

## By

Updated

Describe proposed activity/use: Proposed to be developed into an into an automotive facility, specializing in custom aftermarket upgrades.

Proposed 625+/- driveway to be constructed off the north side of Tebbetts Road, accessing two 6,000+/-sf buildings, parking spaces, utilities, well, and septic.

Describe existing conditions/use (vacant land?): Undeveloped Land

Utility information

City water? yes ☐ no ☒; How far is City water from the site? On Tebbetts Road

City sewer? yes ☐ no ☒; How far is City sewer from the site? N/A

If City water, what are the estimated total daily needs? N/A gallons per day

If City water, is it proposed for anything other than domestic purposes? yes ☐ no ☐

If City sewer, do you plan to discharge anything other than domestic waste? yes ☐ no ☐

Where will stormwater be discharged? Three onsite Stormwater Management Areas for Mitigation and Treatment

Building information

Type of building(s): Steel Frame and Panel

Building height: 19'10" and 23'6" Finished floor elevation: 197.0

Other information

# parking spaces: existing: 0 total proposed: 38; Are there pertinent covenants? No

Number of cubic yards of earth being removed from the site

Number of existing employees: 4; number of proposed employees total: 8

Check any that are proposed: variance ☒; special exception ☐; conditional use ☒

Wetlands: Is any fill proposed? ☒; area to be filled: 1025sf; buffer impact? ☒

Proposed <i>post-development</i> disposition of site (should total 100%)		
	Square footage	% overall site
Building footprint(s) – give for each building	11,775	0.1
Parking and vehicle circulation	38,566	3.0
Planted/landscaped areas (excluding drainage)	14800	1.0
Natural/undisturbed areas (excluding wetlands)	215,700	17.3
Wetlands	932,605 (assumed)	74.6
Other – drainage structures, outside storage, etc.	12,840	1.0



## Comments

Please feel free to add any comments, additional information, or requests for waivers here:

Waiver request for parking is being requested from Section 10.A. Providing 38 spaces where 40 are required. CU for wetland and buffer impact is required. NHDES AoT and Wetlands Permits are required.

## Submission of application

This application must be signed by the property owner, applicant/developer (if different from property owner), and/or the agent.

*I/we hereby submit this Site Plan application to the City of Rochester Planning Board pursuant to the City of Rochester Site Plan Regulations and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As applicant/developer (if different from property owner)/as agent, I attest that I am duly authorized to act in this capacity.*

Signature of property owner: Mme [Signature]

Date: 2/18/21

Signature of applicant/developer: [Signature]

Date: 2/18/21

Signature of agent: W d DB [Signature]

Date: 2021-02-23

## Authorization to enter subject property

*I hereby authorize members of the Rochester Planning Board, Zoning Board of Adjustment, Conservation Commission, Planning Department, and other pertinent City departments, boards and agencies to enter my property for the purpose of evaluating this application including performing any appropriate inspections during the application phase, review phase, post-approval phase, construction phase, and occupancy phase. This authorization applies specifically to those particular individuals legitimately involved in evaluating, reviewing, or inspecting this specific application/project. It is understood that these individuals must use all reasonable care, courtesy, and diligence when entering the property.*

Signature of property owner: Mme [Signature]

Date: 2/18/21



February 23, 2021

Seth Creighton, AICP - Chief Planner  
City of Rochester Planning & Development  
33 Wakefield Street  
Rochester, NH 03867

RE: Tax Map 257 / Lot 66  
Tebbetts Road  
Non-Residential Site Plan and Conditional Use Wetland Submittal Letter  
F&O Reference No. 20200646.A10

Dear Seth,

Please find enclosed materials for an Application for the Planning and Development Department for a proposed nonresidential site plan design. This project is proposing the development of a high performance/specialty mechanic/ automotive facility located upon the above referenced lot. A 625 +/- driveway will be constructed off of the north side of Tebbetts Road, accessing two buildings, paved parking, with associated grading, stormwater management, and utilities. See below for detailed information regarding the development.

**Submitted Plan Sets/Applications**

Attached are the following submittal packets:

- Site plan set entitled "EFI Express; Site Development Drawings; Tax Map 257 Lot 66; Tebbetts Road; Rochester, New Hampshire 03867"

**Lot Configuration and Information:**

The existing lot is approximately 28.6± acres and currently undeveloped. Zoned General Industrial (GI) along with the abutting properties to the northwest. Properties to the south and southeast are zoned Agricultural District, and properties opposite of NH Route 16 are zoned Residential.

**Proposed Use/Site Plan:**

The proposed use is the development of a high performance/specialty mechanic/ automotive facility; specializing in custom aftermarket upgrades. The driveway will access two buildings, a 5,775sf footprint service and office building with 1,300sf accessory security apartment (mezzanine style), as well as a 6,000sf vehicle and parts storage building.

The Gateway Building  
50 Commercial Street  
Manchester, NH  
03101  
t 603.668.8223  
800.286.2469  
www.fando.com  
California  
Connecticut  
Maine  
Massachusetts  
New Hampshire  
Rhode Island  
Vermont



February 23, 2021

Tax Map 257 / Lot 66 – Site Plan and Conditional Use Applications

Fuss & O'Neill Reference No. 20200646.A10

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#### **Driveway Access**

An existing access to a woods road is currently located upon the north side of Tebbetts Road. This access was reviewed for potential re-use during design, it was determined this access point is not able to be used. Safety sight distances in relation to the overpass to Route 16 require the access point to be shifted southerly along Tebbetts Road. This also benefits the grading design, upgrading the existing woods road in its current location would result in a greater wetland impact due to grading and widening impacts.

The driveway is proposed to be a 625' ± paved, 24' width, crowned, with bit curbing along both sides to direct stormwater to catch basins. Driveway configuration was laid out to minimize both wetland and wetland buffer impacts.

#### **Parking, Loading, and Circulation:**

As illustrated upon the attached Site Plans 38 paved parking spaces are required and provided, with an additional 22 ± internal building spaces. Parking for two RV's/Motor homes are proposed towards the back of the proposed parking lot.

The parking lot accommodates circulation emergency access for a typical 48' Fire Truck. The applicant does not expect larger vehicles than the RVs or a Fire Truck this on site, the typical largest daily transient vehicles will be FedEx and UPS delivery box trucks.

#### **Traffic and Sight Distance**

While the expected trip generation for the proposed site plan use will generate higher volumes of traffic than the current vacant property occupying the site; it is our opinion this level of traffic generation can be accommodated by the existing street network with the proposed driveway layout. The development of the existing vacant property for a proposed high performance/specialty mechanic/automotive facility use is not anticipated to have a detrimental impact on the existing Tebbetts Road roadway network.

Town regulations require 250' sight distance for the 35mph Tebbetts Road. The proposed driveway location is specifically designed to provide a minimum of 400' sight distance left, and a minimum of 300' sight distance right, exceeding the requirements.



February 23, 2021

Tax Map 257 / Lot 66 – Site Plan and Conditional Use Applications

Fuss & O'Neill Reference No. 20200646.A10

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#### Utilities:

Water - The buildings will be serviced by a proposed well, discussions with the Fire Department is required to determine if a fire suppression system is required for either or both of the buildings.

Septic – a private septic is proposed to connect to both buildings, as well as handle connection of the RVs.

Cable, Electric, Telephone – a drop service is proposed at the existing utility pole on Tebbetts Road.

#### Grading & Stormwater/Drainage:

Site stormwater management is proposed to meet both City and NHDES Alteration of Terrain drainage requirements. The design mitigates the peak flows to and treats the stormwater to meet Town and NHDES AoT requirements to match/reduce flows in the 2-Year, 10-Year, 25-Year, and 50-Year storm events. The curbed driveway and closed drainage systems will collect stormwater via catch basins and drain man holes, and direct the stormwater to one of three Stormwater Management Areas (SMAs). Two infiltration basins and one hybrid bioretention with internal reservoir are proposed on site.

SMA-100 is the smaller of the two infiltration basins, located along the driveway, this basin is proposed to treat driveway stormwater.

SMA-200 is the larger of the two infiltration basins, located along east of building #2, this basin is proposed to treat building and parking lot stormwater.

SMA-300 is the hybrid bioretention pond with internal storage, located along the driveway, this basin is proposed to treat driveway stormwater.

#### Buildings

Two buildings are proposed for the site with the following information:

- Building #2 is proposed to be service , office, and security apartment
  - Minimum 14' height, mono-pitched roof
  - 7,075sf Total building area
    - 5,775sf (35'x165') footprint
    - 1,300sf security/accessory apartment above office
  - Seven overhead doors and one person door

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Tax Map 257 / Lot 66 – Site Plan and Conditional Use Applications

Fuss & O'Neill Reference No. 20200646.A10

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- Building #2 is proposed to be vehicle and part storage.
  - Minimum 16' height, double-pitched roof
  - Max 23'6" height at gable
  - 6,000sf (60'x100')
  - Two overhead doors and one person door

#### Landscaping

As the majority of the site is currently wooded, the site was designed to minimize ground disturbance and unnecessary tree clearing. Additional trees are not proposed, any disturbed areas will be loamed and seeded. The buildings are set back 625' ± from Tebbetts Road, and will be adequately tucked away behind the existing treeline that is proposed to be maintained. A waiver is being requested for a landscaping plan.

#### Lighting

Lighting was designed to illuminate the parking lot with building mounted wall packs for security/safety, as to not create a "box store parking lot" with unnecessary lights.

#### Trash/Refuse

A double dumpster pad with screened enclosure is proposed.

#### Signage

Site signage locations are currently proposed upon the attached plan sets, unfortunately the final signage packages are unknown at this time. All proposed signage is to be designed by others and submitted for proper City approval, prior to installation. As illustrated upon the attached Site Plans, a proposed monument pylon sign is proposed along the frontage of Tebbetts Road, to the north of the new site driveway entrance. Building mounted signage is also expected to be proposed and potentially internal "wayfinding" signs may be installed to simplify transient confusion as well.

#### Zoning

Per Article 12 of the City of Rochester Zoning Ordinance, the onsite wetlands and wetland buffers are categorized as the Conservation Overlay District. Section 275-12.9.A(1) states that a Conditional Use Approval may be granted by the Planning Board.

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Tax Map 257 / Lot 66 – Site Plan and Conditional Use Applications

Fuss & O'Neill Reference No. 20200646.A10

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The proposed wetland and wetland buffer impact is for the construction of the 24' wide, 625' ± long commercial driveway, with bypass culvert. The existing woods road access to the property is unable to be maintained or upgraded in a manner to benefit the site. The existing access point along Tebbetts Road location does not allow for adequate sight distance, and relocation to the south is required to achieve proper sight distance. The current layout of the location of the woods road, would create a larger wetland impact, due to widening and grading.

#### **Wetlands**

An NHDES Wetlands Permit is required for a wetland impact associated with the driveway access. Total impact is 1,025 ± sf, which is under the 10,000sf impact threshold to require payment into the Wetland ARM fund. A proposed 53', 30" CMP culvert, with FES and plunge pool is proposed to continue to allow flow of water under the proposed driveway.

Gove Environmental Services performed the wetland and soils delineation, and the Wetlands permit is being submitted concurrently with this City Submittal.

We understand this wetland impact will trigger Conservation Commission review, and are willing to provide any additional information to the CC for their input.

#### **NHDES Alteration of Terrain:**

We have designed the stormwater to meet NHDES Alteration of Terrain Permit requirements. Submittal to the NHDES AoT is expected to occur concurrently with City PB approval, and all comments/feedback will be coordinated into the plan sets.

#### **Permits/Approvals Status**

- City of Rochester Site Plan – Pending
  - Section 5 - Landscaping Waiver – Pending
  - Section 7(F) – Signage Waiver - Pending
  - Section 10(A) - Parking Waiver - Pending
- City of Rochester Conditional Use Permit – Pending
- City of Rochester Conservation Commission - Pending
- NHDES Alteration of Terrain – Pending, Submitting Concurrently as City
- NHDES Wetland Permit – Pending, Submitting Concurrently as City
- NHDES Septic System Permit – Pending, to be submitted after City approval



Application for Conditional Use  
**Conditional Uses and Buffer Reductions**  
Section 42.19 - Conservation Overlay District  
City of Rochester, NH

Date: 2020-02-23

**Property information**

Tax map #: 257; Lot #('s): 66; Zoning district: GI- General Industrial

Property address/location: Tebbetts Road

Name of project (if applicable): EFI Express

**Property owner**

Name (include name of individual): EFI Express, LLC (C/O Marc Swanson)

Mailing address: 61 Thompson Mill Road, Lee NH 03861

Telephone #: 603-732-9077 Fax support@efiexpress.com

**Applicant/developer** (if different from property owner)

Name (include name of individual): Same

Mailing address: \_\_\_\_\_

Telephone #: \_\_\_\_\_ Fax #: \_\_\_\_\_

**Engineer/designer**

Name (include name of individual): Fuss & O'Neill c/o Brian Pratt and A. Cory DuBois

Mailing address: The Gateway Building, 50 Commercial Street, Manchester, NH 03101

Telephone #: 603-668-8223 Fax #: \_\_\_\_\_

Email address: adubois@fando.com Professional license #: NH PE 11921

**Proposed Project**

Please describe the proposed project: Property is proposed to be developed into an into an automotive facility

specializing in custom aftermarket upgrades. A 625+/- driveway will be constructed off of the north side of Tebbetts Road, accessing two 6,000+/-sf buildings.

parking spaces, utilities, well, and septic. Driveway is designed to impact a minimal amount of wetland and buffer. NHDES Wetland and AoT required.

Please describe the existing conditions: Current undeveloped, mature woods, pockets of wetlands

delineated by Gove Environmental Services

(continued Conditional Use application Tax Map: 257 Lot: 66 )

*\*Please fill in **one** of the next two sections – for either Conditional Uses or Buffer Reductions\**

**Conditional Uses**

For Conditional Uses only, justify the proposal in terms of each of the criteria below (in accordance with subsection 42.19 (i) (1) (A)). All four criteria must be satisfied.

(i) The proposed construction is essential to the productive use of land not in the COD.

In order to meet typical driveway design standards, and due to the existing wetland pockets located onsite,  
accessing the upland platform is unachievable without wetland and buffer impact. All impervious pavement stormwater  
runoff will be collected and treated and mitigated per NHDES AoT regulations.

(ii) Design and construction methods will be such as to minimize impact upon the wetlands and will include restoration of the site consistent with the permitted use.

The driveway is currently designed to match existing grades as best possible, while "weaving" through the site  
to minimize wetland and buffer impact.

(iii) There is no feasible alternative route on land controlled by the applicant that does not cross the CO District nor has less detrimental impact on the wetlands. Nothing in this Section shall limit the applicant from exploring alternatives with abutting property owners.

The proposed route and grading was determined to be the path of minimal impact, creating a safe driveway  
location taking into account grades and sight distance.

(iv) Economic advantage is not the sole reason for the proposed location of work.

Unfortunately in order to access the buildable upland area, the portions of the COD are required to be impacted.

Based on the configuration, constructing the buildings and driveway in other on-site locations is not a valid option.

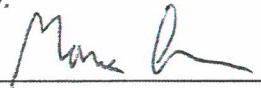
Other on site construction location would impact more wetland and wetland buffer.

*(Buffer Reductions on next page)*

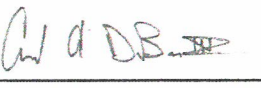
**Submission of application**

This application must be signed by the property owner, applicant/developer (if different from property owner), and/or the agent.

*I (we) hereby submit this Conditional Use application to the City of Rochester Conservation Commission and Planning Board pursuant to the City of Rochester Zoning Ordinance and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As applicant/developer (if different from property owner)/as agent, I attest that I am duly authorized to act in this capacity.*

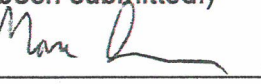
Signature of property owner:   
Date: 2/18/21

Signature of applicant/developer: Same as Owner  
Date: 2/18/21

Signature of agent:   
Date: 2020-02-23

**Authorization to enter subject property**

I hereby authorize members of the Rochester Conservation Commission and Planning Board, and other pertinent City departments, boards and agencies to enter my property for the purpose of evaluating this application including performing any appropriate inspections. This authorization applies specifically to those particular individuals legitimately involved in evaluating, reviewing, or inspecting this specific application/project. It is understood that these individuals must use all reasonable care, courtesy, and diligence when entering the property. (It is not necessary to sign this provision if a Planning Board application has been submitted.)

Signature of property owner:   
Date: 2/18/21



\*\*\*\*\*

Conservation Commission Recommendation:

[office use only]

Name of project

Case #

Recommendation:

- ☐ Approval
- ☐ Approval with conditions
- ☐ Denial

Comments/recommended conditions:

Conservation Commission

date

Planning Department

date



**Application for Waiver from Regulation**

**City of Rochester, New Hampshire**

Project name EFI Express

Case # pending

Subdivision:        Lot line revision:        Site Plan: X Minor Site Plan:       

Section and subsection of the Site Plan Regulations from which the waiver is requested (including identifying number, title, and description of provision):

Section 5 - Landscaping. Regulations require landscaping plan to be created

**OR** - Article, section, and subsection of the Site Plan Regulations from which the waiver is requested (including identifying number, title, and description of provision):

Reason/justification(s) for waiver request The current lot is entirely wooded, and the building envelope  
will be behind a visual barrier of natural growth. All disturbed areas are proposed to be loamed and seeded.

Project is proposing to minimize land/tree disturbance and maintain as much existing growth as possible.

Name of applicant or agent filling out this form A. Cory DuBois

Applicant?        Agent? X **Today's date** 2021-02-18

----- Office use below -----

Waiver approved:        Waiver denied:       

Comments:       

Signature:        Date:



**Application for Waiver from Regulation**

**City of Rochester, New Hampshire**

Project name EFI Express

Case # pending

Subdivision:        Lot line revision:        Site Plan: X Minor Site Plan:       

Section and subsection of the Site Plan Regulations from which the waiver is requested (including identifying number, title, and description of provision):

Section 7(F) - Signage Design. Regulations require submittal of signage package for review.

Signage is not designed, applicant will review with City prior to permit issuance.

**OR** - Article, section, and subsection of the Site Plan Regulations from which the waiver is requested (including identifying number, title, and description of provision):

Reason/justification(s) for waiver request Currently the applicant does not have signage designed,  
due to the current project timeline and status. Applicant is aware review of all signage is a prerequisite  
prior to permit being issued. Applicant will coordinate with City as project advances.

Name of applicant or agent filling out this form A. Cory DuBois

Applicant?        Agent? X **Today's date** 2021-02-18

----- Office use below -----

Waiver approved:        Waiver denied:       

Comments:       

Signature:        Date:





**Application for Waiver from Regulation**  
**City of Rochester, New Hampshire**

Project name EFI Express

Case # pending

Subdivision:        Lot line revision:        Site Plan: X Minor Site Plan:       

Section and subsection of the Site Plan Regulations from which the waiver is requested (including identifying number, title, and description of provision):

Section 10(A) - Parking. Regulations require 40 surface parking spaces, providing 38 surface a  
22+/- internal parking spaces

**OR** - Article, section, and subsection of the Site Plan Regulations from which the waiver is requested (including identifying number, title, and description of provision):

Reason/justification(s) for waiver request Proposed parking is currently more than operations  
requires, based on current business model and customers. Attempting to reduce the impervious  
pavement where possible.

