# AMB's Questions and Comments on Revised Catch Application for Special Exception Case 2025-5 June 20, 2025

#### **Special Exception (Town of Warner Zoning Ordinance Article XVII E.)**

- A Special Exception is required for the **revised** CATCH proposal to construct a 34 unit multi-family workforce housing development in the C-1 district and the Intervale district.
- 2. Map 35, Lot 4-3 has a buildable area of approximately 2.6 acres.
- 3. Most of this 13+ acre parcel is covered by the Town of Warner conservation easement.
- 4. As of 6/20/2025, the information posted on the Warner Notices Digest website for the Special Exception Case 2025-5 **did not include:** 
  - a. A written response from the Kearsarge Regional School District.
  - b. A written response from the Town of Hopkinton.
- 5. Has the Town of Warner Fire Chief received detailed information, (revised site plans, drawings, renderings,etc.) regarding the revised CATCH proposal to construct a 34 unit multi-family workforce housing development in the C-1 district and the Intervale district?
- 6. Has the Town of Warner Fire Chief provided comments on the **revised** CATCH proposal to construct a 34 unit multi-family workforce housing development in the C-1 district and the Interval district (e.g., the potential impact of the 34 unit multi-family workforce housing development proposal on public safety)?
- 7. The **revised** application **still fails** to address the priority for fire equipment access to all sides of the building. As proposed fire equipment would have to stop on Route 103 in order to fight a fire at the proposed building which would shut down Route 103 without an alternative bypass route.
- 8. Has the Town of Warner Police Chief received detailed information, (revised site plans, drawings, renderings,etc.) regarding the revised CATCH proposal to construct a 34 unit multi-family workforce housing development in the C-1 district and the Intervale district?
- 9. Has the Town of Warner Police Chief provided comments on the **revised** CATCH proposal to construct a 34 unit multi-family workforce housing development in the C-1 district and the Interval district (e.g., the potential impact of the 34 unit multi-family workforce housing development proposal on public safety)?
- 10. Has the applicant provided a site-specific, detailed analysis of the traffic impact of the proposed 34 unit multi-family workforce housing development?

- 11. The **revised** application **still** fails to address my concerns regarding the impact of increased traffic on public safety near the Barbara Annis roundabout and the Intervale. (See my previously submitted email of April 8, 2025 regarding my concerns about Special Exception Case 2025-1 and Variance Case 2025-2).
- 12. The **revised** application **still** fails to address my concerns regarding the potential impact of the proposed project on the Warner River and the adjacent wetlands including but not limited to:
  - a. The potential adverse environmental impact on the Warner River and adjacent wetlands from runoff or drains from the stormwater pond shown on the **revised** plans labeled Layout and Materials Plan CS 1001 and Grading and Drainage Plan CS 1501 that were filed with the **revised** CATCH application for a Special Exception (Case 2025-5).
  - b. In addition to the potential adverse environmental impact on the Warner River and adjacent wetlands stated above, a stormwater pond located immediately adjacent to a residential apartment building also raises several public health concerns including: infections from mosquito-borne diseases and illegal disposal of trash or other hazardous materials.
  - c. Previous plans filed by the current property owner, Comet LLC with the Warner Zoning Board of Adjustment for a Special Exception (Case 2022-03) for Map 35, Lot 4-3 did not include a stormwater pond.
  - d. Previous plans filed by the current property owner, Comet LLC with the Warner Planning Board for Map 35, Lot 4-3 did not include a stormwater pond. See attachments labeled Comet LLC 2022-08-08\_PLAN SET-1 and 2022-08-29 PRESENTATION PLAN Sheet 5 of 20.
  - e. CATCH will also need to submit a new application to the NHDES AoT Bureau for a new or amended AoT permit with plans showing the proposed stormwater pond on Map 35, Lot 4-3
- 13. The **revised** application **still** fails to address the public safety issue regarding a school bus stop or the potential need for school buses to stop on Route 103. The revised application does not show enough room **on the site** for a school bus stop or enough room **on the site** for a school bus to safely turn around.
- 14. According to Town off Warner Zoning Ordinances, Article XVII Board of Adjustment, E. 2. Granting of Special Exceptions.
  - In granting a Special Exception, the Board of Adjustment may attach appropriate conditions to assure that the general criteria can be met and enforced, including but not limited to:
  - a. Increasing setback and yard dimensions, which are greater than the minimum requirements.
  - b. Modifications of the external features of the building or structures, and limiting the lot coverage or building height and dimensions.
  - c. Requiring suitable landscaping, screening and maintenance or restoration of natural buffer areas where necessary to reduce noise and glare.

- d. The removal or modification of non-conforming uses, signs, buildings or structures.
- e. Professional or technical studies or the funding thereof, for the purpose of monitoring compliance of specific elements regarding the site, and to verify the impact of the use on municipal services, traffic, and public safety, noise, air quality, and ground and surface water quality.
  - f. Limiting the number of occupants and methods and time of operation of the proposed use.
  - g. Specifying the numbers and locations of driveways, and accesses for the requested use and property.
    - h. Reducing the number, size and illumination of signs.
- 15. The applicants' revised application to construct a 34 unit workforce building still creates numerous adverse impacts on public safety, traffic, air quality, and groundwater and surface water quality. The applicant is still attempting to construct a larger building than the site can support. The proposed 34 unit building will cost more than a 24-unit building due to increased site excavation, site preparation, building materials and construction costs. The applicant is still attempting to construct a larger building than the site can reasonably support.
- 16. Should the Zoning Board of Adjustment choose to approve a Special Exception for the CATCH application (Case 2025-5), I respectfully request that the following conditions be included in said approval:
  - a. The total number of multi-family workforce housing units shall be limited to no more than 24 units; and
  - b. Professional or technical studies or the funding thereof, for the purpose of monitoring compliance of specific elements regarding the site, and to verify the impact of the use on municipal services, traffic, and public safety, noise, air quality, and ground and surface water quality be submitted to the Zoning Board of Adjustment.
- 17. By limiting the total number of multi-family workforce housing units to no more than 24 units, most if not all of the negative impacts of the larger 34 unit multi-family workforce housing development proposal will be limited, if not eliminated.
- 18. The viability of a 24 unit multi-family workforce housing project is clearly demonstrated by the previous plans filed by the current property owner. See attachments labeled Comet LLC 2022-08-08 PLAN SET-1 and 2022-08-29 PRESENTATION PLAN Sheet 5 of 20.

#### 19. In addition:

- a. the integrity and character of the district and adjoining districts including the health, morals and welfare will be better protected;
- b. the impact of increased traffic on public safety near the Barbara Annis roundabout and the Intervale will be reduced.
- c. the impact on noise, air quality, and ground and surface water quality in the Intervale and adjoining districts will be reduced.

#### **Workforce Housing (Town of Warner Zoning Ordinance Article XIV-A)**

- G. Relationship to Other Ordinances and Regulations
  - 1. No portion of this Article shall nullify the provisions of any other Town ordinance provisions which relate to environmental protection, water supply, sanitary disposal, traffic safety, and fire and life protection.
  - 2. If any provision of this Article is in conflict with the provisions of other Ordinances, the more restrictive provision shall apply, except for any provision relating to lot size, frontage, setbacks or density, in which case the provisions of this Article shall apply.

See also Warner - Workforce Housing Overlay Map, Date: 3/9/10 for additional information on Zones and acreage of each Zone where Workforce Housing is already permitted either by right or by Special Exception. This map indicates that Workforce Housing is permitted, either by right or by Special Exception on 51.1% of the total acreage in the the Town of Warner, NH.



INDEX OF DRAWINGS

DWG

NO.

CS0001

CS0002

CS0201

CS0202

CS1001

CS1501

CS1701

CS2701

CS6001

CS6002

CS6021

CS6022

CS6051

CS7001

CS7002

CS8001

CS8002

CS8501

CS8502

CS9001

NOTE:

DRAWING TITLE

**COVER SHEET** 

**UTILITY PLAN** 

SITE DETAILS

SITE DETAILS

DRAINAGE DETAILS

UTILITY DETAILS

1. APPROVAL OF THIS PLAN REQUIRES A SPECIAL EXCEPTION BE GRANTED BY THE ZONING BOARD.

NOTES AND LEGEND

**EXISTING CONDITIONS PLAN** 

LAYOUT AND MATERIALS PLAN

GRADING AND DRAINAGE PLAN

LANDSCAPE & LIGHTING PLAN

LANDSCAPE & LIGHTING DETAILS

**EXISTING CONDITIONS PLAN - SITE VIEW** 

VEHICLE TURNING PLAN - LADDER TRUCK

STORMWATER STORAGE SYSTEM DETAILS

EROSION AND SEDIMENT CONTROL DETAILS

EROSION AND SEDIMENT CONTROL DETAILS

INSPECTION AND MAINTENANCE PLAN

**EROSION AND SEDIMENT CONTROL PLAN - PHASE 1** 

EROSION AND SEDIMENT CONTROL PLAN - PHASE 2

# SITE PLAN 9 ROUTE 103 WEST

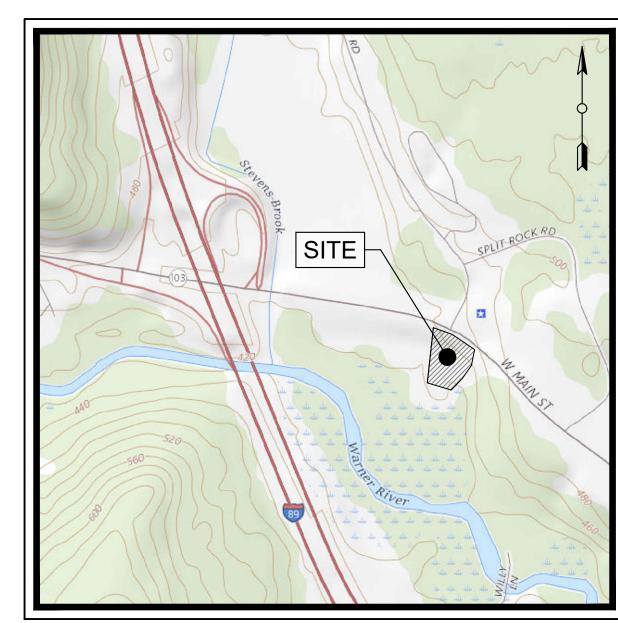
**ASSESSOR'S MAP 35 LOT 4-3 WARNER, NH 03278 DATE: AUGUST 8, 2022** 

# PREPARED FOR:

# COMET, LLC

**84 RANGE ROAD** WINDHAM, NH 03087

LOCUS MAP



**USGS MAP** 

# NEW HAMPSHIRE FISH AND GAME AOT PERMIT CONDITIONS RELATED TO THREATENED AND ENDANGERED SPECIES:

- THERE IS A POTENTIAL FOR WOOD TURTLES (STATE SPECIES OF SPECIAL CONCERN) TO BE WITHIN THE PROJECT VICINITY. OBSERVATIONS OF THESES SPECIES SHALL BE REPORTED IMMEDIATELY, PARTICULARLY DURING NESTING SEASON (MID-MAY THROUGH THE END OF JUNE) TO NHFG TO MELISSA DOPERALSKI (CELL/TEXT) 603-479-1129 OR JOSH MEGYESY AT 978-578-0802. SITE OPERATORS SHALL BE PROVIDED THE IDENTIFICATION FLYER AND NHFG CONTACT INFORMATION. SEE PLAN SHEET 6 (CS1001) FOR SPECIES IDENTIFICATION INFORMATION.
- TO AVOID IMPACTS TO RARE TURTLES, SOIL DISTURBANCE SHALL BEGIN AFTER OCTOBER 1 OR PRIOR TO MAY 15 TO AVOID DISTURBING POTENTIAL NESTING TURTLES, HATCHLINGS, OR ADULT FEMALES.
- A SILT FENCE SHALL BE INSTALLED AROUND THE PROJECT AREA FOOTPRINT PRIOR TO MAY 15 TO EXCLUDE FEMALE WOOD TURTLES WHO MAY BE ATTRACTED TO OPEN DISTURBED SOILS THAT WOULD RESULT FROM PROJECT ACTIVITIES. ALL TURTLE SPECIES NESTS ARE PROTECTED BY NEW HAMPSHIRE LAW. SEE PLAN SHEET 15 (CS8001) FOR MORE DETAILS.
- ALL OBSERVATIONS OF THREATENED OR ENDANGERED SPECIES <u>SHALL BE REPORTED IMMEDIATELY</u> TO THE NEW HAMPSHIRE FISH AND GAME DEPARTMENT NONGAME AND ENDANGERED WILDLIFE ENVIRONMENTAL REVIEW PROGRAM BY PHONE AT 603-271-2461 AND BY EMAIL AT <u>NHFGREVIEW@WILDLIFE.NH.GOV</u> EMAIL SUBJECT LINE: NHB19-4037,ROUTE 103 WEST COMMERCIAL DEVELOPMENT,WILDLIFE SPECIES OBSERVATION. PHOTOGRAPHS SHALL BE PROVIDED FOR VERIFICATION AS FEASIBLE
- THE NEW HAMPSHIRE FISH AND GAME DEPARTMENT SHALL HAVE ACCESS TO THE PROPERTY DURING THE TERM OF THE PERMIT
- ALL MANUFACTURED EROSION AND SEDIMENT CONTROL PRODUCTS, UTILIZED FOR, BUT NOT LIMITED TO, SLOPE PROTECTION, RUNOFF DIVERSION, SLOPE INTERRUPTION, PERIMETER CONTROL, AND INLET PROTECTION, CHECK DAMS, SEDIMENT TRAPS, AND SILT FENCE INSTALLED IN ACCORDANCE WITH ENV-WQ 1506.04, SHALL NOT CONTAIN WELDED PLASTIC, PLASTIC, OR MULTI-FILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR MESH. SEE PLAN SHEETS 15, 16, 17 (CS8001, CS8002, CS8501)

# PREPARED BY:

# RANGER ENGINEERING GROUP, INC



Ranger Engineering Group, Inc.

13 Red Roof Lane, Suite 203 Salem NH, 03079 Tel: 978-208-1762 rangereng.com

WARNER PLANNING BOARD CHAIRMAN

# ASSESSOR'S MAP 35 LOTS 4-3 84 RANGE ROAD, WINDHAM, NH 03087 **COVER SHEET**

DATE NO.

# CS0001

SITE PLAN

LOT 3 - ROUTE 103 WEST, WARNER NH,

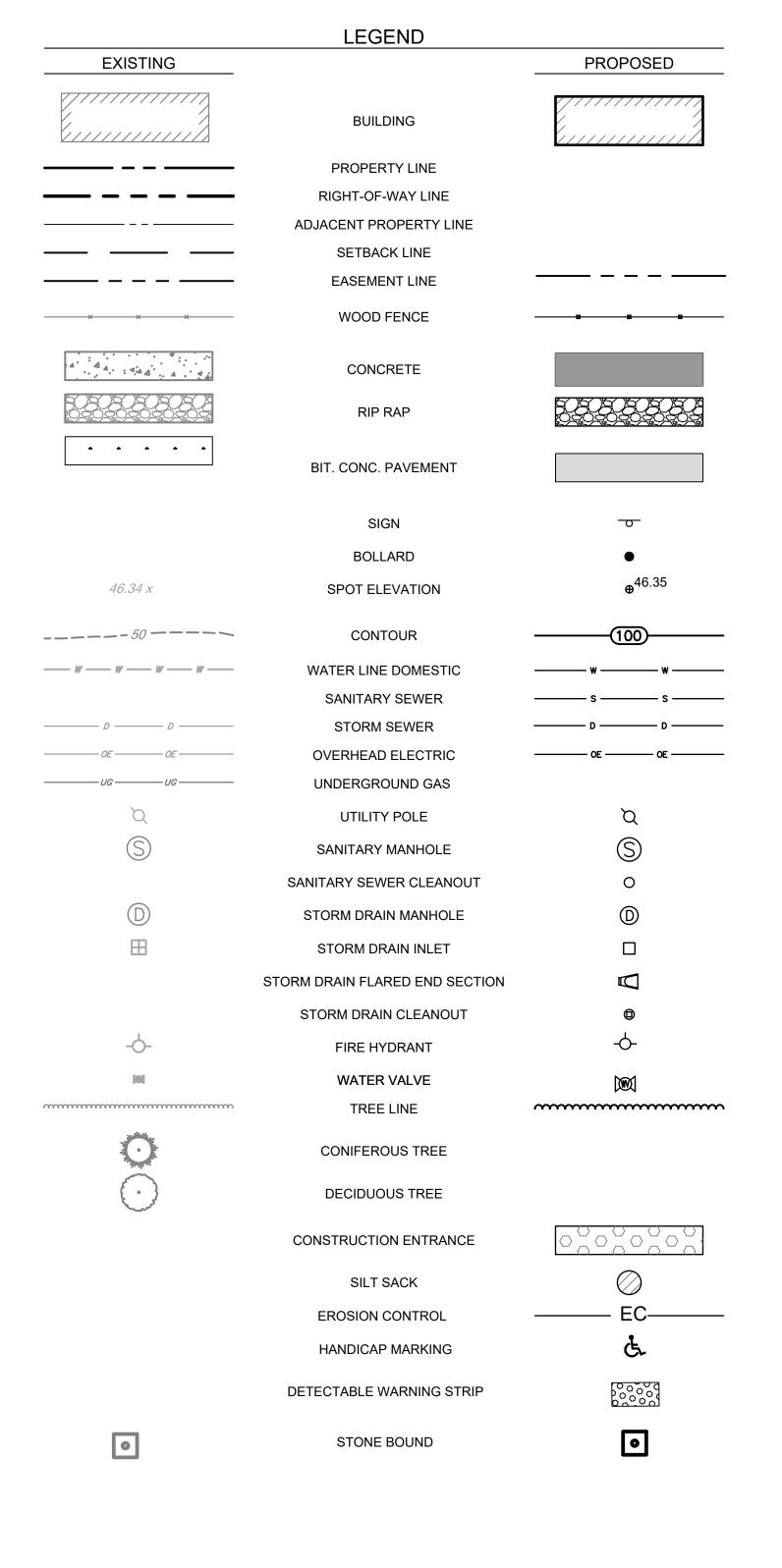


Ranger Engineering Group, Inc. 13 Red Roof Lane, Suite 203 Salem NH, 03079 Tel: 978-208-1762

2022-08-08

OF 20

SCALE: SHEET



#### **CONSTRUCTION NOTES:**

#### 1. CONSTRUCTION

EXISTING TOPSOIL AND SUBSOIL SHALL BE REMOVED FROM ROADWAY AND BUILDING AREAS AND STOCKPILED.

