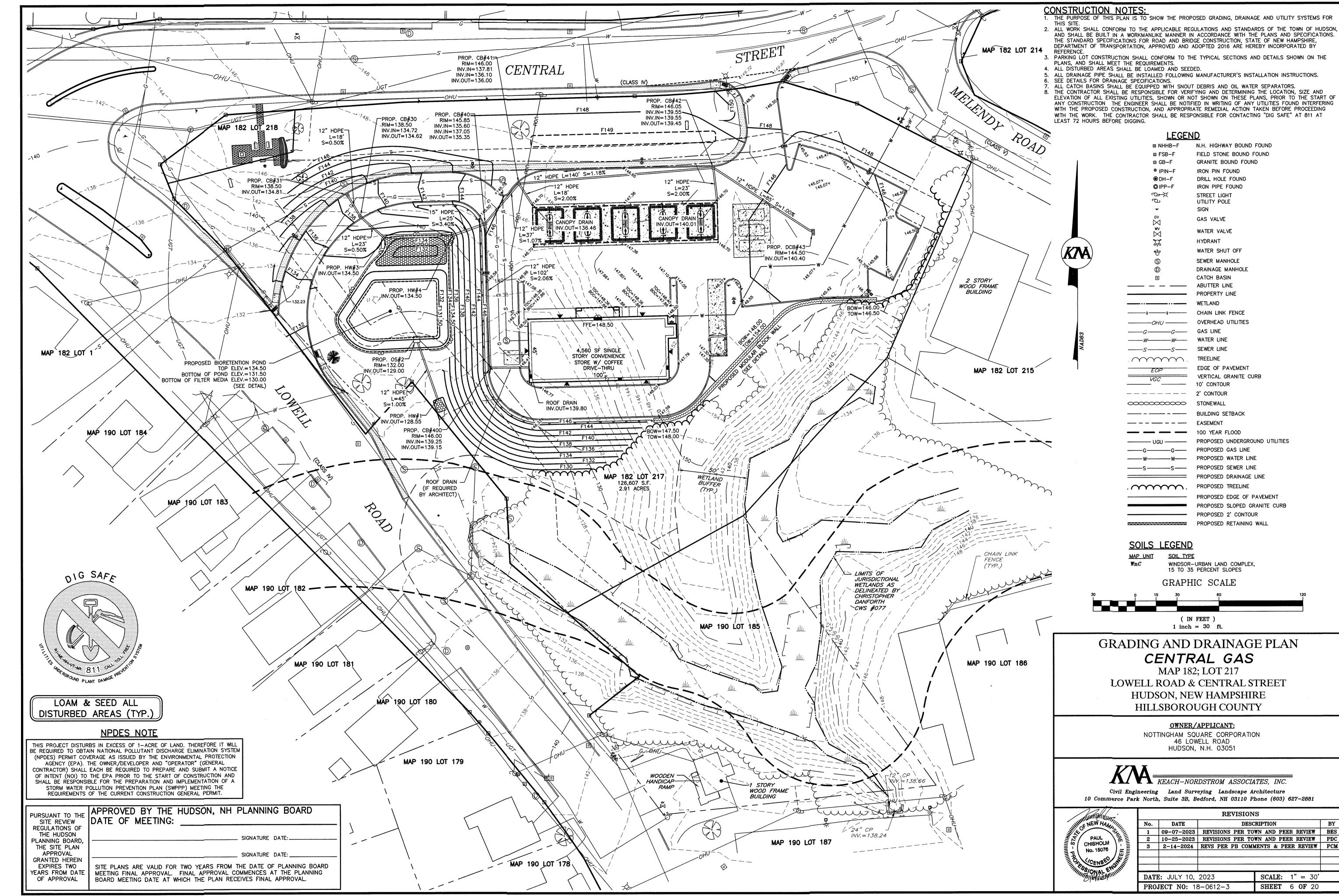
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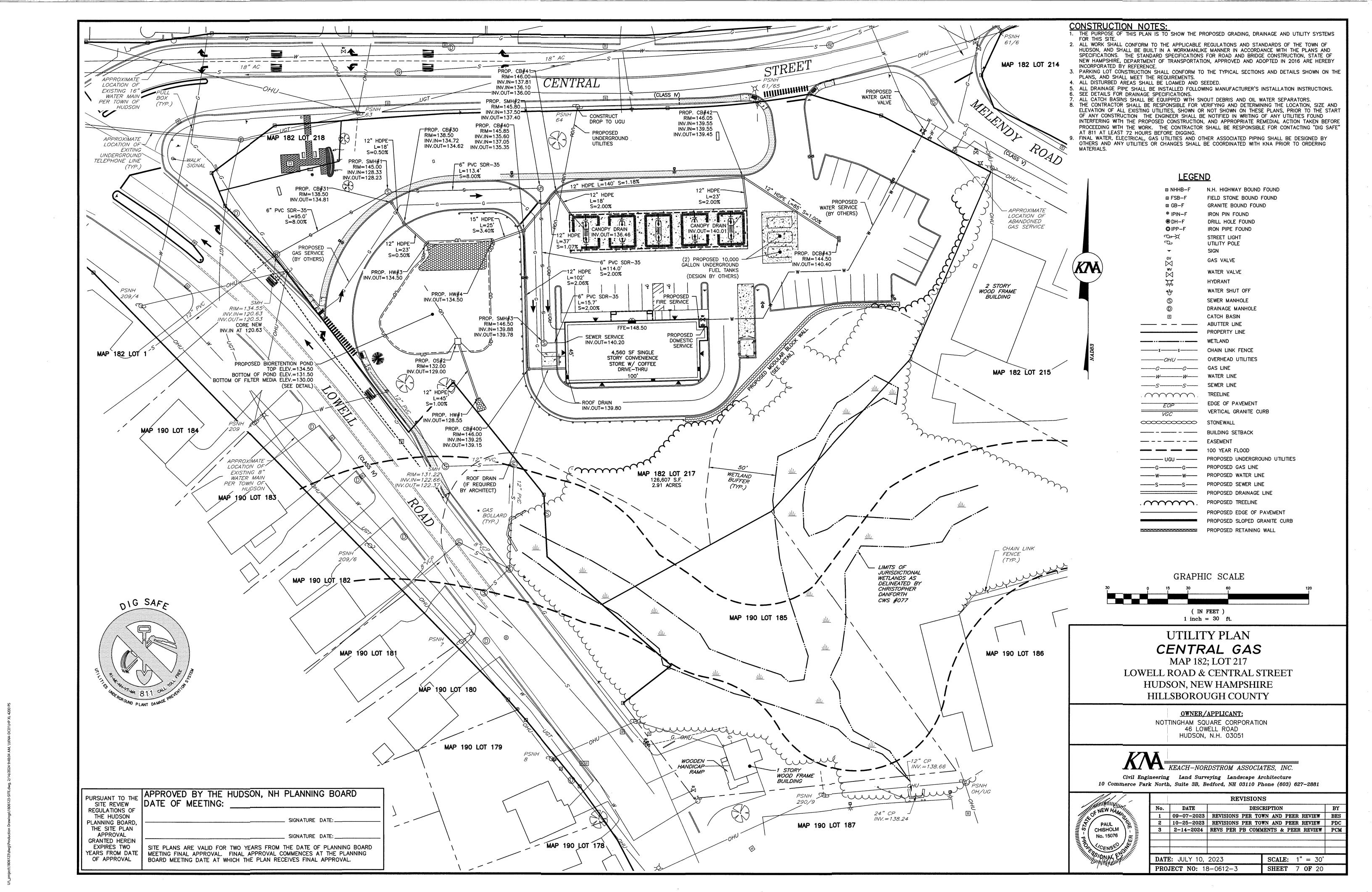
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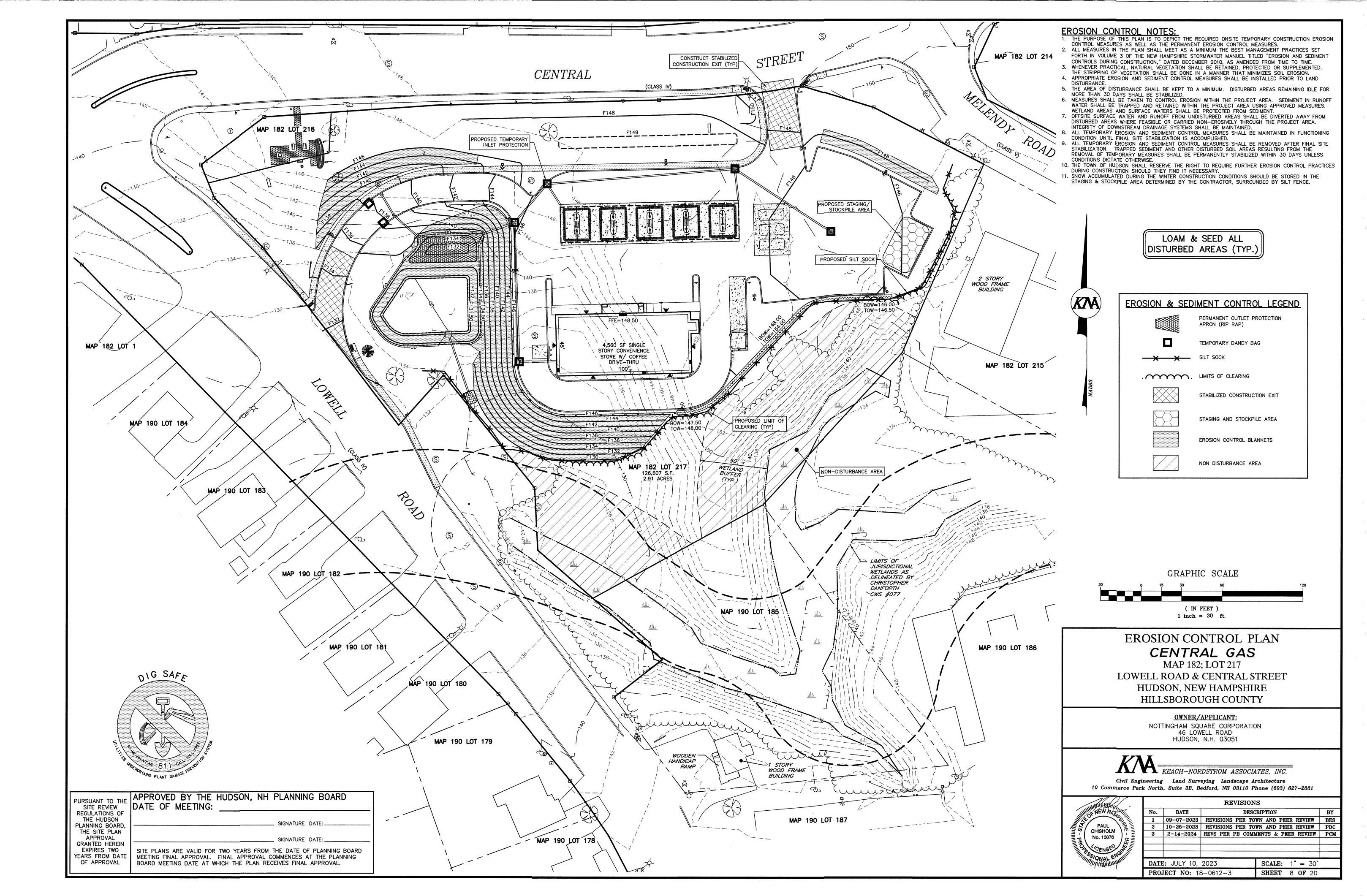
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	2	10-25-2023	REVISIONS PER TO	WN AND PEER REVIEW	PDC
1	3	2-14-2024	REVS PER PB COMM	MENTS & PEER REVIEW	PCM
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	PRO	JECT NO: 18	8-0612-3	SHEET 3 OF 20	