Name of applicant or agent filling out this form A. Cory DuBois

Applicant?        Agent? X **Today's date** 2021-02-18

----- Office use below -----

Waiver approved:        Waiver denied:       

Comments:       

Signature:        Date:

# EFI EXPRESS

## SITE DEVELOPMENT DRAWINGS

TAX MAP 257 LOT 66 · TEBBETTS ROAD

ROCHESTER · NEW HAMPSHIRE · 03867

FEBRUARY 23, 2021

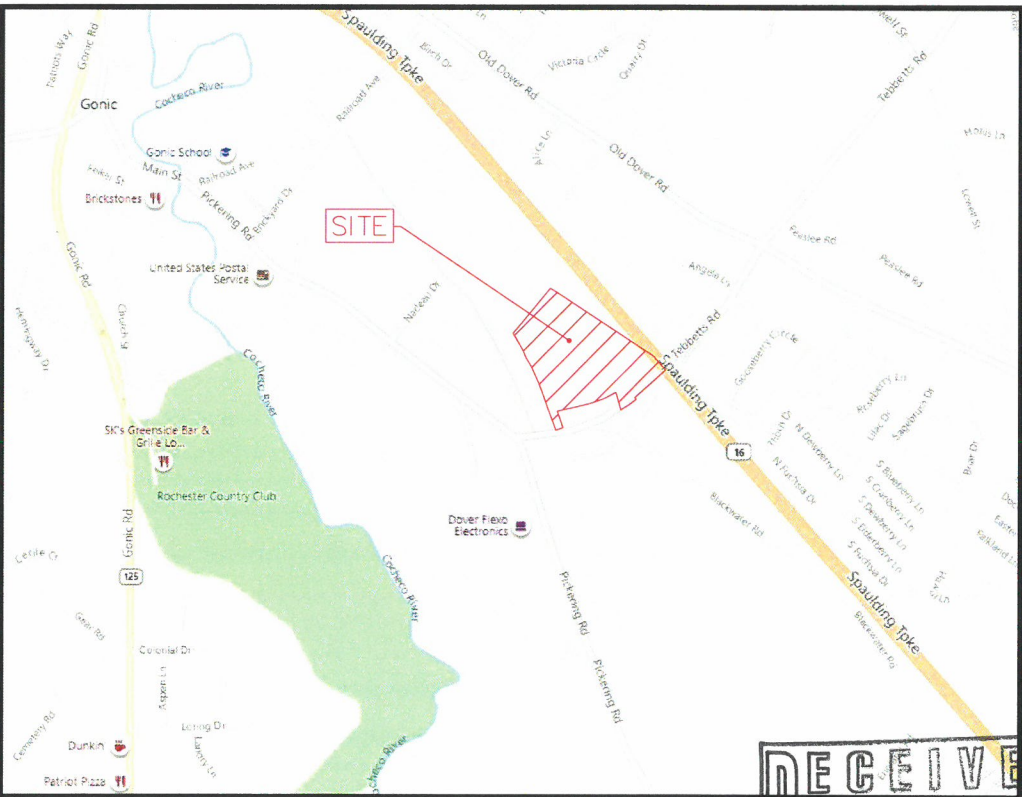
PREPARED FOR  
**EFI EXPRESS, LLC**  
C/O MARC SWANSON  
61 THOMPSON MILL ROAD  
LEE, NH 03861  
**SHEET INDEX**



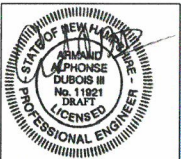
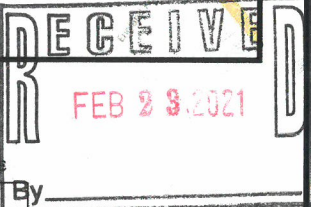
PREPARED BY  
**FUSS & O'NEILL**  
50 COMMERCIAL STREET  
MANCHESTER, NEW HAMPSHIRE 03101  
603.668.8223  
www.fando.com

REVISION DATE

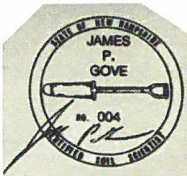
SHEET NO.	SHEET NAME
GI-001	COVER SHEET
GI-101 - GI-102	GENERAL NOTES
BD-101	BOUNDARY PLAN
EX-101	LOT OVERVIEW EXISTING CONDITIONS PLAN
EX-102	SITE PAD EXISTING CONDITIONS PLAN
CP-101	SITE PAD DEMOLITION PLAN
CS-101	SITE PAD SITE PLAN
CT-101	SITE PAD TRAFFIC - CIRCULATION PLAN
CT-102	SITE PAD TRAFFIC DRIVEWAY SIGHT-DISTANCE PLAN
CG-101	SITE PAD GRADING, DRAINAGE, AND EROSION CONTROL
CG-102	SITE PAD WETLAND IMPACT PLAN
CU-101	SITE PAD UTILITY PLAN
CU-102	SITE PAD UTILITY LIGHTING PLAN
CU-103	SITE PAD UTILITY SEPTIC PLAN
CU-104	SITE PAD UTILITY SEPTIC DETAILS
LP-101	SITE PAD LANDSCAPE PLAN
LP-102	SITE PAD LANDSCAPE DETAILS
CD-501	CIVIL DETAILS - PAVEMENT & SIDEWALK
CD-502	CIVIL DETAILS - SIGNAGE & PAVEMENT MARKINGS
CD-503	CIVIL DETAILS - ELECTRIC AND LIGHTING
CD-504	CIVIL DETAILS - WATER AND SEWER
CD-505	CIVIL DETAILS - STORMWATER
CD-506	CIVIL DETAILS - STORMWATER
CD-507	CIVIL DETAILS - STORMWATER & TESTPIT DATA
CD-508	CIVIL DETAILS - EROSION CONTROL
CD-509	CIVIL DETAILS - EROSION CONTROL
	ARCHITECTURAL PLANS
	(11"x17" - BY OTHERS, UNDER SEPARATE COVER)



LOCATION MAP  
SCALE: 1" = 1000'



PLANS UNDER DESIGN  
DEVELOPMENT. ISSUED  
FOR INTERIM REVIEW  
ONLY. NOT FOR  
CONSTRUCTION



APPROVAL OF THE PLANNING BOARD  
OF ROCHESTER, NH

SIGNATURE	DATE
CHAIR	

THE SIGNATURE OF THREE (3) OR MORE OF THE PLANNING BOARD  
MEMBERS INDICATES APPROVAL OF THIS PLAN

CITY DEPARTMENT REVIEWS

SIGNATURE	DATE
ROCHESTER POLICE DEPARTMENT	
ROCHESTER POLICE DEPARTMENT	
ROCHESTER PUBLIC WORKS DEPARTMENT	
THIS APPLICATION HAS BEEN REVIEWED BY THESE DEPARTMENTS, WHICH HAVE OFFERED COMMENTS TO THE PLANNING BOARD.	

### REQUIRED APPROVALS

PLANNING BOARD	PERMIT #	DATE APPROVED	EXPIRATION DATE
<b>SITE PLAN</b>			
<b>WAIVER</b>			
SECTION 5 - ALLOW OMISSION OF LANDSCAPING PLAN	PENDING	PENDING	-
SECTION 7(F) - SIGNAGE TO BE REVIEWED PRIOR TO INSTALL	PENDING	PENDING	-
SECTION 10(A) - ALLOW 38 SPACES WHERE 40 ARE REQUIRED	PENDING	PENDING	-
<b>DPW</b>			
<b>STORMWATER</b>	PENDING	PENDING	-
<b>DRIVEWAY</b>	PENDING	PENDING	-
<b>ZONING BOARD</b>			
<b>VARIANCES</b>			
275-23.2.A(1)(k) - 1,300SF ACCESSORY/SECURITY APARTMENT	PENDING	PENDING	-
800SF ALLOWED BY ZONING			
<b>NHDES</b>			
ALTERATION OF TERRAIN (AOT)	PENDING	PENDING	-
WETLAND IMPACT PERMIT	PENDING	PENDING	-
SEWAGE DISPOSAL SYSTEM	PENDING	PENDING	-

PROJ. No.: 20200646.A10  
DATE: JANUARY 2020











GI-001



EXIST	PROP
-------	------

GUARD RAIL  
STOCKADE FENCE  
WIRE FENCE  
CHAIN LINK FENCE  
TREE LINE  
SHRUB LINE  
STONE WALL  
RETAINING WALL

2 ——— 4 ——— MINOR CONTOUR  
10 ——— 20 ——— MAJOR CONTOUR  
—— TS ——— TOP of SLOPE  
—— BS ——— BOTTOM of SLOPE

		<b>BUILDING</b>
		<b>BOLLARD</b>
		<b>SIGN</b>
		<b>DOUBLE SIGN</b>
		<b>PARKING METER</b>





**PARKING COUNT**  
**CROSSWALK**



CONC. PAVEMENT  
PAVEMENT

 **HANDICAP RAMP**  
 **HANDICAP PARKING**  
 **VAN-ACCESSIBLE**  
 **HANDICAP PARKING**

		<b>TOP &amp; BOTTOM ELEVATION</b>
		<b>SPOT ELEVATION w/LEADER</b>
		<b>SPOT ELEVATION</b>
		<b>SOIL BORING</b>
		<b>MONITORING WELL</b>
		<b>TEST PIT LOCATION</b>
		<b>IRON PIPE</b>
		<b>DRILL HOLE</b>
		<b>IRON PIN</b>
		<b>MONUMENT</b>
		<b>MAIL BOX</b>
		<b>CONTROL POINT</b>

— SILT — SILT FENCE  
 HAYBALES





























## GENERAL

APRX.	APPROXIMATE	PCC	PRE CAST
BIT.	BITUMINOUS		CONCRETE CURB
BB	BOTTOM OF WALL	PROP	PROPOSED
CW	CONCRETE CURB	REM	REMOVE
BCC	CAPE CODE BERM	R&D	REMOVE AND DISPOSE
CONC.	CONCRETE	R&R	REMOVE AND RESET
ELEV	ELEVATION	R&S	REMOVE AND STACK
EXIST	EXISTING	TOS	TOP OF SLOPE
GC	GRANITE CURB	TW	TOP OF WALL
MAX	MAXIMUM	TYP	TYPICAL
MIN	MINIMUM	VGC	VERTICAL GRANITE CURB
NTS	NOT TO SCALE		

UTILITY		INV	INVERT ELEVATION
CB	CATCH BASIN	PVC	POLYVINYL
CMP	CORRUGATED METAL PIPE		CHLORIDE PIPE
CON	CORRUGATED	RCP	REINFORCED
	POLYETHYLENE PIPE		CONCRETE PIPE
DCB	DOUBLE CATCH BASIN	RD	ROOF DRAIN
DI	DUCTILE IRON PIPE	SMH	SEWER MANHOLE
FRG	FRAME AND GRATE	TSV	TAPPING SLEEVE,
F&C	FRAME AND COVER		VALVE AND BOX
HDP	HIGH DENSITY	UP	UTILITY POLE
	POLYETHYLENE PIPE		
HYD	HYDRANT		

---

_____ D _____	STORM DRAINAGE PIPE
_____ U _____	UNDERDRAIN
_____ S _____	SANITARY SEWER PIPE
_____ OHW _____	OVERHEAD WIRES
_____ W _____	WATER MAIN
_____ G _____	UNDERGROUND GAS
_____ UG ETC _____	UNDERGROUND ELECTRIC

		
		SANITARY MANHOLE
		STORM MANHOLE
		ELECTRIC MANHOLE
		TELEPHONE MANHOLE
		CATCH BASIN
		DOUBLE CATCH BASIN
		WATER VALVE
		FIRE HYDRANT
		UTILITY POLE
		BOLLARD/POST
		SIGN
		GAS GATE
		LIGHT POLE
		FLARED END
		DECIDUOUS TREE

- ## REGULATORY REQUIREMENTS

- ## EROSION AND SEDIMENT CONTROL

- ## NHDES INVASIVE SPECIES NOTES

- NPDES NOTES:**

- NHDES AOT NOTES:**

- STORMWATER BASIN MAINTENANCE NOTES:**

1. EMBANKMENT - THE EMBANKMENT SHOULD BE INSPECTED ANNUALLY TO DETERMINE IF RODENT BURROWS, WET AREAS, OR EROSION OF THE FILL IS TAKING PLACE.
2. VEGETATION - THE VEGETATED AREAS OF THE STRUCTURE SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEED GROWTH. LIME AND FERTILIZER SHOULD BE APPLIED AS NECESSARY AS DETERMINED BY SOIL TESTS. TREES AND SHRUBS SHOULD BE KEPT OFF THE EMBANKMENT AND EMERGENCY SPILLWAY AREAS.
3. SPILLWAY STRUCTURES SHOULD BE INSPECTED ANNUALLY AND AFTER EVERY MAJOR STORM. ACCUMULATED DEBRIS AND SEDIMENT SHOULD BE REMOVED.
4. OUTLETS - PIPE OUTLETS SHOULD BE INSPECTED ANNUALLY AND AFTER EVERY MAJOR STORM. THE CONDITION OF THE PIPES SHOULD BE NOTED AND REPAIRS MADE AS NECESSARY. IF EROSION IS TAKING PLACE THEN MEASURES SHOULD BE TAKEN TO STABILIZE AND PROTECT THE AFFECTED AREA OF THE OUTLET.
5. SEDIMENT - SEDIMENT SHOULD BE CONTINUALLY CHECKED IN THE BASIN. WHEN SEDIMENT ACCUMULATIONS REACH THE PREDETERMINED DESIGN ELEVATION, THEN THE SEDIMENT SHOULD BE REMOVED AND PROPERLY DISPOSED OF.
6. SAFETY INSPECTIONS - ALL PERMANENT IMPOUNDMENTS SHOULD BE INSPECTED BY A QUALIFIED PROFESSIONAL.
7. REFER TO THE INSPECTION AND MAINTENANCE MANUAL, LOCATED WITHIN THE ALTERATION OF TERRAIN STORMWATER MANAGEMENT REPORT.

## PIPES

- GENERAL PLAN NOTES:**

- DEMOLITION PLAN NOTES:

- ### PROPOSED DRAINAGE SCHEDULE

DRAINAGE PIPE TABLE							
FROM	INV	OUT	TO	INV	L (FT)	SLOPE	DIA. TYPE
CB11	191.60			191.50	22	0.005	12" HDPE
CB12	191.80		CB11	191.70	22	0.005	12" HDPE
CB13	189.40		CB14	189.30	22	0.005	12" HDPE
CB14	189.20		FES15	189.00	30	0.007	12" HDPE
CB21	192.00		CB23	191.50	101	0.005	12" HDPE
CB22	192.00		CB23	191.50	99	0.005	12" HDPE
CB23	191.00		CB26	190.45	63	0.009	18" HDPE
CB25	191.10		CB26	190.95	28	0.005	12" HDPE
CB26	190.35			188.35	60	0.034	18" HDPE
FES32	190.20		FES33	186.00	53	0.079	30" CMP
OS30	190.80			190.60	29	0.007	12" HDPE

STRUCTURE	RIM	DIA.
CB11	196.8	4
CB12	196.8	4
CB13	194.3	4
CB14	194.3	4
CB21	196.0	4
CB22	196.0	4
CB23	196.0	4
CB25	195.1	4
CB26	195.3	4
FES15	190.0	N/A
FES16	191.5	N/A
FES25	190.0	N/A
FES31	190.6	N/A
FES32	190.2	N/A
FES33	186.0	N/A
OS30	192.0	4

1. DESIGNED WITH A MINIMUM 3' OVER OVER ALL DRAINAGE LINES.
2. REFER TO DETAILS SHEET FOR STRUCTURE AND PIPE RUN DETAILS.

**PROPOSED STRUCTURES:**

- BUILDING#1  
FF=197.0  
INV. OUT (6" PVC) = 191.15  
L=70', 6" PVC, S=0.020

- BUILDING#2  
FF=197.0  
INV. OUT (6" PVC) = 191.15  
L=95', 6" PVC, S = 0.027

- CONN#3  
ELEV=197.0  
INV. OUT (6" PVC) = 191.15  
L = 23', 6" PVC, S = 0.083

- SEPTIC TANK - 1,500 GALLON  
RIM = 197.0±  
INV. IN (6" PVC) = 188.25 (ALL INVERTS)  
INV. OUT (6" PVC) = 188.00 (TO LEACHFIELD)  
SEE SEPTIC PLAN CU-103 FOR MORE INFORMATION

- SEWER SCHEDULE NOTES:**
1. SEE DETAIL SHEET CU-103 FOR ADDITIONAL SYSTEM DESIGN INFORMATION
  2. MINIMUM 6.0" COVER OVER ALL SEWER LINES AND SEWER SERVICES.
  3. IN AREAS WITH LESS THAN 6" COVER, INSTALL 2" THICK X 5' WIDE BLUEBOARD INSULATION ABOVE SEWER LINE.
  4. REFER TO DETAILS SHEET FOR STRUCTURE AND PIPE RUN DETAILS.
  5. INSTALL CLEANOUTS AT ALL BENDS AND A MAXIMUM OF EVERY 75'.


### PROPOSED SEWER FLOWS

- |  |                                |                       |
|--|--------------------------------|-----------------------|
| PER TABLE 1008-1 OF ENV-WQ 1000                        |                                |                       |
| FACTORIES/WAREHOUSE (10 GPD PER EMPLOYEE)              | = 4 EMPLOYEES NOW, 8 IN FUTURE | = 80 GALLONS PER DAY  |
| TRANSIENTS (5GPD/TRANSIENT)                            | = UP TO 10 TRANSIENTS PER DAY  | = 50 GALLONS PER DAY  |
| 2BR ACCESSORY/SECURITY APARTMENT                       |                                | = 300 GALLONS PER DAY |
| RECREATIONAL CAMPGROUND WITH 3-WAY HOOKUP (60GPD/SITE) | = TWO (2) SITES                | = 120 GALLONS PER DAY |

- TOTAL ESTIMATE FLOW = 550 GALLONS PER DAY  
DESIGN FOR MINIMUM OF 600 GALLONS PER DAY

[illegible]

PLANS UNDER DESIGN  
DEVELOPMENT. ISSUED  
FOR INTERIM REVIEW  
ONLY. NOT FOR  
CONSTRUCTION

SCALE:	
HORIZ.:	
VERT.:	
DATUM:	
HORIZ.:	NAD83 - NH83
VERT.:	NAVD88
	
GRAPHIC SCALE	

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[www.fando.com](http://www.fando.com)

EFI EXPRESS  
GENERAL NOTES  
PLAN  
TAX MAP 257 LOT 66  
0 TEBBETTS ROAD  
NEW HAMPSHIRE  
ROCHESTER

PROJ. No.: 20200646.A10
DATE: JANUARY 2021










GI-101









- |   |                            |   |                                      |
|---|----------------------------|---|--------------------------------------|
|  | <i>Granite Bound Found</i> |  | <i>Barb Wire Fence</i>               |
|  | <i>Iron Pin Found</i>      |  | <i>Sign</i>                          |
|  | <i>Iron Pipe Found</i>     |  | <i>Deciduous Tree w/Barbed Wire</i>  |
| NHHB  | <i>NH Highway Bound</i>    |  | <i>Coniferous Tree w/Barbed Wire</i> |
|  | <i>Hydrant</i>             |   |                                      |
|  | <i>Catch Basin</i>         | A. G.   | <i>Above Grade</i>                   |
|   |                            | B. G.   | <i>Below Grade</i>                   |

PARCEL 0141-0033  
27 NADEAU DRIVE  
N/F  
JAEGER USA INC.  
BOOK 4288 PAGE 208

PARCEL 0253-0085  
TEBBETTS ROAD  
N/F  
STATE OF NEW HAMPSHIRE  
BOOK 644 PAGE 98

PARCEL 0257-0066  
TEBBETTS ROAD  
N/F  
EFI EXPRESS, LLC  
BOOK 4790 PAGE 951  
AREA: 28.6 AC±  
(Per Tax Card)

PARCEL 0257-0061  
TEBBETTS ROAD  
N/F  
CITY OF ROCHESTER  
BOOK 924 PAGE 397

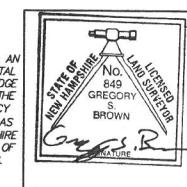
LIMIT OF  
BOUNDARY SURVEY

TEBBETTS ROAD  
Variable Width-Public  
(See N.H. Project P-2692-X)

### NH CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL GROUND SURVEY PERFORMED WITH A TOTAL STATION AND THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF, SAID SURVEY MEETS OR EXCEEDS THE MINIMUM PRECISION AND/OR ACCURACY REQUIREMENTS FOR SURVEY CLASSIFICATION "U" AS SET FORTH IN TABLE 500.1 OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSEURE FOR LAND SURVEYORS, EFFECTIVE 11/1/16.

DATE: 2-18-202



GREGORY S. BROWN, LLS #184  
For and on Behalf of  
Fuss & O'Neill, Inc.