#### B. TREES AND STUMPS:

TREES AND STUMPS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN AN APPROVED MANNER. STUMPS SHALL NOT BE BURIED ON SITE.

#### 2. <u>MATERIALS</u>

#### A. BITUMINOUS CONCRETE PAVEMENT:

PARKING AREAS:	
SURFACE COURSE:	1-1/2 INCHES CLASS I BITUMINOUS CONCRETE PAVEMENT, TYPE I-1
WEARING COURSE	
BINDER COURSE:	2-1/2 INCHES CLASS I BITUMINOUS CONCRETE PAVEMENT, TYPE I-1
BINDER COURSE	
GRAVEL BASE COURSE:	4 INCHES COMPACTED DENSE GRADED CRUSHED STONE FOR
SUB-BASE (NH 300.304)	
	SURFACE COURSE: WEARING COURSE BINDER COURSE: BINDER COURSE GRAVEL BASE COURSE:

8 INCHES COMPACTED SUB-BASE

B. LANDSCAPE AREAS: DISTURBED AREAS NOT COVERED BY STRUCTURES OR PAVEMENT AND NOT OTHERWISE SPECIFIED ON THE LANDSCAPE PLAN SHALL RECEIVE 6 INCHES OF TOPSOIL. THESE AREAS ARE TO BE SEEDED AND WATERED UNTIL A HEALTHY STAND OF GRASS IS OBTAINED. LANDSCAPE AREAS ADJACENT TO THE BUILDING SHALL BE FINISHED WITH 3" OF 1-1/2" RIVER

#### C. TRAFFIC CONTROLS:

ALL SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.)

#### D. ADA CONFORMANCE:

ALL HANDICAPPED ACCESSIBLE RAMPS AND SIDEWALKS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA) AND THE STATE OF NEW HAMPSHIRE'S ADA REASONABLE ACCOMMODATION POLICY, WHICHEVER IS, WHICHEVER IS MORE RESTRICTIVE.

#### 4. <u>UTILITIES</u>

#### A. EXISTING UTILITIES:

THE LOCATION AND ELEVATIONS OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON THE SURVEY NOTED ABOVE AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND PRIOR TO ORDERING STRUCTURES.

#### B. PRIVATE UTILITIES:

THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS PROVIDED BY, AND APPROVED BY, THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE OR ELECTRIC). FINAL DESIGN AND LOCATIONS AT THE BUILDING WILL BE PROVIDED BY THE ARCHITECT. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE UTILITY CONNECTIONS WITH THE RESPECTIVE UTILITY COMPANIES PRIOR TO ANY UTILITY CONSTRUCTION OR DEMOLITION.

STORM DRAIN PIPING SHALL BE HIGH DENSITY POLYETHYLENE PIPE (HDPE) WITH CORRUGATED EXTERIOR, SMOOTH LINED (n=0.013) WITH SOIL TIGHT JOINTS UNLESS OTHERWISE NOTED ON THE GRADING & DRAINAGE PLAN.

#### D. PROPOSED STRUCTURES:

RIM ELEVATIONS OF PROPOSED DRAINAGE MANHOLES AND ASSOCIATED STRUCTURES ARE APPROXIMATE. FINAL ELEVATIONS. ARE TO BE SET FLUSH AND CONSISTENT WITH THE GRADING PLAN. ADJUST ALL OTHER RIM ELEVATIONS OF MANHOLES, WATER GATES, GAS GATES AND OTHER UTILITIES TO FINISH GRADE WITHIN LIMITS OF WORK.

### AS-BUILT NOTES:

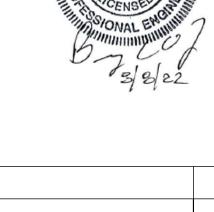
1. PROJECT REQUIRED TO BE CERTIFIED BY A QUALIFIED ENGINEER TO CONFIRM THE PROJECT WAS COMPLETED IN ACCORDANCE WITH THE APPROVED PLANS OR THAT DEVIATIONS WERE MADE WHICH DID NOT REQUIRE AN AMENDED OR NEW PERMIT.

### **ABBREVIATIONS**

NTS

NOT TO SCALE

BIT	BITUMINOUS	ocs	OUTLET CONTROL STRUCTURE
СВ	CATCH BASIN	OE	OVERHEAD ELECTRIC
CONC	CONCRETE	PC	POINT OF CURVATURE
DH	DRILL HOLE	PCC	PRECAST CONCRETE CURB
DMH	DRAIN MANHOLE	PERF	PERFORATED
ELEV	ELEVATION	PRC	POINT OF REVERSE CURVE-CURVE
ESHGW	ESTIMATED SEASONAL HIGH GROUND	PROP	PROPOSED
LONGW	WATER	PT	POINT OF TANGENT
EXIST	EXISTING	PVC	POLYVINYL CHLORIDE PIPE
FND	FOUNDATION	RCP	REINFORCED CONCRETE PIPE
FES	FLARED END SECTION	SMH	SEWER MANHOLE
GF HDPE	GARAGE FLOOR	STR	STRUCTURE
	HIGH DENSITY POLYETHYLENE PIPE	TYP	TYPICAL
HYD	HYDRANT	VGC	VERTICAL GRANITE CURB
INV	INVERT ELEVATION	ССВ	CAPE COD BERM
IP	IRON PIPE		
IR	IRON ROD		
MAX	MAXIMUM		
MIN	MINIMUM		



OSGOOD, JR

No. 12080

DATE	NO.	REVISIONS	BY

## SITE PLAN LOT 3 - ROUTE 103 WEST, WARNER NH,

ASSESSOR'S MAP 35 LOTS 4-3

COMET, LLC OWNER 84 RANGE ROAD, WINDHAM, NH 03087

## NOTES AND LEGEND CS0002



WARNER PLANNING BOARD CHAIRMAN:

DATE:

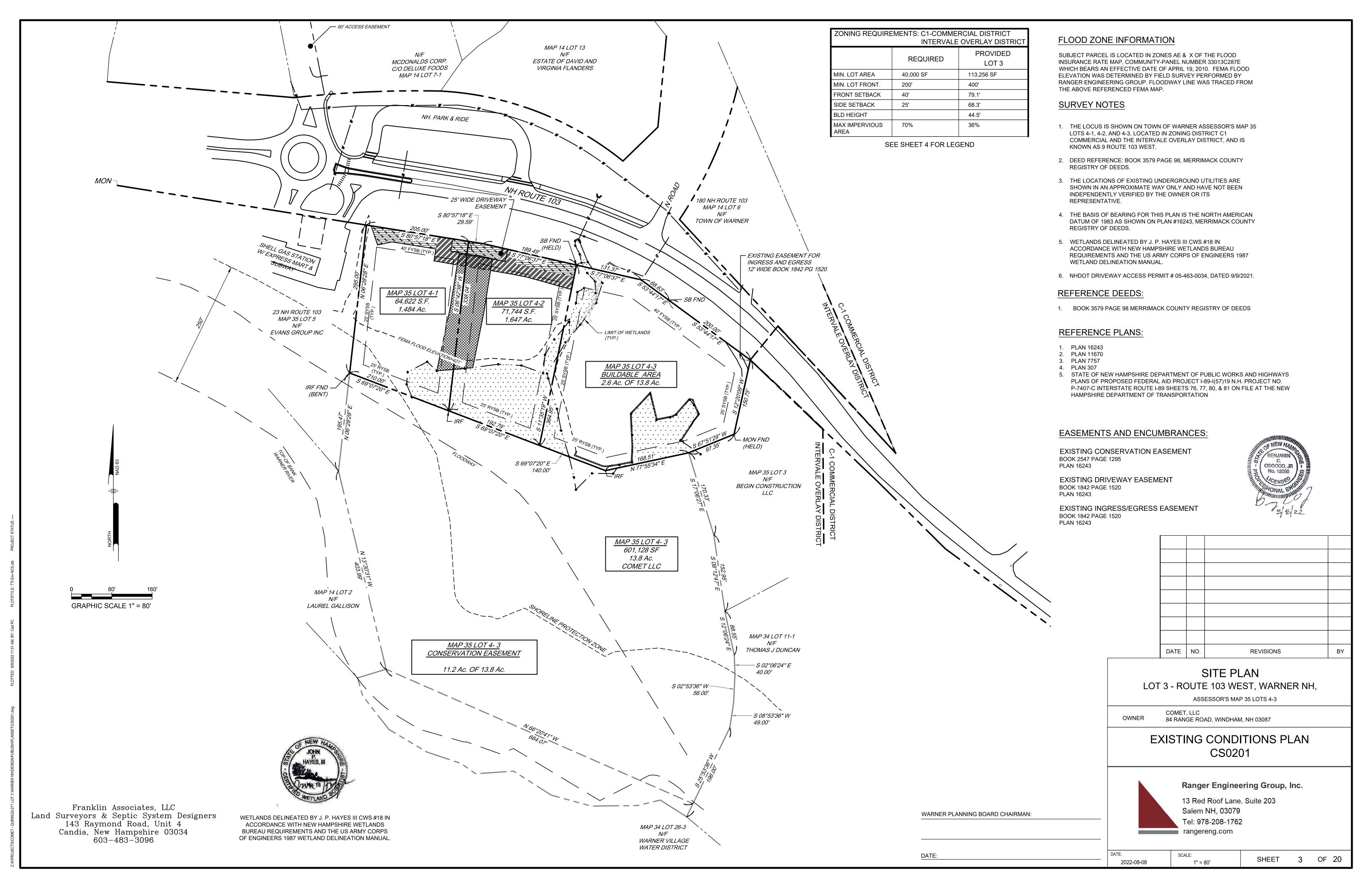
Ranger Engineering Group, Inc.

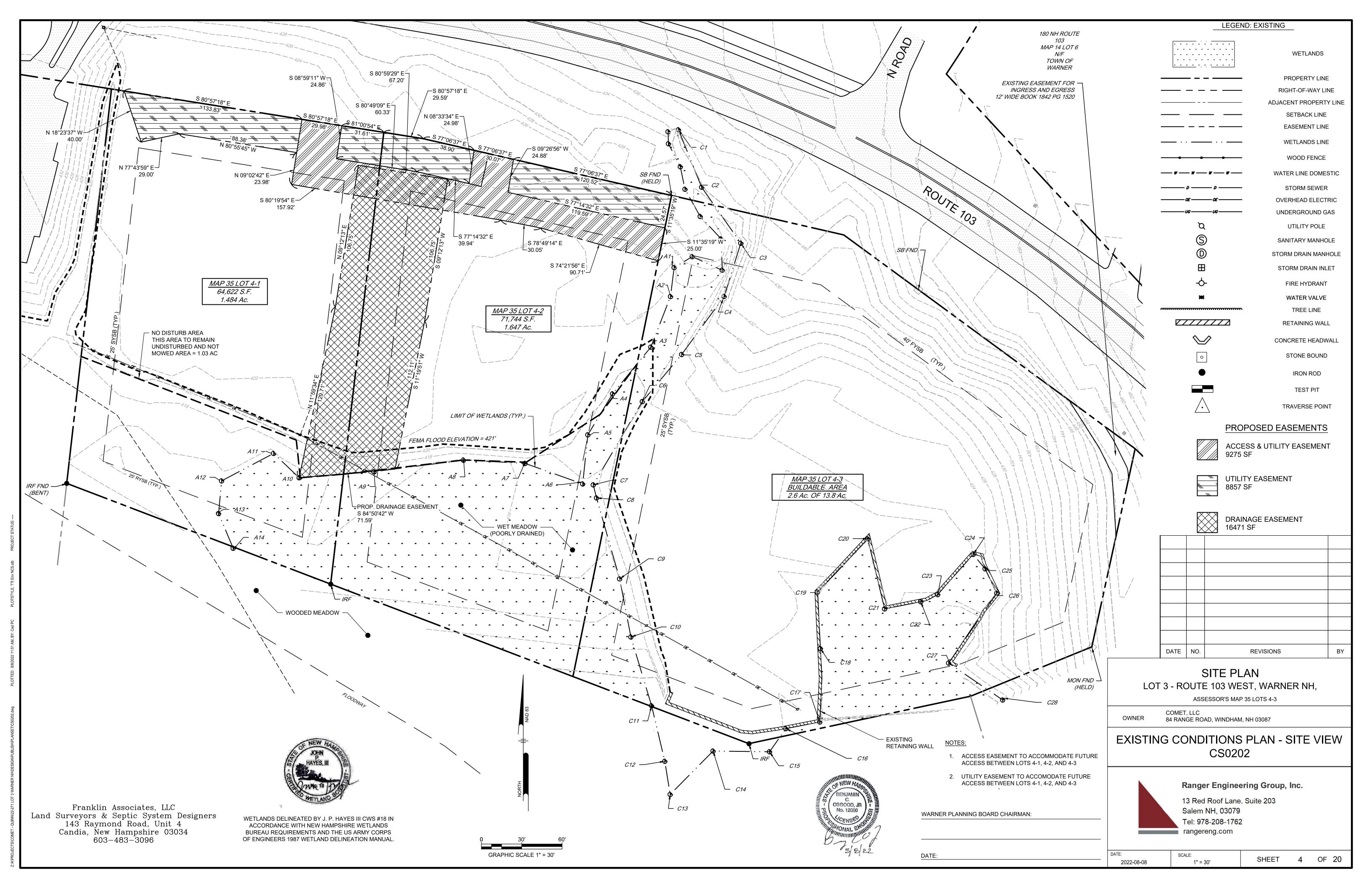
13 Red Roof Lane, Suite 203 Salem NH, 03079 Tel: 978-208-1762