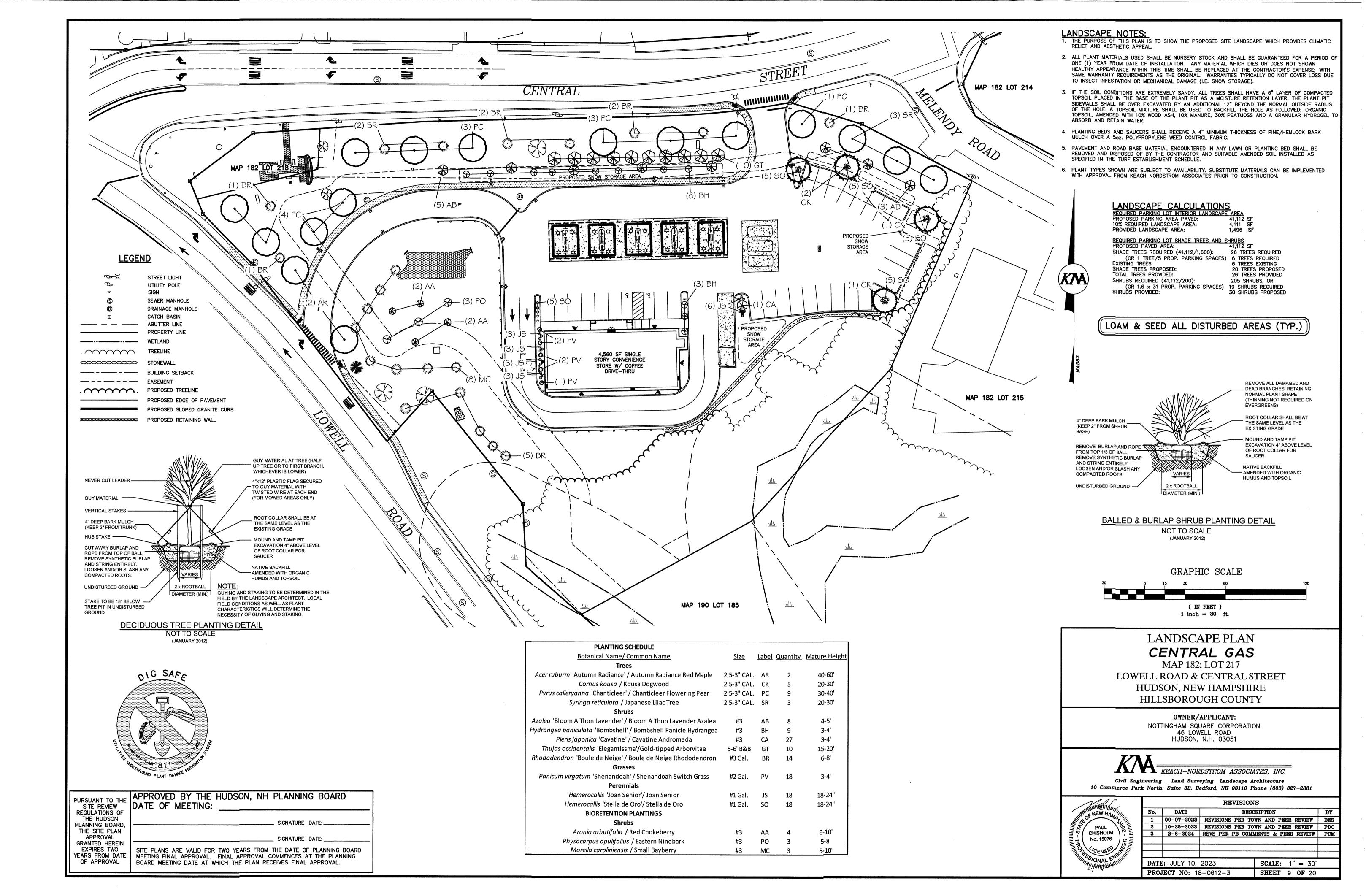




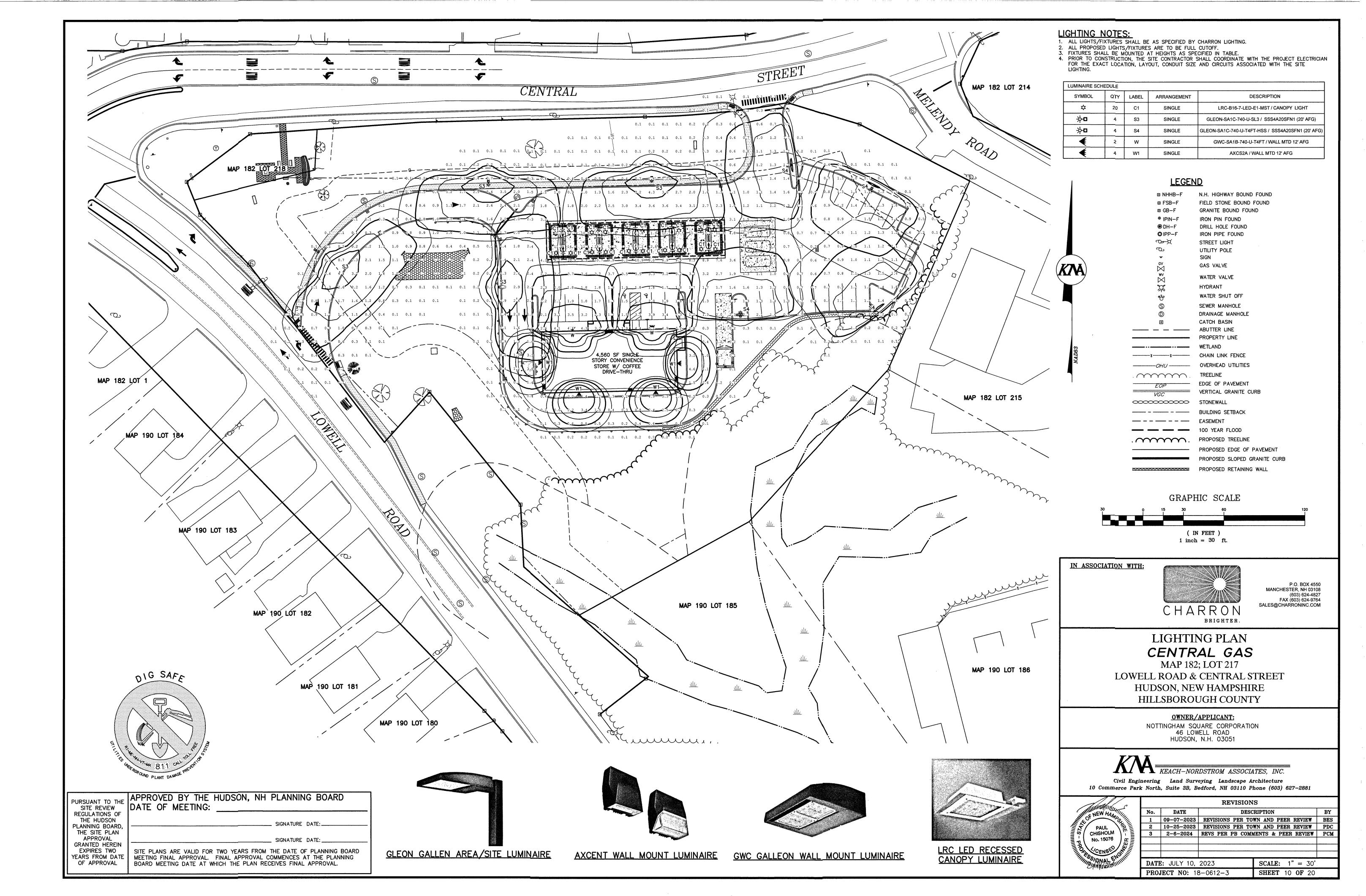




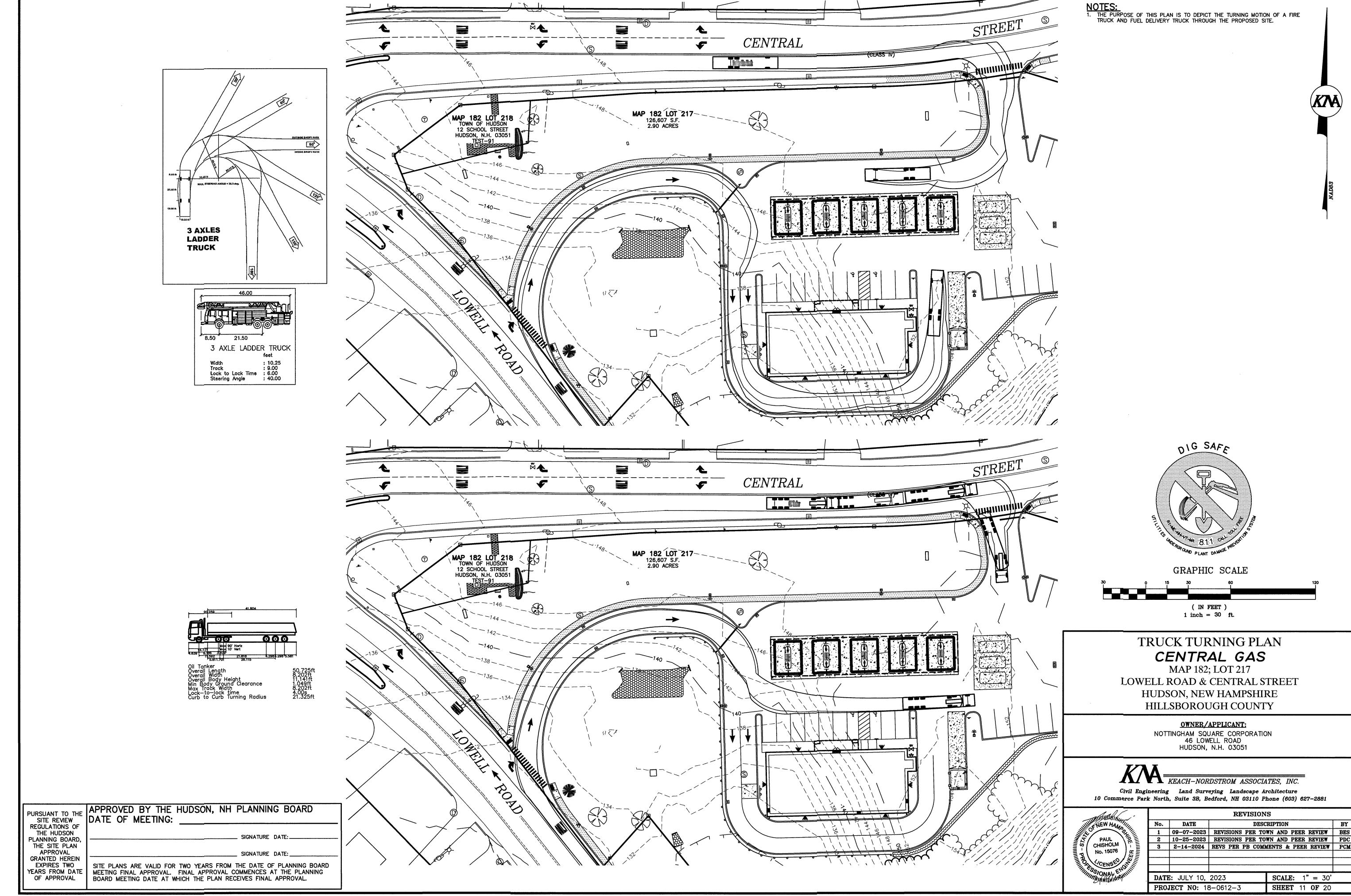
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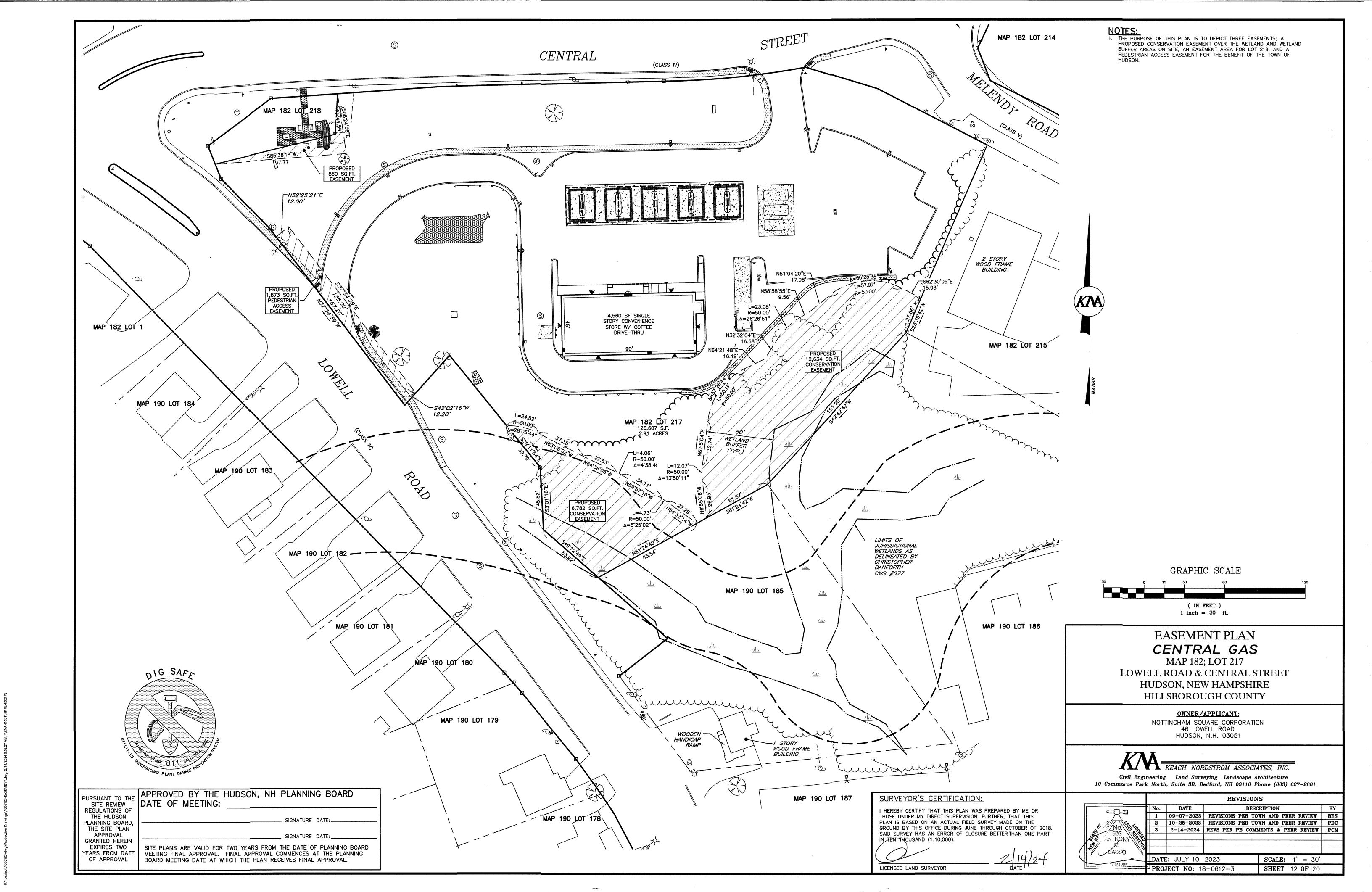