[illegible]

**FUSS & O'NEILL**



**EFI EXPRESS**  
61 THOMPSON MILL ROAD  
LEE, NEW HAMPSHIRE  
BOOK 4790 PAGE 951

PARTIAL BOUNDARY  
LAND OF EFI EXPRESS  
TAX MAP PARCEL 0257-0066  
TEBBETTS ROAD  
ROCHESTER, NEW HAMPSHIRE  
STRAFFORD COUNTY

PROJ. No.: 20200646A10  
DATE: 10/19/2020  
SCALE: 1"=100'

BD-101



1. REFER TO SHEETS GI-101 AND GI-102 FOR RELATED PLAN NOTES.

PLANS UNDER DESIGN  
DEVELOPMENT. ISSUED  
FOR INTERIM REVIEW  
ONLY. NOT FOR  
CONSTRUCTION

SCALE:	HORIZ.: 1"=100'
	VERT.:
DATUM:	
	HORIZ.: NAD83 - NH83
	VERT.: NAVD88

0

GRAPHIC SCALE



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 MANCHESTER, NEW HAMPSHIRE 03101  
 TEL 603.533.1100  
[www.fussco.com](http://www.fussco.com)

EFI EXPRESS  
LOT OVERVIEW  
EXISTING CONDITIONS PLAN  
TAX MAP 257 LOT 66  
TEBBETTS ROAD  
NEW HAMPSHIRE  
ROCHESTER

PROJ. No.: 20200646.A10
DATE: JANUARY 2021
EX-101







[illegible]

PLANS UNDER DESIGN  
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ONLY. NOT FOR  
CONSTRUCTION

SCALE:	
HORIZ.: 1"=40'	
VERT.:	
DATUM:	
HORIZ.: NAD83 - NH83	
VERT.: NAVD88	
	GRAPHIC SCALE



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**EFI EXPRESS  
SITE PAD  
DEMOLITION PLAN  
TAX MAP 257 LOT 66  
TEBBETTS ROAD  
ROCHESTER  
NEW HAMPSHIRE**

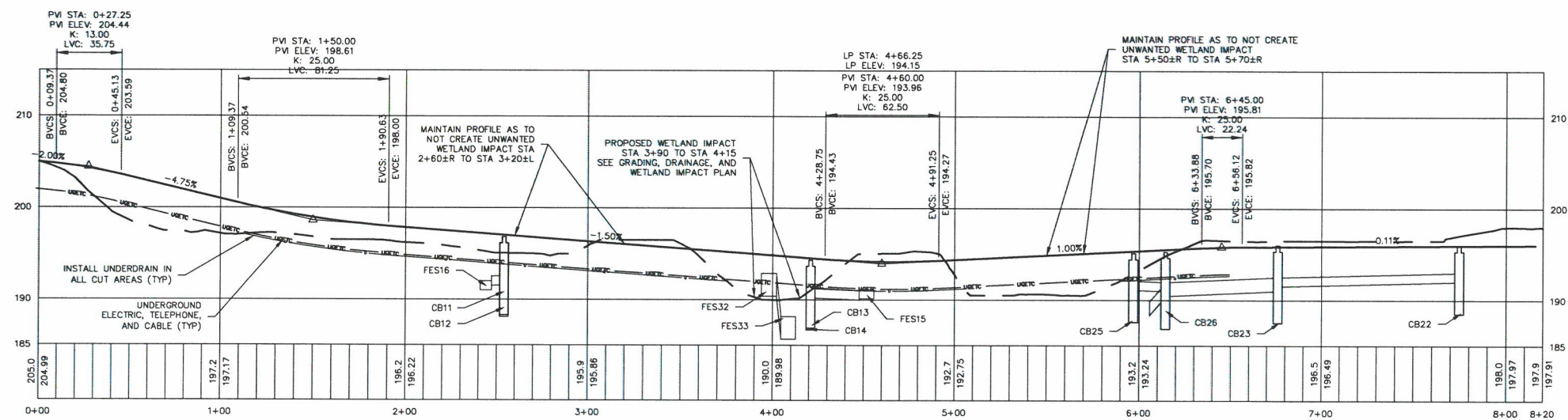
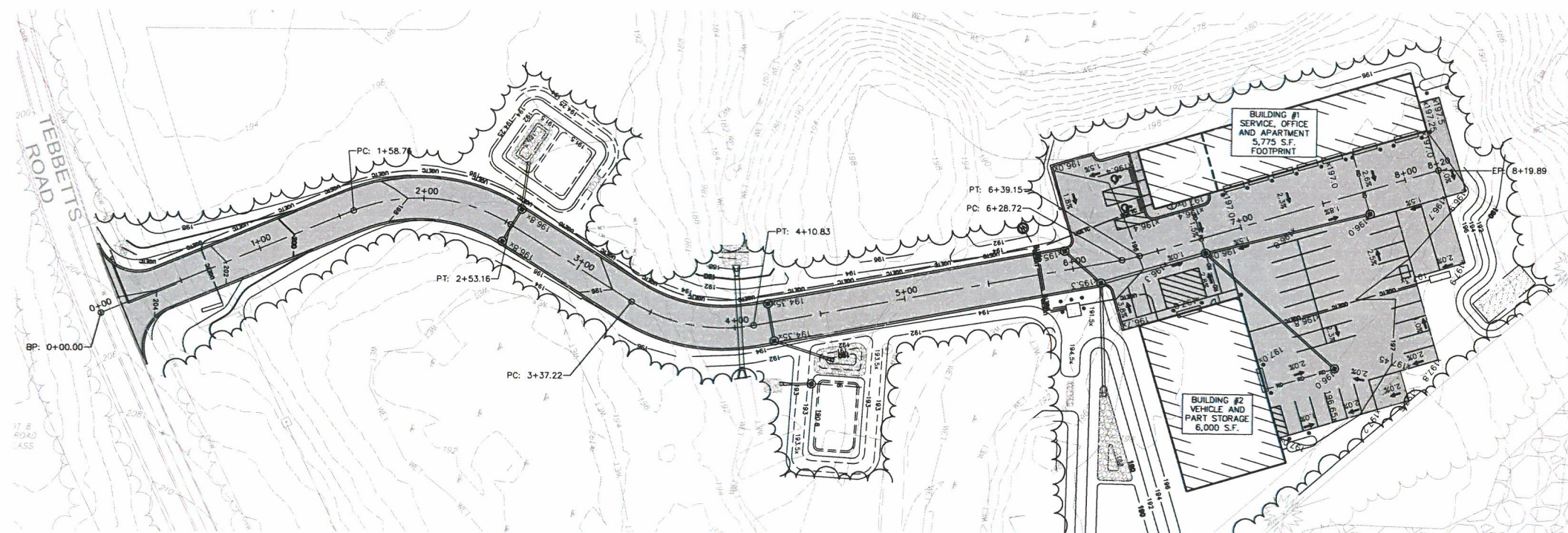
PROJ. No.: 20200646.A10
DATE: JANUARY 2021

CP-101







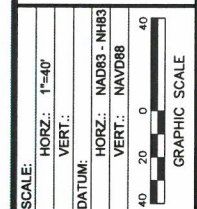


**DRIVEWAY PROFILE**  
H: 1"=40'    V: 1"=8'

DRIVEWAY PROFILE NOTES:

[illegible]

PLANS UNDER DESIGN  
DEVELOPMENT. ISSUED  
FOR INTERIM REVIEW  
ONLY. NOT FOR  
CONSTRUCTION



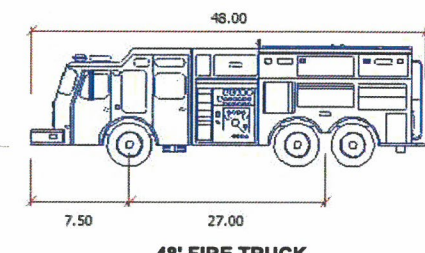
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MANCHESTER, NEW HAMPSHIRE 03101  
603.668.8223  
[www.fundo.com](http://www.fundo.com)

EF1 EXPRESS  
 SITE PAD  
 DRIVEWAY PROFILE  
 TAX MAP 257 LOT 66  
 TEBBETTS ROAD  
 ROCHESTER NEW HAMPSHIRE

PROJ. No.: 20200646.A10
DATE: JANUARY 2021


CR-101





1. REFER TO SHEETS GI-101 AND GI-102 FOR RELATED PLAN NOTES.

PLANS UNDER DESIGN  
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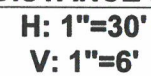
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DATE: JANUARY 2021

CT-101



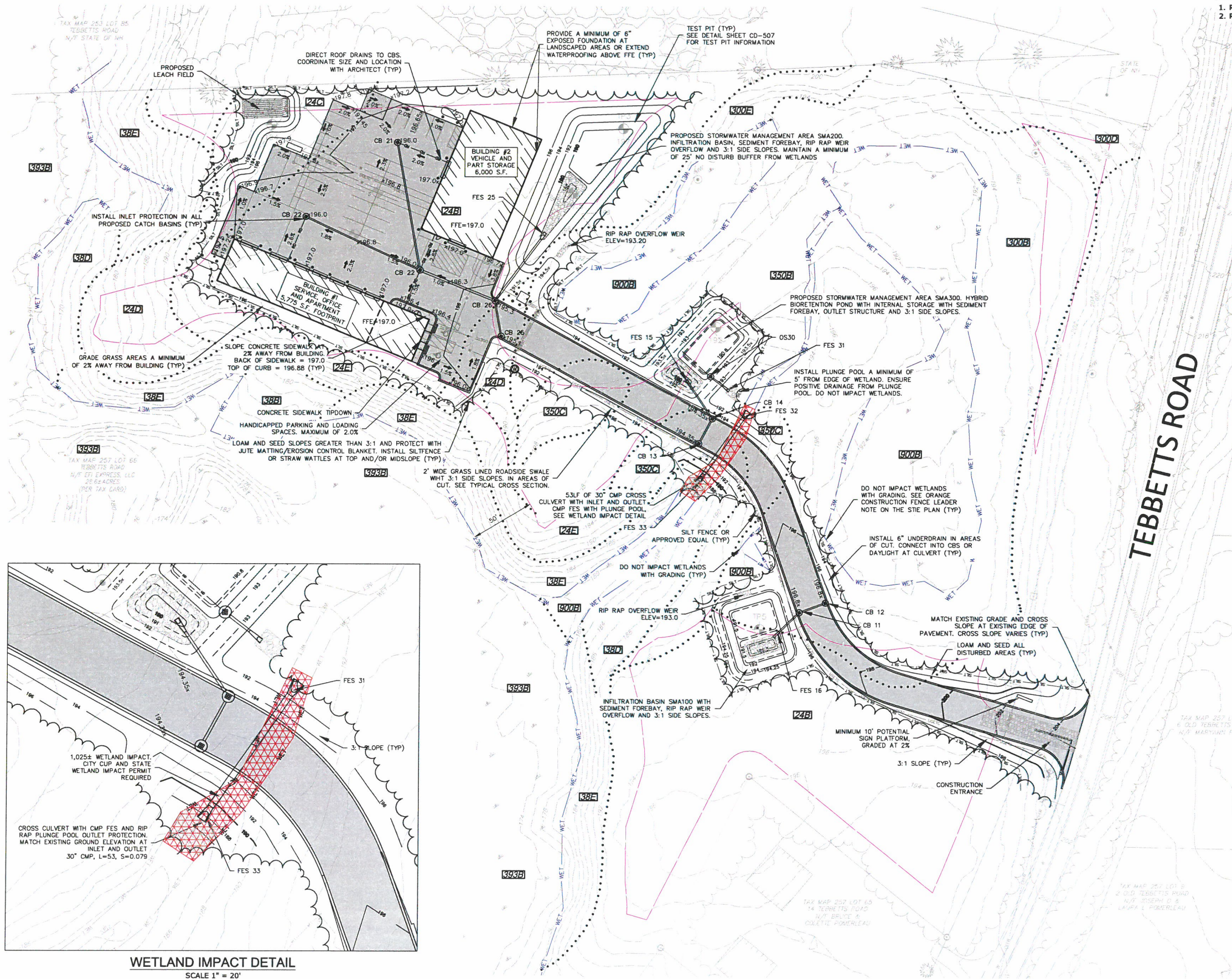


1. PURPOSE OF THIS PLAN: TO ILLUSTRATE SIGHT DISTANCE AT THE PROPOSED DRIVEWAY INTERSECTION AT TEBBETTS ROAD.
2. DESIGN CRITERIA IS BASED ON SECTION 14.C OF THE CITY OF ROCHESTER SITE PLAN REGULATIONS, REQUIREMENT OF A MINIMUM OF 250' SIGHT DISTANCE IN A 35MPH ZONE.
3. ADDITIONAL DESIGN CRITERIA IS BASED ON "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS" 6TH EDITION, AASHTO RELEASED 2011. PER CHAPTER 9.5 INTERSECTION SIGHT DISTANCE:
  - 3' 6" ABOVE THE PAVEMENT FOR DRIVER'S EYE AND ROADWAY OBJECT
  - DECISION POINT IS 10' FROM THE EDGE OF ROAD PAVEMENT
  - REQUIRED LEFT SIGHT DISTANCE IS 250' @35MPH
  - ILLUSTRATED LEFT SIGHT DISTANCE IS 400' +
  - REQUIRED RIGHT SIGHT DISTANCE IS 250' @35MPH
  - ILLUSTRATED RIGHT SIGHT DISTANCE IS 300' +
4. IT SHALL BE THE PROPERTY OWNER'S RESPONSIBILITY TO MAINTAIN ALL SEASON SIGHT DISTANCE VISIBILITY BY TRIMMING OF VEGETATION AS NEEDED/REQUIRED AND PROPER ON SITE SNOW REMOVAL STORAGE
5. PE STAMP ENDORSES PROPOSED CONDITIONS BASED ON PROVIDED INFORMATION FOR SIGHT DISTANCE OF SURVEYED INFORMATION AND CONDITIONS ONLY.
6. REFER TO THE PROPOSED PLAN SET FOR FULL DESIGN AND NOTES



CT-102

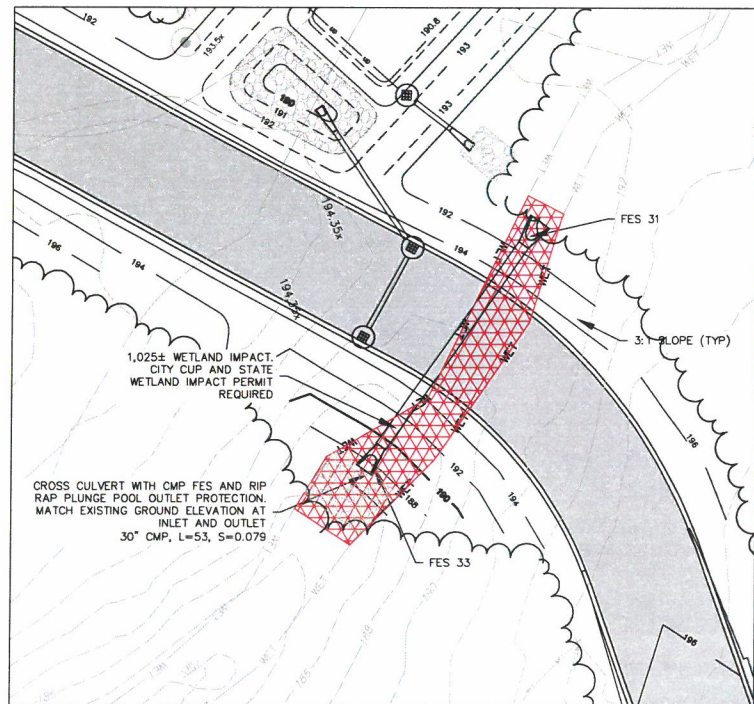




**GRADING PLAN NOTES:**  
1. REFER TO SHEETS GI-101 AND GI-102 FOR RELATED PLAN NOTES.  
2. REFER TO SHEET GI-101 FOR DRAINAGE SCHEDULE.

DRAINAGE PIPE TABLE							
FROM	INV OUT	TO	INV IN	L (FT)	SLOPE	DIA.	TYPE
CB11	191.60		191.50	22	0.005	12"	HDPE
CB12	191.80	CB11	191.70	22	0.005	12"	HDPE
CB13	190.40	CB14	190.30	22	0.005	12"	HDPE
CB14	190.20	FES15	190.00	30	0.007	12"	HDPE
CB21	192.00	CB23	191.50	101	0.005	12"	HDPE
CB22	192.00	CB23	191.50	99	0.005	12"	HDPE
CB23	191.00	CB26	190.45	63	0.009	18"	HDPE
CB25	191.10	CB26	190.95	28	0.005	12"	HDPE
CB26	190.35		188.35	60	0.034	18"	HDPE
FES32	190.20	FES33	186.00	53	0.079	30"	CMP
OS30	190.80		190.60	12	0.017	12"	HDPE

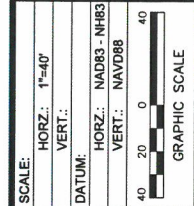
DRAINAGE STRUCTURE TABLE		
STRUCTURE	RIM	DIA.
CB11	196.8	4
CB12	196.8	4
CB13	194.3	4
CB14	194.3	4
CB21	196.0	4
CB22	196.0	4
CB23	196.0	4
CB25	195.1	4
CB26	195.3	4
FES15	190.0	N/A
FES16	191.5	N/A
FES25	190.0	N/A
FES31	190.6	N/A
FES32	190.2	N/A
FES33	186.0	N/A
OS30	192.0	4



**WETLAND IMPACT DETAIL**  
SCALE 1" = 20'

DESIGNER		REVIEWER	
ACD	DESIGNER	ACD	REVIEWER
No.	DATE	No.	DATE

PLANS UNDER DESIGN  
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EFI EXPRESS  
SITE PAD GRADING, DRAINAGE,  
EROSION CONTROL PLAN, AND  
WETLAND IMPACT PLAN  
TAX MAP 257 LOT 66  
TEBBETTS ROAD  
ROCHESTER NEW HAMPSHIRE

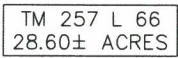
PROJ. No.: 20200646.A10  
DATE: JANUARY 2021

**CG-101**









```
StatArea
Illuminance (Fc)
Average = 1.03
Maximum = 3.8
Minimum = 0.0
Avg/Min Ratio = N.A.
Max/Min Ratio = N.A.
```

PLANS UNDER DESIGN  
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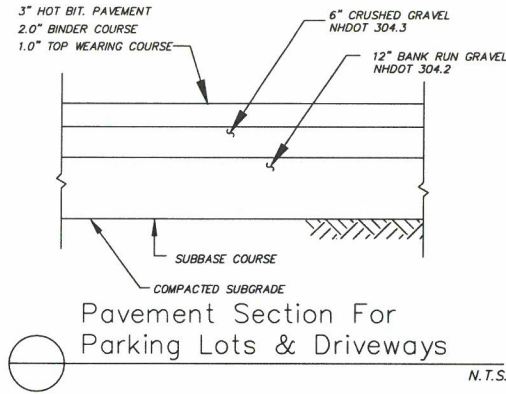
PROJ. No.: 20200646.A10
DATE: JANUARY 2021

CU-102



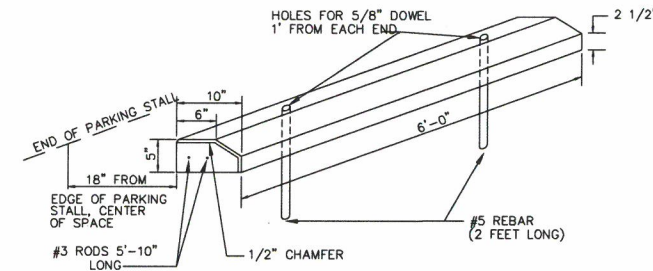






Pavement Section For  
Parking Lots & Driveways

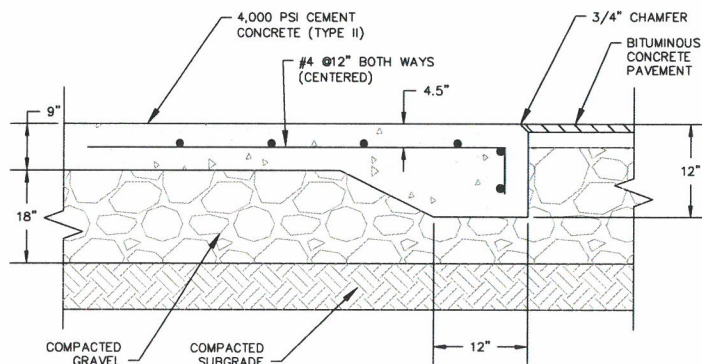
N.T.S.



Precast Concrete Wheel Stop

INSTALL PER HANDICAPPED PARKING SPACE DETAIL

N.T.S.



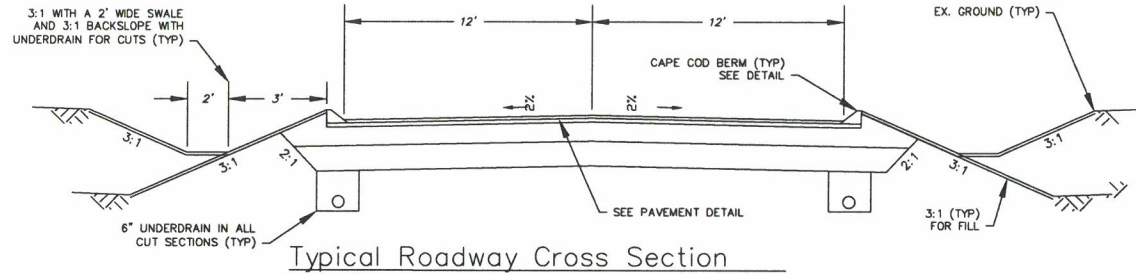
NOTES:  
1. SIZE OF DUMPSTER OR DRIVE THROUGH PAD TO BE AS INDICATED ON PLANS. CONSTRUCTION JOINTS TO BE SET AT INTERVALS OF 1/3 OF LENGTH.

2. DETAIL PROVIDED FOR GENERAL INFORMATION ONLY. FINAL DESIGN TO BE BASED ON GEOTECHNICAL ENGINEERS RECOMMENDATIONS.

3) THE NEED FOR PLACEMENT OF A GEOTEXTILE OVER THE EXISTING FILL SUBGRADES SHOULD BE DETERMINED IN THE FIELD BY THE GEOTECHNICAL ENGINEER.

Dumpster/Compactor & Loading Pads

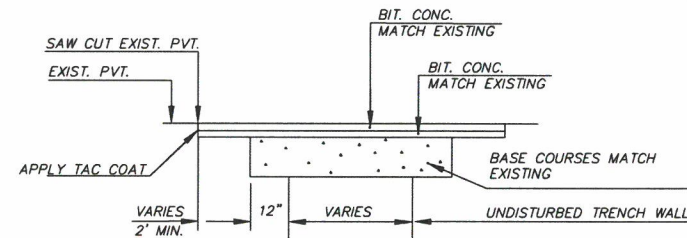
N.T.S.



Typical Roadway Cross Section

ROAD CONSTRUCTION NOTES:  
1. REMOVE ALL LOAM, CLAY, MUCK, STUMPS, AND OTHER IMPROPER ROAD FOUNDATION MATERIAL WITHIN 2' OF CRUSHED GRAVEL. COMPACTION TO BE AT LEAST 95% OF STANDARD PROCTOR.  
2. ALL BASE MATERIALS AND WORKMANSHIP TO BE IN COMPLIANCE WITH N.H.D.O.T. "STANDARDS FOR ROAD AND BRIDGE CONSTRUCTION" LATEST EDITION AND TOWN OF RAYMOND ROAD CONSTRUCTION STANDARDS.

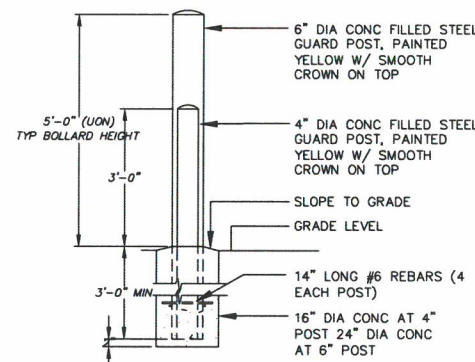
N.T.S.