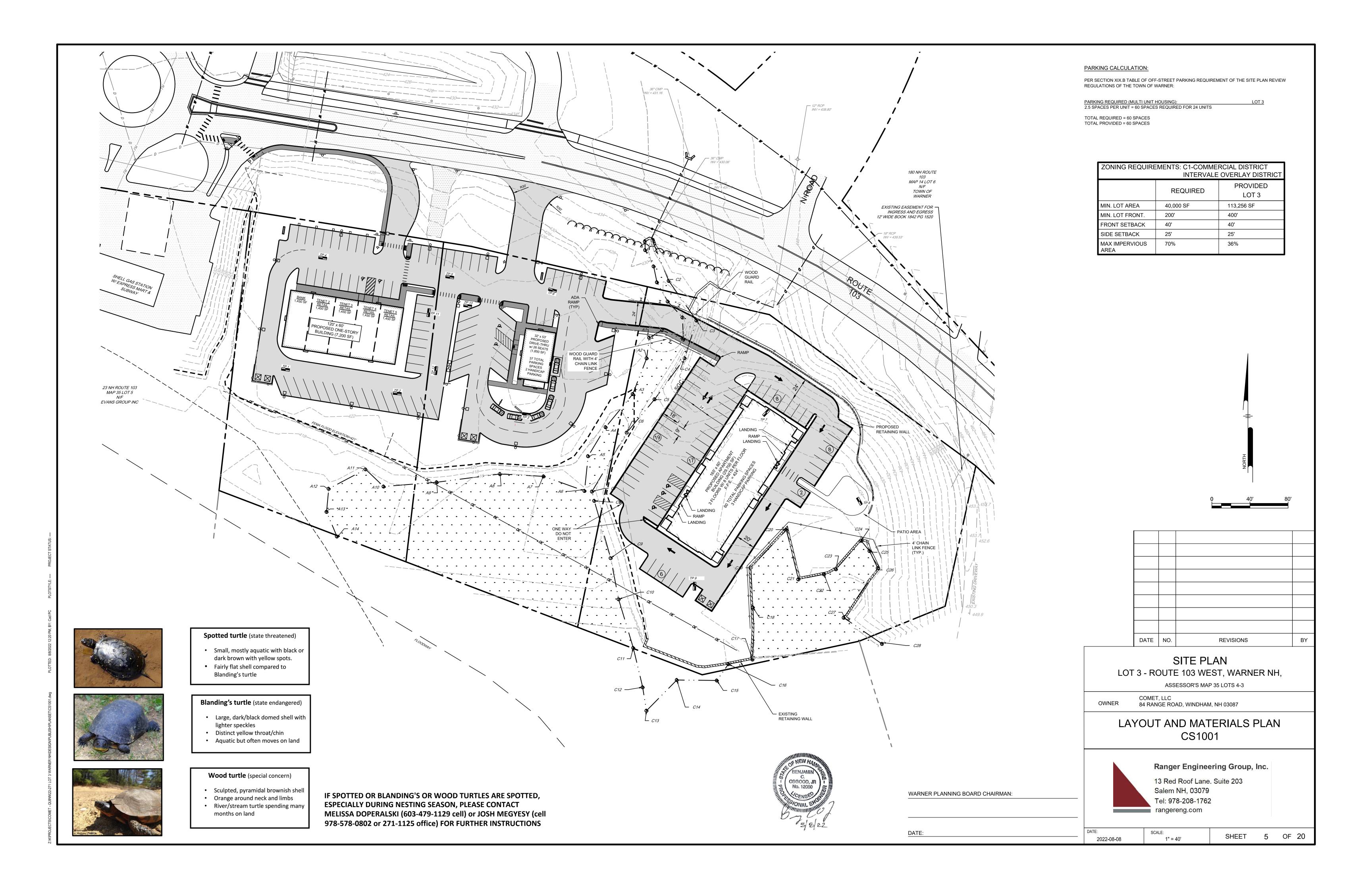
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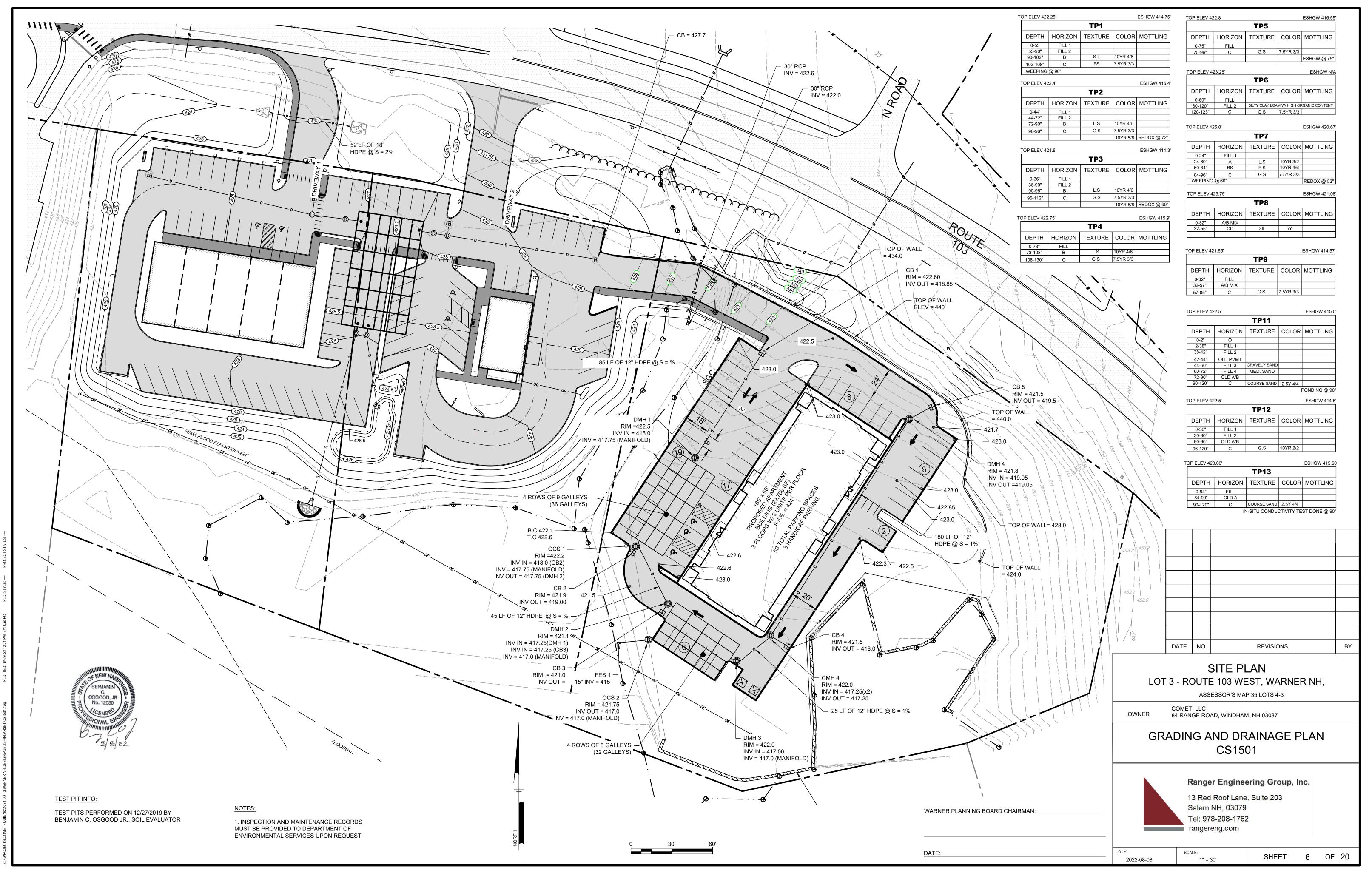
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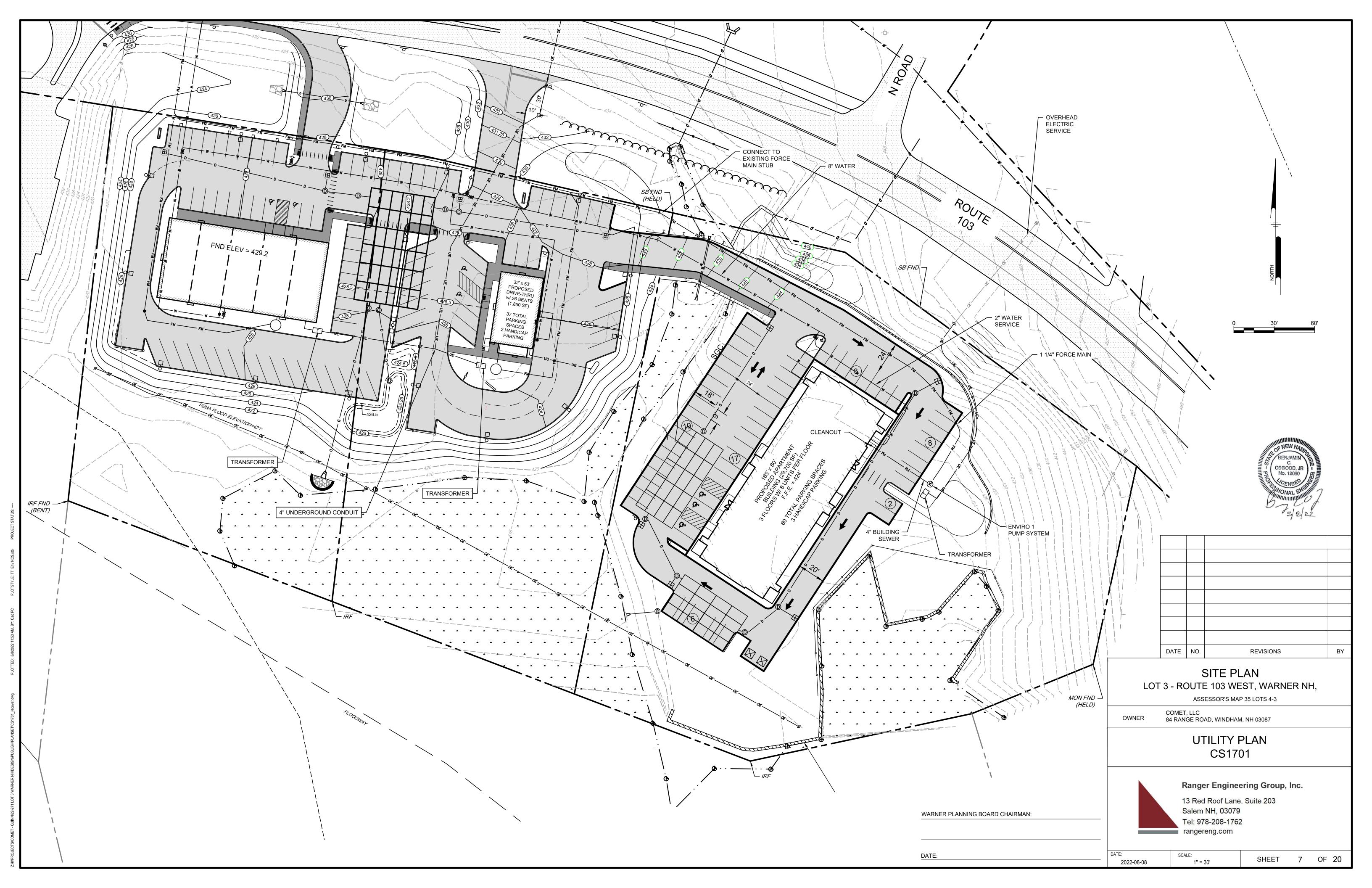
SHEET 2 OF 20

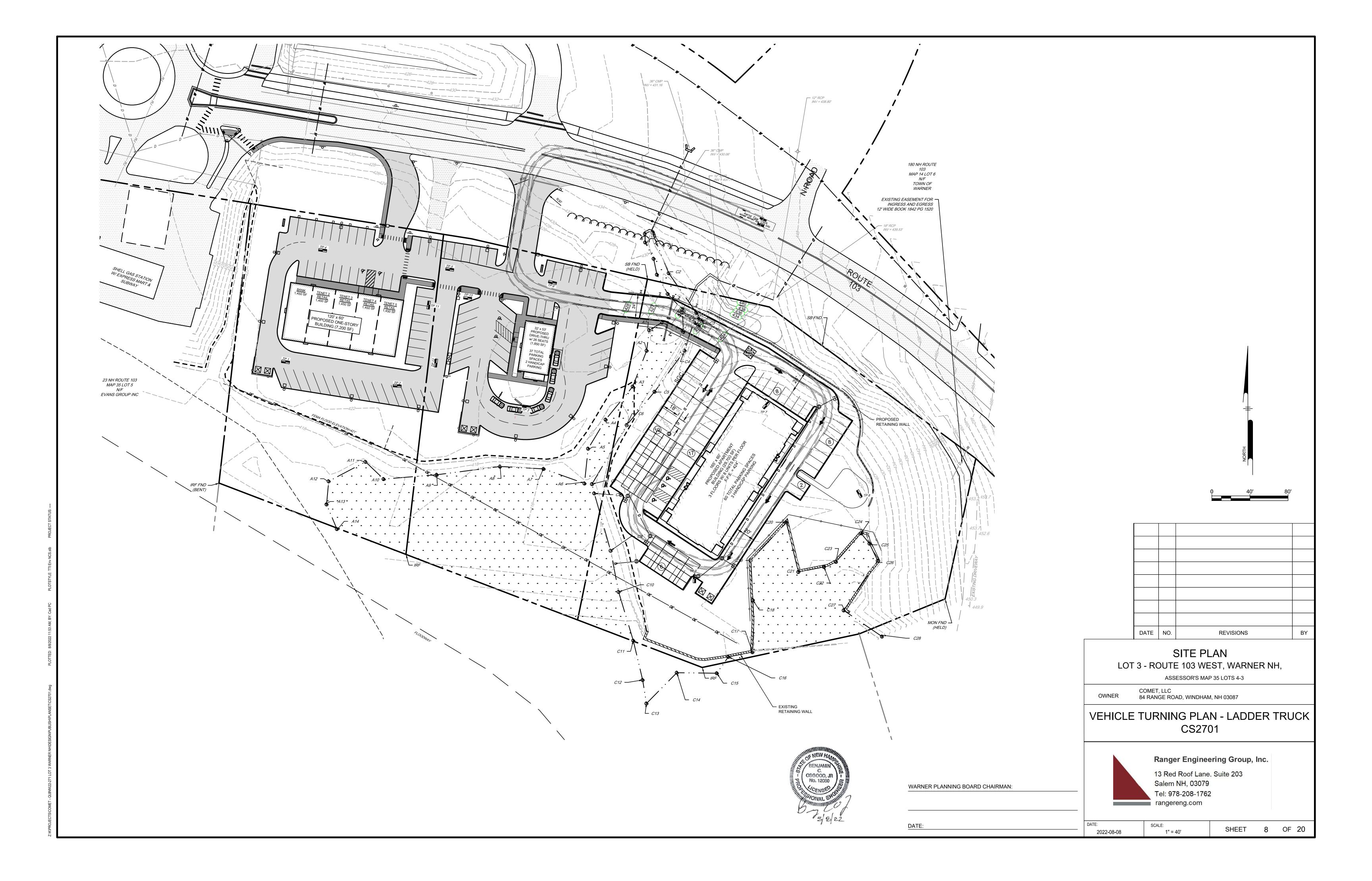


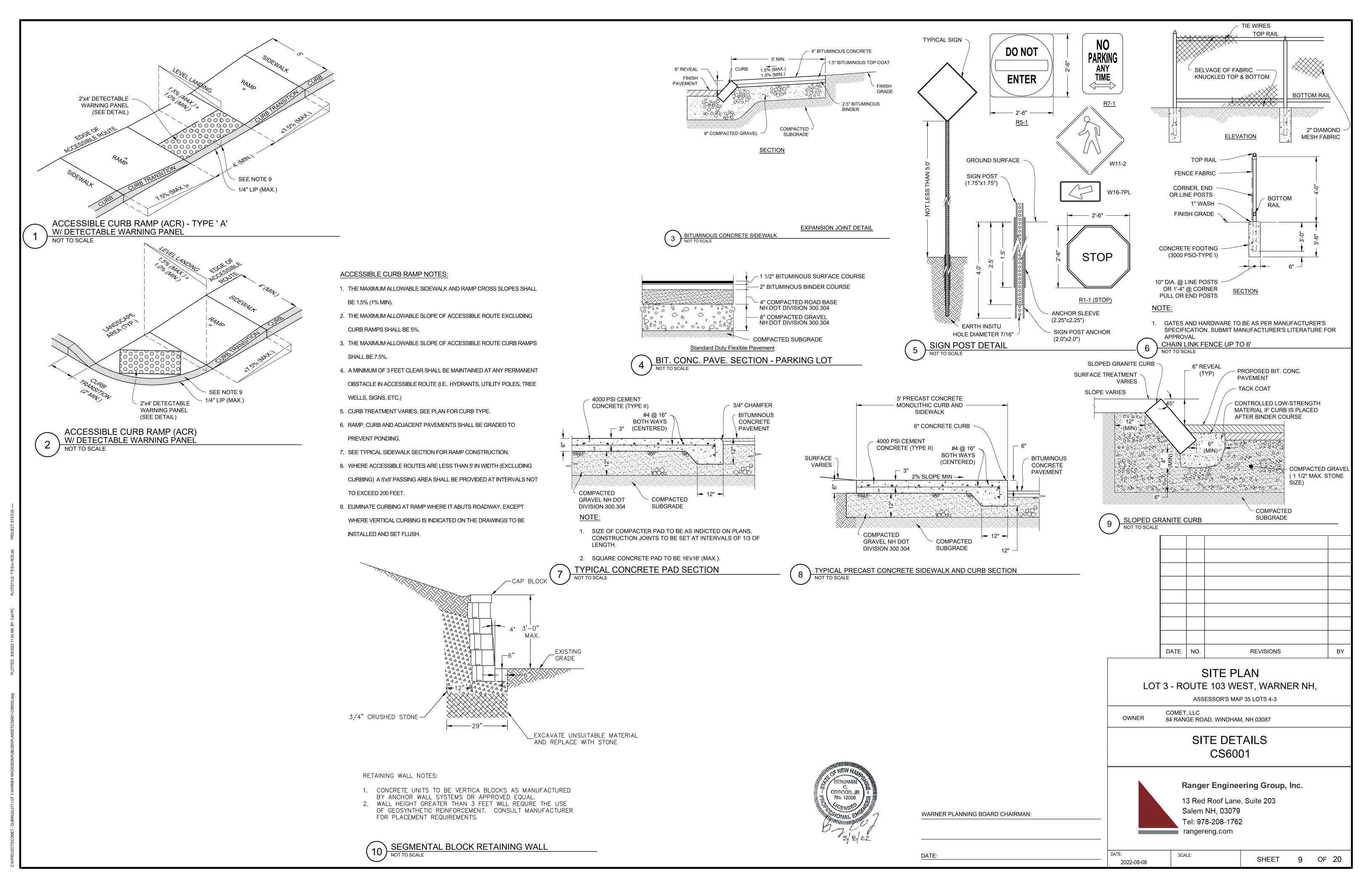


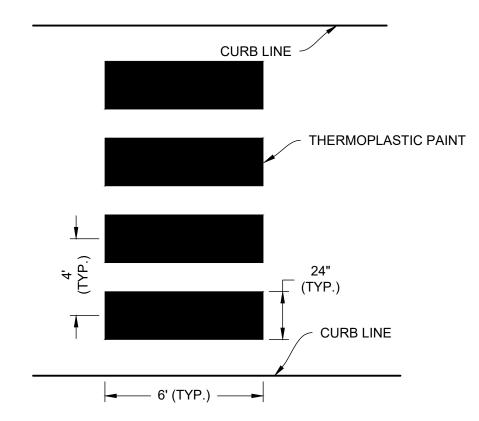






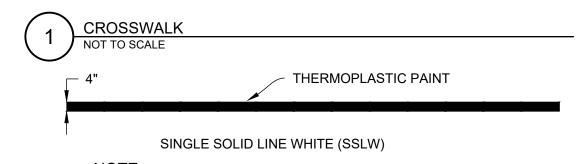




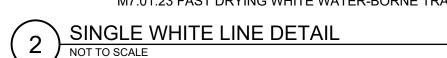


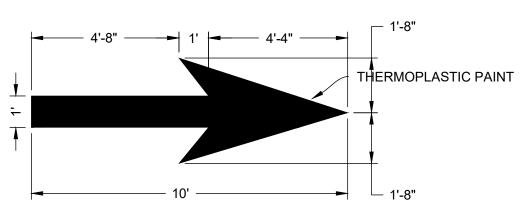
### NOTES:

- 1. TWELVE INCH (12") LINES SHALL BE APPLIED IN ONE APPLICATION, NO COMBINATION OF LINES (TWO - 6 INCH LINES) WILL BE ACCEPTED.
- 2. LONGITUDINAL CROSSWALK LINES TO BE PARALLEL TO CURB
- 3. ALL LONGITUDINAL CROSSWALK LINES TO BE THE SAME LENGTH AND PROPERLY ALIGNED.
- 4. CROSS WALK SIDE SLOPE SHALL NOT EXCEED 1.5%.