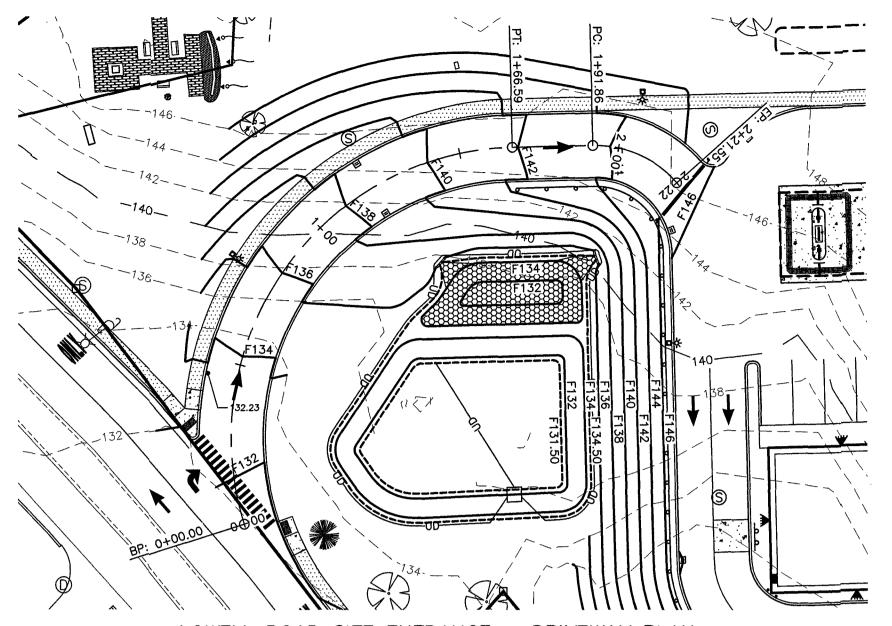
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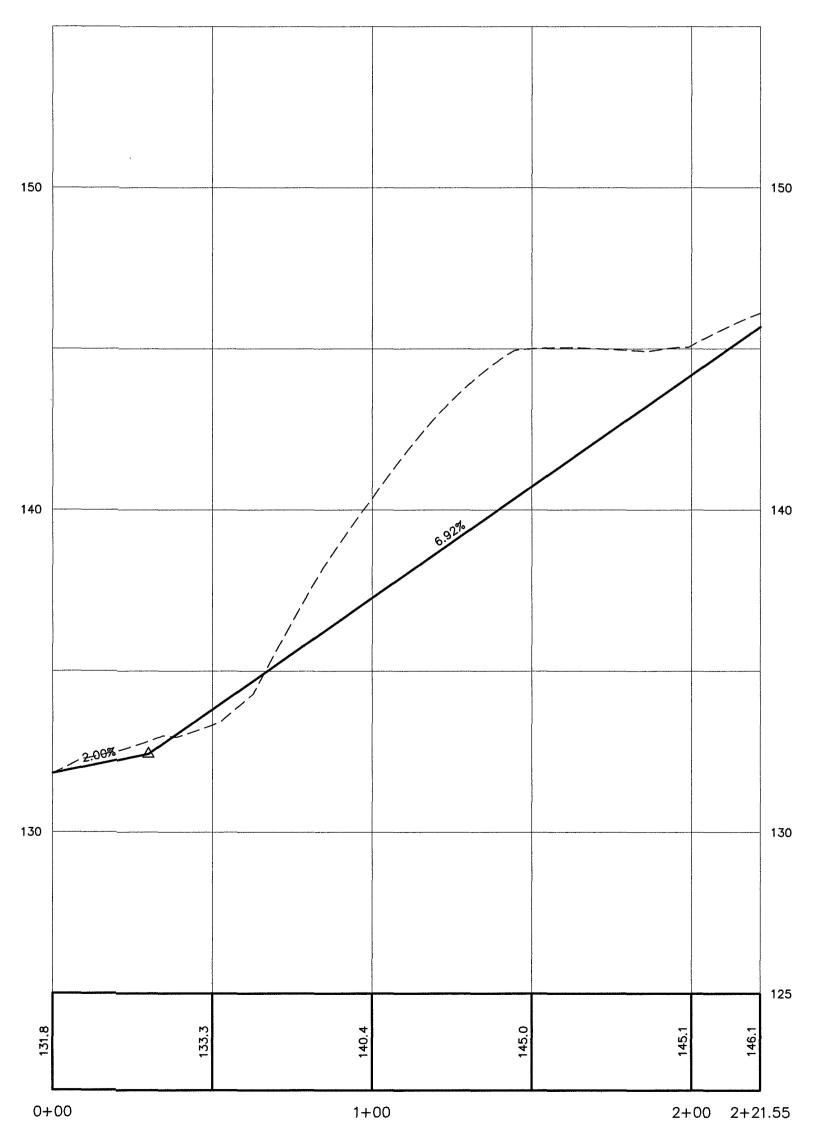
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LOWELL ROAD SITE ENTRANCE - DRIVEWAY PLAN SCALE: 1" = 30'



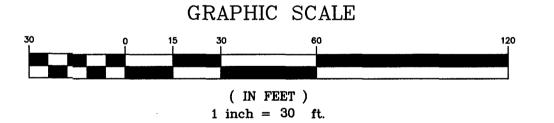
APPROVED BY THE HUDSON, NH PLANNING BOARD DATE OF MEETING: PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL SIGNATURE DATE:_ SIGNATURE DATE: _ GRANTED HEREIN SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL. EXPIRES TWO YEARS FROM DATE

LOWELL ROAD SITE ENTRANCE - DRIVEWAY PLAN SCALE: 1" = 30' (HORIZ.) 1" = 3' (VERT.)



N.H. HIGHWAY BOUND FOUND GRANITE BOUND FOUND IRON PIN FOUND DRILL HOLE FOUND OIPP-F IRON PIPE FOUND STREET LIGHT UTILITY POLE GAS VALVE WATER VALVE HYDRANT WATER SHUT OFF SEWER MANHOLE DRAINAGE MANHOLE CATCH BASIN —— — ABUTTER LINE PROPERTY LINE ——OHU ——— OVERHEAD UTILITIES EDGE OF PAVEMENT VERTICAL GRANITE CURB PROPOSED EDGE OF PAVEMENT PROPOSED SLOPED GRANITE CURB PROPOSED 2' CONTOUR





LOWELL ROAD ENTRANCE - DRIVEWAY PROFILE CENTRAL GAS

MAP 182; LOT 217

LOWELL ROAD & CENTRAL STREET HUDSON, NEW HAMPSHIRE HILLSBOROUGH COUNTY

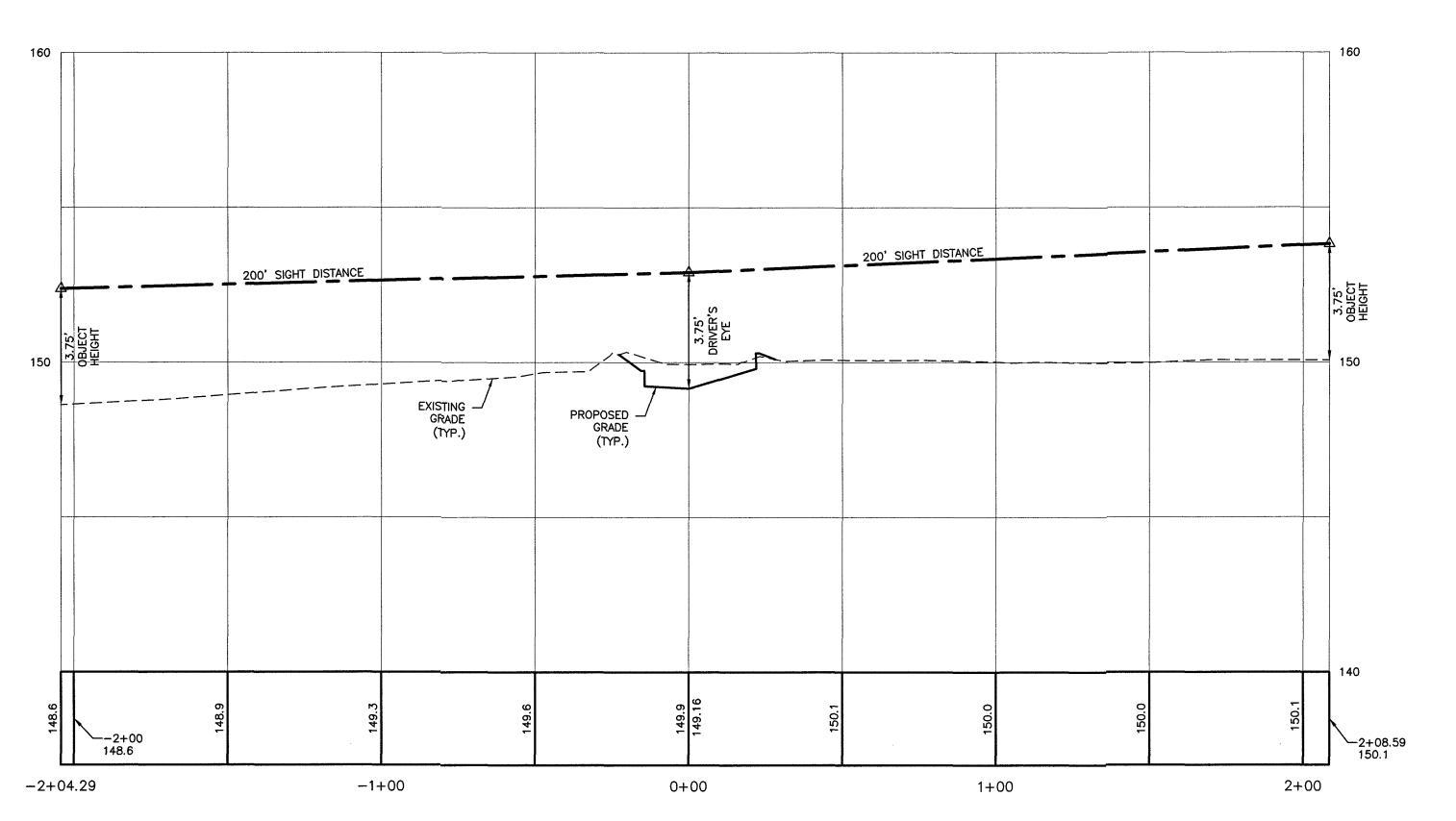
OWNER/APPLICANT:

NOTTINGHAM SQUARE CORPORATION 46 LOWELL ROAD HUDSON, N.H. 03051



Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

		REVISION	S	
No.	DATE	DESC	RIPTION	BY
1	09-07-2023	REVISIONS PER TO	WN AND PEER REVIEW	BES
2	10-25-2023	REVISIONS PER TO	WN AND PEER REVIEW	PDC
3	2-14-2024	REVS PER PB COMM	MENTS & PEER REVIEW	PCM
DAT	E: JULY 10,	2023	SCALE: $1" = 30'$	
PRO	JECT NO: 18	3-0612-3	SHEET 13 OF 20	



CENTRAL STREET SIGHT DISTANCE PROFILE

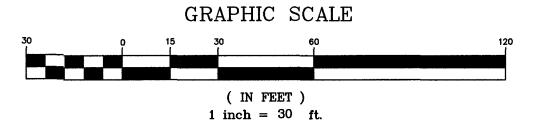
SCALE: 1" = 30' (HORIZ.) 1" = 3' (VERT.)

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES TWO YEARS FROM DATE OF APPROVAL OF APPROVAL OF APPROVAL BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

LEGEND

N.H. HIGHWAY BOUND FOUND FIELD STONE BOUND FOUND GRANITE BOUND FOUND □ GB-F IRON PIN FOUND DH−F DRILL HOLE FOUND IRON PIPE FOUND OIPP-F G-X STREET LIGHT UTILITY POLE SIGN GAS VALVE WATER VALVE HYDRANT WATER SHUT OFF SEWER MANHOLE DRAINAGE MANHOLE CATCH BASIN ABUTTER LINE PROPERTY LINE OVERHEAD UTILITIES EDGE OF PAVEMENT VERTICAL GRANITE CURB ----- 10' CONTOUR _____ 2' CONTOUR PROPOSED EDGE OF PAVEMENT PROPOSED SLOPED GRANITE CURB PROPOSED 2' CONTOUR





SIGHT DISTANCE PLAN & PROFILE CENTRAL GAS

MAP 182; LOT 217

LOWELL ROAD & CENTRAL STREET HUDSON, NEW HAMPSHIRE HILLSBOROUGH COUNTY

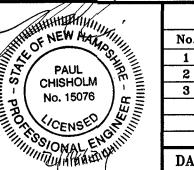
OWNER/APPLICANT:

NOTTINGHAM SQUARE CORPORATION
46 LOWELL ROAD
HUDSON, N.H. 03051

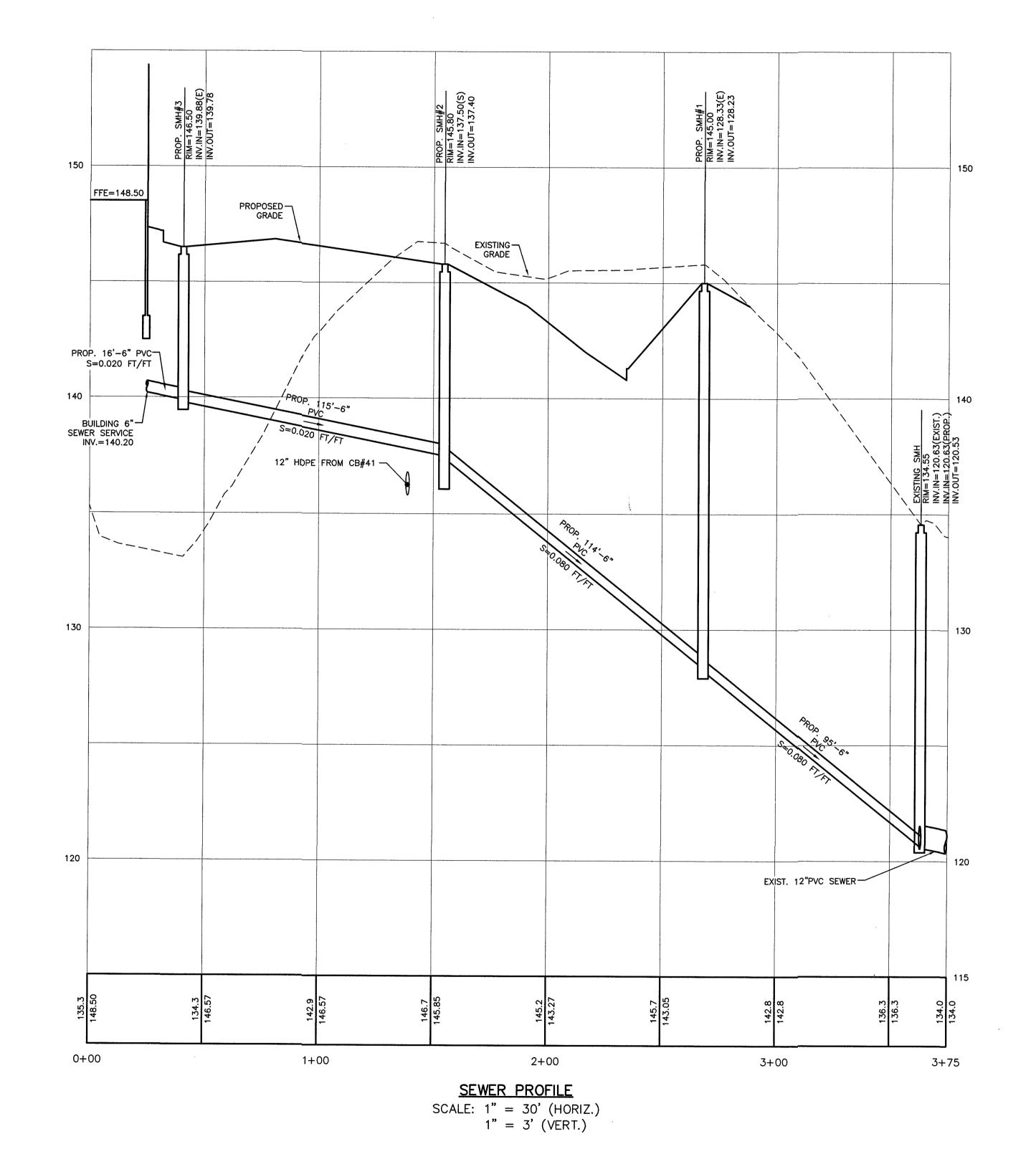


KEACH-NORDSTROM ASSOCIATES, INC.

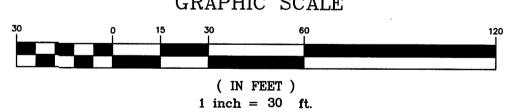
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881



		REVISION	S	
No.	DATE	DESC	RIPTION	BY
1	09-07-2023	REVISIONS PER TO	WN AND PEER REVIEW	BES
2	10-25-2023	REVISIONS PER TO	WN AND PEER REVIEW	PDC
3	2-14-2024	REVS PER PB COM	MENTS & PEER REVIEW	PCM
DATE	3: JULY 10,	2023	SCALE: $1" = 30'$	
PRO	JECT NO: 18	3-0612-3	SHEET 14 OF 20	



GRAPHIC SCALE

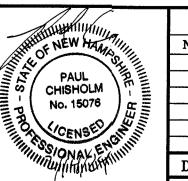


SEWER PROFILE CENTRAL GAS MAP 182; LOT 217

LOWELL ROAD & CENTRAL STREET HUDSON, NEW HAMPSHIRE HILLSBOROUGH COUNTY

OWNER/APPLICANT:
NOTTINGHAM SQUARE CORPORATION
46 LOWELL ROAD
HUDSON, N.H. 03051

Civil Engineering Land Surveying Landscape Architecture 10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627–2881



DATE	D	ESCRIPTION	BY
09-07-2023	REVISIONS PER	TOWN AND PEER REVIEW	BES
10-25-2023	REVISIONS PER	TOWN AND PEER REVIEW	PDC
2-14-2024	REVS PER PB C	OMMENTS & PEER REVIEW	PCM
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JULY 10,	2023	SCALE: 1" = 30'	
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1	09-07-2023 .0-25-2023 2-14-2024 JULY 10,	09-07-2023 REVISIONS PER 0-25-2023 REVISIONS PER	JULY 10, 2023 REVISIONS PER TOWN AND PEER REVIEW REVS PER PB COMMENTS & PEER REVIEW SCALE: 1" = 30'

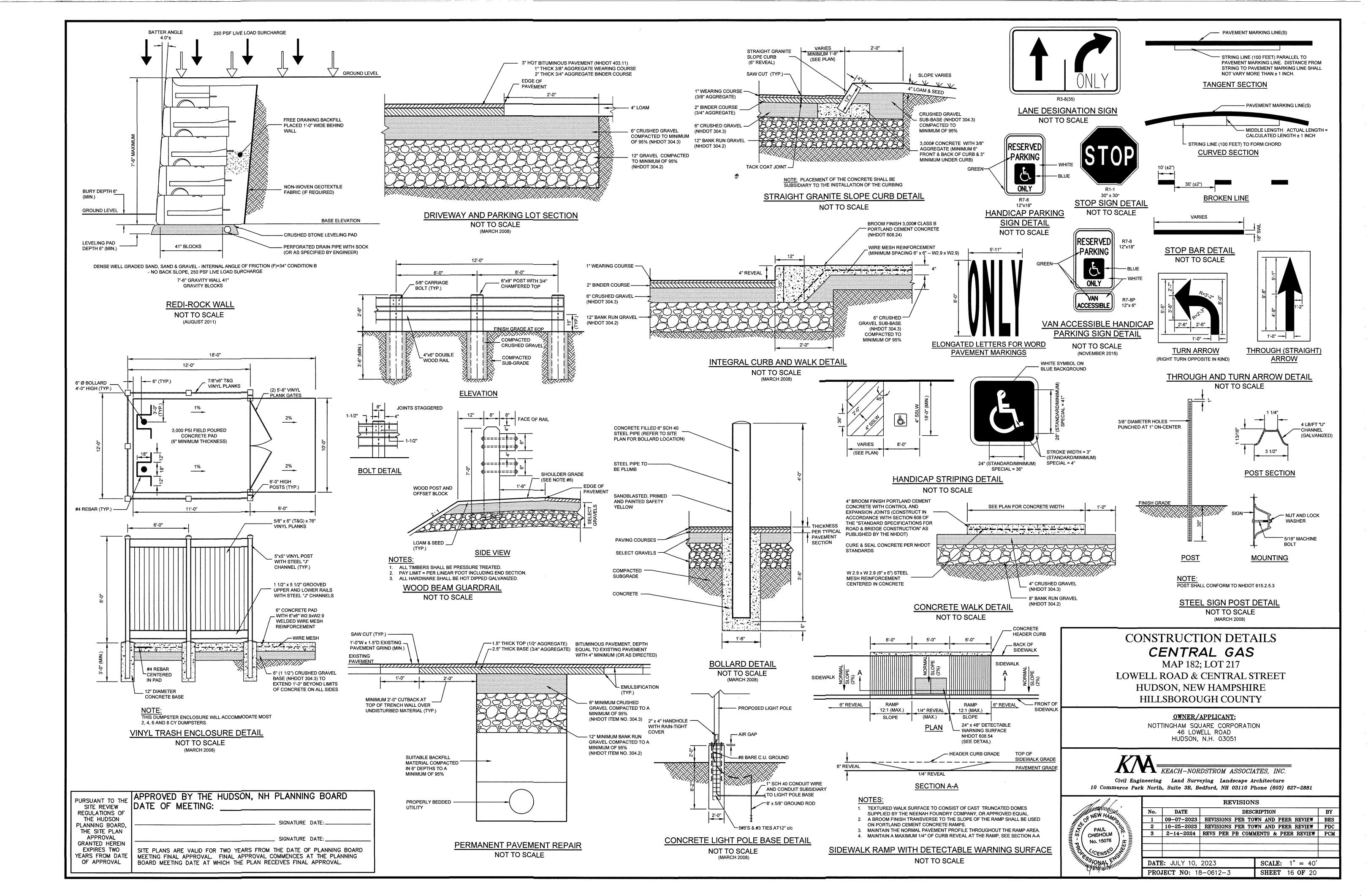
PURSUANT TO THE
SITE REVIEW
REGULATIONS OF
THE HUDSON
PLANNING BOARD,
THE SITE PLAN
APPROVAL
GRANTED HEREIN
EXPIRES TWO