NOTE: FINAL WEARING COURSE SHALL BE DIAMOND SHAPED

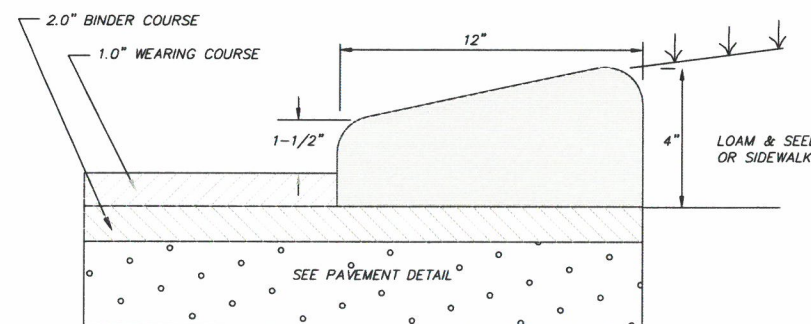
Pavement Patch Without Overlay

N.T.S.



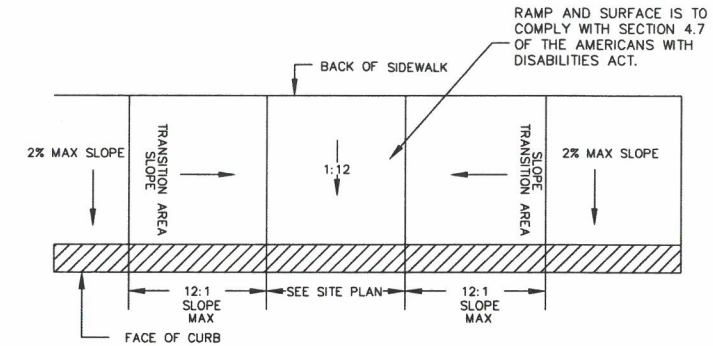
BOLLARD DETAIL

N.T.S.



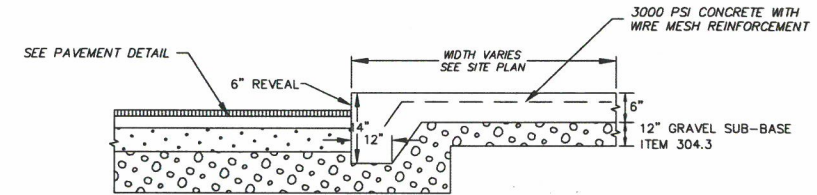
Bituminous Concrete Curb Detail

N.T.S.



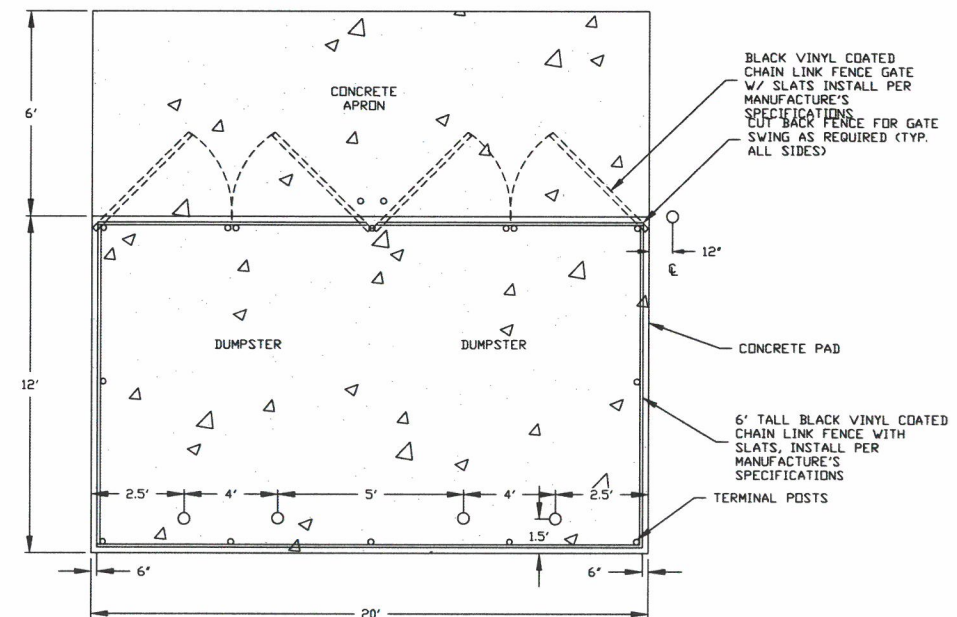
Handicap Sidewalk Ramp

N.T.S.



Integral Curb & Sidewalk

N.T.S.



NOTES:  
1. DUMPSTER ENCLOSURE SHALL BE 6' TALL.  
2. FENCE MATERIAL SHALL BE BLACK COATED CHAIN LINK WITH PRIVACY FLATS.  
3. SEE DUMPSTER PAD DETAIL FOR PAD REQUIREMENTS.  
4. INSTALL FENCING PER MANUFACTURE'S REQUIREMENTS.

Dumpster Enclosure Detail

N.T.S.

DESIGNER	REVIEWER	DATE	No.

PLANS UNDER DESIGN DEVELOPMENT. ISSUED FOR INTERIM REVIEW ONLY. NOT FOR CONSTRUCTION

SCALE:	HORIZ.:	VERT.:	DATUM:	HORIZ.:	VERT.:


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EFI EXPRESS  
CIVIL DETAILS  
PAVEMENT AND SIDEWALK  
TAX MAP 257 LOT 66  
TEBBETTS ROAD  
ROCHESTER  
NEW HAMPSHIRE

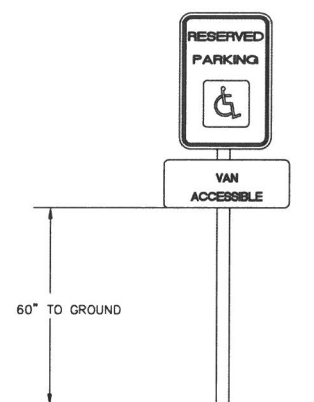
PROJ. No.: 20200646.A10  
DATE: JANUARY 2021

CD-501

Technical drawing of a trapezoidal part. The top width is  $1 \frac{1}{4}$ " and the bottom width is  $3 - \frac{1}{8}$ ". The height is  $1 \frac{9}{16}$ ". The sloped side is dimensioned as  $.164$ ".

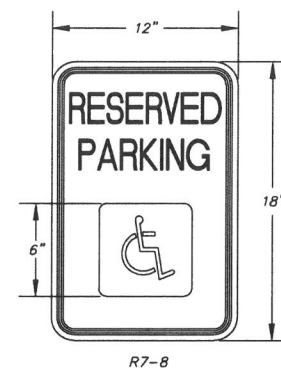


90° CUT  
OPTIONAL

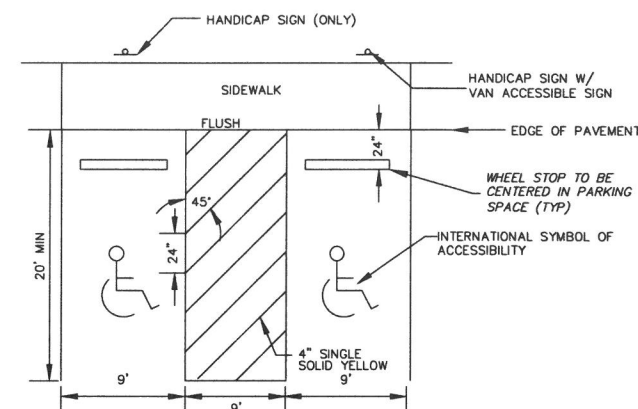


NOTE: VAN ACCESSIBLE SIGN TO BE ATTACHED TO THE SIGN POST UNDER THE STANDARD HANDICAPPED PARKING SIGN WHERE NOTED ON DRAWINGS.

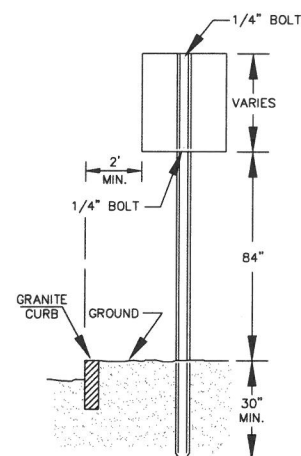
Reserved Parking – Handicap &  
Van Accessible Sign N.T.S.



Reserved Parking  
Handicap Sign

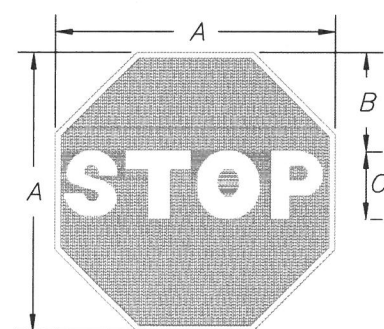


Handicap Parking Space Detail (Van Accessible)



- NOTES
1. POSTS SHALL BE PLUMB; ANY POST BENT OR OTHERWISE DAMAGED SHALL BE REMOVED AND PROPERLY REPLACED.
2. POSTS MAY BE SET OF DRIVEN. WHEN POSTS ARE SET, HOLES SHALL BE DUG TO THE PROPER DEPTH; AFTER INSERTING POSTS, THE HOLES SHALL BE BACK FILLED WITH SUITABLE MATERIAL IN LAYERS NOT TO EXCEED A 6" DEPTH, THOROUGHLY COMPACTED.
3. CARE SHALL BE TAKEN TO PRESERVE THE ALIGNMENT OF THE POST. WHEN POSTS ARE DRIVEN, A SUITABLE DRUG CAP SHALL BE USED AND AFTER DRIVING THE TOP OF THE POST SHALL HAVE SUBSTANTIALLY THE SAME CROSS- SECTIONAL DIMENSION AS THE BODY OF THE POST; BATTERED HEADS WILL NOT BE ACCEPTED.
4. POSTS SHALL NOT BE DRIVEN WITH THE SIGN ATTACHED TO THE POST.
5. SIGNS SHALL BE ERECTED IN CONFORMANCE WITH THE REQUIREMENTS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
6. WHEN SIGN IS IN PLACE NO PART OF POST SHALL EXTEND ABOVE THE SIGN.

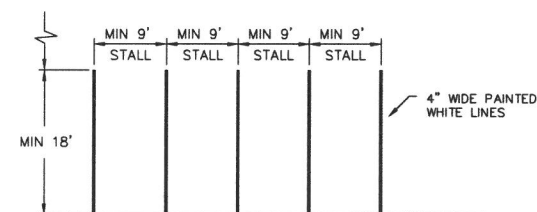
Sign Post



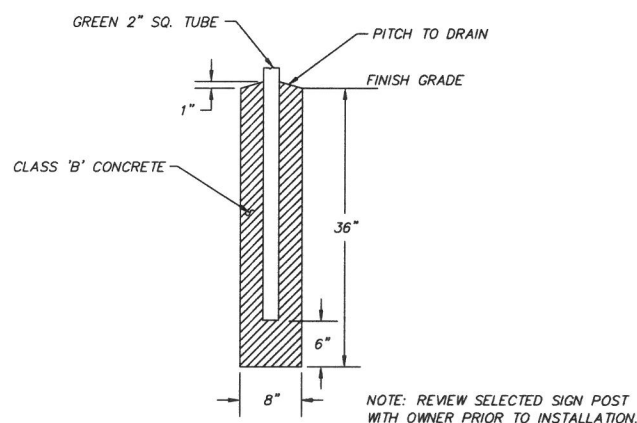
SIGN	DIMENSIONS (INCHES)				
	BIKE	MIN	STD	EXPWY	SPECIAL
A	18	24	30	36	48
B	6	8	10	12	16
C	6	8	10	12	16

COLORS  
LEGEND - WHITE (REFL)  
BACKGROUND - RED (REFL)

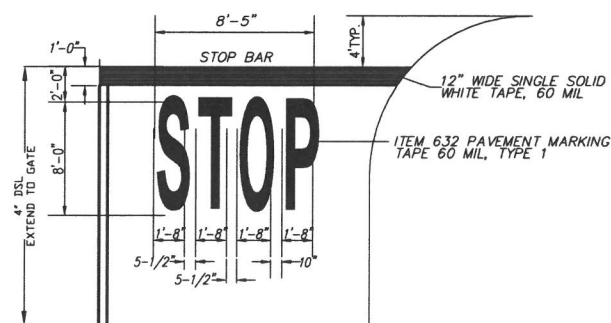
21 Stop Sign  
02890 N.T.S.



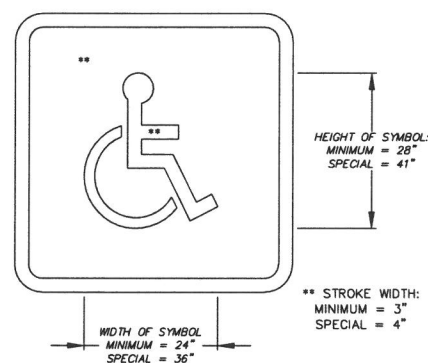
Standard Striping Detail



23 Traffic Sign Post  
02890 N.T.S.



7 Typical Stop Bar  
02760 N.T.S.



## Int'l Symbol of Accessibility Marking

[illegible]

PLANS UNDER DESIGN  
DEVELOPMENT. ISSUE  
FOR INTERIM REVIEW  
ONLY. NOT FOR  
CONSTRUCTION

SCALE: \_\_\_\_\_

HORIZ.: \_\_\_\_\_

VERT.: \_\_\_\_\_

DATUM: \_\_\_\_\_

HORIZ.: \_\_\_\_\_

VERT.: \_\_\_\_\_

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GRAPHIC SCALE

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MANCHESTER, NEW HAMPSHIRE 03101  
603.669.8223



**EFI EXPRESS  
CIVIL DETAILS  
SIGNAGE AND  
PAVEMENT MARKINGS  
TAX MAP 257 LOT 66  
TEBBETTS ROAD  
NEW HAMPSHIRE  
ROCHESTER**

PROJ. No.: 20200646.A10  
DATE: JANUARY 2021

CD-502





UTILITY TRENCH MAY VARY. CONTRACTOR SHALL COORDINATE INSTALLATION WITH EACH UTILITY COMPANY AND INSTALL PER THEIR SPECIFICATIONS AND REQUIREMENTS.

TSU  
Tennessee State University

TD514017EN  
April 9, 2019 2:59 AM

Note: Ornamental fixtures may be substituted;  
coordinate with Owner, Engineer, and Town

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CONSTRUCTION

SCALE:

HORIZ.:

VERT.:

DATUM:

HORIZ.:

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GRAPHIC SCALE

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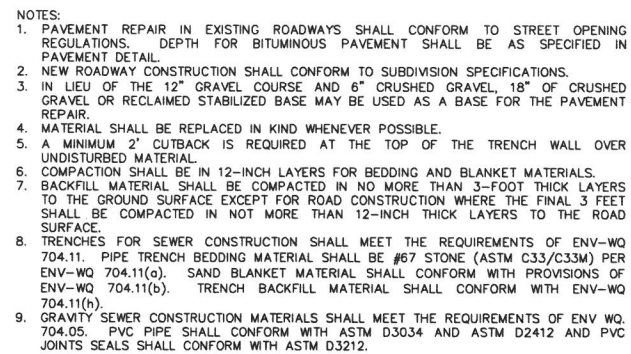


**EFI EXPRESS**  
**CIVIL DETAILS**  
**ELECTRIC AND LIGHTING**  
**TAX MAP 257 LOT 66**  
**TEBBETTS ROAD**  
**ROCHESTER NEW HAMPSHIRE**

PROJ. No.: 20200646.A10  
DATE: JANUARY 2021

CD-503





UNDISTURBED EARTH

CONC. THRUST BLOCK (TYP.)

PLAN - HORIZONTAL BENDS, TEES AND PLUGS

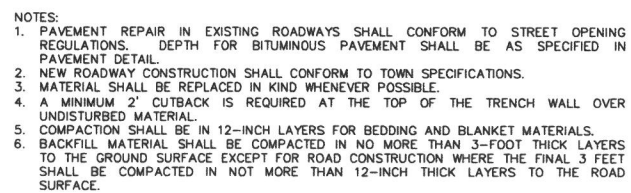
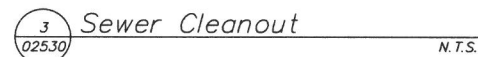
CONCRETE THRUST BLOCK

UNDISTURBED EARTH

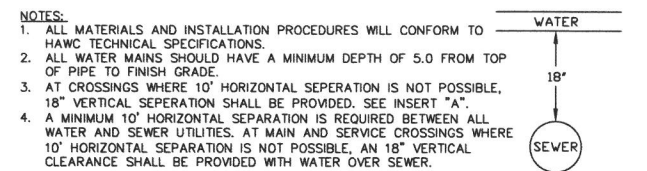
ELEVATION - VERTICAL BENDS

- NOTES**
1. THRUST BLOCK DIMENSIONS TO BE DETERMINED IN FIELD BY ENGINEER BASED ON PIPE SIZE, WATER PRESSURE AND SOIL TYPE.
  2. STONE BACKING MAY BE SUBSTITUTED FOR CONCRETE THRUST BLOCKS PROVIDED THE STONE(S) ARE OF EQUAL SIZE AND BEAR ON UNDISTURBED EARTH.
  3. USE OF JOINT RESTRAINT SYSTEMS SHALL NOT ELIMINATE THRUST BLOCK REQUIREMENTS (WHERE POSSIBLE).

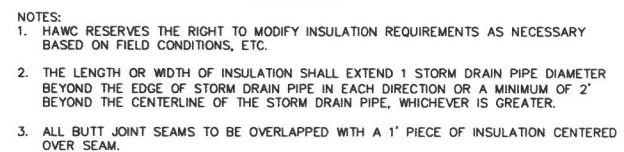
N.T.S.



N.T.S.



N.T.S.



N.T.S.

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DEVELOPMENT. ISSUED  
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**EFI EXPRESS**  
**CIVIL DETAILS**  
**WATER AND SEWER**  
**TAX MAP 257 LOT 66**  
**TEBBETTS ROAD**  
**NEW HAMPSHIRE**  
**ROCHESTER**