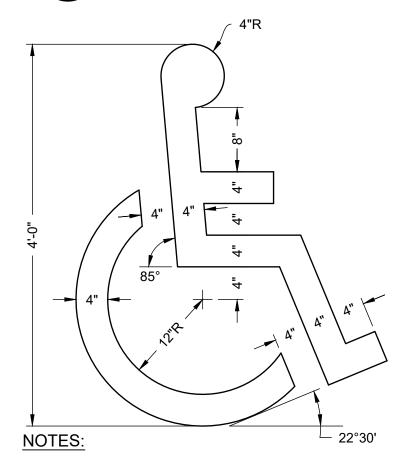


ALL MARKINGS SHALL BE WHITE TRAFFIC PAINT. MASS DOT M7.01.23 FAST DRYING WHITE WATER-BORNE TRAFFIC PAINT.





STRAIGHT ARROW NOT TO SCALE

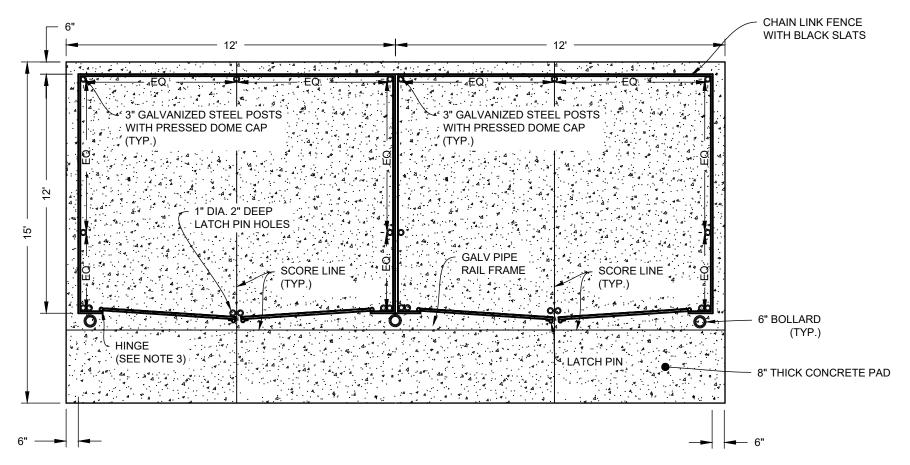


1. SYMBOL SHALL BE CENTERED IN THE PARKING STALL AND SHALL BE WHITE.

2. PAVEMENT MARKING STRIPES SHALL BE WHITE. (DOUBLE STRIPED - SEE STALL LAYOUT DETAIL) MASS DOT M7.01.23 FAST DRYING WHITE WATER-BORNE TRAFFIC PAINT.

3. SYMBOL TO BE PAINTED IN ALL HANDICAP SPACES.





PLAN VIEW

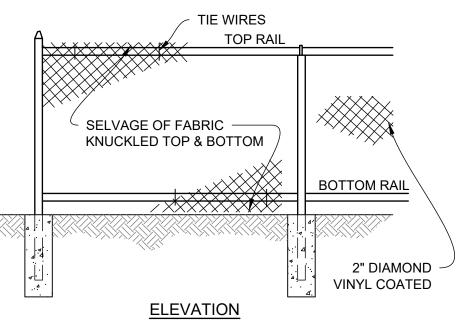
**DUMPSTER PAD NOTES** 

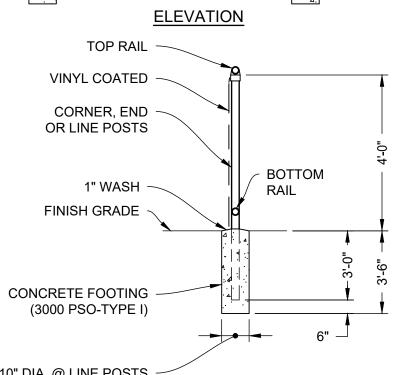
THE LENGTH AND WIDTH OF PAD.

1. SIZE OF DUMPSTER PAD TO BE AS INDICATED ON PLANS. 2. CONSTRUCTION JOINTS SHALL BE PLACED NO MORE THAN 40 FEET ON CENTER AND SHALL BE EQUALLY SPACED OVER

3. ALL HINGES TO BE SELF CLOSING SPRING HINGE FOR A MINIMUM 300 LB GATE CARRYING A 700LB POINT LOAD.

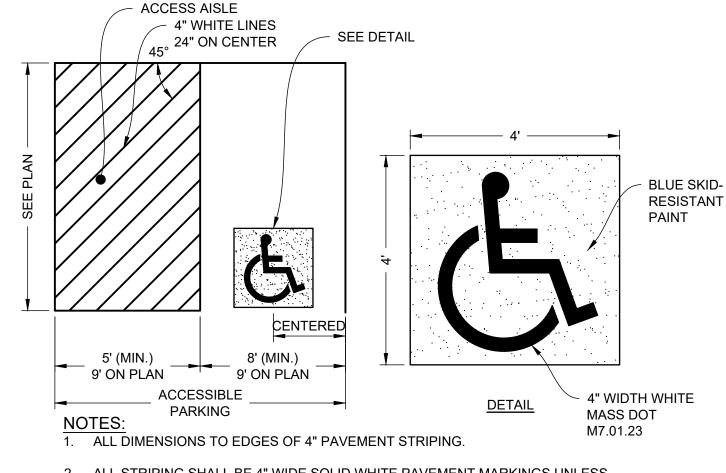
DUMPSTER PAD WITH ENCLOSURE





10" DIA. @ LINE POSTS OR 1'-4" @ CORNER <u>SECTION</u> PULL OR END POSTS

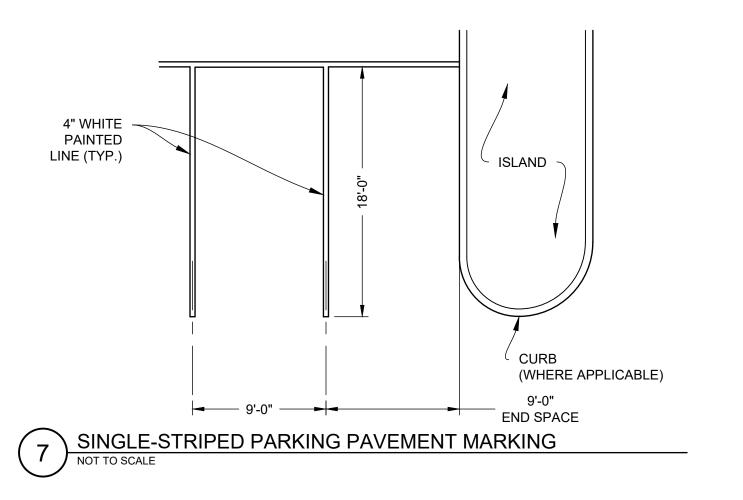
1. GATES AND HARDWARE TO BE AS PER MANUFACTURER'S SPECIFICATION. SUBMIT MANUFACTURER'S LITERATURE FOR APPROVAL.

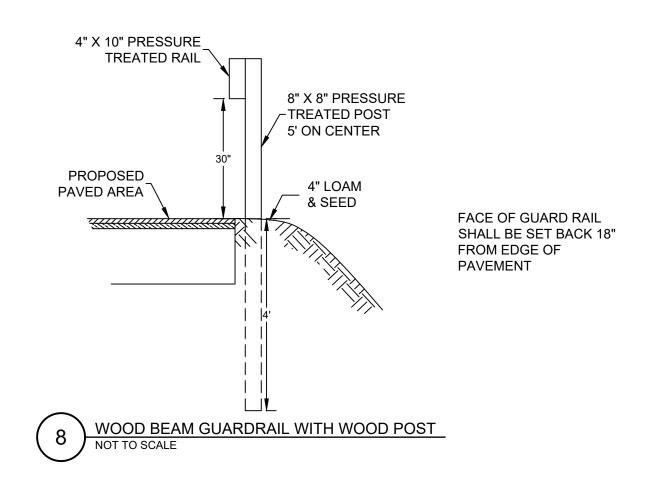


2. ALL STRIPING SHALL BE 4" WIDE SOLID WHITE PAVEMENT MARKINGS UNLESS OTHERWISE NOTED. MASS DOT M7.01.23 FAST DRYING WHITE WATER-BORNE TRAFFIC

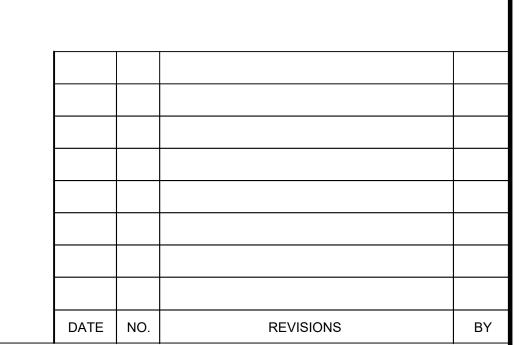
3. 8' STALL WIDTH REFERS TO 8' CLEAR BETWEEN INSIDE EDGES OF PAVEMENT

ACCESSIBLE PARKING SPACE





OSGOOD, JR



SITE PLAN LOT 3 - ROUTE 103 WEST, WARNER NH,

ASSESSOR'S MAP 35 LOTS 4-3

COMET, LLC OWNER 84 RANGE ROAD, WINDHAM, NH 03087

> SITE DETAILS CS6002



Ranger Engineering Group, Inc.

13 Red Roof Lane, Suite 203 Salem NH, 03079 Tel: 978-208-1762

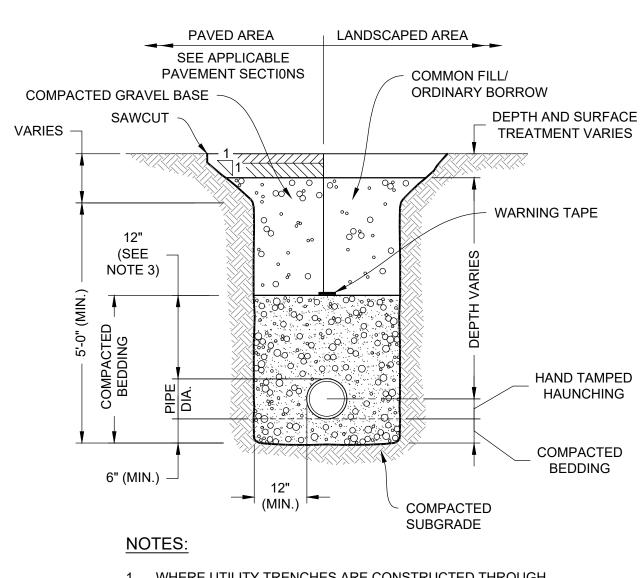
SCALE:

SHEET 10 OF 20

WARNER PLANNING BOARD CHAIRMAN:

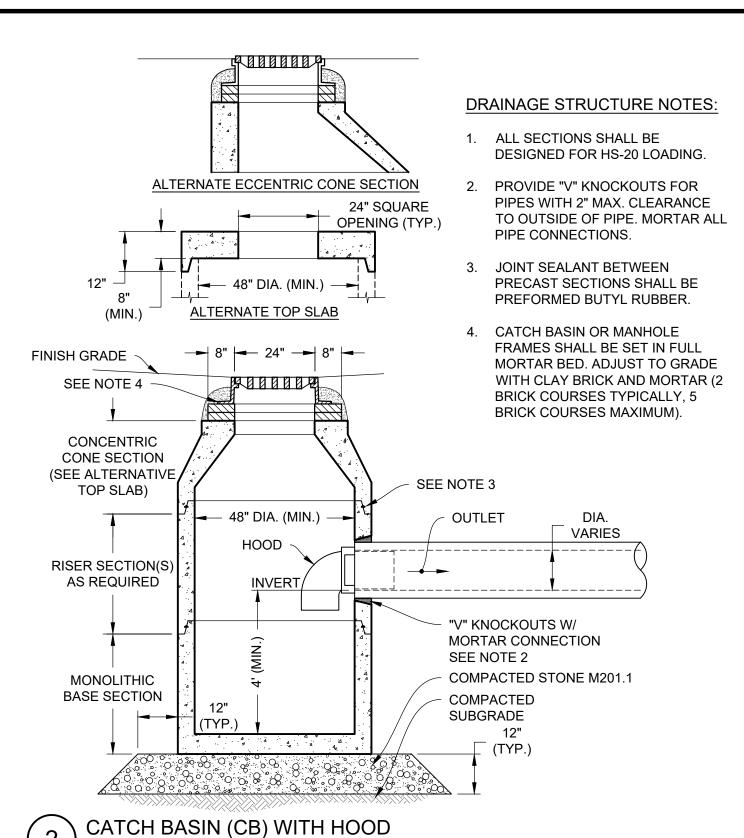
DATE:

2022-08-08



- 1. WHERE UTILITY TRENCHES ARE CONSTRUCTED THROUGH DETENTION BASIN BERMS OR OTHER SUCH SPECIAL SECTIONS, PLACE TRENCH BACKFILL WITH MATERIALS SIMILAR TO THE SPECIAL SECTION REQUIREMENTS.
- 2. USE METALLIC TRACING/WARNING TAPE OVER ALL PIPES.
- 3. FOR HDPE PIPE, DIMENSION IS 24 INCHES.





#### NOTES:

8" 24" DIA. ACCESS

48" DIA. (MIN.) ——

ACCESS

DIA.

── VARIES

**ALTERNATE TOP SLAB** 

\_\_\_\_ 24" DIA.

GRADE

SEE NOTE 5

CONCENTRIC

CONE SECTION

SEE ALTERNATIVE

TOP SLAB

RISER

SECTION(S)

AS REQUIRED

MONOLITHIC

BASE SECTION

12"

(TYP.)

- 1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
- 2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
- PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
- JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
- DRAINAGE MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES

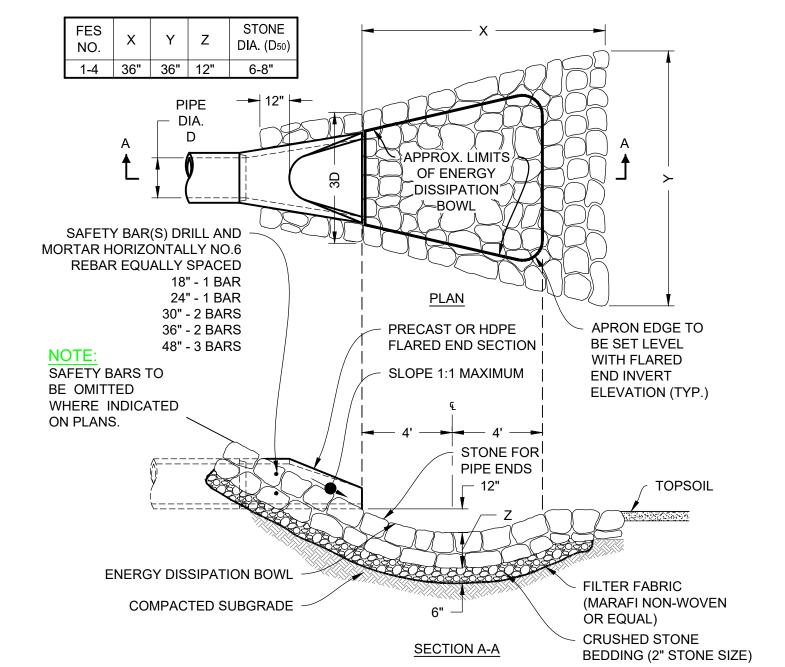
MAXIMUM).