APPROVED BY THE HUDSON, NH PLANNING BOARD DATE OF MEETING:

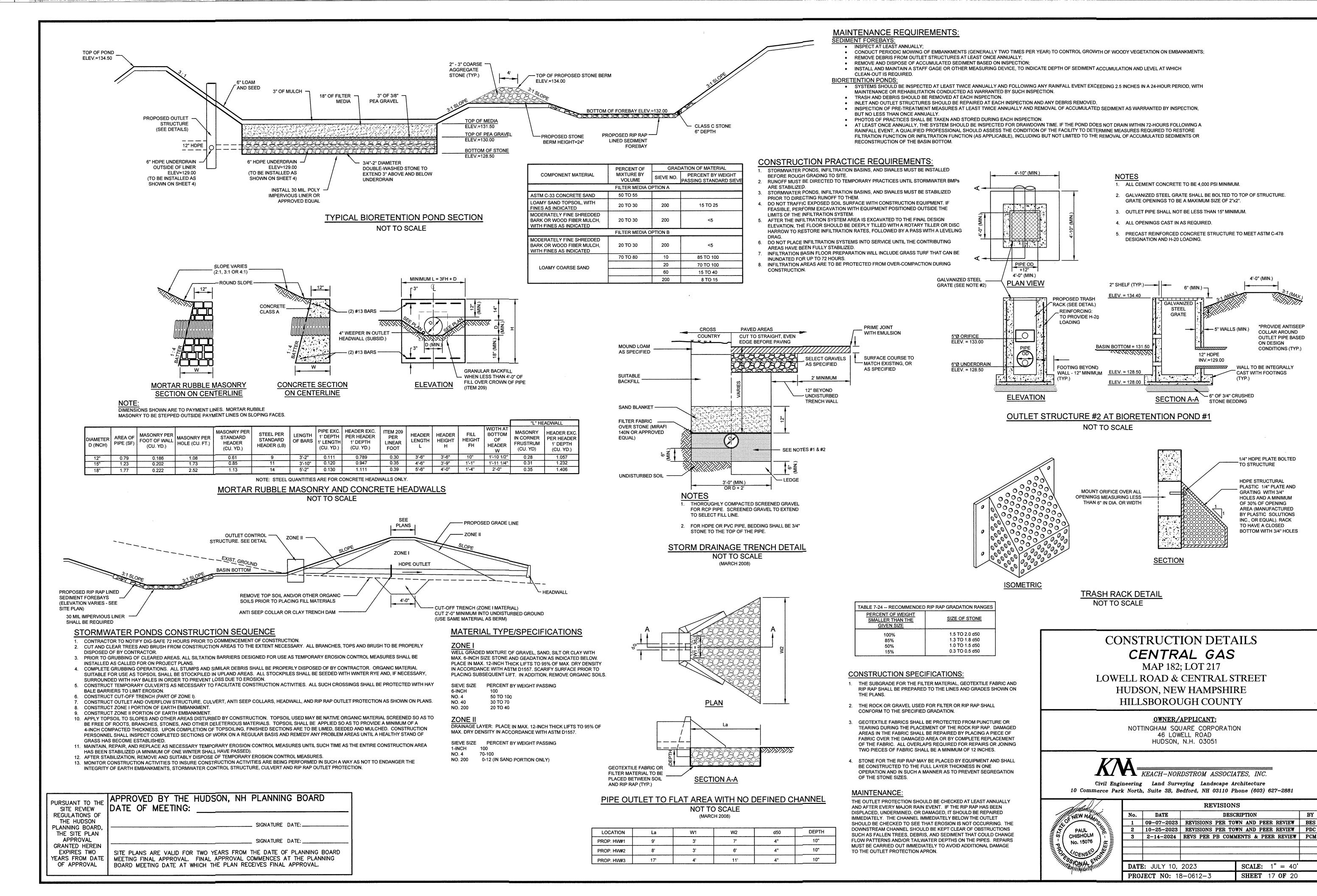
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EXPIRES TWO
YEARS FROM DATE
OF APPROVAL
SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD
MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING
BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

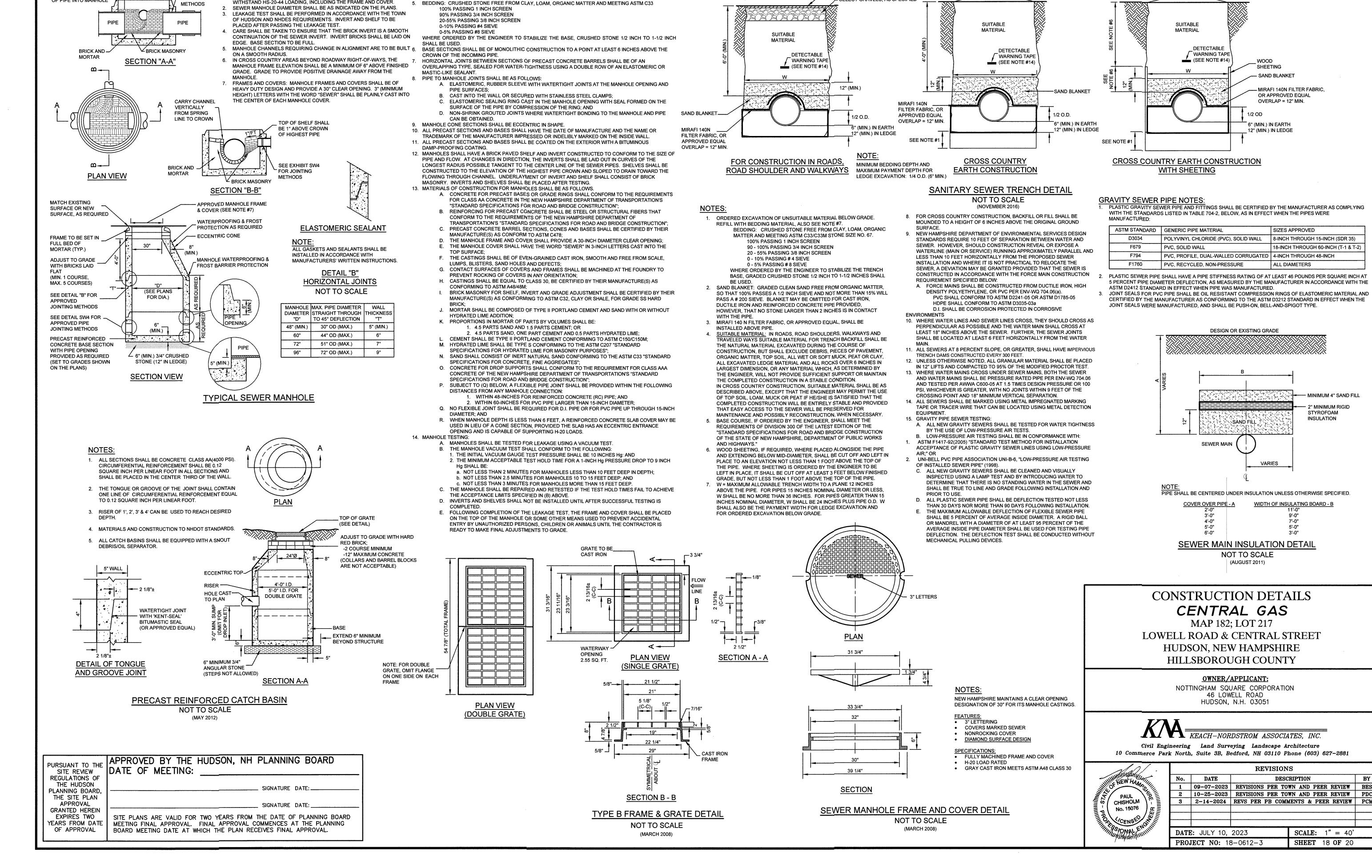
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OF PIPE INTO MANHOLE

NOTES:

1. IT IS THE INTENTION THAT THE MANHOLE, INCLUDING ALL COMPONENT PARTS, HAVE ADEQUATE SPACE, STRENGTH AND LEAKPROOF QUALITIES CONSIDERED NECESSARY FOR THE INTENDED SERVICE. SPACE 2. MANHOLE STRUCTURES SHALL HAVE A LIFE EXPECTANCY IN EXCESS OF 25 YEARS REQUIREMENTS AND CONFIGURATIONS SHALL BE AS SHOWN ON THE DRAWING. MANHOLES SHALL BE AN ASSEMBLY OF PRECAST SECTIONS. WITH STEEL REINFORCEMENT AND ADEQUATE JOINTING. THE COMPLETE SEE EXHIBIT SW4 STRUCTURE SHALL BE OF SUCH MATERIAL AND QUALITY AS TO

SANITARY SEWER MANHOLE NOTES: (NHDES ENV WQ700 - 2015)

EXCESS OF ONE GPD PER VERTICAL FOOT OF MANHOLE FOR THE LIFE OF THE STRUCTURE.

SPACE NECESSARY FOR THE INTENDED SERVICE.

REINFORCED CONCRETE AND SHALL CONFORM TO ASTM C478.