PROJ. No.: 20200646.A10
DATE: JANUARY 2021

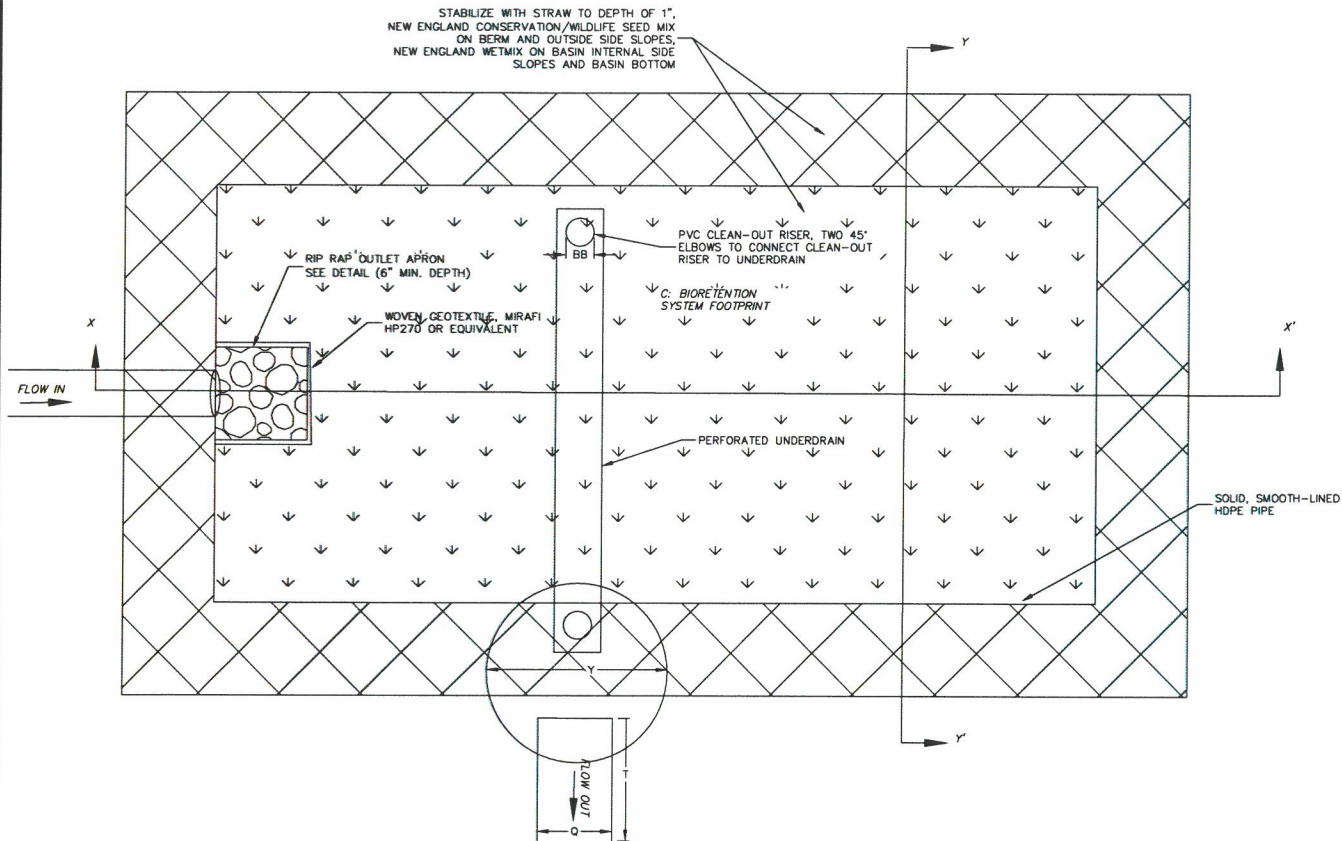
CD-504





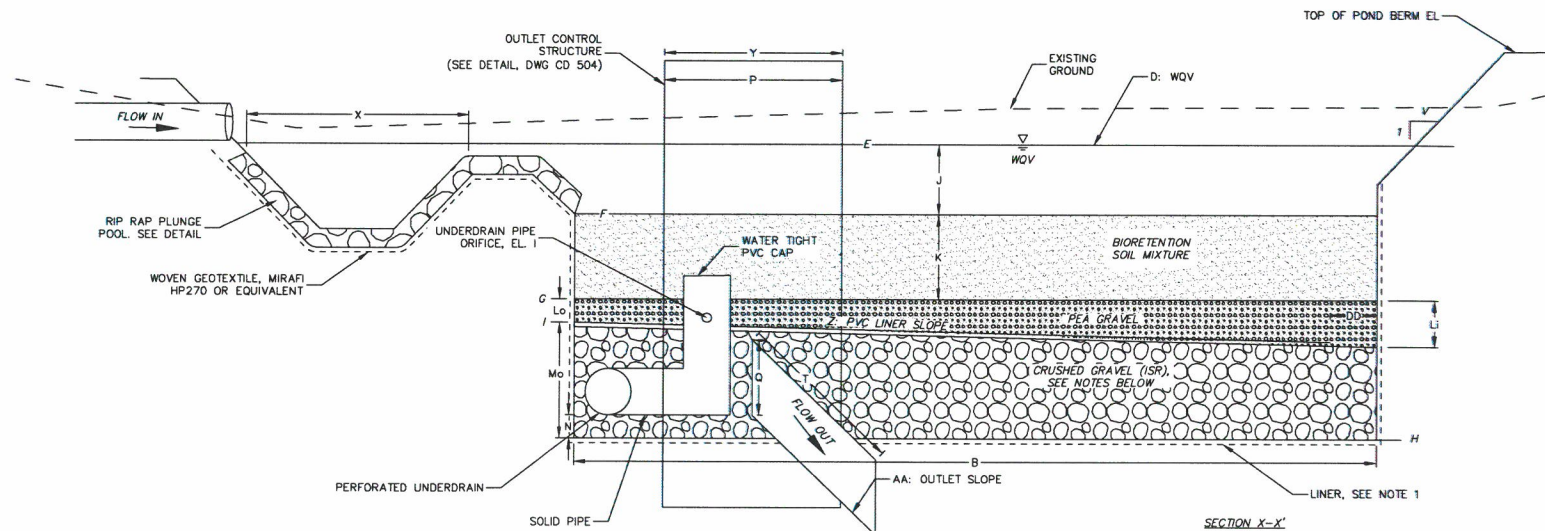


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LAYER STATE: ON



- HYBRID BIORETENTION POND NOTES:**
- FOR FULL BIORETENTION SYSTEM SPECIFICATIONS, PLEASE REFER TO THE UNH STORMWATER CENTER'S BIORETENTION SPECIFICATIONS PUBLICATION, DATED FEBRUARY 2017 FOUND AT <https://unh.edu/unhsc/specs-and-fact-sheets-0>
  - THESE DETAILS ARE NOT TO SCALE. FOR DIMENSION AND SPECIFICATIONS, REFERENCE EACH LETTER TO THE TABLE OF METRICS.
  - BIORETENTION SOIL MIX SHALL NOT BE PLACED UNTIL AFTER ENGINEERING APPROVAL AND INSPECTION OF SUBGRADE.
  - PLANT THE SYSTEM AS SPECIFIED. AT A MINIMUM, PLANT THE SYSTEM FLOOR AND SIDE SLOPES WITH TRE GRASS MIXTURE CONTAINING PERENNIAL AND WINTER RYES, AT A RATE SPECIFIED BY THE MANUFACTURER. STABILIZE THE SLOPES WITH STRAW TO A DEPTH OF 1". SEE LANDSCAPE PLAN FOR SPECIFIC SEED MIX ON BIORETENTION SOIL.
  - GENERAL CONSTRUCTION GUIDELINES:
    - VERIFY THAT NO FOREIGN OR DELETERIOUS MATERIAL OR LIQUID SUCH AS PAINT, PAINT WASHOUT, CONCRETE SLURRY, ASPHALT/CONCRETE LAYERS OR CHUNKS, CEMENT, PLASTER, OILS, GASOLINE, DIESEL FUEL, PAINT THINNER, TURPENTINE, TAR, ROOFING COMPOUND, SOLID WASTE, OR ACID HAS BEEN DEPOSITED IN PLANTING SOIL (BIORETENTION MEDIA OR LOAM ON SIDE SLOPES).
    - PROCEED WITH PLACEMENT OF ANY SUBSURFACE MATERIALS ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
    - COMPACT EACH BLENDED LIFT OF BIORETENTION SOIL MEDIA TO 75% OF MAXIMUM STANDARD PROCTOR DENSITY ACCORDING TO ASTM D698.
    - GRADE SOIL MEDIA TO A SMOOTH, UNIFORM SURFACE PLANE WITH LOOSE, UNIFORM FINE TEXTURE, ROLL AND RAKE, REMOVE RIDGES, AND FILL DEPRESSIONS TO MEET FINISHED GRADES.
    - LIGHTLY COMPACT FINISHED FLOOR ELEVATION AND FINISHED SLOPES USING THE BUCKET OF AN EXCAVATOR, NON-MOTORIZED ROLLER, HAND TAMPER, OR OTHER MEANS, THEN ROUGHEN SURFACE WITH A RAKE TO LOOSEN SOILS BEFORE SEEDING.
    - DO NOT COMPACT THE SUBGRADE AT THE BOTTOM OF EXCAVATION UNLESS PERMEABILITY EXCEEDS 1X10-5 CM/S.
  - BIORETENTION MEDIA (BSM) MIXTURE SPECIFICATIONS:
    - STICKS AND ROOTS SHOULD BE MINIMIZED IN THE BSM MIXTURE AND PREFERABLY LIMITED TO NOTHING LARGER THAN 4.75 MM (0.187 IN).
    - DEBRIS AND OTHER FOREIGN MATERIAL SHOULD BE MINIMIZED.
    - ORGANIC MATTER SHOULD MAKE UP A MINIMUM OF 3% BY VOLUME AND A MAXIMUM 8% BY VOLUME OF THE BSM.
    - BSM MIXTURE SHOULD HAVE A SOIL REACTION PH OF 6 TO 7.
    - CATION EXCHANGE CAPACITY (cec) OF BSM SHOULD BE A MINIMUM OF 10 MEQ PER 100 ML AT A PH OF 7.0.
    - IF BSM IS PURCHASED FROM A MANUFACTURER, BSM MIXTURE SHALL NOT CONTAIN THE FOLLOWING:
      - UNACCEPTABLE MATERIALS: CONCRETE SLURRY, CONCRETE LAYER OR CHUNKS, CEMENT, PLASTER, BUILDING DEBRIS, ASPHALT, BRICKS, OILS, GASOLINE, DIESEL FUEL, PAINT THINNER, TURPENTINE, TAR, ROOFING COMPOUND, ACID, SOLID WASTE, OR OTHER EXTRANEOUS MATERIALS THAT ARE HARMFUL TO PLANTS.
      - UNSATISFACTORY MATERIALS: STONES, ROOTS, PLANTS, SOIL, CLAY LUMPS, OR POCKETS OF COARSE SAND THAT EXCEED A COMBINED MAXIMUM OF 5% BY DRY WEIGHT OF THE MANUFACTURED SOIL.
      - LARGE MATERIALS: STONES, CLODS, ROOTS, CLAY LUMPS EXCEEDING 0.187 IN (4.75 MM) IN ANY DIMENSION.
    - ORGANIC SOIL AMENDMENTS:
      - NO COMPOST SHOULD BE USED IN THE PLANTING MIX (USED ON THE SIDE SLOPES AND SURROUNDING AREA) UNLESS SPECIFIED BY THE ENGINEER.
      - SPHAGNUM PEAT: PARTIALLY DECOMPOSED SPHAGNUM PEAT MOSS, FINELY DIVIDED OR OF GRANULAR TEXTURE WITH 100% PASSING THROUGH A 1/2-IN (13 MM) SIEVE, WITH A PH OF 3.4 TO 4.8.
      - WOOD DERIVATIVES: SHREDDED WOOD, WOOD CHIPS, GROUND BARK, OR WOOD WASTE; OF UNIFORM TEXTURE AND FREE OF STONES, STICKS, SOIL OR TOXIC MATERIAL.
    - THE CRUSHED STONE LAYER SHOULD CONSIST OF AASHTO #5 STONE (3/4-IN).

BIORETENTION SYSTEM DESIGN METRICS				
ID	DESIGN PARAMETER	MIN	POND TOP DESIGN	UNITS
A	SYSTEM FLOOR WIDTH		22	FT
B	SYSTEM FLOOR LENGTH		36	FT
C	BIORETENTION FOOTPRINT AREA		800	SF
D	WATER QUALITY VOLUME		9.35	CF
E	WOV ELEVATION		191.55	FT
F	SYSTEM FLOOR ELEVATION		190.80	FT
G	BOTTOM BSM ELEVATION		189.30	FT
H	BOTTOM STONE ELEVATION		187.80	FT
I	TOP STONE/OUTLET INVERT ELEVATION		190.80	FT
J	WOV PONDING DEPTH		0.75	FT
K	BSM MEDIA DEPTH	18	18	IN
Li	INLET END PEA GRAVEL DEPTH		8	IN
Lo	OUTLET END PEA GRAVEL DEPTH	3	3	IN
Mi	INLET END CRUSHED STONE DEPTH		9	IN
Mo	OUTLET END CRUSHED STONE DEPTH	14	14	IN
N	SUBDRAIN DEPTH ABOVE BOTTOM	4	4	IN
O	PERFORATED SUBDRAIN DIAMETER	6	6	IN
P	OUTLET STRUCTURE DIAMETER (I.D.)	6	48	IN
Q	OUTLET PIPE DIAMETER	6	12	IN
R	INFLOW PIPE DIAMETER		12	IN
S	PERFORATED UNDERDRAIN LENGTH		20	FT
T	OUTLET PIPE LENGTH		SEE TABLE	FT
U	INFLOW PIPE LENGTH		SEE TABLE	FT
V	SIDE SLOPE GRADE (RUN PER 1FT RISE)		3	FT/FT
W	ROCK APRON WIDTH		N/A	IN
X	ROCK APRON LENGTH		N/A	FT
Y	RISER DOME GRATE DIAMETER		48	IN
Z	PVC LINER SLOPE		1	%
AA	OUTLET PIPE SLOPE		0.5	%
BB	CLEAN-OUT RISER DIAMETER		6	IN
CC	CLEAN-OUT RISER ELEVATION		191.80	FT
DD	PVC LINER GAP	0.1*B	3.6	FT
EE	UNDERDRAIN PIPE ORIFICE DIAMETER		1.0	IN
FF	TOP OF POND BERM ELEVATION		193.50	FT



ACCEPTABLE PARTICLE SIZE DISTRIBUTION OF FINAL BIORETENTION SOIL MIX				
MEDIA TYPE	SIEVE #	SIZE (IN)	SIZE (MM)	% PASSING
COURSE SAND	4	0.19	4.76	100
MEDIUM SAND	10	0.08	2.00	95
FINE SAND	40	0.02	0.42	40-15
SILTS	200	0.00	0.75	10-20
CLAYS	<200	PAN	PAN	0-5

BIORETENTION SOIL MEDIA COMPONENTS:\*

- 80-85% SAND (0.5 TO 2.0 MM) (SEE SPECS ABOVE)
- 15-25% LOAM OR TOPSOIL
- 3-8% ORGANIC MATTER
- 0-5% WATER TREATMENT RESIDUALS OR IRON FILINGS \*\*

\* ALTERNATIVELY, USE MEDIA SPECIFIED IN THE ALTERATION OF TERRAIN RULES, ENV-WQ 1508.07(k)

\*\* THIS IS AN AMENDMENT USED FOR ENHANCED PHOSPHORUS ADSORPTION.

**INTERNAL STORAGE RESERVOIR (ISR) NOTES:**

- THE HYBRID BIORETENTION SYSTEM HARBORS AN ANAEROBIC INTERNAL STORAGE RESERVOIR FOR NITROGEN REMOVAL.
- THE ISR IS SEPARATED BY AN IMPERMEABLE PVC LINER BETWEEN THE PEA GRAVEL AND CRUSHED STONE LAYERS.
- THE PVC LINER SLOPES FROM THE OUTLET TOWARDS THE INLET TO MAXIMIZE STORAGE RETENTION AND PROVIDE EXTRA TREATMENT/FILTER TIME VIA PLUG FLOW THROUGH CRUSHED STONE.
- WATER VOLUME IN THE ISR SHALL BE 26% OF THE WOV.
- PVC LINER THICKNESS OF 40 TO 60 MIL, PREFERABLY SEAMLESS. IF SEAMS ARE UNAVOIDABLE, THE SEAMS SHALL BE SEALED.

**LINER NOTES:**

- ACCEPTABLE LINER OPTIONS INCLUDE:
  - SOIL COMPACTION: 6-12 IN CLAY SOIL (MINIMUM 15% PASSING THE #200 SIEVE AND A MAXIMUM PERMEABILITY OF 1X10-5 CM/S)
  - A 40 MIL PVC LINER WITH SAND BEDDING AND/OR NON-WOVEN GEOTEXTILE. PVC LINERSEAMS MAY BE WELDED, TAPED (WATERPROOF TAPE), OR OVERLAPPED (MIN. ONE FOOT).
  - A 4" THICK LAYER OF BENTONITE.

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**STORMWATER**  
TAX MAP 257 LOT 66  
TEBBETTS ROAD  
NEW HAMPSHIRE  
ROCHESTER

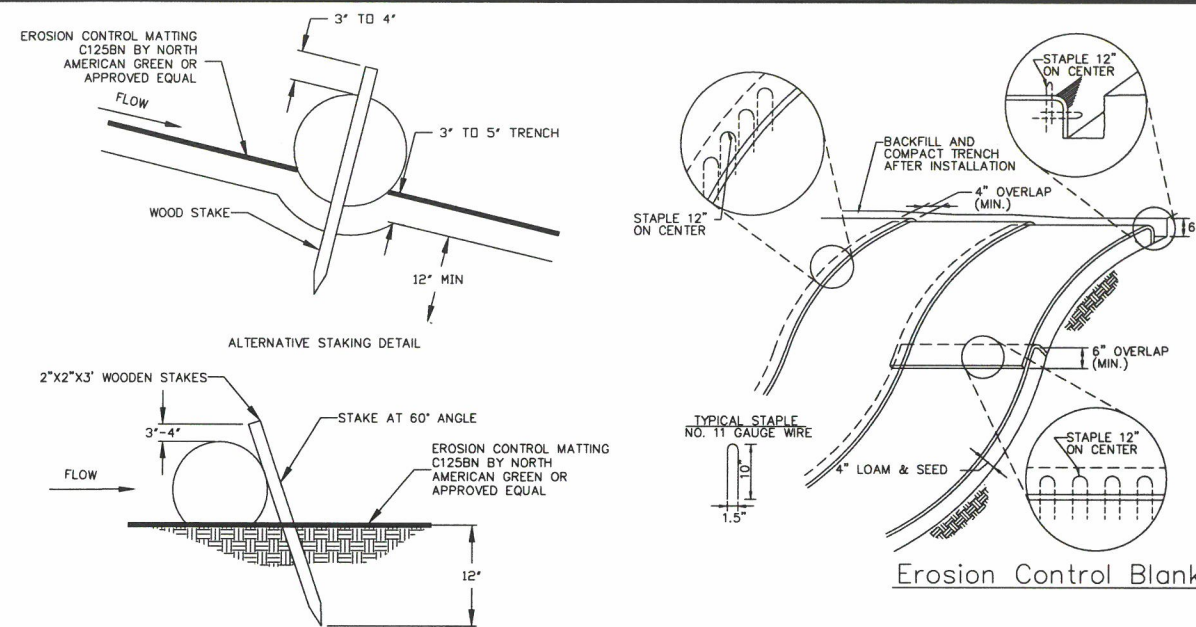
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DATE: JANUARY 2021

**CD-506**

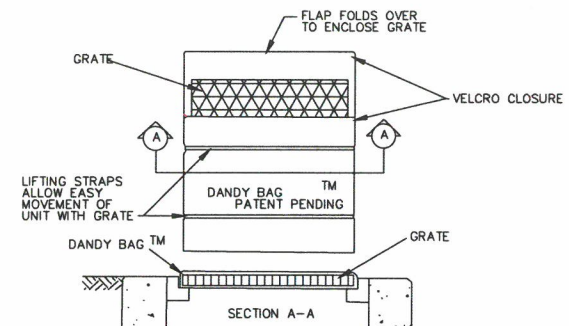
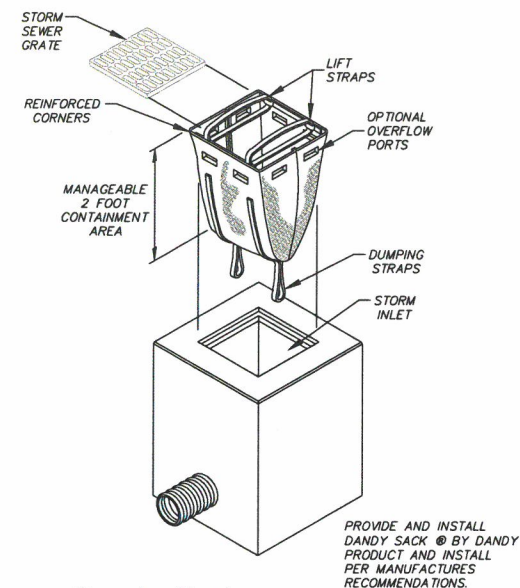