(TYP.)

STEPS SEE NOTE 2 SEE NOTE 4 SHELF TO BE CONCRETE FORMED → 48" DIA. (MIN.) -AT A SLOPE OF 1" PER FOOT. OUTLET DIA. **VARIES** 

SEE NOTE 3

CEMENT CONCRETE INVERT COMPACTED GRAVEL COMPACTED SUBGRADE DRAINAGE MANHOLE (DMH)



\ FLARED END SECTION (FES) WITH STONE PROTECTION

	Table 4-3. Fifte	r Mixtures	
	Percent of Mixture		Gradation of Material
Component Material	by Volume	Sieve No.	Percent by Weight Passing Standard Sieve
	Filter Media	Option A	
ASTM C-33 concrete sand	50 to 55		
Loamy sand topsoil, with fines as indicated	20 to 30	200	15 to 25
Moderately fine shredded bark or wood fiber mulch, with fines as indicated	20 to 30	200	< 5
	Filter Media	Option B	
Moderately fine shredded bark or wood fiber mulch, with fines as indicated	20 to 30	200	< 5
	70 to 80	10	85 to 100
Loamy coarse sand		20	70 to 100
		60	15 to 40
		200	8 to 15

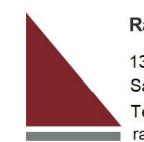
DATE NO.

# SITE PLAN LOT 3 - ROUTE 103 WEST, WARNER NH,

ASSESSOR'S MAP 35 LOTS 4-3

COMET, LLC 84 RANGE ROAD, WINDHAM, NH 03087

## DRAINAGE DETAILS CS6021



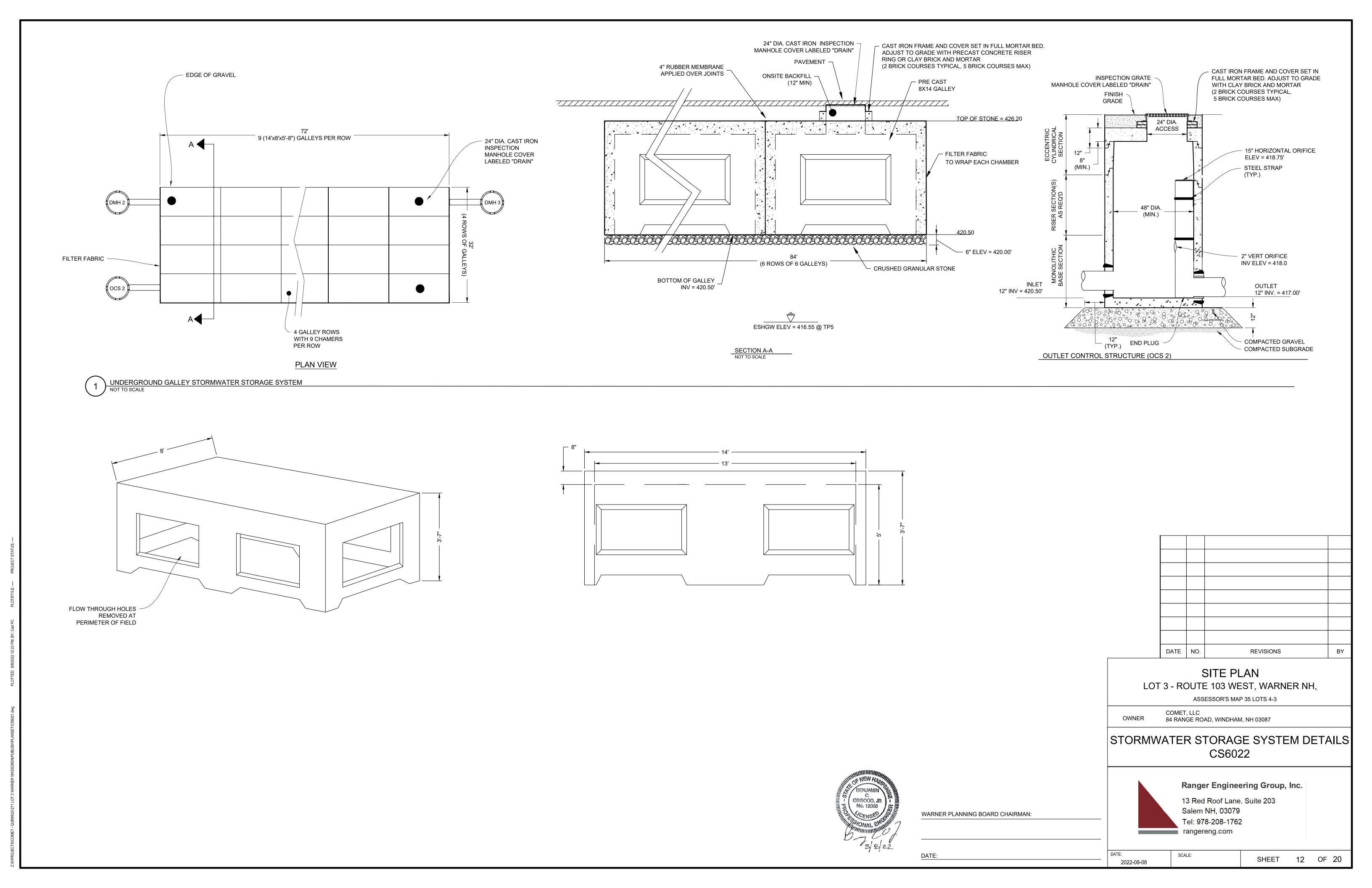
Ranger Engineering Group, Inc. 13 Red Roof Lane, Suite 203 Salem NH, 03079

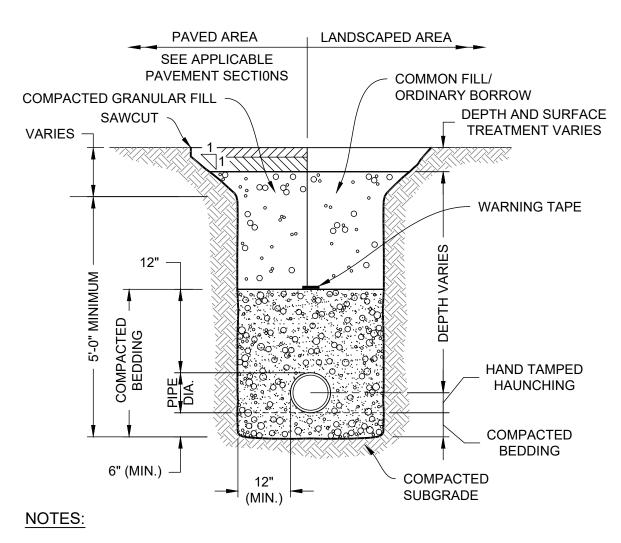
Tel: 978-208-1762 rangereng.com

SCALE: SHEET 11 OF 20 2022-08-08

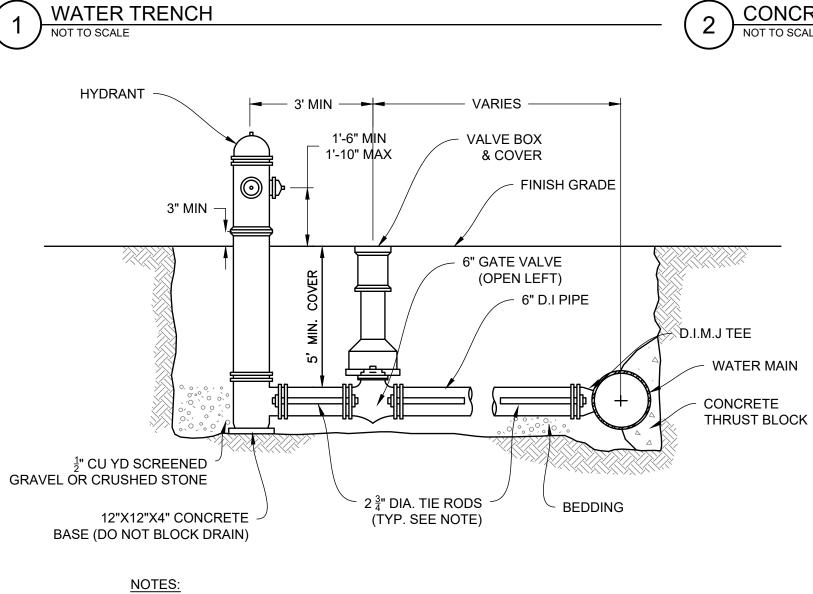
WARNER PLANNING BOARD CHAIRMAN:

DATE:



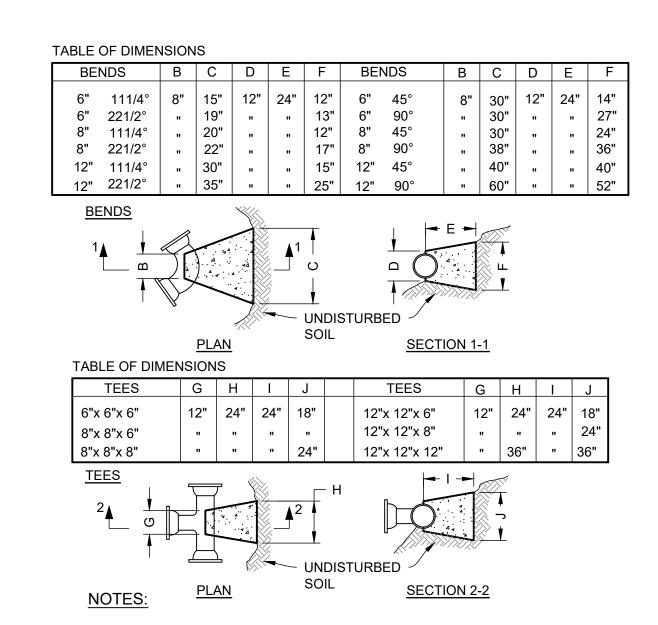


- 1. WHERE UTILITY TRENCHES ARE CONSTRUCTED THROUGH DETENTION BASIN BERMS OR OTHER SUCH SPECIAL SECTIONS, PLACE TRENCH BACKFILL WITH MATERIALS SIMILAR TO THE SPECIAL SECTION REQUIREMENTS.
- 2. USE METALLIC TRACING/WARNING TAPE OVER ALL PIPES.

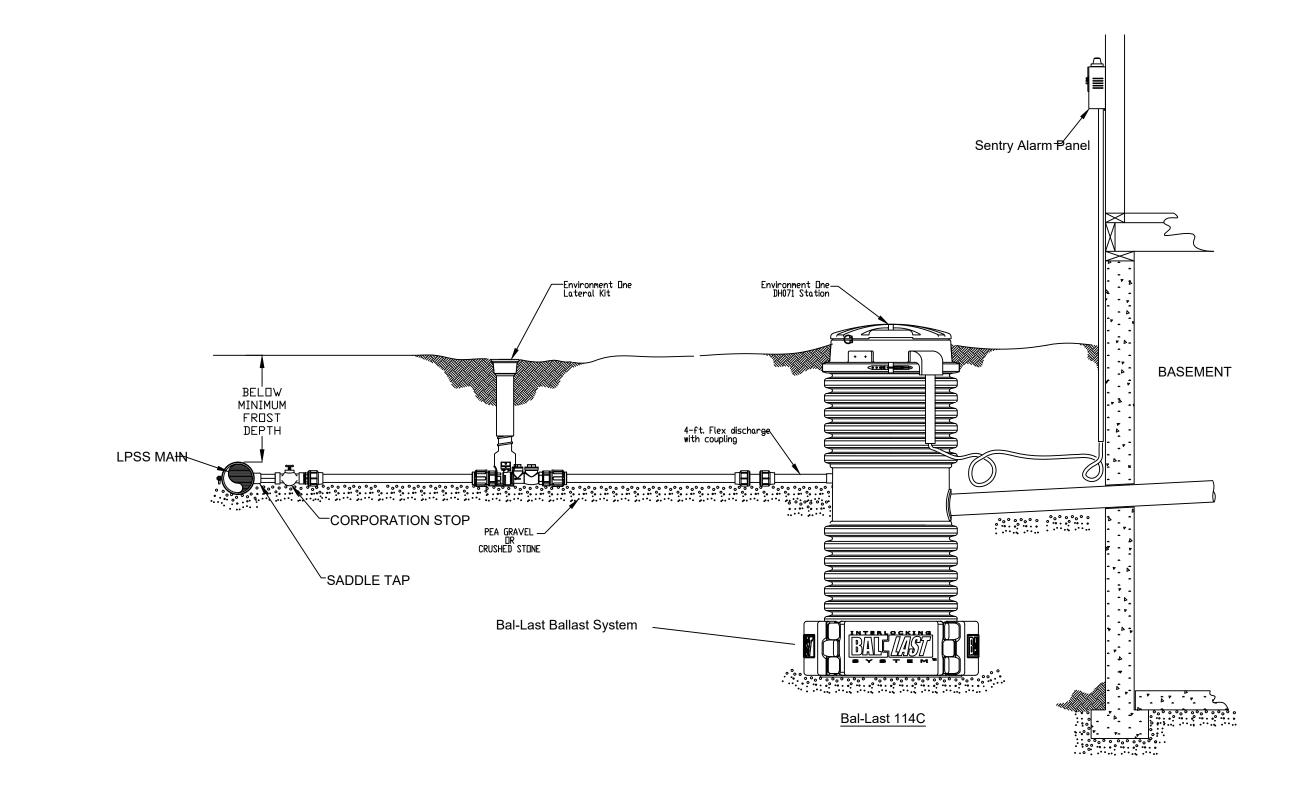


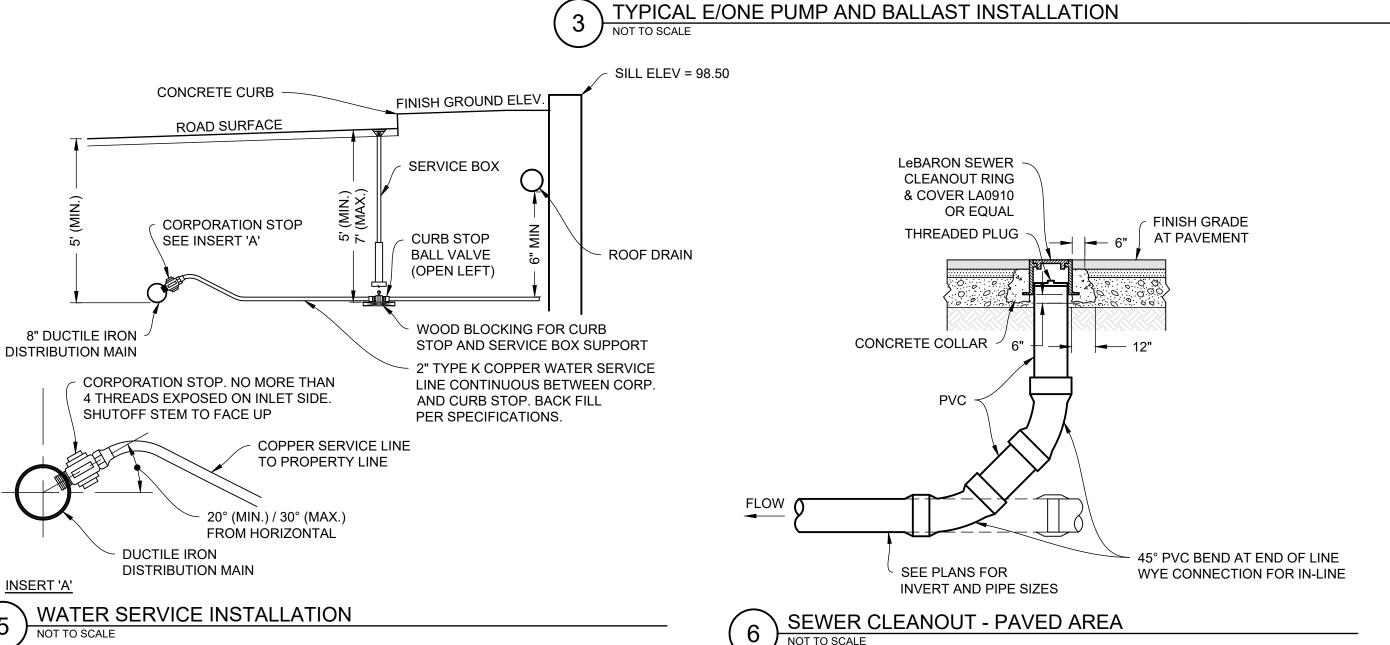
1. CONTINUE TIE RODS TO MAIN OR AT LEAST 20' ALONG HYDRANT LATERAL. 2. HYDRANT AND VALVE TO OPEN LEFT