ALL COMPONENT PARTS OF MANHOLE STRUCTURES SHALL HAVE THE STRENGTH, LEAK RESISTANCE AND

MANHOLE STRUCTURES SHALL BE DESIGNED TO WITHSTAND H-20 LOADING AND SHALL NOT LEAK IN

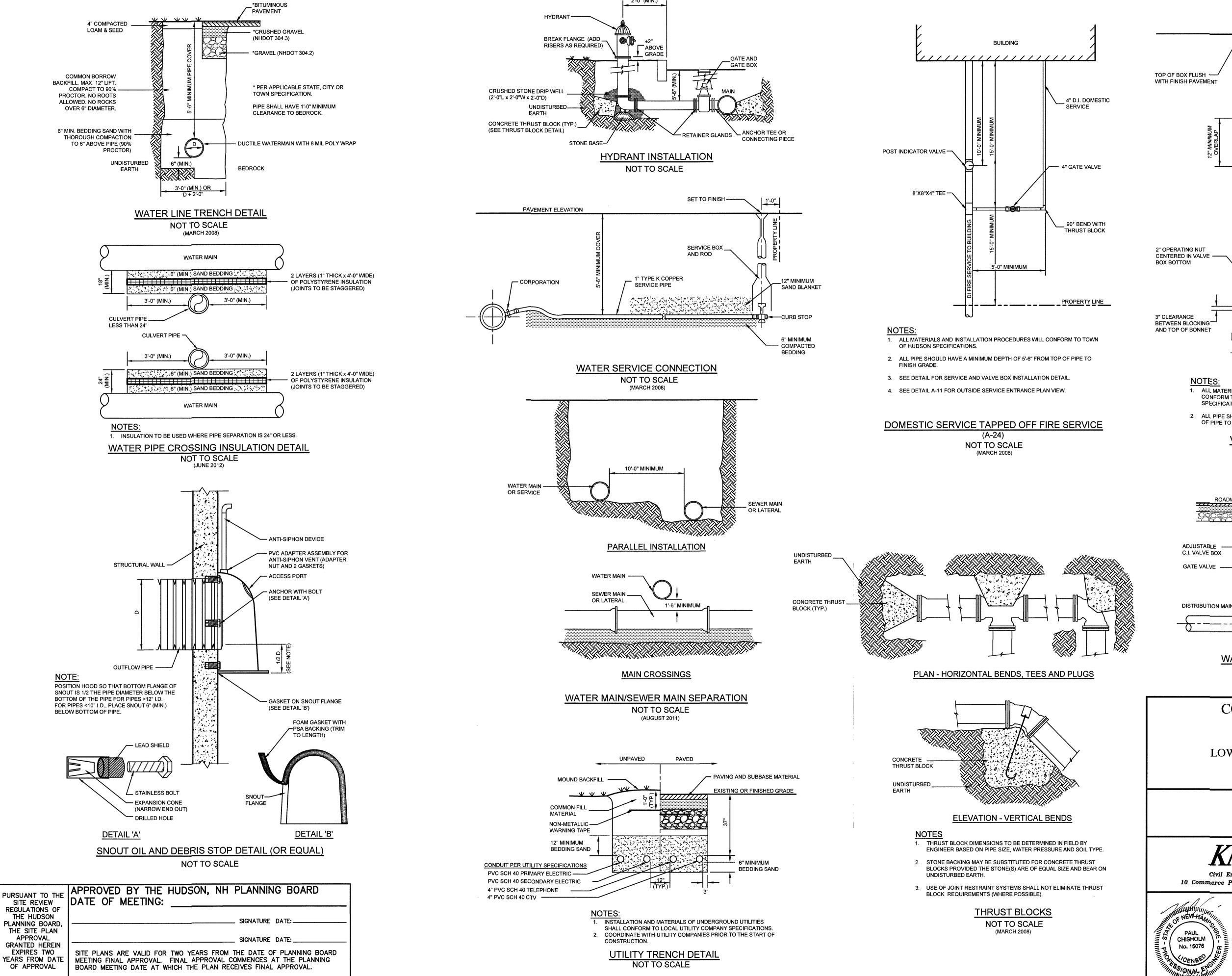
BARRELS, CONCRETE GRADE RINGS AND CONE SECTIONS SHALL BE CONSTRUCTED OF PRECAST

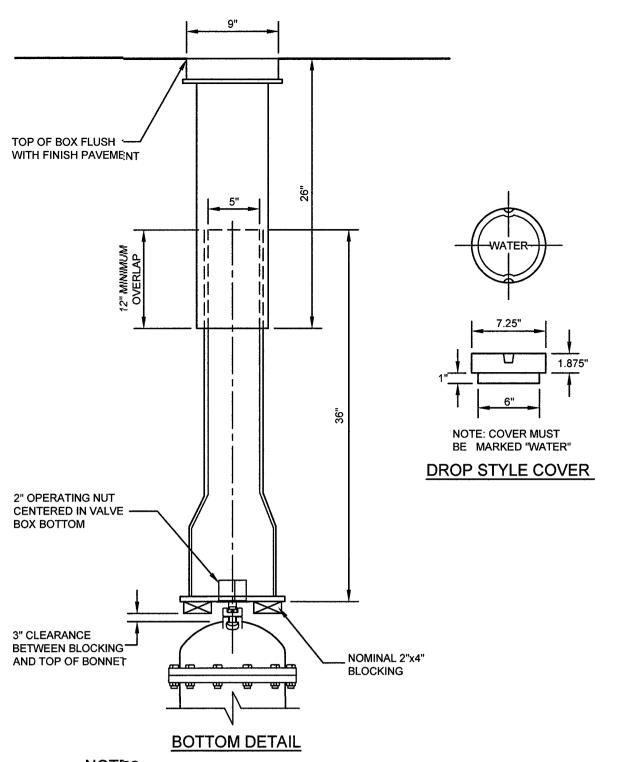
WITHSTAND HS-20-44 LOADING, INCLUDING THE FRAME AND COVER.

FOR JOINTING

OR 2'-0" + D OR 2'-0" + D OR 2'-0" + D --- SURFACE COURSE, AS SPECIFIED SELECT GRAVELS, AS SPECIFIED

	REVISIONS				
No.	DATE DESCRIPTION				
1	09-07-2023	REVISIONS PER TO	WN AND PEER REVIEW	BES	
2	10-25-2023	REVISIONS PER TO	WN AND PEER REVIEW	PDC	
3	2-14-2024	REVS PER PB COM	MENTS & PEER REVIEW	PCM	
DAT	E: JULY 10,	2023	SCALE: $1" = 40'$		
PRO	JECT NO: 18	3-0612-3	SHEET 18 OF 20		

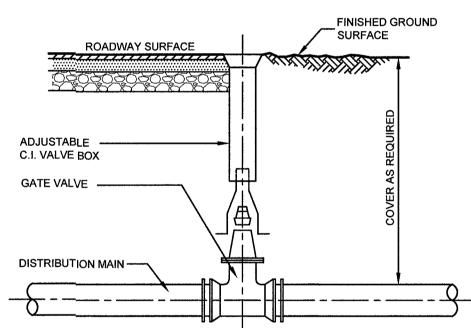




- 1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO PENNICHUCK WATER WORKS, INC. TECHNICAL SPECIFICATIONS.
- 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.

VALVE BOX DETAIL

NOT TO SCALE (MARCH 2008)



WATER AND GAS GATE VALVE NOT TO SCALE

(MARCH 2008)

CONSTRUCTION DETAILS

CENTRAL GAS

MAP 182; LOT 217

LOWELL ROAD & CENTRAL STREET HUDSON, NEW HAMPSHIRE HILLSBOROUGH COUNTY

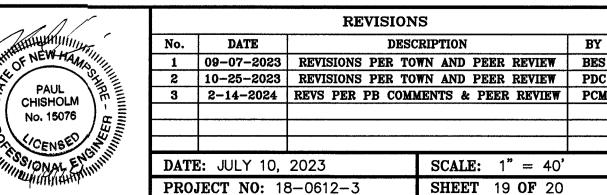
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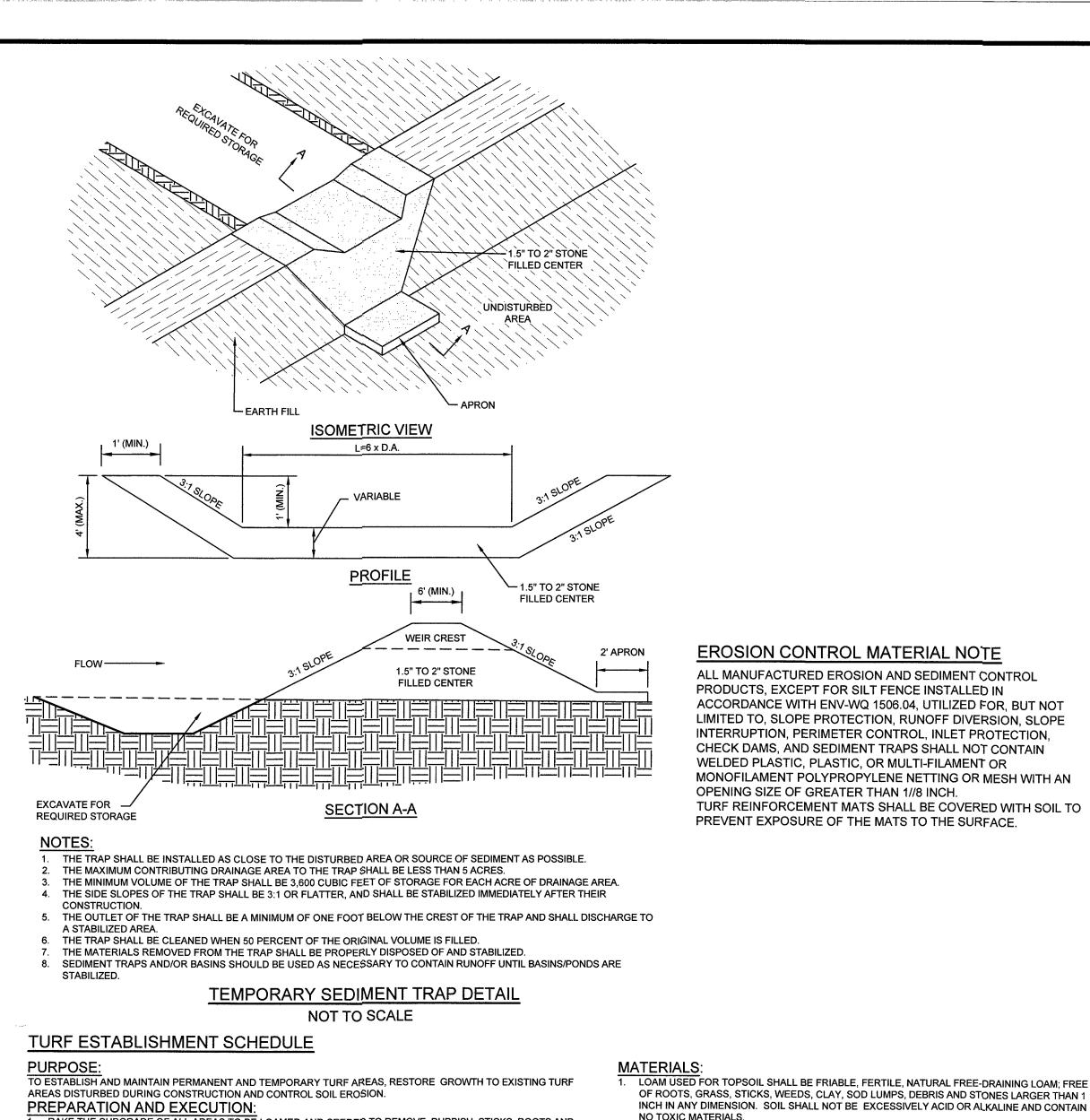
NOTTINGHAM SQUARE CORPORATION 46 LOWELL ROAD HUDSON, N.H. 03051



■ KEACH-NORDSTROM ASSOCIATES, INC.

Civil Engineering Land Surveying Landscape Architecture 10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881





RAKE THE SUBGRADE OF ALL AREAS TO BE LOAMED AND SEEDED TO REMOVE RUBBISH, STICKS, ROOTS AND

FINE GRADE SURFACE AND SUPPLEMENT WITH SUITABLE LOAM WHERE NEEDED TO CREATE A UNIFORM SURFACE

ACCORDING TO THE FINISH GRADES INDICATED; TOP AND BOTTOM OF SLOPES SHALL BE ROUNDED. NO LOAM

UNIFORMLY SPREAD THE SEED BY BROADCASTING OR HYDROSEEDING. IF BROADCASTING, LIGHTLY RAKE INTO

THE PREPARED SURFACE AND ROLL. IF, HYDROSEEDING, USE 4 TIMES THE RECOMMENDED RATE OF INOCULANT.