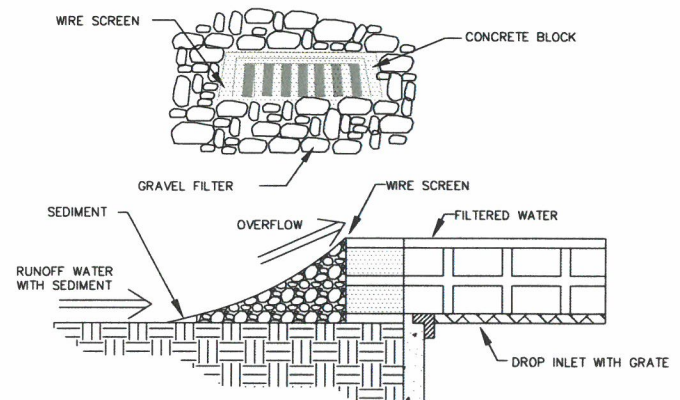
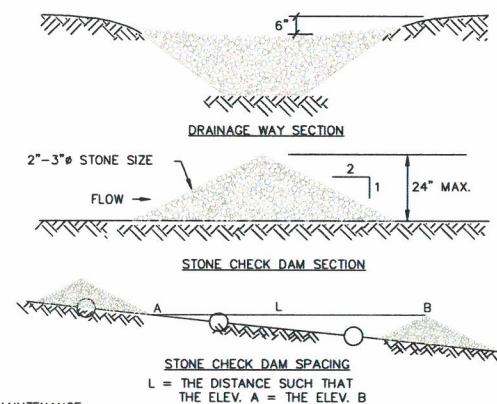
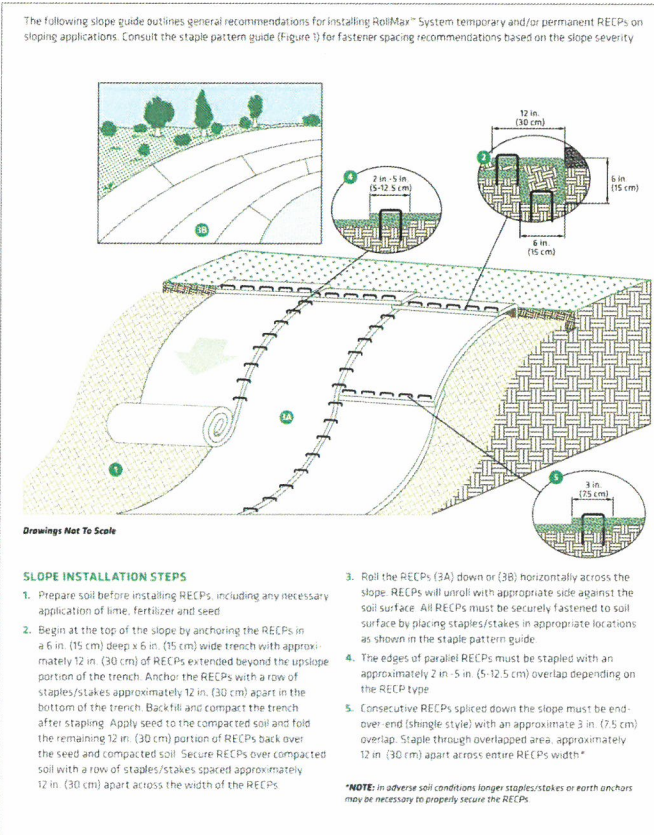
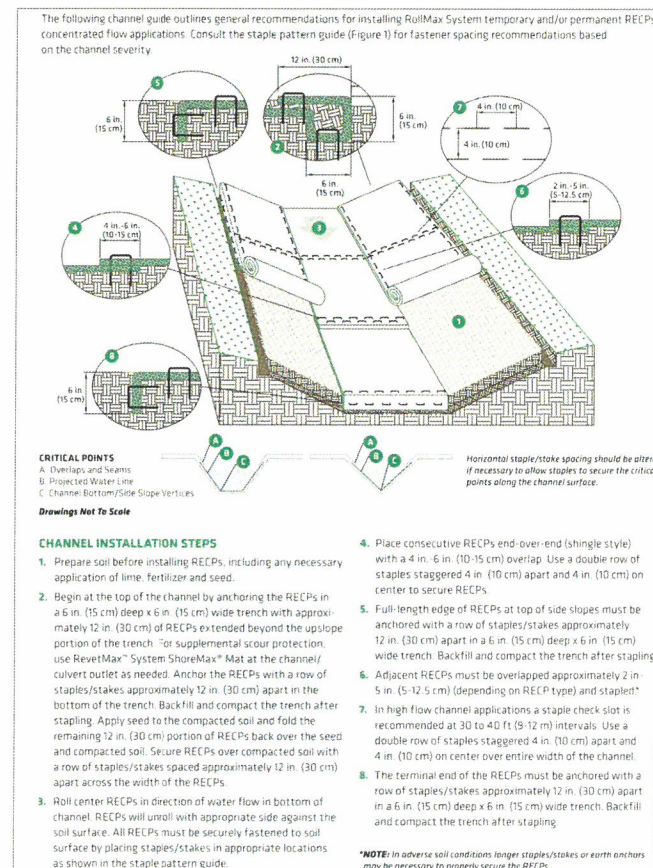
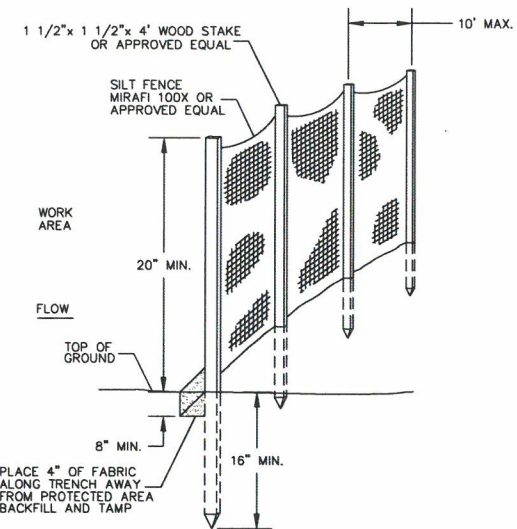
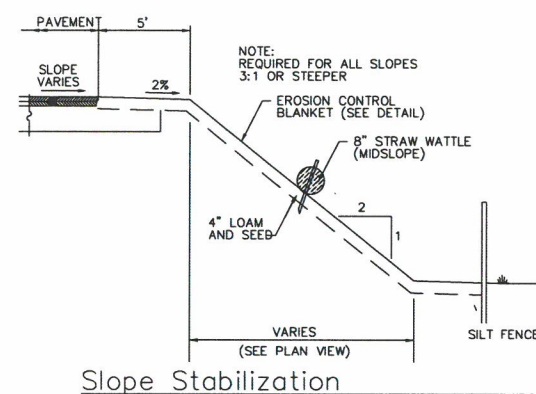
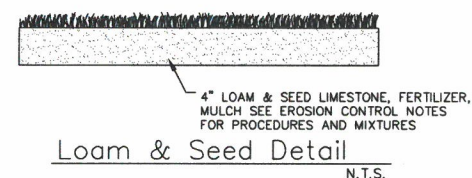
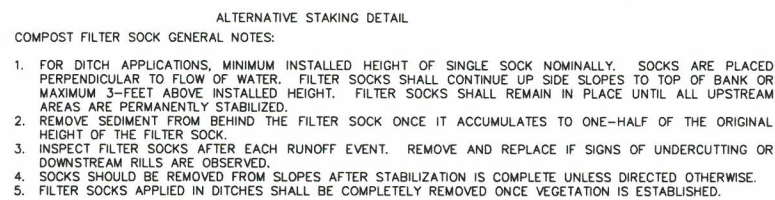





- NOTES:
1. BEGIN AT THE TOP OF BLANKET INSTALLATION AREA BY ANCHORING BLANKET IN A 6" DEEP TRENCH, BACKFILL AND COMPACT TRENCH AFTER STAPLING.
  2. ROLL THE BLANKET DOWN THE SWALE IN THE DIRECTION OF THE WATER FLOW.
  3. THE EDGES OF BLANKETS MUST BE STAPLED APPROX. 4 INCH OVERLAP WHERE 2 OR MORE STRIP WIDTHS ARE REQUIRED.
  4. WHEN BLANKETS MUST BE SPLICED DOWN THE SWALE, PLACE BLANKET END OVER END WITH 6 INCH (MIN.) OVERLAP AND ANCHOR DOWN SLOPE BLANKET IN A 6 INCH DEEP TRENCH.
  5. BLANKETS SHALL BE COCONUT STRAW JUTE MATTING.
- COORDINATION WITH FISH & GAME REGION IN BLANKETS CONTAINING PLASTIC SHALL NOT BE USED DUE TO POTENTIAL ENDANGERED SPECIES.



INSTALLATION:  
STAND GRATE ON END. PLACE DANDY BAG OVER GRATE.  
ROLL GRATE OVER SO THAT OPEN END IS UP.  
PULL UP SACK.  
TUCK FLAP IN FREE VELCRO STRIPS TOGETHER. BE SURE END OF GRATE IS  
COMPLETELY COVERED BY FLAP OR DANDY BAG WILL NOT WORK PROPERLY.  
HOLD DANDY BAG FLAT. FULLY PLACE DANDY BAG WITH GRATE INSERTED  
INTO CATCH BASIN FRAME.  
MAINTENANCE:  
WITH A STIFF BRISTLE BROOM OR SQUARE POINT SHOVEL REMOVE SILT &  
OTHER DEBRIS OFF SURFACE AFTER EACH EVENT. REMOVE FINE MATERIAL  
FROM INSIDE ENVELOPE AS NEEDED.  
(CONTACT DANDY PRODUCTS INC. 1-800-591-2284)

[illegible]

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<b>SCALE:</b>	
HORZ.: N/A	
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<b>GRAPHIC SCALE</b>	

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**EROSION CONTROL**  
**TAX MAP 257 LOT 66**  
**TEBBETTS ROAD**  
**ROCHESTER NEW HAMPSHIRE**

PROJ. No.: 20200646.A10
DATE: JANUARY 2021

CD-508



1. THE CONTRACTOR SHALL TAKE STEPS TO PREVENT THE SPREAD OF INVASIVE PLANT, INSECT, AND FUNGAL SPECIES BY MEETING THE REQUIREMENTS AND INTENT OF RSA 430:53 AND AGR 3800 RELATIVE TO INVASIVE SPECIES.  
[http://gencourt.state.nh.us/rules/state\\_agencies/agr3800.html](http://gencourt.state.nh.us/rules/state_agencies/agr3800.html)

1. THE CONTRACTOR SHALL, IN ACCORDANCE WITH ENV-A 1000 "....TAKE PRECAUTIONS THROUGHOUT THE DURATION OF THE ACTIVITY IN ORDER TO PREVENT, ABATE, AND CONTROL THE EMISSION OF FUGITIVE DUST INCLUDING BUT NOT LIMITED TO WETTING, COVERING SHIELDING, OR VACUUMING."

SILT FENCE/ FILTER SOCK

1. SILT FENCE/ FILTER SOCK SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.
2. IF THE FABRIC ON A SILT FENCE OR THE FILTER SOCK SHOULD DECOMPOSE OR BECOME INFECTED DURING THE EXPECTED LIFE OF THE FENCE OR FILTER SOCK, THE FABRIC OR FILTER SOCK SHALL BE REPLACED PROMPTLY.
3. SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
4. SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.

BLOCK & GRAVEL INLET SEDIMENT FILTER

1. ALL STRUCTURES SHOULD BE INSPECTED AFTER EVERY RAIN STORM AND REPAIRS MADE AS NECESSARY. SEDIMENT SHOULD BE REMOVED FROM THE TRAPPING DEVICES AFTER THE SEDIMENT HAS REACHED A MAX. OF 1/2 THE DEPTH OF THE TRAP. THE SEDIMENT SHOULD BE DISPOSED OF IN A SUITABLE AREA AND PROTECTED FROM EROSION BY EITHER STRUCTURAL OR VEGETATIVE MEANS. THE TEMPORARY TRAPS SHOULD BE REMOVED AND THE AREA REPAIRED AS SOON AS THE CONTRIBUTING DRAINAGE AREA TO THE INLET HAS BEEN COMPLETELY STABILIZED.

BIORETENTION AREAS & SEDIMENT FOREBAY

1. THE BOTTOM, INTERIOR AND EXTERIOR SIDE SLOPES AND CREST OF EARTHEN DETENTION PONDS SHALL BE MOWED, AND THE VEGETATION MAINTAINED IN HEALTHY CONDITION, AS APPROPRIATE TO THE FUNCTION OF THE FACILITY AND TYPE OF VEGETATION.
2. VEGETATED EMBANKMENTS THAT SERVE AS "BERMS" THAT IMPOUND WATER SHALL BE MOWED AT LEAST ONCE ANNUALLY TO PREVENT THE ESTABLISHMENT OF WOODY VEGETATION.
3. EMBANKMENTS SHALL BE INSPECTED AT LEAST ANNUALLY BY A QUALIFIED PROFESSIONAL FOR SETTLEMENT, EROSION, SEEPAGE, ANIMAL BURROWS, WOODY VEGETATION AND OTHER CONDITIONS THAT COULD DEGRADE THE EMBANKMENT AND REDUCE ITS STABILITY FOR IMPOUNDING WATER. IMMEDIATE CORRECTIVE ACTION SHOULD BE TAKEN IF ANY SUCH CONDITION IS FOUND.
4. INLET AND OUTLET PIPES, INLET AND OUTLET STRUCTURES, ENERGY DISSIPATION STRUCTURES OR PRACTICES AND OTHER STRUCTURAL APPURTENANCES SHOULD BE INSPECTED AT LEAST ANNUALLY BY A QUALIFIED PROFESSIONAL AND CORRECTIVE ACTION IMPLEMENTED AS INDICATED BY SUCH INSPECTION.
5. TRASH AND DEBRIS SHALL BE REMOVED FROM THE POND AND ANY INLET OR OUTLET STRUCTURES WHEN SUCH DEBRIS IS OBSERVED.
6. ACCUMULATED SEDIMENT SHOULD BE REMOVED WHEN IT SIGNIFICANTLY AFFECTS POND CAPACITY.

1. INSTALL HAY BALE BARRIERS AND SILT FENCES IN LOCATIONS SHOWN ON PLANS AS A MINIMUM. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY EARTH MOVING OPERATION. PREPARE TEMPORARY STABILIZED CONSTRUCTION ENTRANCE IN SUITABLE LOCATION.
2. INSPECT AND MAINTAIN EROSION CONTROL MEASURES ON A DAILY BASIS.
3. DITCHES OR AREAS REQUIRED, CONSTRUCT TEMPORARY BERMS, CULVERTS, DITCHES, SILTATION FENCES, SEDIMENT TRAP, ETC. MULCH AND SEED AS REQUIRED.
4. CUT AND CLEAR TREES, DISPOSE OF DEBRIS IN AN APPROVED OFF-SITE LOCATION.
5. THE WORK AREA SHALL BE GRADED, SHAPED AND OTHERWISE DRAINED IN SUCH A MANNER AS TO MINIMIZE SOIL EROSION, SILTATION OF DRAINAGE CHANNELS, DAMAGE TO EXISTING VEGETATION, AND DAMAGE TO PROPERTY OUTSIDE LIMITS OF THE WORK AREA. SILT FENCES, FILTER SOCK AND/OR DETENTION BASINS WILL BE NECESSARY.
6. TOPSOIL SHALL BE STRIPPED AND STOCKPILED DURING DRY CONDITIONS AND WITHOUT COMPACTION. TOPSOIL SHALL BE STABILIZED AGAINST EROSION.
7. REMOVE ONSITE UNDESIRABLE SOILS AND LEDGE.
8. GRUBBING AND STUMPING DISPOSAL IN AN APPROVED OFF-SITE LOCATION.
9. CONSTRUCT ALL DITCHES AND SWALES.
10. ALL DITCHES AND SWALES, SHALL BE STABILIZED PRIOR TO DIRECTING ANY STORED WATER TO THEM.
11. CONSTRUCT SLOPE EMBANKMENTS.
12. ROUGH GRADE SITE OR PHASED WORK AREA. DISTURBED AREAS SHALL BE STABILIZED UPON COMPLETION OF ROUGH GRADING PER THE EROSION CONTROL NOTES.
13. INSTALL ALL UNDERGROUND UTILITIES.
14. INSTALL DRAINAGE STRUCTURES, CULVERTS, HEADWALLS, RIP RAP, AND OTHER DRAINAGE FACILITIES. PLACE CATCH BASIN RIMS IN DANDY BAGS UNTIL DRAINAGE AREAS ARE PAVED. STORMWATER PONDS, INLET DRAINAGE BASINS AND SWALES MUST BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
15. FINISH GRADING, LOAMING AND SEEDING. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 72 HOURS AFTER FINAL GRADING.
16. COMPLETE PERMANENT SEEDING AND LANDSCAPING.
17. TEMPORARY EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL ALL DISTURBED AREAS ARE STABILIZED AND HAVE A HEALTHY VEGETATIVE COVER.
18. CLEAN ALL DRAINAGE STRUCTURE SUMPS OF SEDIMENT AND DEBRIS (INCLUDES ALL STRUCTURES WITHIN THE LIMITS OF WORK).
19. DUST SHALL BE CONTROLLED DURING CONSTRUCTION BY ADEQUATE USE OF WATER.

1. ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% 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 INCHES OF MULCH OR NETTING ON FLAT AREAS. MULCHING AND NETTING FOR 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. AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% 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 DESIGN FLOW CONDITIONS; AND
3. AFTER OCTOBER 15TH, COMPLETE ALL PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3.

DURING CONSTRUCTION AND THEREAFTER, EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED AS NOTED:

1. INSTALLATION OF PERMETER CONTROLS (SILT FENCE OR FILTER SOCK) SHALL BE COMPLETED PRIOR TO THE START OF SITE WORK IN ANY GIVEN AREA. PREFABRICATED SILT FENCES SHALL BE INSTALLED ACCORDING TO THE MANUFACTURERS' RECOMMENDATIONS.
2. PERMETER CONTROLS SHALL BE KEPT CLEAN DURING CONSTRUCTION AND REMOVED WHEN ALL SLOPES HAVE A HEALTHY STAND OF VEGETATIVE COVER. EROSION CONTROL MEASURES SHALL BE INSTALLED INSURED ON A WEEKLY BASIS AFTER EVERY RAINFALL EVENT.
3. EXISTING VEGETATION TO REMAIN UNDISTURBED WHEREVER POSSIBLE.
4. NO MORE THAN FIVE ACRES OF LAND SHALL BE LEFT DISTURBED AT ANY ONE TIME. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 72 HOURS AFTER FINAL GRADING.
5. STABILIZATION SHALL INCLUDE THE FOLLOWING, AT A MINIMUM:
  - A. INSTALLATION OF BASE COURSE GRAVELS (IN PAVED AREAS)
  - B. MIN. 85% VEGETATED GROWTH
  - C. INSTALLATION OF STONE OR RIP RAP MATERIAL (3" MIN. DEPTH)
  - D. PROPERLY INSTALLED EROSION CONTROL BLANKETS
6. ALL DISTURBED AREAS SHALL HAVE A MINIMUM OF 4" OF LOAM INSTALLED WITH NOT LESS THAN 1.1 POUNDS OF SEED MIX PER 1,000 SQ. FT. SEED MIXTURE SHALL BE:

PERMANENT	
TALL FESCUE	0.45 LBS.
CREeping RED FESCUE	0.45 LBS.
BIRDSFOOT TREFOIL	0.20 LBS.
TEMPORARY	
ANNUAL RYEGRASS	1.10 LBS.

7. LIME AND FERTILIZER SHALL BE INCORPORATED INTO THE SOIL PRIOR TO SEEDING. A MINIMUM OF 2 TONS PER ACRE OF AGRICULTURAL LIMESTONE AND 500 LBS. PER ACRE OF 10-20-20 FERTILIZER SHALL BE APPLIED. SEEDING PRACTICES SHALL COMPLY WITH LOCAL USDA SOIL CONSERVATION SERVICES RECOMMENDATIONS.
8. HAY MULCH OR JUTE MATTING SHALL BE USED WHERE INDICATED ON THE PLANS. A MINIMUM OF 1.5 TONS OF MULCH PER ACRE SHALL BE APPLIED. MULCH SHALL BE ANCHORED IN PLACE BY STAKES. JUTE MATTING SHALL BE Laid IN THE DIRECTION OF RUNOFF FLOW AND APPLIED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
9. PERMANENT OR TEMPORARY COVER MUST BE IN PLACE BEFORE THE GROWING SEASON ENDS. WHEN SEEDED AREAS ARE MULCHED, PLANTINGS MAY BE MADE FROM EARLY SPRING TO EARLY OCTOBER. WHEN SEEDED AREAS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM EARLY SPRING TO MAY 20 OR FROM AUGUST 15 TO SEPTEMBER 15. NO DISTURBED AREA SHALL BE LEFT EXPOSED DURING WINTER MONTHS. PLANT ANNUAL RYE GRASS PRIOR TO OCTOBER 15TH.
10. DISTURBED AREAS SHALL BE COVERED WITH VEGETATION PRIOR TO THE END OF THE PERIOD OF TIME AND SHALL NOT REMAIN EXPOSED MORE THAN 45 DAYS FROM INITIAL DISTURBANCE.
11. THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT IN NO CASE SHALL EXCEED 5 ACRES AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED.
12. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:

- BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED
- A MINIMUM OF 85% OF VEGETATED GROWTH HAS BEEN ESTABLISHED
- A MINIMUM OF 3" NON EROSION MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED
- EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

13. ALL CONTRIBUTING DISTURBED AREAS MUST BE FULLY STABILIZED PRIOR TO DIRECTING STORMWATER TO THEM.
14. ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER EVERY 0.5" OR GREATER RAINFALL WITHIN A 24-HOUR PERIOD.
15. TEMPORARY RUNOFF DIVERSION (SEDIMENT BASINS, SWALES, ETC.) MUST BE USED AS NECESSARY TO CONTAIN RUNOFF UNTIL SOILS ARE STABILIZED.
16. CUT AND FILL SLOPES SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
17. STORMWATER BASINS AND SWALES MUST BE INSTALLED BEFORE ROUGH GRADING THE SITE.
18. STORMWATER BASINS AND SWALES MUST BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.

PER ENV-WQ 1505.06 - COLD WEATHER SITE STABILIZATION.

- A. TO ADEQUATELY PROTECT WATER QUALITY DURING COOLD WEATHER AND DURING SPRING RUNOFF, THE ADDITIONAL STABILIZATION TECHNIQUES SPECIFIED IN THIS SECTION SHALL BE EMPLOYED DURING THE PERIOD FROM OCTOBER 15 THROUGH MAY 1.
- B. SUBJECT TO (C), BELOW, THE AREA OF EXPOSED, UNSTABILIZED SOIL SHALL BE:
  1. LIMITED TO ONE ACRE; AND
  2. PROTECTED AGAINST EROSION BY THE METHODS DESCRIBED IN THIS SECTION PRIOR TO ANY THAW OR SPRING MELT EVENT.
- C. THE ALLOWABLE AREA OF EXPOSED SOIL MAY BE INCREASED IF A WINTER CONSTRUCTION PLAN IS DEVELOPED BY A QUALIFIED ENGINEER OR A CPESC SPECIALIST AND SUBMITTED TO THE DEPARTMENT FOR APPROVAL AS A REQUEST TO WAIVE THE ONE-ACRE LIMIT.
- D. SUBJECT TO (F) AND (G), BELOW, ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF LESS THAN 15% THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR THAT ARE DISTURBED AFTER OCTOBER 15, SHALL BE SEEDED AND COVERED WITH 3 TO 4 TONS OF HAY OR STRAW MULCH PER ACRE. EROSION CONTROL MIX ANCHORED WITH AT LEAST 4 INCHES OF EROSION CONTROL MIX MEETING THE CRITERIA OF ENV-W 1506.05(B).
- E. SUBJECT TO (F) AND (G), BELOW, ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF 15% OR GREATER THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR THAT ARE DISTURBED AFTER OCTOBER 15, SHALL BE SEEDED AND COVERED WITH A PROPERLY INSTALLED ANCHORED EROSION CONTROL MIX ANCHORED WITH AT LEAST 4 INCHES OF EROSION CONTROL MIX MEETING THE CRITERIA OF ENV-W 1506.05(B).
- F. ANCHORED HAY MULCH OR EROSION CONTROL MIX THAT MEETS THE CRITERIA OF ENV-W 1506.05(B) SHALL NOT BE INSTALLED OVER SNOW GREATER THAN ONE INCH IN DEPTH.
- G. EROSION CONTROL BLANKETS SHALL NOT BE INSTALLED OVER SNOW GREATER THAN ONE INCH IN DEPTH OR ON FROZEN GROUND.
- H. ALL PROPOSED STABILIZATION IN ACCORDANCE WITH (D) OR (E), ABOVE, SHALL BE COMPLETED WITHIN 30 DAYS OF ESTABLISHING THE GRADE THAT IS FINAL OR THAT OTHERWISE WILL EXIST FOR MORE THAN 5 DAYS.
- I. ALL DITCHES OR SWALES THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR THAT ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE TO THE DESIGN FLOW CONDITIONS, AS DETERMINED BY THE OWNER'S ENGINEERING CONSULTANT.
- J. AFTER OCTOBER 15, INCOMPLETE ROAD OR PARKING AREAS WHERE ACTIVE CONSTRUCTION OF THE ROAD OR PARKING AREA HAS STOPPED FOR THE WINTER SEASON SHALL BE PROTECTED WITH A MINIMUM 3-INCH LAYER OF BASE COURSE GRAVELS MEETING THE GRADATION REQUIREMENTS OF NHDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, 2016, TABLE 304-1, ITEM NO. 304.1, 304.2, OR 304.3, AVAILABLE AS NOTED IN APPENDIX B.