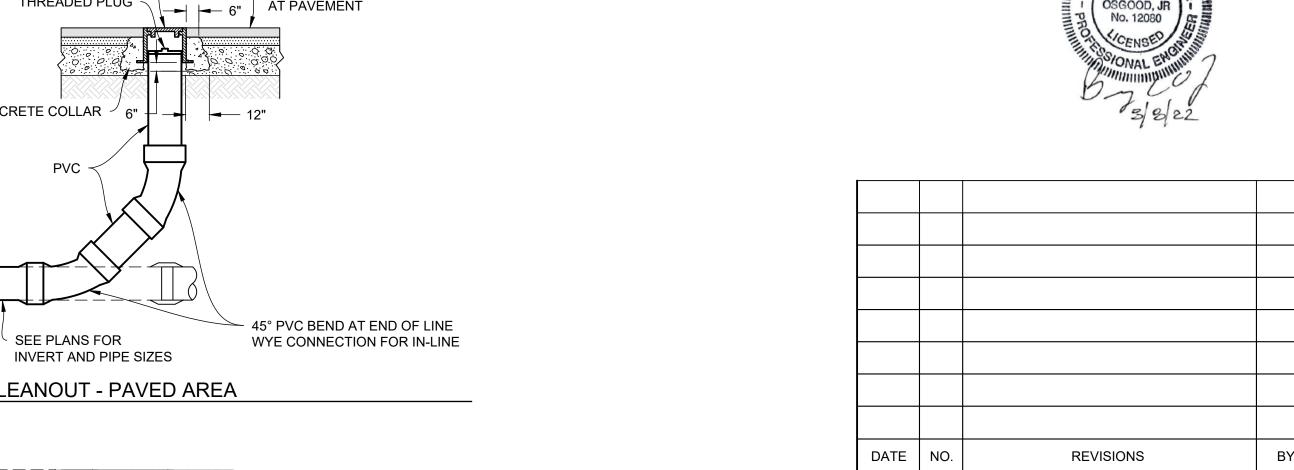


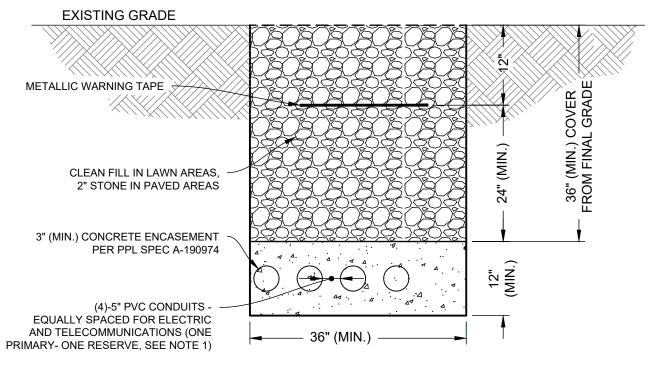


- 1. PROVIDE BLOCKS FOR TAPPING SLEEVES, DEAD ENDS, GATE VALVES, AND VERTICAL BENDS (SAME SIZE AS REQUIRED FOR TEES). PROVIDE ANCHOR RODS AT VERTICAL BENDS AND GATE VALVES.
- 2. CONCRETE SHALL NOT BE PLACED AGAINST PIPE BEYOND FITTING.
- 3. CONCRETE SHALL BE 3000 PSI-TYPE |.
- CONCRETE THRUST BLOCK









NOTE:

ELECTRIC/ TELECOMMUNICATION DUCT BANK

1. ADD ONE ADDITIONAL 5" CONDUIT WHERE FIRE ALARM (FA) IS DESIGNATED ON UTILITY PLANS.

WARNER PLANNING BOARD CHAIRMAN:

rangereng.com

OWNER

COMET, LLC

Ranger Engineering Group, Inc. 13 Red Roof Lane, Suite 203 Salem NH, 03079 Tel: 978-208-1762

SITE PLAN

LOT 3 - ROUTE 103 WEST, WARNER NH,

**UTILITY DETAILS** 

CS6051

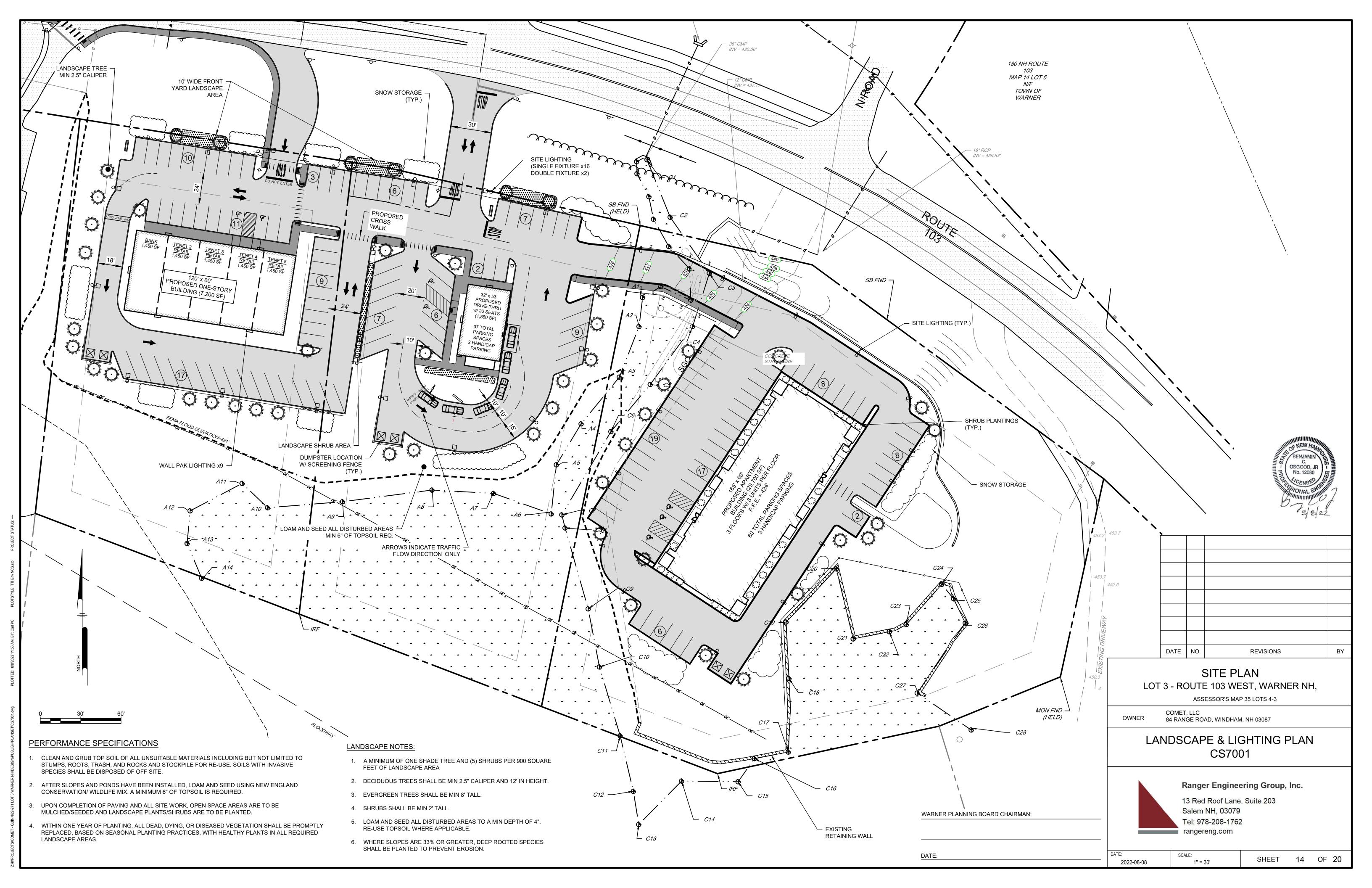
84 RANGE ROAD, WINDHAM, NH 03087

ASSESSOR'S MAP 35 LOTS 4-3

2022-08-08

SHEET 13 OF 20

SCALE:



UNDISTURBED SOIL OR ON

COMPACTED SUBGRADE

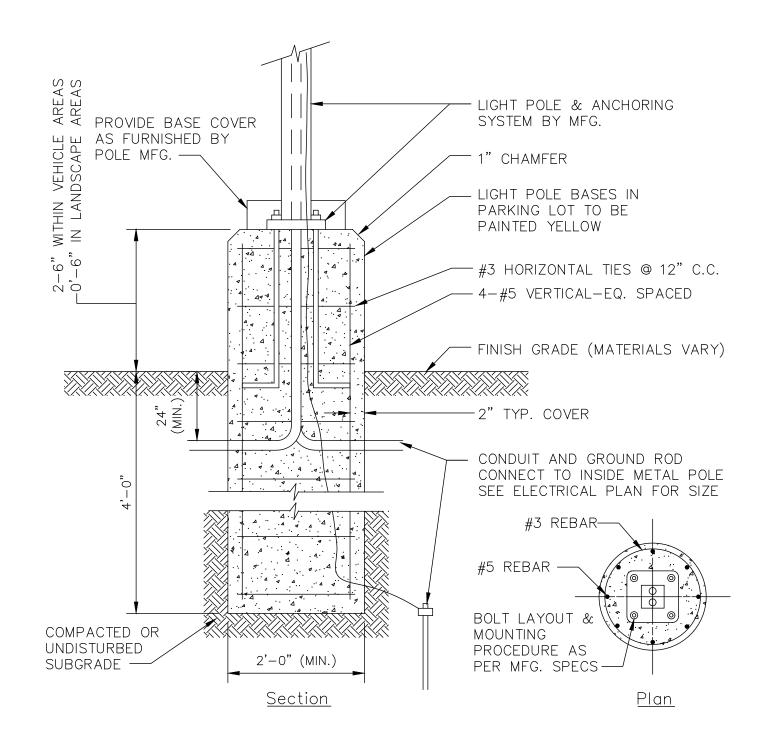
TREE PLANTING (FOR 2" CALIPER 12' TALL TREES) NOT TO SCALE

HOLE - THEE TIMES ROOTBALL DIAMETER WITH SLOPED SIDES

	WETLAND SEED MIX	
COMMON NAME	AMOUNT	SUPPLIER
NEW ENGLAND CONSERVATION/ WILDLIFE MIX	1.0 LB./1750 S.F.	NEW ENGLAND WETLAND PLANTS, INC

APPROVED TREE SPECIES				
SCIENTIFIC NAME	COMMON NAME			
CARPINUS CAROLINIANA	AMERICAN HORNBEAM			
PICEA GLAUCA	WHITE SPRUCE			
JUNIPERUS VIRGINIANA	RED CEDAR			
ACER RUBRUM	RED MAPLE			
QUERCUS RUBRA	CRAB APPLE			
QUERCUS ALBA	WHITE OAK			
PINUS STROBUS	WHITE PINE			

APPROVED SHRUB SPECIES				
SCIENTIFIC NAME	COMMON NAME			
VIBURNUM DENTATUM	ARROWWOOD VIBURNUM			
SPIREA BETULIFOLIA	WHITE SPIREA			
ILEX GLABRA	EVERGREEN WINTERBERRY			
RHODODENDRON FERRUGINEUM	RHODODENDRON			
	WINTERGEM BOXWWOD			
	ALTERNATE LEAVED DOGWOOD			

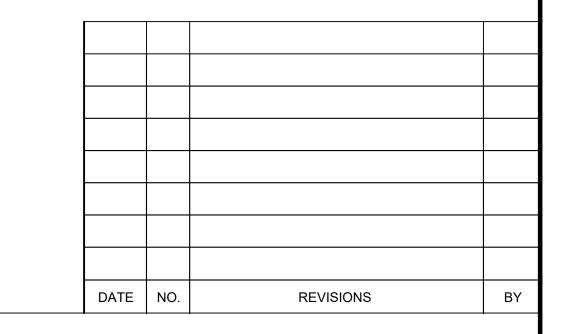


#### NOTES:

1. LIGHT POLE POUNDATION DESIGN IS SUBJECT TO CHANGE BASED ON FINAL POLE AND FIXTURE SELECTION AND GEOTECHNICAL SITE INVESTIGATION.







## SITE PLAN LOT 3 - ROUTE 103 WEST, WARNER NH,

ASSESSOR'S MAP 35 LOTS 4-3

COMET, LLC OWNER 84 RANGE ROAD, WINDHAM, NH 03087

## LANDSCAPE & LIGHTING DETAILS CS7002

Ranger Engineering Group, Inc. 13 Red Roof Lane, Suite 203 Salem NH, 03079

SHEET 15 OF 20

Tel: 978-208-1762 rangereng.com

SCALE: 2022-08-08 1" = 30'

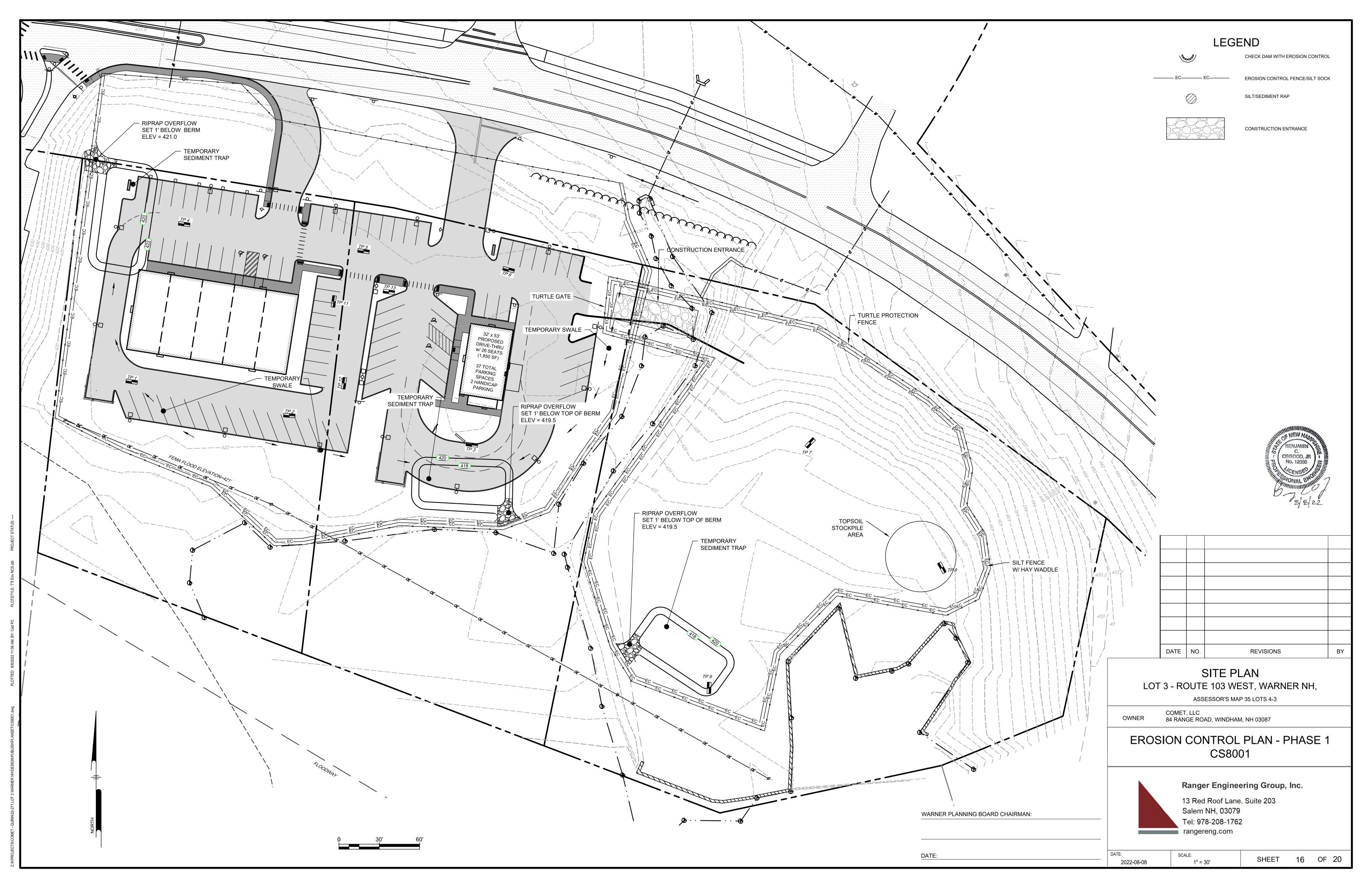
WARNER PLANNING BOARD CHAIRMAN: DATE:

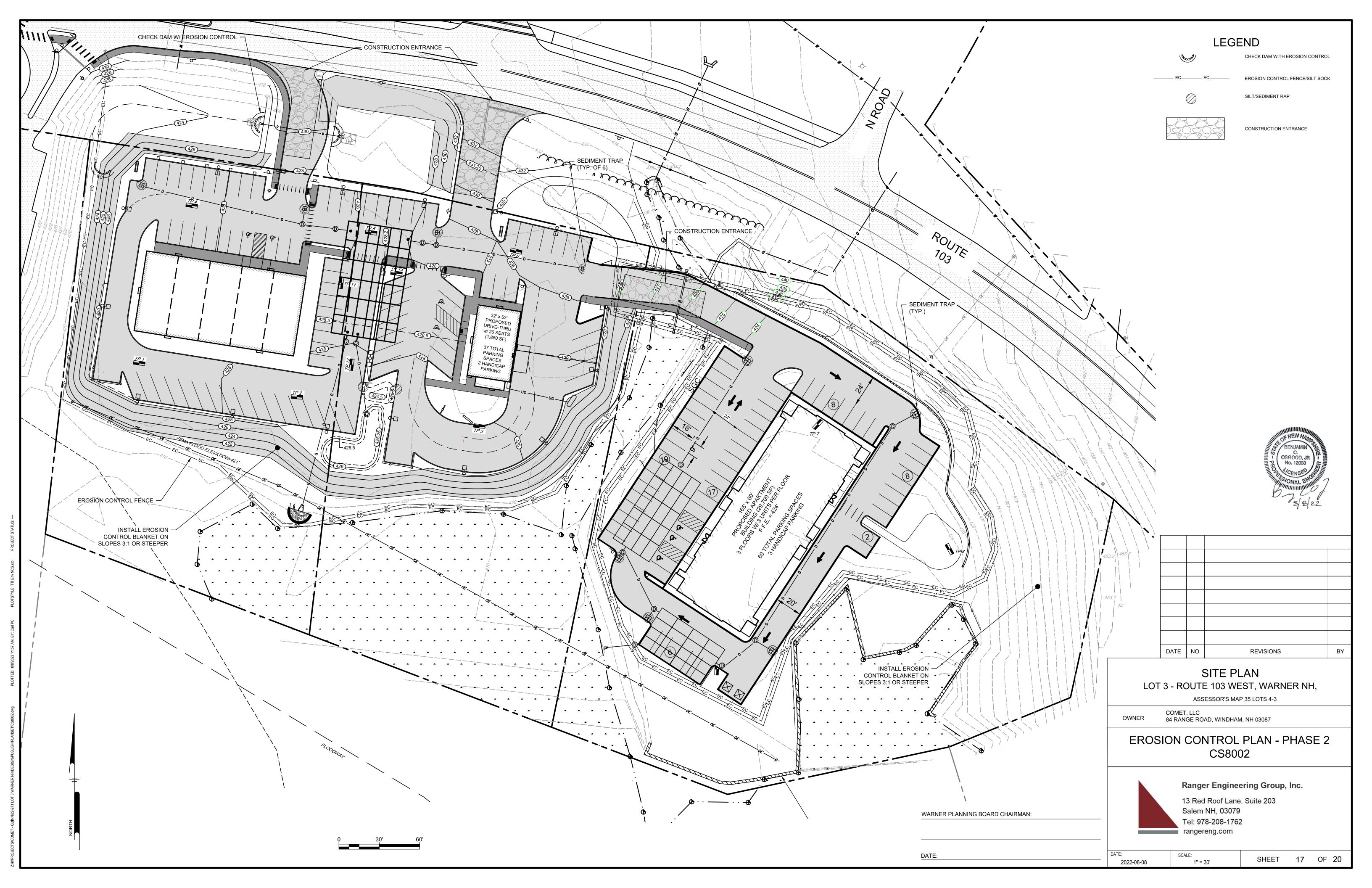
### PERFORMANCE SPECIFICATIONS

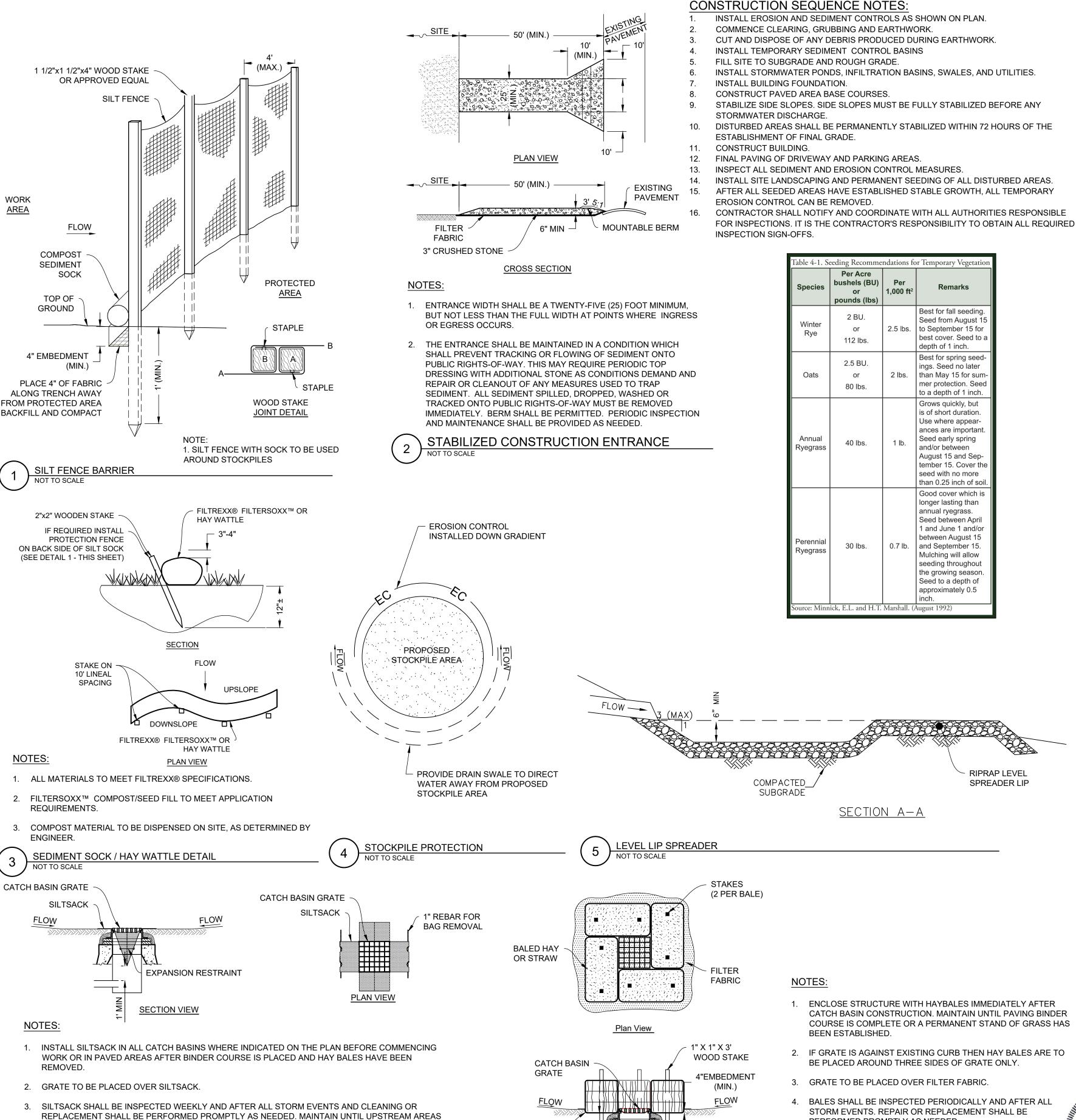
- CLEAN AND GRUB TOP SOIL OF ALL UNSUITABLE MATERIALS INCLUDING BUT NOT LIMITED TO STUMPS, ROOTS, TRASH, AND ROCKS AND STOCKPILE FOR RE-USE. SOILS WITH INVASIVE SPECIES SHALL BE DISPOSED OF OFF SITE.
- AFTER SLOPES AND PONDS HAVE BEEN INSTALLED, LOAM AND SEED USING NEW ENGLAND CONSERVATION/ WILDLIFE MIX. A MINIMUM 6" OF TOPSOIL IS REQUIRED.
- UPON COMPLETION OF PAVING AND ALL SITE WORK, OPEN SPACE AREAS ARE TO BE MULCHED/SEEDED AND LANDSCAPE PLANTS/SHRUBS ARE TO BE PLANTED.
- WITHIN ONE YEAR OF PLANTING, ALL DEAD, DYING, OR DISEASED VEGETATION SHALL BE PROMPTLY REPLACED, BASED ON SEASONAL PLANTING PRACTICES, WITH HEALTHY PLANTS IN ALL REQUIRED LANDSCAPE AREAS.

### LANDSCAPE NOTES:

- 1. A MINIMUM OF ONE SHADE TREE AND (5) SHRUBS PER 900 SQUARE FEET OF LANDSCAPE AREA
- 2. DECIDUOUS TREES SHALL BE MIN 2.5" CALIPER AND 12' IN HEIGHT.
- 3. EVERGREEN TREES SHALL BE MIN 8' TALL.
- 4. SHRUBS SHALL BE MIN 2' TALL.
- 5. LOAM AND SEED ALL DISTURBED AREAS TO A MIN DEPTH OF 4". RE-USE TOPSOIL WHERE APPLICABLE.
- 6. WHERE SLOPES ARE 33% OR GREATER, DEEP ROOTED SPECIES SHALL BE PLANTED TO PREVENT EROSION.







**OPERATION AND MAINTENANCE:** 

#### **CONSTRUCTION PHASE**

THE BMP's ASSOCIATED WITH THIS PROJECT WILL BE OWNED BY THE CONTRACTOR, WHO WILL BE RESPONSIBLE FOR INSPECTION, OPERATION AND MAINTENANCE. THE PROJECT IS TO BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES

- 1. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL PHYSICALLY MARK THE LIMITS OF NO LAND DISTURBANCE ON THE SITE AND INSTALL PERIMETER CONTROLS.
- 2. THE CONTRACTOR IS TO INSTALL AND MAINTAIN DRAINAGE FACILITIES AS SHOWN ON THE SITE PLANS.
- PRIOR TO CONSTRUCTION, ALL EROSION/SILTATION CONTROL DEVICES SHOWN ON ABOVE PLAN ARE TO BE INSTALLED. TO PREVENT SILT INTRUSION INTO THE DRAINAGE SYSTEM DURING CONSTRUCTION, THE CONTRACTOR IS TO INSTALL AND MAINTAIN INLET PROTECTION AT ALL CATCH BASINS, AND SET A SILT FENCE OR SEDIMENT SOCK AT ALL SLOPES WHICH MAY ERODE IN THE DIRECTION OF ANY OPEN DRAINAGE FACILITIES. SUCH PREVENTIVE MEASURES ARE TO BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS. TEMPORARY CONTROLS SHALL BE INSTALLED TO REDUCE DUST AND SEDIMENT TRANSPORT. EROSION CONTROL DEVICES SHALL NOT CONTAIN WELDED PLASTICS, PLASTIC, OR MULTI/MONO-FILAMENT POLYPROPYLENE NETTING
- 4. CONSTRUCTION OF DRAINAGE FACILITIES IS TO BE INSPECTED BY DESIGN ENGINEER TO VERIFY CONFORMANCE TO THE DESIGN PLAN.
- 5. THE SEQUENCE OF DRAINAGE CONSTRUCTION SHALL BE AS FOLLOWS:
  - A. CLEAR, GRUB, EXCAVATE AREAS FOR DRAINAGE SYSTEMS.
  - B. TRENCH AND INSTALL PIPES, CATCH BASINS MANHOLES
  - C. INSTALL INLET PROTECTION.
- 6. EROSION CONTROLS ARE TO BE INSPECTED AND MAINTAINED ON A WEEKLY BASIS OR AFTER EVERY HALF INCH OF RAIN FALL. UPON DISCOVERY OF SILT BUILD-UP IN ANY CATCH BASIN SUMPS. OR ANY OTHER STRUCTURES, THEY ARE TO BE CLEANED.
- 7. ALL EXPOSED SOILS SHALL BE IMMEDIATELY STABILIZED WITH A LAYER OF MULCH HAY OR JUTE BLANKETS-AS NEEDED FOR SLOPES STEEPER THAN 3:1.
- 8. TEMPORARY WATER DIVERSION MUST BE USED AS NECESSARY UNTIL AREAS AREA STABILIZED. 8.1. DITCHES AND SWALES SHALL BE STABILIZED BEFORE DIRECTING WATER TO THEM
- 8.2. ROADWAYS AND PARKING LOTS SHALL BE STABILIZED BEFORE DIRECTING WATER TO THEM 8.3. CUT AND FILL SLOPES SHALL BE SEEDED/ LOAMED WITHIN 72 HOURS OF ACHIEVING FINISH
- 9. MULCH BERMS SHALL BE USED ONLY WHERE SHEET FLOW OCCURS AND WHERE THE UPSTREAM SLOPE IS LESS THAN 5%. BERM MUST BE AT LEAST 12" HIGH AND 2 FEET WIDE.
- 10. PRIOR TO CONSTRUCTION OF IMPERVIOUS AREAS, ALL DRAINAGE STRUCTURES AND PIPES SHALL BE INSTALLED AND INSPECTED FOR PROPER FUNCTION. DURING CONSTRUCTION OF OTHER SITE FEATURES, ALL DRAINAGE FACILITIES SHALL BE INSPECTED ON A WEEKLY BASIS AND CLEANED/REPAIRED IMMEDIATELY UPON DISCOVERY OF SEDIMENT BUILD-UP OR DAMAGE.
- 11. AFTER PAVING IS INSTALLED, IT SHALL BE SWEPT CLEAN ON A REGULAR BASIS.
- 12. IF DEWATERING IS NECESSARY DURING CONSTRUCTION, THE WATER WILL BE TREATED FOR TOTAL SUSPENDED SOLIDS (TSS) REMOVAL PRIOR TO DISCHARGE TO RECEIVING WATER.

#### POST-DEVELOPMENT PHASE

THE OWNER(S) IS TO BE RESPONSIBLE FOR MAINTENANCE OF ALL DRAINAGE STRUCTURES IN THE PROJECT - INCLUDING ROOF DRAINS, DRAIN PIPES, CATCH BASINS, AND DRAIN MANHOLES

### REGULAR MAINTENANCE IS TO INCLUDE THE FOLLOWING:

- 1. INSPECTION OF ALL DRAINAGE FACILITIES (CATCH BASINS, PIPES, OUTLET CONTROL STRUCTURES, AND DETENTION BASINS) EVERY THREE MONTHS. DURING THESE INSPECTIONS, THE INSPECTOR (A REGISTERED PROFESSIONAL CIVIL ENGINEER QUALIFIED IN DRAINAGE SYSTEMS) SHALL LOOK FOR EVIDENCE OF THE FOLLOWING: STRUCTURAL DAMAGE, SILT ACCUMULATION (NEAR INLET INVERTS ON CATCH BASINS AND OUTLET CONTROL STRUCTURES), AND IMPROPER FUNCTION. A REPORT ON THE SYSTEM SHALL BE DELIVERED TO THE OWNER.
- AFTER INSPECTION, IF ANY OF THE ABOVE CONDITIONS EXIST, THE INSPECTOR SHALL NOTIFY THE OWNER. WHO SHALL IMMEDIATELY ARRANGE FOR ALL NECESSARY REPAIRS AND/OR SEDIMENT REMOVAL.
- 3. THE PAVEMENT AREA IS TO BE SWEPT CLEAN, AS REQUIRED (I.E., VISUALLY NOTICEABLE DEBRIS BUILD-UP). A MINIMUM OF ONCE PER YEAR.
- 4. ALL GRADED SLOPES SHALL BE INSPECTED EVERY SPRING FOR EROSION. UPON DISCOVERY OF ANY FAILURE (IE. EROSION), LOAM AND SEED SHALL BE PUT IN PLACE AND NURTURED
- 5. DURING THE WINTER MONTHS, ALL SNOW IS TO BE STORED SUCH THAT SNOW MELT IS CONTROLLED WITHIN THE PAVED AREA.