SEEDING FOR PERMANENT COVER SHALL OCCUR BETWEEN SEPTEMBER 15 AND OCTOBER 15 AND BETWEEN APRIL

WITHIN 24 HOURS AFTER SEEDING OPERATION, UNIFORMLY MULCH THE AREA WITH STRAW. ANCHOR MULCH ON

TEMPORARY SEED MIXTURE SHALL BE USED. WHEN TEMPORARY SEEDING CANNOT ESTABLISH VISIBLE GROWTH,

15 AND JUNE 15. SEEDING SHALL NOT BE DONE DURING WINDY WEATHER, WHEN THE GROUND IS FROZEN OR

ALL SLOPES EXCEEDING 3: 1 USING MULCH NETTING INSTALLED IN ACCORDANCE WITH THE MANUFACTURER.

9. PROTECT AND PREVENT AGAINST WASHOUTS, ANY WASHOUTS WHICH OCCUR SHALL BE PROMPTLY REGRADED

10. WHEN IT IS IMPRACTICAL TO ESTABLISH PERMANENT GROWTH ON DISTURBED EARTH BY OCTOBER 15, A

ALL SEEDED AREAS SHALL BE KEPT WATERED AND IN GOOD CONDITION. RESEED AS NECESSARY TO ESTABLISH

3. FERTILIZER SHALL BE APPLIED AT A RATE OF 30 POUNDS PER 1,000 S.F. IT IS RECOMMENDED THAT THE SOIL BE

TESTED PRIOR TO APPLYING ANY FERTILIZERS TO DETERMINE WHAT LEVELS AND RATES ARE NECESSARY.

4. SEED MIXTURE FOR LAWN AREAS SHALL BE APPLIED AT A RATE OF AT LEAST 80 POUNDS PER ACRE OR 2 POUNDS

SEED MIXTURE FOR STORMWATER MANAGEMENT AREAS SHALL BE APPLIED AT A RATE OF 70 POUNDS PER ACRE

HEALTHY UNIFORM GROWTH OVER THE ENTIRE SEEDED AREA, MAINTAIN SEEDED AREAS IN AN APPROVED CONDITION

THE DISTURBED AREA SHALL BE COVERED WITH SIX INCHES OF MULCH FOR THE WINTER.

1. LOAM SHALL BE APPLIED AT A MINIMUM COMPACTED THICKNESS OF 4 INCHES.

TEMPORARY SEED MIXTURE SHALL BE APPLIED AT A RATE OF 2 POUNDS PER 1,000 S.F.

2. LIME SHALL BE APPLIED AT A RATE OF 75 TO 100 POUNDS PER 1,000 S.F.

8. MULCH SHALL BE APPLIED AT A RATE OF 90 POUNDS PER 1,000 S.F.

UNTIL FINAL ACCEPTANCE. MAINTENANCE SHALL INCLUDE REPAIRS FOR DAMAGE CAUSED BY EROSION.

APPLY LIME EVENLY OVER LOAM SURFACE AND THOROUGHLY INCORPORATE LIME INTO THE LOAM BY HEAVY

6. DETERMINE APPROPRIATE MIXTURE FOR AREA TO BE SEEDED BASED ON EXAMINATION OF PROJECT PLANS.

APPLY NO PHOSPHATE, SLOW RELEASE FERTILIZER AND MIX WITH THE UPPER 2 INCHES OF LOAM.

STONES LARGER THAN 1 INCH.

AND RESERDED

MAINTENANCE:

APPLICATION RATES:

OR 1.6 POUNDS PER 1,000 S.F.

PLACE LOAM OVER AREAS TO BE SEEDED AND SPREAD.

RAKING TO AT LEAST ONE-HALF THE DEPTH OF THE LOAM.

EXCESSIVELY WET OR OTHERWISE UNTILL ABLE

SHALL BE SPREAD IF THE SUBGRADE IS EXCESSIVELY WET OR FROZEN.

AFTER SEED IS SPREAD, WATER THOROUGHLY WITH A FINE SPRAY.

EROSION CONTROL MATERIAL NOTE

2. LIME SHALL BE GROUND LIMESTONE CONTAINING NO LESS THAN 95% CALCIUM AND

SEED MIXTURE FOR LAWN AREAS SHALL BE 99% PURE LIVE SEED AND CONSIST OF THE

TEMPORARY SEEDING MIXTURE SHALL BE AN APPROVED CONSERVATION MIX OR CONSIST OF

INOCULUM SPECIFIC TO BIRDSFOOT TREFOIL MUST BE USED WITH THIS MIXTURE. IF

*IN ADDITION TO THE MIX SPECIFIED ABOVE, CROWN VETCH SHALL BE USED ON ALL

SLOPES STEEPER THAN 3:1. CROWN VETCH SHALL BE APPLIED AT A RATE OF 10

POUNDS PER ACRE AND INOCULUM SPECIFIC TO CROWN VETCH MUST BE USED.

LEGUME MOWINGS, FREE FROM WEEDS, TWIGS, DEBRIS OR OTHER DELETERIOUS MATERIAL

SEEDING BY HAND, A STICKING AGENT SHALL BE USED. IF SEEDING WITH A

6. SEED MIXTURE FOR SLOPE AREAS SHALL BE 99% PURE LIVE SEED AND SHALL CONSIST OF

VEGETATED TREATMENT SWALES SHALL CONSIST OF THE FOLLOWING:

9. NATIVE PLANTINGS SHOULD BE USED FOR ALL NEW GREENSCAPES.

10. ALL WILDFLOWER SEEDING MIXES SHOULD BE FREE OF INVASIVE SPECIES.

HYDROSEEDER, USE FOUR TIMES THE RECOMMENDED AMOUNT OF INOCULUM.

MAGNESIUM CARBONATES.

25% REDTOP

FOLLOWING:

THE FOLLOWING:

THE FOLLOWING:

15% REDTOP

3. FERTILIZER SHALL BE NO PHOSPHORUS, SLOW RELEASE.

25% MANHATTAN PERENNIAL RYEGRASS

30% NIAGRA OR KAW BIG BLUESTEM

30% CAMPER OR BLAZE LITTLESTEM

10% VIKING BIRDSFOOT TREFOIL

30% CREEPING RED FESCUE

40% PERENNIAL RYE GRASS

25% CREEPING RED FESCUE

15% CREEPING BENTGRASS

20% WILDFLOWER VARIETY

15% SWITCH GRASS

15% FOX SEDGE

10% FLATPEA

AND ROT OR MOLD

6. SEED MIXTURE FOR SLOPE AREAS SHALL BE APPLIED AT A RATE OF 80 POUNDS PER ACRE OR 2 POUNDS PER 1,000 8. STRAW USED FOR MULCH SHALL CONSIST OF MOWED AND PROPERLY CURED GRASS OR

15% BIRDSFOOT TREFOIL

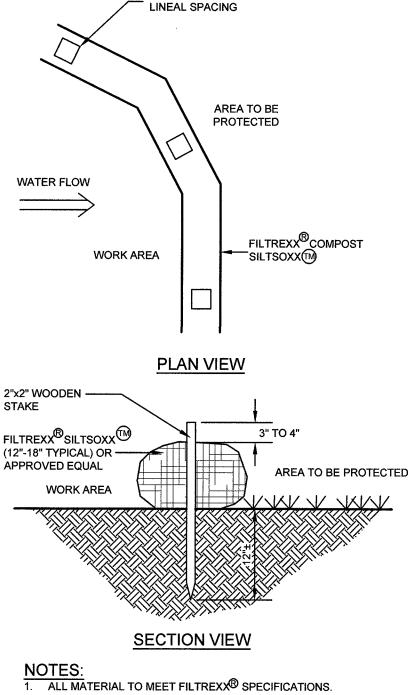
15% NE-27 OR BLAZE SAND LOVEGRASS

15% BLACKWELL OR SHELTER SWITCHGRASS

25% CREEPING RED FESCUE

25% KENTUCKY BLUEGRASS

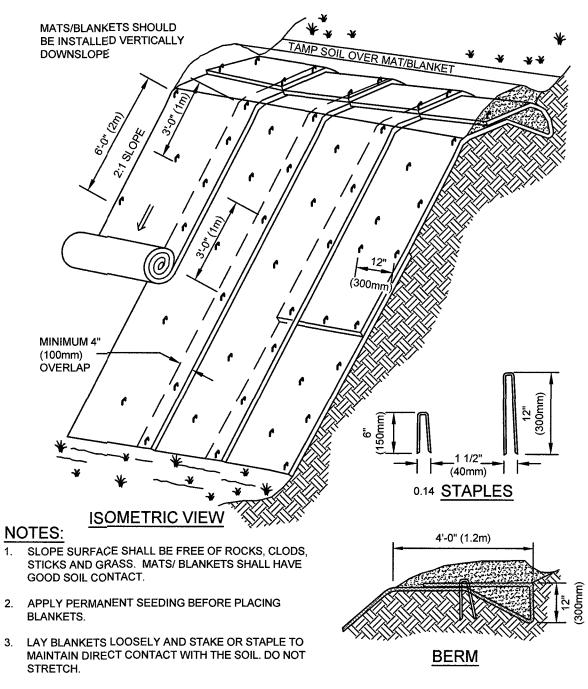
ALL MANUFACTURED EROSION AND SEDIMENT CONTROL PRODUCTS, EXCEPT FOR SILT FENCE INSTALLED IN ACCORDANCE WITH ENV-WQ 1506.04, UTILIZED FOR, BUT NOT LIMITED TO, SLOPE PROTECTION, RUNOFF DIVERSION, SLOPE INTERRUPTION, PERIMETER CONTROL, INLET PROTECTION, CHECK DAMS, AND SEDIMENT TRAPS SHALL NOT CONTAIN WELDED PLASTIC, PLASTIC, OR MULTI-FILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR MESH WITH AN OPENING SIZE OF GREATER THAN 1//8 INCH. TURF REINFORCEMENT MATS SHALL BE COVERED WITH SOIL TO PREVENT EXPOSURE OF THE MATS TO THE SURFACE.



STAKE ON 10'

- 2. SILTSOXX COMPOST/SOIL/ROCK/SEED FILL TO MEET APPLICATION REQUIREMENTS.
- 3. SILTSOXX DEPICTED IS FOR MINIMUM SLOPES. GREAT SLOPES MAY REQUIRE LARGER SOCKS PER THE ENGINEER.
- 4. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED

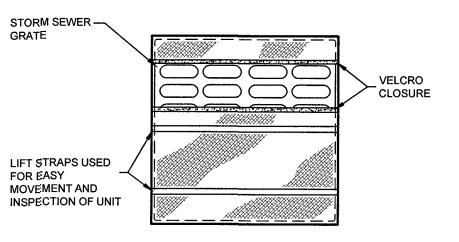
FILTREXX® SILTSOXX[™]DETAIL (AUGUST 2011)

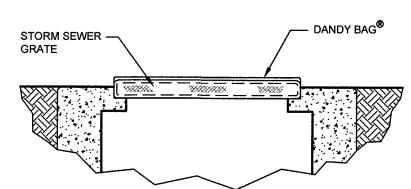


4. EROSION BLANKETS TO BE A BCN150 OR AN APPROVED ALTERNATIVE WHICH MUST CONSIST OF ALL NATURAL

EROSION CONTROL BLANKETS - SLOPE INSTALLATION

NOT TO SCALE (AUGUST 2011)





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/m ² (gal/min/ft ²)	5907 (145)
PERMITTIVITY	ASTM D 4491	Sec-1	2.1

DANDY BAG®

MAINTENANCE

MUD AND SOIL PARTICLES WILL EVENTUALLY CLOG THE VOIDS IN THE CRUSHED STONE AND

THE EFFECTIVENESS OF THE CRUSHED STONE PAD WILL NOT BE SATISFACTORY. WHEN THIS OCCURS, THE PAD SHOULD BE TOPDRESSED WITH NEW CRUSHED STONE OR COMPLETE REPLACEMENT OF THE PAD MAY BE NECESSARY WHEN THE PAD BECOMES COMPLETELY CLOGGED

IF WASHING FACILITIES ARE USED, THE SEDIMENT TRAPS SHOULD BE CLEANED OUT AS OFTEN AS NECESSARY TO ASSURE THAT ADEQUATE TRAPPING EFFICIENCY AND STORAGE VOLUME IS AVAILABLE. VEGETATIVE FILTER STRIPS SHOULD BE MAINTAINED TO INSURE A VIGOROUS STAND OF VEGETATION AT ALL TIMES.