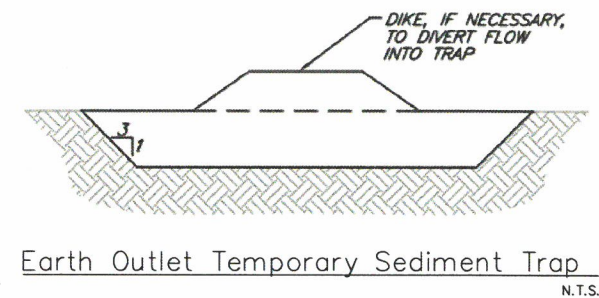
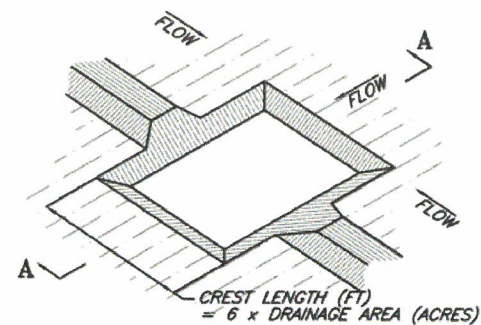
1. TEMPORARY SEDIMENT TRAPS SHOULD MEET THE FOLLOWING REQUIREMENTS:
  - SEDIMENT TRAPS SHOULD BE LOCATED SO THAT THEY CAN BE INSTALLED PRIOR TO DISTURBING THE AREA TO BE PROTECTED.
  - THE TRAP SHOULD BE INSTALLED AS CLOSE TO THE DISTURBED AREA OR SOURCE OF SEDIMENT AS POSSIBLE.
  - THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE TRAP SHOULD BE LESS THAN 5 ACRES.
  - THE MINIMUM VOLUME OF THE TRAP SHOULD BE 3,600 CUBIC FEET OF STORAGE FOR EACH ACRE OF DRAINAGE AREA.
  - THE SLOPES OF THE TRAP SHOULD BE 1:1 OR FLATTER, AND SHOULD BE STABILIZED IMMEDIATELY AFTER THEIR CONSTRUCTION.

2. EMBANKMENTS:
  - THE MAXIMUM HEIGHT OF THE SEDIMENT TRAP EMBANKMENT SHOULD BE 4 FEET WHEN MEASURED FROM THE LOWEST POINT OF NATURAL GROUND ON THE DOWNSTREAM SIDE OF THE EMBANKMENT.
  - THE MINIMUM TOP WIDTH OF THE EMBANKMENT SHOULD BE 6 FEET.
3. OUTLETS (GENERAL REQUIREMENTS):
  - THE OUTLET SHOULD BE DESIGNED, CONSTRUCTED AND MAINTAINED IN SUCH A MANNER THAT SEDIMENT DOES NOT LEAVE THE TRAP AND THAT EROSION AT OR BELOW THE OUTLET DOES NOT OCCUR.
  - OUTLETS SHOULD BE DESIGNED SO THAT THE TOP OF THE EMBANKMENT IS A MINIMUM OF 1 FOOT ABOVE THE CREST ELEVATION OF THE OUTLET.
  - THE OUTLET OF THE TRAP SHOULD BE A MINIMUM OF ONE FOOT BELOW THE CREST OF THE TRAP.
  - THE OUTLET SHOULD DISCHARGE TO A STABILIZED AREA. THE OUTLETS MUST BE EMPTY ONTO UNDISTURBED GROUND, INTO A WATERCOURSE, STABILIZED CHANNEL OR A STORM SEWER SYSTEM.
  - OUTLETS MAY BE CONSTRUCTED AS EARTH SPILLWAYS, STONE OUTLETS, OR PIPE OUTLETS.

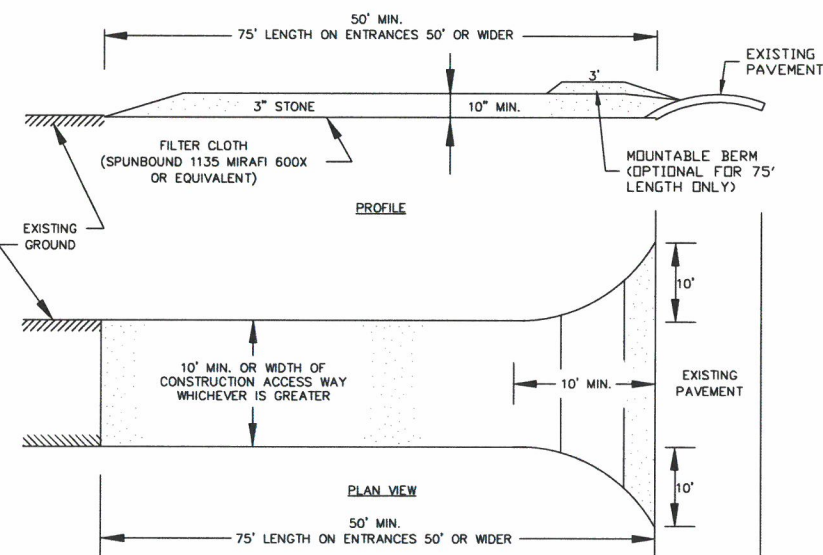
- AN EARTH OUTLET SEDIMENT TRAP HAS A DISCHARGE POINT THAT IS EITHER OVER NATURAL GROUND OR CUT INTO NATURAL GROUND.
- THE OUTLET WIDTH SHOULD BE EQUAL TO 6 TIMES THE DRAINAGE AREA IN ACRES.
- THE EMBANKMENT AND OUTLET SHOULD BE VEGETATED WITHIN 3 DAYS OF CONSTRUCTION.

- 5. STONE OUTLETS
  - A STONE OUTLET SEDIMENT TRAP HAS AN OUTLET CONSISTING OF A CRUSHED STONE SECTION IN THE EMBANKMENT.
  - THE STONE SECTION SHOULD BE LOCATED AT THE LOW POINT OF THE NATURAL GROUND, AS DETERMINED AT THE DOWNSTREAM SIDE OF THE EMBANKMENT.
  - THE OUTLET SHOULD BE CONSTRUCTED OF MINIMUM SIZE 1 ½ CRUSHED STONE.

6. VEGETATION:
- ALL EMBANKMENTS, EARTH SPILLWAYS, AND DISTURBED AREAS BELOW THE STRUCTURE SHOULD BE VEGETATED WITHIN 72 HOURS OF COMPLETION OF THE CONSTRUCTION.
  - IF THE STRUCTURE IS NOT PLANNED FOR MORE THAN ONE VEGETATIVE GROWING SEASON, THE STRUCTURE MAY BE VEGETATED USING THE RECOMMENDED SEASON FOR THE VEGETATION MANAGEMENT MANAGEMENT PRACTICE DESCRIBED IN NHDES STORMWATER MANAGEMENT MANUAL, VOL. 2.
  - BASINS THAT WILL BE CARRIED OVER THE WINTER AND INTO THE NEXT VEGETATIVE GROWING SEASON SHOULD BE VEGETATED USING THE RECOMMENDATIONS FOR PERMANENT VEGETATION BEST MANAGEMENT PRACTICE.

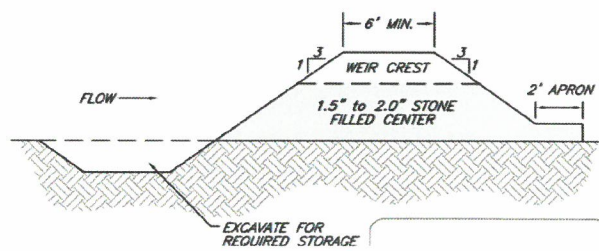
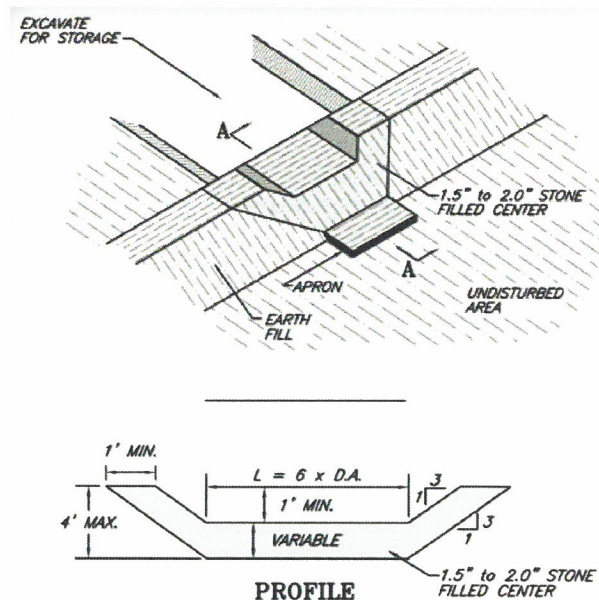


### Earth Outlet Temporary Sediment Trap



1. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
2. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED
3. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
4. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO


USDA – SCS Stabilized Construction Entrance



### Temporary Sediment Trap

[illegible]

PLANS UNDER DESIGN  
DEVELOPMENT. ISSUED  
FOR INTERIM REVIEW  
ONLY. NOT FOR  
CONSTRUCTION

SCALE:	HORIZ.: N/A	 GRAPHIC SCALE
	VERT.: N/A	
DATUM:	HORIZ.:	
	VERT.:	

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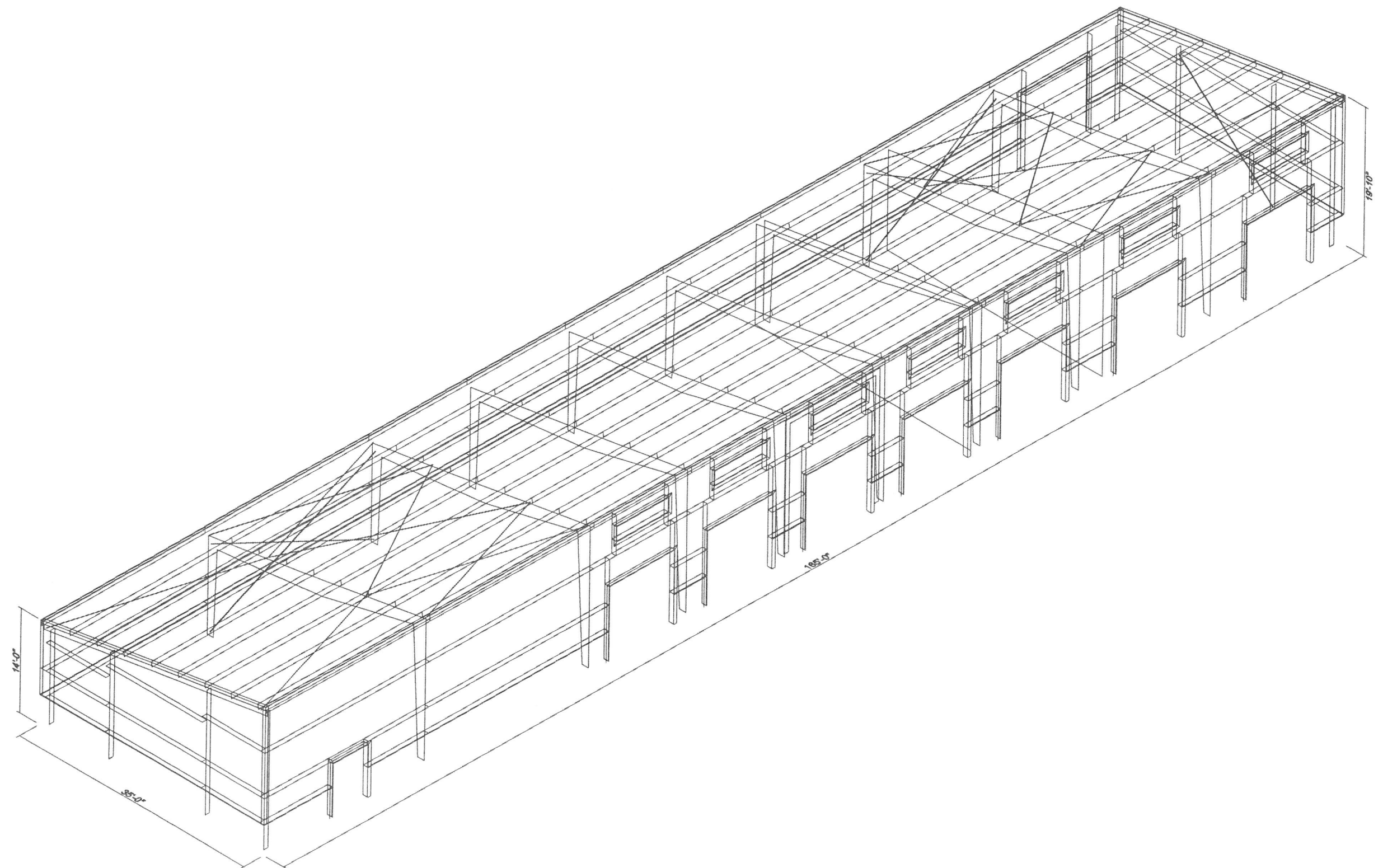


**EFI EXPRESS  
CIVIL DETAILS  
EROSION CONTROL  
TAX MAP 257 LOT 66  
TEBBETTS ROAD  
NEW HAMPSHIRE**

PROJ. No.: 20200646.A10  
DATE: JANUARY 2021

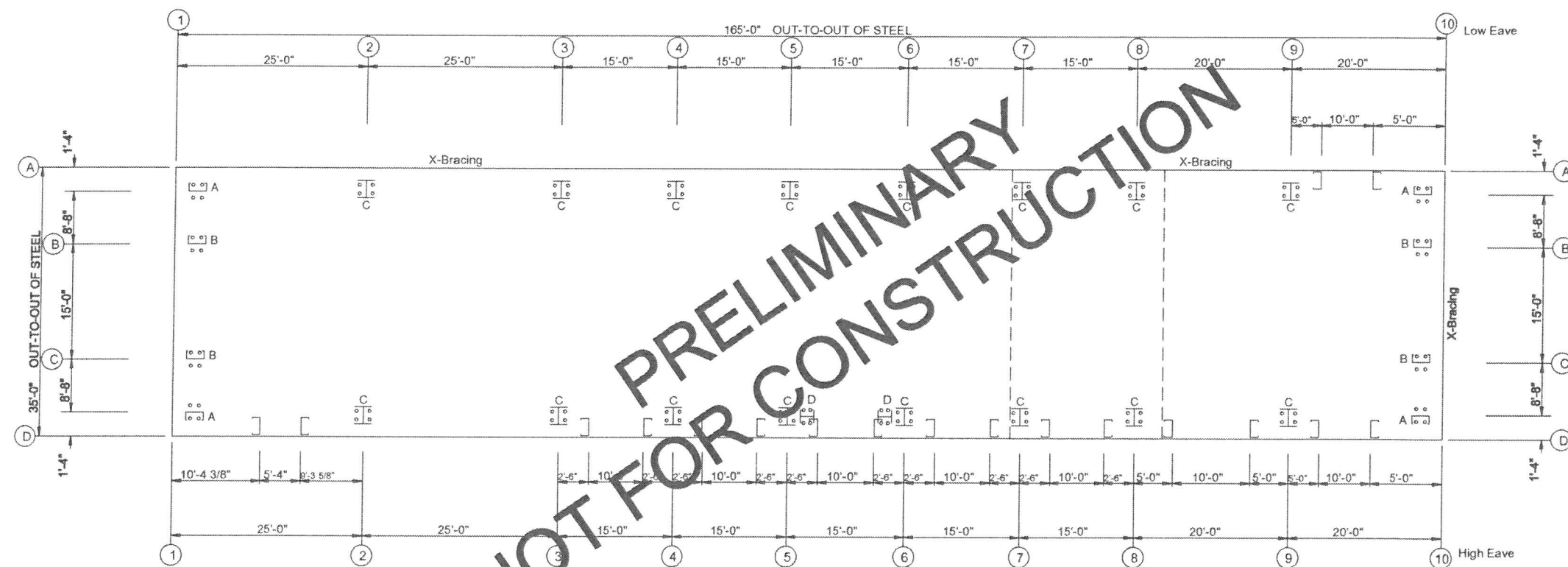
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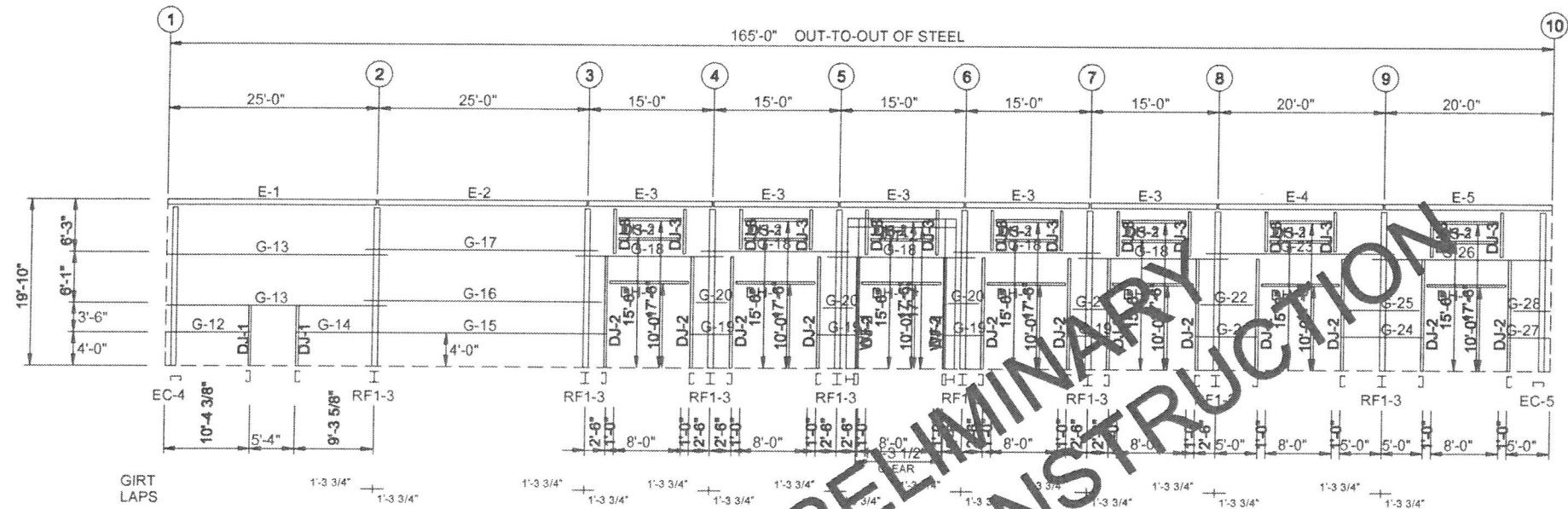


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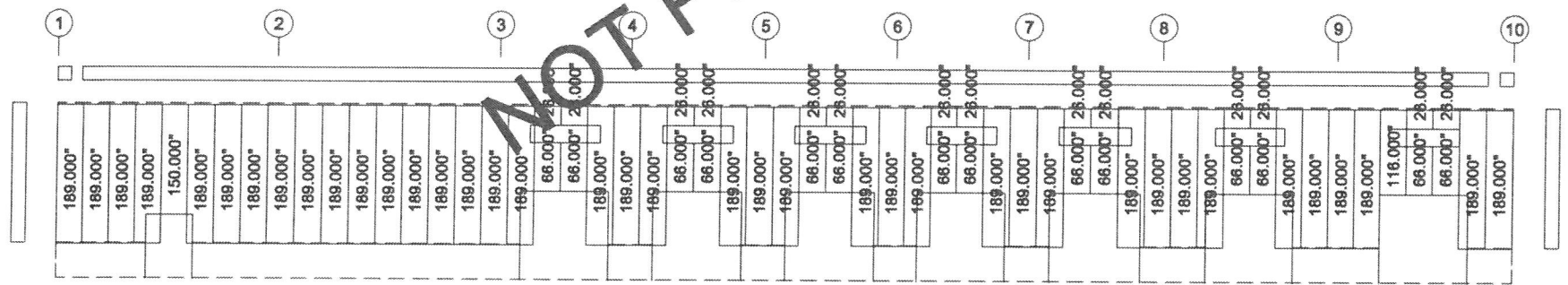
Swanson 35  
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BOLT TABLE FRAME LINE D				
LOCATION	QUAN	TYPE	DIA	LENGTH
WF-1 - WF-2	8	A325	5/8"	2 1/4"
WF-1 - RF1-3	4	A325	3/4"	3"