#### WINTER CONSTRUCTION SEQUENCE NOTES

- ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1 AND SEEDING AND PLACING 3-4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORING NETTING, ELSEWHERE. THE INSTALLATION 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.
- 2. 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 TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE FLOW.
- 3. AFTER OCTOBER 15, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3" OF CRUSHED GRAVEL PER NHDOT ITEM 304.3

WARNER PLANNING BOARD CHAIRMAN

**EROSION CONTROL NOTES (DURING CONSTRUCTION)** 

- 1. THE CONTRACTOR MUST INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND IN THE DETAILS PRIOR TO STARTING ANY OTHER WORK ON THE SITE. EROSION CONTROL MUST BE INSTALLED AT EVERY INLET STRUCTURE (EXISTING AND PROPOSED) AND MAINTAINED FOR THE DURATION OF THE
- 2. EROSION CONTROLS AS SHOWN ON PLANS SHALL BE INSPECTED, REPAIRED AND/OR MAINTAINED BY THE CONTRACTOR DAILY AND WITHIN 12 HOURS OF EACH STORM EVENT.
- 3. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN THEY REACH A DEPTH OF 1/4 TO 1/2 THE HEIGHT OF THI SILT FENCE OR SEDIMENT SOCK.
- 4. SEDIMENT SHALL BE CONTAINED WITHIN THE CONSTRUCTION SITE, AWAY FROM DRAINAGE STRUCTURES. SEDIMENT REACHING THE PUBLIC WAY SHALL BE REMOVED BY STREET SWEEPING AND NOT BY FLUSHING.
- 5. STABILIZE SLOPES STEEPER THAN 3:1 (HORIZONTAL TO VERTICAL) WITH SEED, SECURED GEOTEXTILE FABRIC, OR ROCK RIP-RAP AS REQUIRED TO PREVENT EROSION DURING CONSTRUCTION.
- 6. TEMPORARY SEEDING WILL BE APPLIED AS NECESSARY ON ANY ROUGH GRADED SURFACE WHICH WILL REMAIN UNDISTURBED FOR A PERIOD GREATER THAN 30 DAYS AND UPON LONG STANDING SOIL STOCKPILES. WASHED OUT OR ERODED AREAS SHALL BE RE-STABILIZED WITH ADDITIONAL COMPACTED LOAM AND SEED AND PROTECTED AS REQUIRED. TEMPORARY SEED SPECIES SHALL BE PER TABLE 4-1.
- 7. STABILIZE PAVEMENT AREAS WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE
- 8. CLEAN OUT CATCH BASINS, DRAIN MANHOLES AND STORM DRAIN PIPES AFTER COMPLETION OF CONSTRUCTION.
- 9. LOAM AND SEED ALL DISTURBED AREAS. PERMANENT SEEDING SHALL OCCUR IN THE SPRING FROM LATE MARCH THROUGH MAY AND IN LATE SUMMER OR EARLY FALL BETWEEN AUGUST AND OCTOBER
- 10. DUST SHALL BE CONTROLLED AT THE SITE WITH MECHANICAL WATER SPRAYING AS NECESSARY AND DURING EXTENDED DRY PERIODS.
- 11. UPON ESTABLISHMENT OF PERMANENT VEGETATION OVER DISTURBED AREAS, REMOVE AND DISPOSE OF STRAW WATTLES AND STAKES.
- 12. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN AND SUPPLEMENT THE SPECIFIED SEDIMENTATION CONTROLS AS NECESSARY TO PREVENT SEDIMENTATION OF OFF-SITE AREAS AND/OR ANY REGULATED RESOURCE AREAS. FAILURE BY THE CONTRACTOR TO CONTROL EROSION, POLLUTION AND/OR SILTATION SHALL BE CAUSE FOR THE OWNER TO EMPLOY OUTSIDE ASSISTANCE OR TO USE HIS OWN MEANS TO PROVIDE THE NECESSARY CORRECTIVE MEASURE. THE COST OF SUCH ASSISTANCE PLUS PROJECT ENGINEERING COSTS WILL BE THE CONTRACTOR'S RESPONSIBILITY.
- 13. THE CONTRACTOR SHALL CHECK THE CONDITION OF EROSION CONTROLS WEEKLY TO KEEP THEM IN GOOD OPERATING CONDITION. EROSION CONTROLS SHALL ALSO BE INSPECTED, REPAIRED AND MAINTAINED BY THE CONTRACTOR WITHIN 12 HOURS OF ANY STORM EVENT PRODUCING 1/2 INCH OF RAINFALL OR MORE, EROSION CONTROLS SHALL BE REPLACED WHEN DETERIORATED, OR WHEN ORDERED BY THE ENGINEER. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN THEY REACH A DEPTH OF
- 14. IN ADDITION TO THOSE LOCATIONS SHOWN ON THIS PLAN AND ON THE GRADING AND DRAINAGE PLANS EROSION CONTROLS SHALL BE INSTALLED AT THE FOLLOWING LOCATIONS: TOE OF SLOPE OF EMBANKMENT CONSTRUCTION, TOE OF TEMPORARY EARTHWORK STOCKPILES. STOCKPILE SIDE SLOPES SHALL NOT EXCEED 2:1.
- 15. EROSION AND SEDIMENTATION CONTROL SHALL BE IN COMPLIANCE WITH MASSACHUSETTS STORMWATER POLICY.
- 16. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED: A. BASE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED.

E. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE

- B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED. C. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED. D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- 17. THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION BUT IN NO CASE
- EXCEED 2.75 ACRES AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED

18.	ANY SEDIMENTS REMOVED ROM EROSION CONTROL DEVICES, CATCH BASINS, AND STORMWATI
	STRUCTURES SHALL BE DISPOSED OF IN ACCORDANCE WITH STATE REGULATIONS AND BEST

	SED OF IN	ACCOF	RDANCE WITH STATE REGULATIONS AND BEST	
RACTICES.				
	DATE	NO.	REVISIONS	BY

# SITE PLAN LOT 3 - ROUTE 103 WEST, WARNER NH,

ASSESSOR'S MAP 35 LOTS 4-3

MANAGEMENT PF

COMET, LLC 84 RANGE ROAD, WINDHAM, NH 03087

## **EROSION CONTROL NOTES AND DETAILS** CS8501



Ranger Engineering Group, Inc.

13 Red Roof Lane, Suite 203 Salem NH, 03079 Tel: 978-208-1762

rangereng.com

SCALE: 18 OF 20 2022-08-08

TSACK SEDIMENT TRAP

THE VOLUME OF THE SILT TRAP.

HAVE BEEN PERMANENTLY STABILIZED. MAXIMUM VOLUME OF SILT ALLOWED BEFORE CLEANING OF

4. MATERIALS REMOVED FROM THE TRAP SHALL BE PROPERLY DISPOSED OF AND STABILIZED.

CATCH BASIN SEDIMENT TRAP

8" (MIN.)

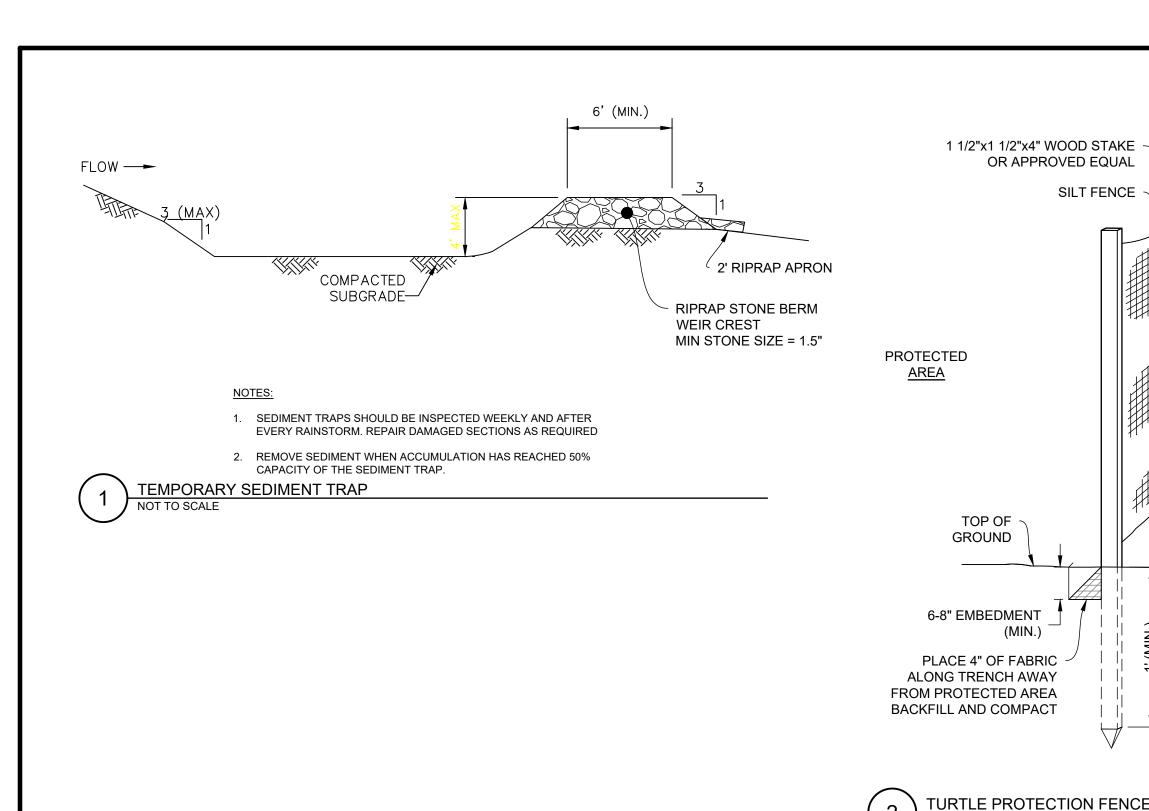
**FILTER** 

**FABRIC** 

PERFORMED PROMPTLY AS NEEDED.

OSGOOD, JR No. 12080

BENJAMIN



EROSION CONTROL MIX BERM
NOT TO SCALE

EXISTING GROUND

RUNOFF

# NOTES:

FILL SLOPE

1 1/2"x1 1/2"x4" WOOD STAKE OR APPROVED EQUAL

TOP OF

GROUND

SILT FENCE

1. BERMS SHALL BE USED ONLY WHERE SHEET FLOW OCCURS AND WHERE THE UPSTREAM SLOPE IS LESS THAN 5%.

(MAX.)

STAPLE

WOOD STAKE

JOINT DETAIL

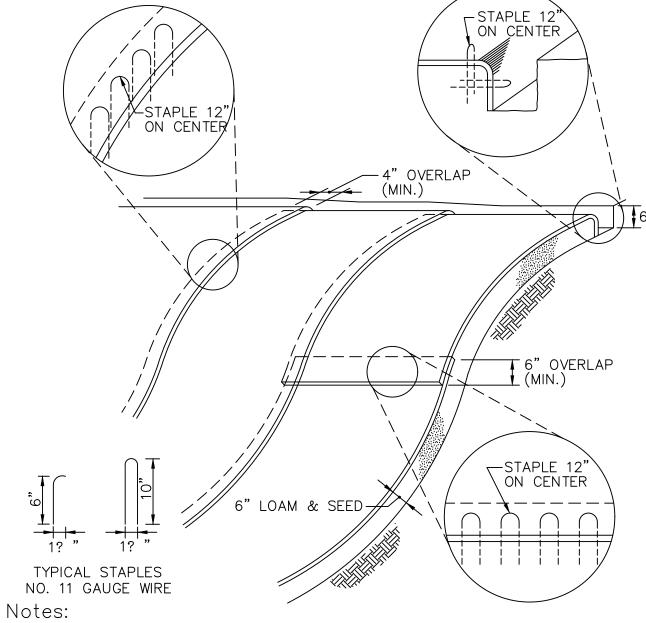
- 2. EROSION CONTROL MIX SHALL HAVE AN ORGANIC PORTION BETWEEN 25% AND 65% DRY WEIGHT BASIS THAT IS" A. FIBROUS AND ELONGATED SUCH AS FROM SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR EQUIVALENT PRODUCT AND B. NOT COMPRISED OF WOOD CHIPS, BARK CHIPS, GROUND CONSTRUCTION DEBRIS, OR REPROCESSED WOOD PRODUCTS. IT SHALL NOT CONTAIN SILTS, CLAYS, OR FINE SANDS.
- 3. MIX SHALL HAVE A PARTICLE SIZE OF 100% PASSING A 3" SCREEN, 90% TO 100% PASSING A 1" SCREEN, 70%-100% PASSING A 0.75" SCREEN, AND 30% PASSING A 0.25" SCREEN.
- 4. MIX MUST HAVE A pH BETWEEN 5.0 AND 8.0

<sup>5</sup>/<sub>8</sub>" PLYWOOD 2"X4" WOODEN SUPPORTS (4' O.C.) DIAGONAL SUPPORTS AS NECESSARY CONSTRUCTION ACCESS ROAD WEIGH DOWN WITH SAND BAGS OR SIMILAR OFFSITE AREA <sup>5</sup>/<sub>8</sub>" PLYWOOD MOUNT EVENLY ACCROSS GROUND SURFACE 1' MIN. ——

#### NOTE:

- 1. THE PLYWOOD BARRIER SHALL REMAIN IN PLACE ANY TIME THE ENTRANCE IS NOT ACTIVELY IN USE, EVEN DURING THE WORK DAY.
- 2. EACH SECTION OF PLYWOOD BARRIER SHALL OVERLAP THE ADJACENT SECTION TO ENSURE THAT ALL OPENINGS ARE BLOCKED COMPLETELY.

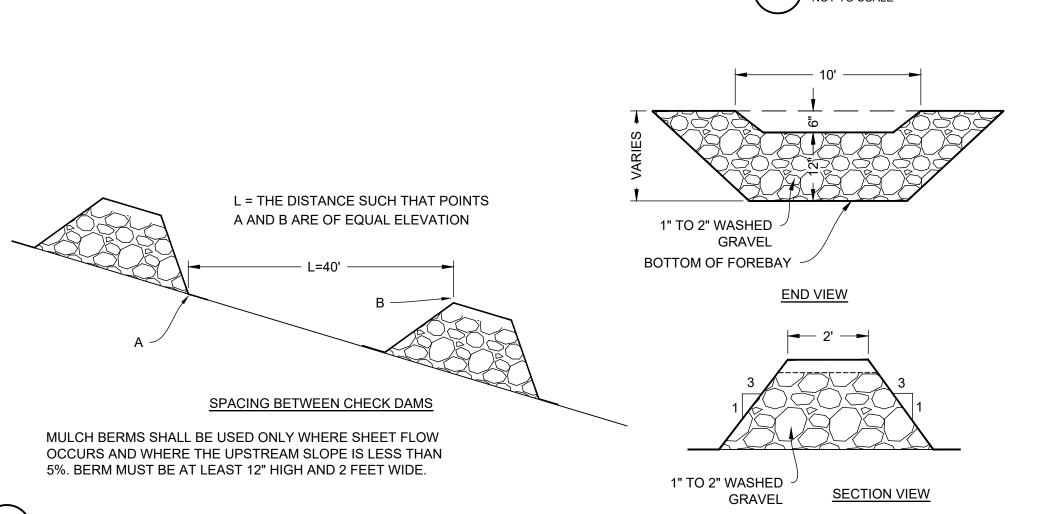




AND STAPLE BOTH TOGETHER.

EROSION CONTROL BLANKET

- 1. BEGIN AT THE TOP OF BLANKET INSTALLATION AREA BY ANCHORING BLANKET IN A 6" DEEP TRENCH BACKFILL AND COMPACT TRENCH AFTER STAPLING.
- 2. ROLL THE BLANKET DOWN THE SWALE IN THE DIRECTION OF THE WATER FLOW.
- THE EDGES OF BLANKETS MUST BE STAPLED WITH APPROX. 4 INCH OVERLAP WHERE 2 OR MORE STRIP WIDTHS ARE REQUIRED. 3. WHEN BLANKETS MUST BE SPLICED DOWN THE SWALE, PLACE UPPER BLANKET END OVER LOWER END WITH 6 INCH (MIN.) OVERLAP
- 4. EROSION CONTROL BLANKET SHALL NOT CONTAIN PLASTIC MESH. NATURAL FIBER BIODEGRADABLE MESH SHALL BE USED
- 5. HYDRO SEEDING MULCH SHALL BE USED ON ALL DISTURBED AREAS UPON COMPLETION OF ROUGH OR FINAL GRADING ACTIVITIES. GRADING WILL BE CONSIDERED COMPLETE WHEN THE AREA WILL REMAIN UNDISTURBED FOR 30 OR MORE DAYS.
- 6. EROSION CONTROL BLANKET WILL BE USED TO COVER PROBLEM AREAS WHERE STABILIZATION IS NOT ACHIEVED WITH HYDRO SEED MULCH AND IN THE BOTTOM OF STORMWATER CHANNELS. THE BOTTOM AND SIDE SLOPES WILL BE MULCHED BEFORE THE BLANKET IS APPLIED



DATE NO. **REVISIONS** 

TEMPORARY CHECK DAM DETAIL



WARNER PLANNING BOARD CHAIRMAN:

DATE:

LOT 3 - ROUTE 103 WEST, WARNER NH, ASSESSOR'S MAP 35 LOTS 4-3

SITE PLAN

COMET, LLC OWNER

84 RANGE ROAD, WINDHAM, NH 03087

## EROSION CONTROL NOTES AND DETAILS CS8502



Ranger Engineering Group, Inc.

13 Red Roof Lane, Suite 203 Salem NH, 03079 Tel: 978-208-1762

SCALE: 2022-08-08

SHEET 19 OF 20