CONSTRUCTION SPECIFICATIONS:

- 1. STONE FOR A STABILIZED CONSTRUCTION EXIT SHALL BE 3 INCH MINIMUM STONE, RECLAIMED STONE OR RECYCLED CONCRETE EQUIVALENT.
- 2. THE LENGTH OF THE STABILIZED EXIT SHALL NOT BE LESS THAN 50 FEET, EXCEPT FOR A
- SINGLE RESIDENTIAL LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.
- THE THICKNESS OF THE STONE FOR THE STABILIZED EXIT SHALL NOT BE LESS THAN 3
- 4. THE WIDTH OF THE EXIT SHALL NOT BE LESS THAN THE FULL WIDTH OF THE AREA WHERE
- INGRESS OR EGRESS OCCURS OR 10 FEET, WHICHEVER IS GREATER. 5. GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE. FILTER CLOTH IS NOT REQUIRED FOR A SINGLE FAMILY RESIDENCE LOT.
- 6. ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION EXIT SHALL BE PIPED BENEATH THE EXIT. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE. THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOPDRESSING
- WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED PROMPTLY. 8. WHEELS SHALL BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC
- RIGHTS-OF-WAY . WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

9. THE MOUNTABLE BERM IS REQUIRED FOR 50' LONG EXITS.

CONSTRUCTION SEQUENCE

- . THE CONTRACTOR WILL ENSURE THAT NO MORE THAN 5 ACRES IS DISTURBED AT ANY ONE TIME. 2. FIRST CUT AND CLEAR TREES AND BRUSH ONLY WITHIN DESIGNATED LIMITS OF CLEARING AS NECESSARY TO FACILITATE PROPOSED CONSTRUCTION. ALL TREES, BRANCHES AND OTHER VEGETATIVE MATERIALS SHALL BE PROPERLY DISPOSED OF OFF SITE BY THE CONTRACTOR. THIS PROJECT IS MANAGED TO MEET THE REQUIREMENTS AND INTENT OF RSA 430:53 AND AGR 3800 RELATIVE TO INVASIVE SPECIES.
- PRIOR TO COMMENCEMENT OF ANY EARTHMOVING OPERATIONS, ALL APPLICABLE TEMPORARY EROSION CONTROL MEASURES, INCLUDING SPECIFIED PERIMETER SILTATION FENCING AND STABILIZED CONSTRUCTION EXIT SHALL BE IN
- PLACE AS SHOWN ON THE PROJECT PLANS COMPLETE GRUBBING OPERATIONS. ALL STUMPS AND SIMILAR ORGANIC DEBRIS SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR. 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 SEEDED WITH WINTER RYE AND BE SURROUNDED WITH STRAW BALES AND/OR FABRIC SILTATION FENCE IN
- BEGIN EARTHMOVING OPERATIONS, COMMENCING WITH WORK NEEDED TO BALANCE SITE AND FACILITATE BUILDING
- FOUNDATION AND RETAINING WALL CONSTRUCTION. PERMANENT DOWNSLOPE WORK SHALL BE PROTECTED FROM UPGRADIENT STORMWATER FLOW BY THE CONSTRUCTION OF TEMPORARY EARTHEN DIKES OR EXCAVATED SWALES. 6. ONCE BUILDING FOUNDATION WORK IS UNDERWAY, CONTINUE EARTHMOVING OPERATIONS UNTIL DESIGN SUBGRADE IS
- DETENTION BASINS/SWALE'S SHALL BE INSTALLED BEFORE ROUGH GRADING THE SITE
- 8. DITCHES/SWALES/BASINS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM
- TEMPORARY WATER DIVERSION (SWALES, BASINS, ETC.) MUST BE USED AS NECESSARY UNTIL SOILS ARE STABILIZED. 10. INSTALL DRAINAGE SWALE SYSTEMS AND OTHER UTILITIES WORKING FROM LOW TO HIGH. INCOMPLETE WORK SHALL BE PROTECTED FROM SILTATION BY THE USE OF SILTATION BARRIERS AROUND SWALES UNTIL THE SITE HAS BECOME FULLY STABILIZED
- 11. DEEPLY TILL THE BASE OF THE INFILTRATION BASIN TO RESTORE INFILTRATION RATES FOLLOWED BY A PASS WITH A LEVELING DRAG. STORMWATER FLOWS ARE NOT TO BE DIRECTED TO THE INFILTRATION AREA UNTIL CONTRIBUTING
- AREAS HAVE BEEN FULLY STABILIZED. 12. PLACE GRAVEL AND CRUSHED GRAVEL OVER PROPOSED DRIVEWAY, WALKS AND PARKING AREAS AND COMPACT IN
- SPECIFIED LIFT THICKNESS 13. COMPLETE EXCAVATION/STABILIZATION GRADING ACTIVITIES. WHEN COMPLETE, IMMEDIATELY BEGIN TOPSOILING PROPOSED TURF AREAS USING STOCKPILED LOAM SUPPLEMENTED WITH BORROW LOAM, IF NECESSARY, TO LEAVE A
- THICKNESS OF 4 INCHES OF FRIABLE LOAM. 14. FINE GRADE ALL FUTURE TURF AREAS AND HYDROSEED WITH THE SPECIFIED SEED MIXTURE IMMEDIATELY AFTER FINE GRADING IS COMPLETED. ALL AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISH GRADE.
- 15. INSTALL THE BINDER COURSE OF PAVEMENT OVER ALL DESIGNATED AREAS 16. CONTINUE TO MONITOR AND RECTIFY MINOR SITE AND SLOPE EROSION UNTIL ENTIRE SITE APPEARS TO BE COMPLETELY
- STABILIZED AND VEGETATED WITH A HEALTHY STAND OF TURF OR GROUND COVER. MAINTAIN SPECIFIED SILTATION/EROSION CONTROL MEASURES THROUGH ONE WINTER.
- 17. INSTALL THE SPECIFIED WEARING COURSE OF PAVEMENT OVER THE BINDER COURSE. 18. COMPLETE INSTALLATION OF LANDSCAPING, SIGNAGE AND OTHER SITE AMENITIES.

EROSION CONTROL NOTES

- EXPOSED EARTHWORK SHALL BE CONFINED TO AS LIMITED AN AREA AS IS PRACTICAL AT ANY GIVEN TIME THROUGHOUT THE CONSTRUCTION SEQUENCE. AT NO TIME SHALL MORE THAN FIVE (5) ACRES OF SITE AREA BE IN AN UNSTABLE CONDITION UNLESS AN ENVIRONMENTAL MONITOR IS EMPLOYED THROUGH THE DURATION OF CONSTRUCTION. NO GIVEN AREA OF THE SITE SHALL BE LEFT IN AN UNSTABILIZED CONDITION FOR A PERIOD OF TIME EXCEEDING FORTY-FIVE (45) CALENDAR DAYS
- 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. ALL TEMPORARY EROSION CONTROL MEASURES USED SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER 0.25" OF RAINFALL OR MORE. THEY SHALL BE CLEANED AND MAINTAINED AND OTHERWISE KEPT IN AN EFFECTIVE OPERATING MANNER THROUGHOUT THE CONSTRUCTION PERIOD.
- 3. 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. 4. EROSION CONTROL AND STABILIZATION SHALL BE IN ACCORDANCE WITH HILLSBOROUGH COUNTY CONSERVATION
- DISTRICT-VEGETATIVE STANDARD AND SPECIFICATIONS FOR SEEDING GRASSES AND LEGUMES FOR LONG-TERM COVER ON EXCAVATED AREAS. 5. ALL SWALES AND DITCHLINES SHALL BE PERIODICALLY CLEANED OF DEPOSITED SEDIMENT SO AS TO MAINTAIN AN
- EFFECTIVE GRADE AND CROSS SECTION. ALL SWALES AND DITCHLINES SHALL BE FULLY STABILIZED PRIOR TO HAVING STORMWATER DIRECTED TOWARDS THEM.
- 6. 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. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - A. BASE COURSE GRAVELS ARE INSTALLED IN AREAS TO BE PAVED;
 - B. 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
- EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED. 8. DUST SHALL BE CONTROLLED BY THE USE OF WATER AS NECESSARY THROUGHOUT THE CONSTRUCTION PERIOD, IN ACCORDANCE WITH ENV-A 1000
- 9. 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.
- 10. THE TOWN RESERVES THE RIGHT TO REQUIRE ADDITIONAL EROSION CONTROL MEASURES DURING CONSTRUCTION. 11. AREAS HAVING FINISH GRADE SLOPES OF 3:1 OR STEEPER, SHALL BE STABILIZED WITH JUTE MATTING WHEN AND IF FIELD CONDITIONS WARRANT, OR IF SO ORDERED. JUTE MATTING INSTALLED TO CONFORM WITH THE RECOMMENDED BEST
- MANAGEMENT PRACTICE OUTLINED IN VOLUME 3 OF THE NEW HAMPSHIRE STORMWATER MANUAL "EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION. 12. DETENTION BASINS/SWALES SHALL BE INSTALLED BEFORE ROUGH GRADING THE SITE.
- 13. DITCHES/SWALES/BASINS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
- 14. TEMPORARY WATER DIVERSION (SWALES, BASINS, ETC.) MUST BE USED AS NECESSARY UNTIL SOILS ARE STABILIZED. 15. ALL ROADWAYS AND PARKING AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- 16. ALL CUT AND FILL SLOPES SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.

WINTER CONSTRUCTION NOTES:

- 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 4.1, 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 OCCUR 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 PER NHDOT ITEM 304.3 OR, IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON, BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT.
- 4. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - A. BASE COURSE GRAVELS ARE INSTALLED IN AREAS TO BE PAVED:
 - B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED; C. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED; OR
 - D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

CONSTRUCTION DETAILS CENTRAL GAS

MAP 182; LOT 217

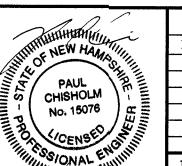
LOWELL ROAD & CENTRAL STREET HUDSON, NEW HAMPSHIRE HILLSBOROUGH COUNTY

> OWNER/APPLICANT: NOTTINGHAM SQUARE CORPORATION 46 LOWELL ROAD HUDSON, N.H. 03051



KEACH-NORDSTROM ASSOCIATES, INC.

Civil Engineering Land Surveying Landscape Architecture 10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881



No.	DATE	DESCRIPTION		BY
1	09-07-2023	REVISIONS PER TOWN AND PEER	REVIEW	BES
2	10-25-2023	REVISIONS PER TOWN AND PEER	R REVIEW	PDC
3	2-14-2024	REVS PER PB COMMENTS & PEE	R REVIEW	PCM
				
DAT	E: JULY 10,	2023 SCALE:	1" = 40'	
PRO	JECT NO: 18	3-0612-3 SHEET 2	0 OF 20	

50'-0" (MIN.) 7. SEED MIXTURE FOR STORMWATER MANAGEMENT AREAS, INCLUDING DETENTION BASINS AND 3" MINUS STONE BERM WHERE GRADE EXCEEDS 2% (3" TO 6" HIGH) EXISTING PAVEMENT **∽**FILTER - 6" (MIN.) 3" MINUS STONE BERM EXISTING PROFILE (WHERE REQUIRED) GROUND 50'-0" (MIN.) 6" (MIN.) THICKNESS OF 3" COARSE AGGREGATE

STABILIZED CONSTRUCTION EXIT DETAIL

PLAN VIEW NOT TO SCALE

APPROVED BY THE HUDSON, NH PLANNING BOARD IDATE OF MEETING: SITE REVIEW REGULATIONS OF THE HUDSON SIGNATURE DATE: _ PLANNING BOARD THE SITE PLAN APPROVAL SIGNATURE DATE: GRANTED HEREIN SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD YEARS FROM DATE | MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING OF APPROVAL BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.