SIDEWALL FRAMING: FRAME LINE D

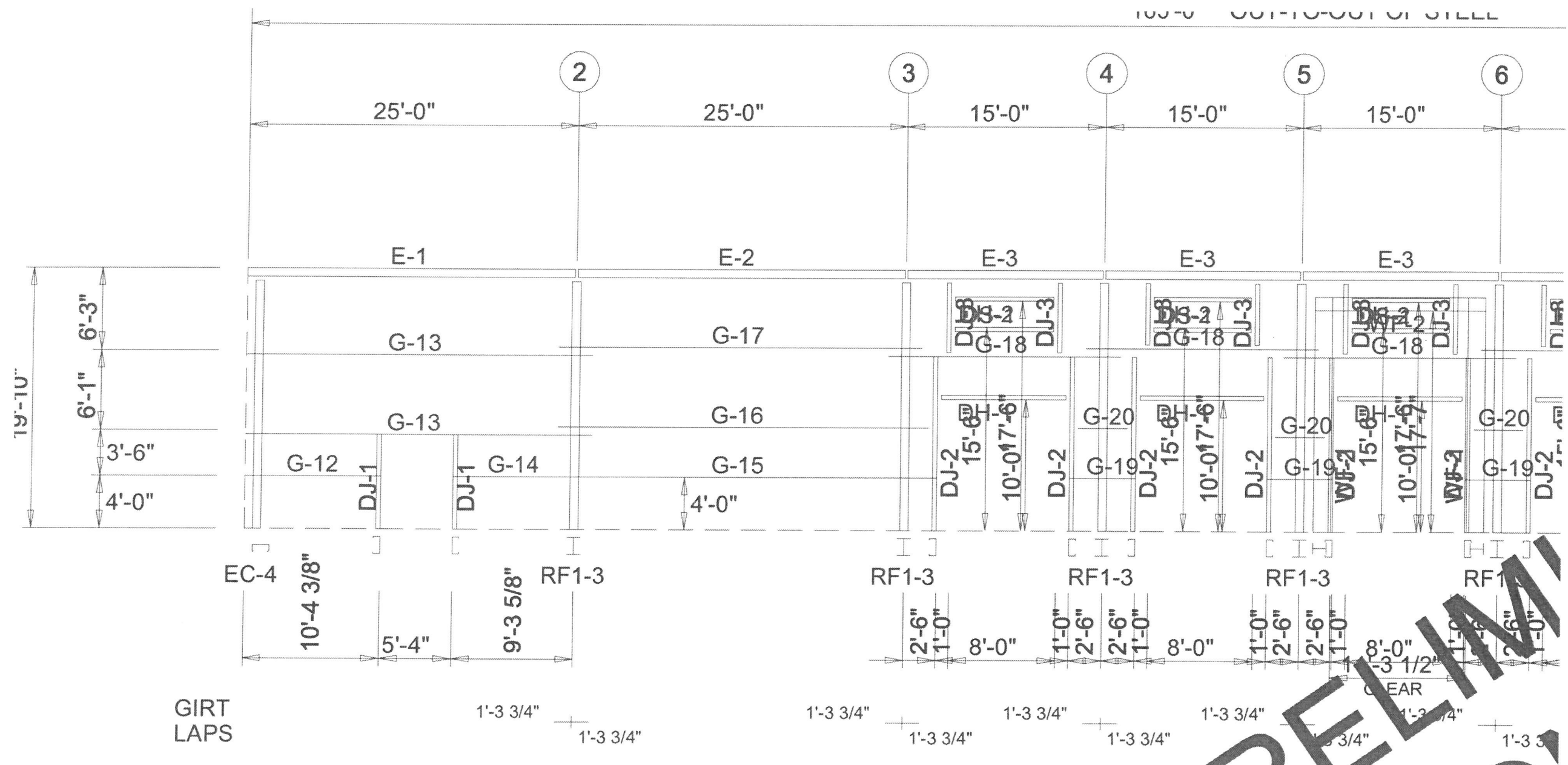


SIDEWALL SHEETING & TRIM: FRAME LINE D

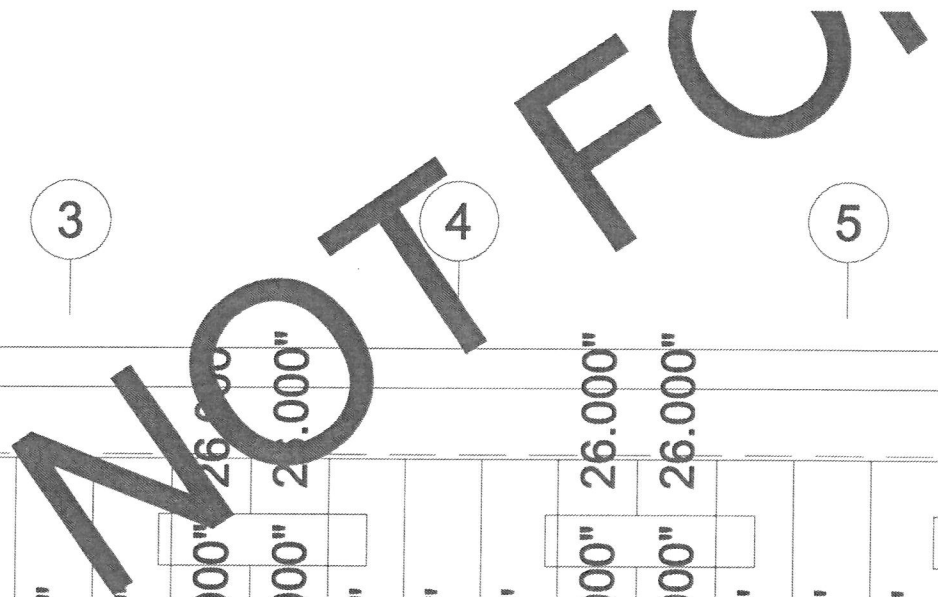
PANELS: 26 Ga. CW - Undefined color C

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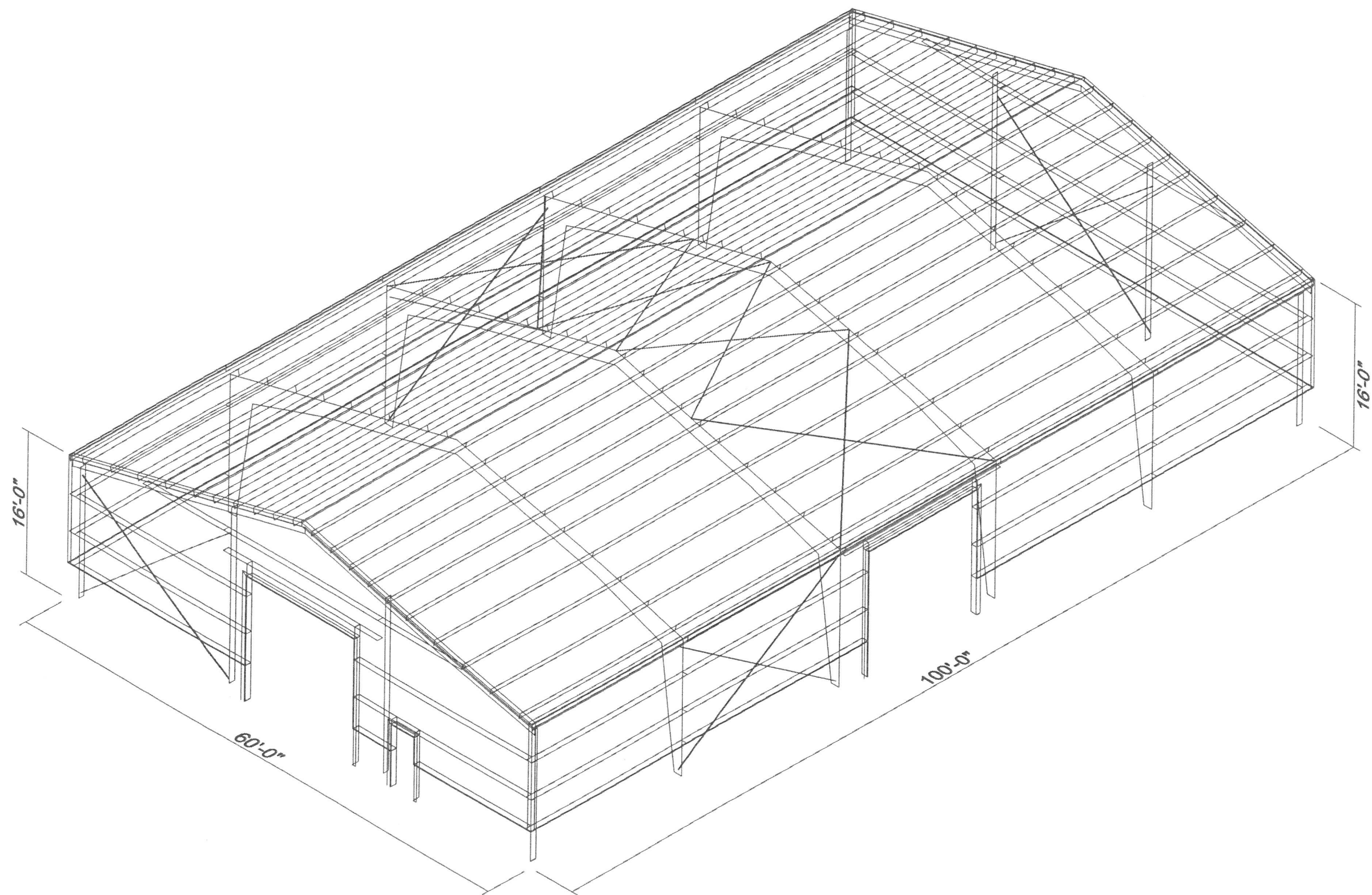




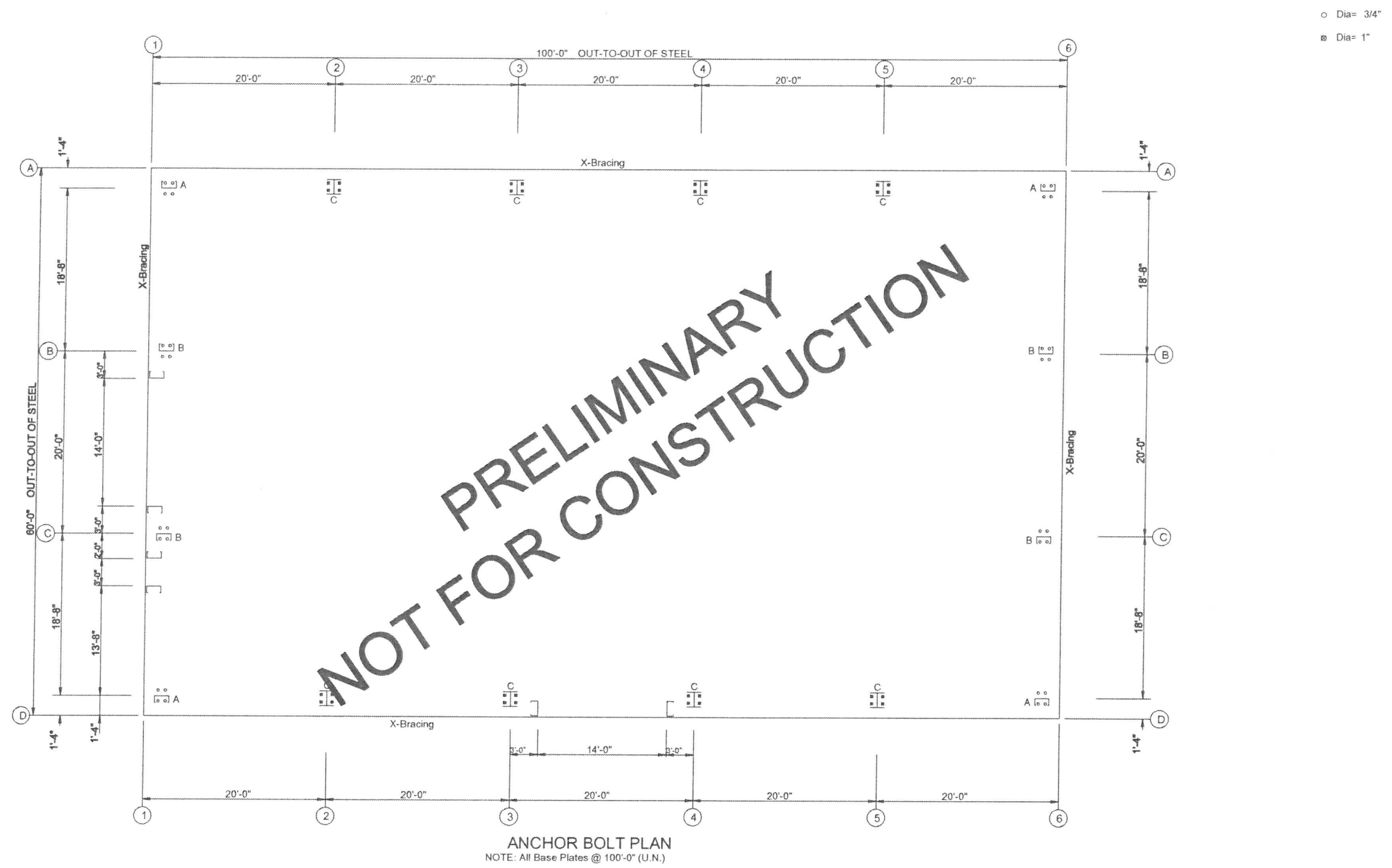


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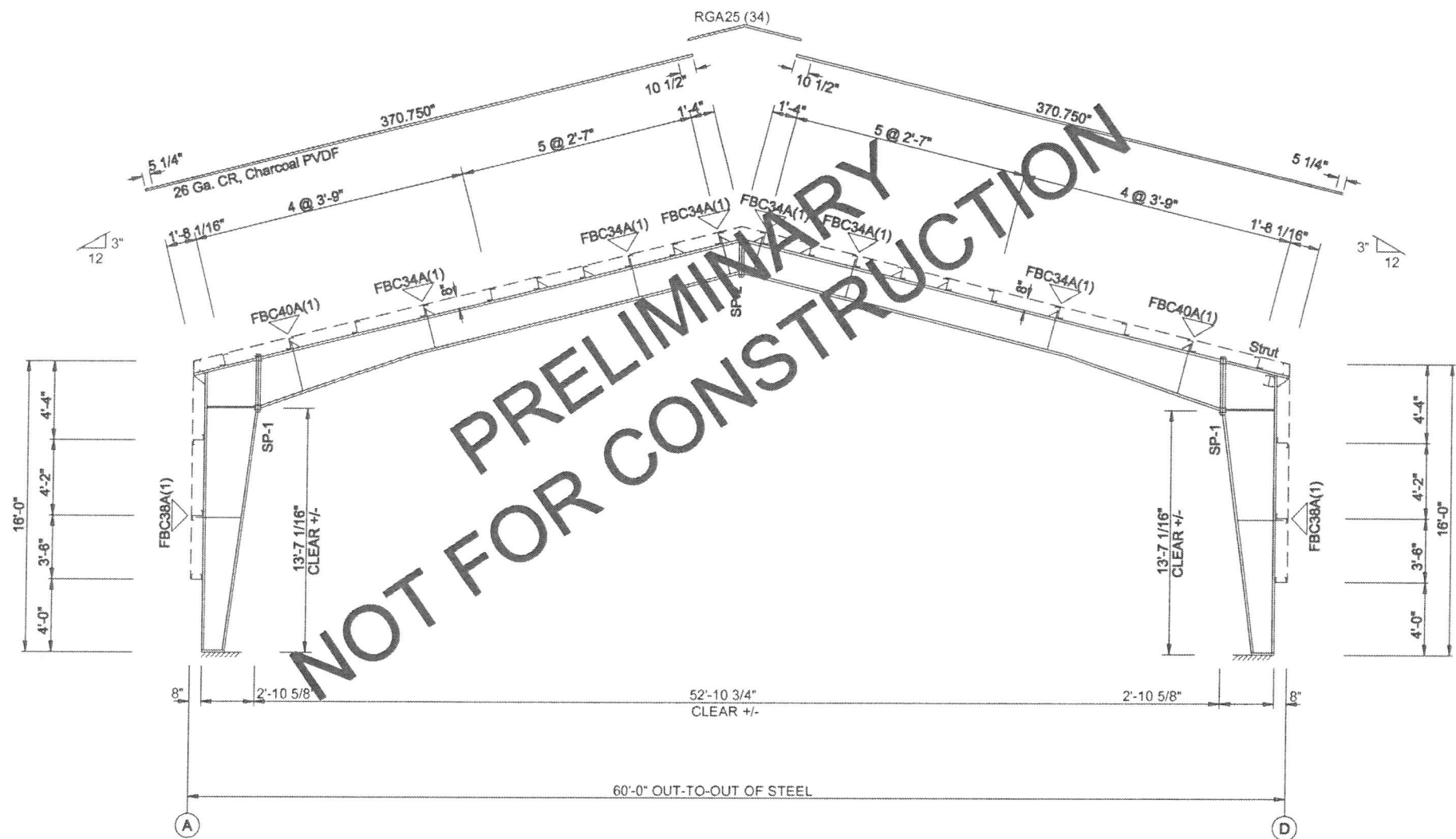








SPLICE PLATE & BOLT TABLE									
Mark	Qty Top	Qty Bot	Int	Type	Dia	Length	Width	Thick	Length
SP-1	4	4	0	A325	0.875	3.00	6"	5/8"	3'-2 1/2"
SP-2	4	4	0	A325	0.625	2.25	6"	1/2"	2'-2 1/8"



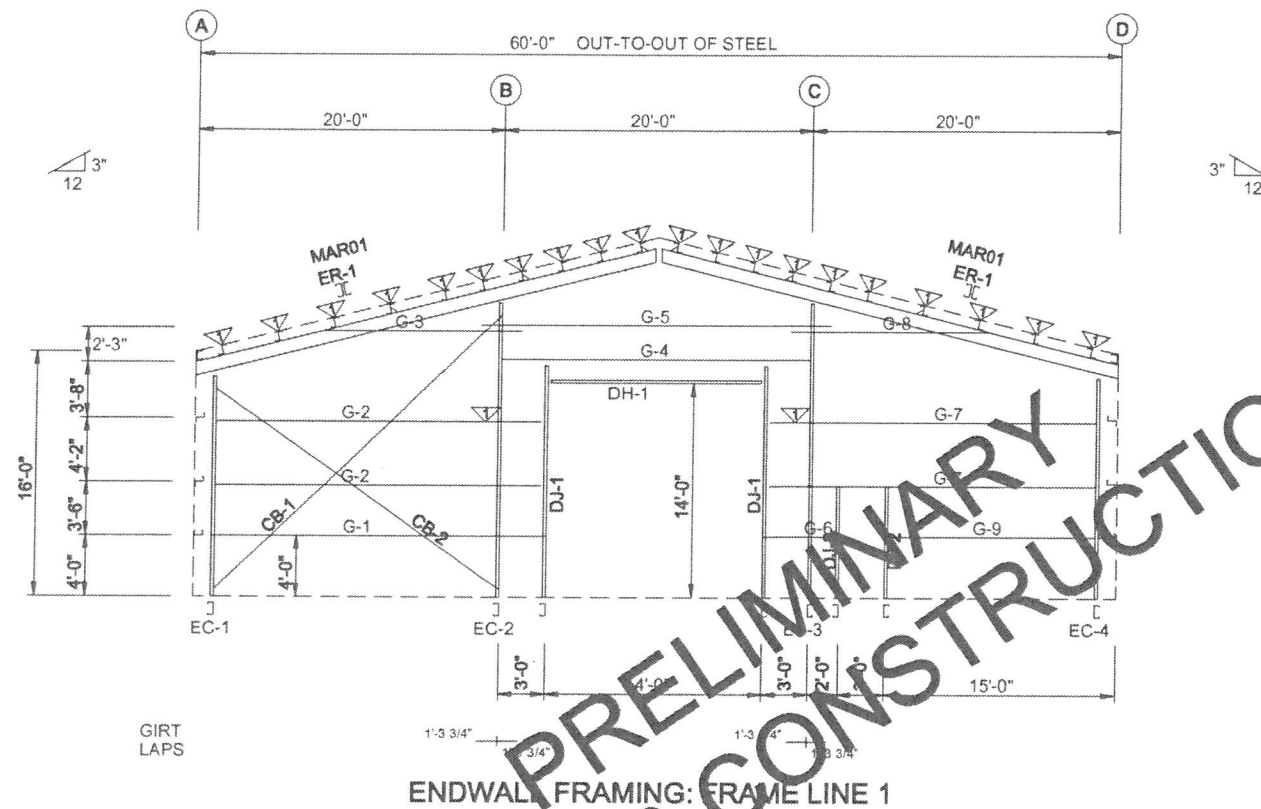
RIGID FRAME ELEVATION: FRAME LINE 2 3 4 5

THE CLEAR HEIGHTS SHOWN ABOVE ARE "ESTIMATED" CLEAR HEIGHTS AND ARE SUBJECT TO CHANGE BASED ON FINAL DESIGN.

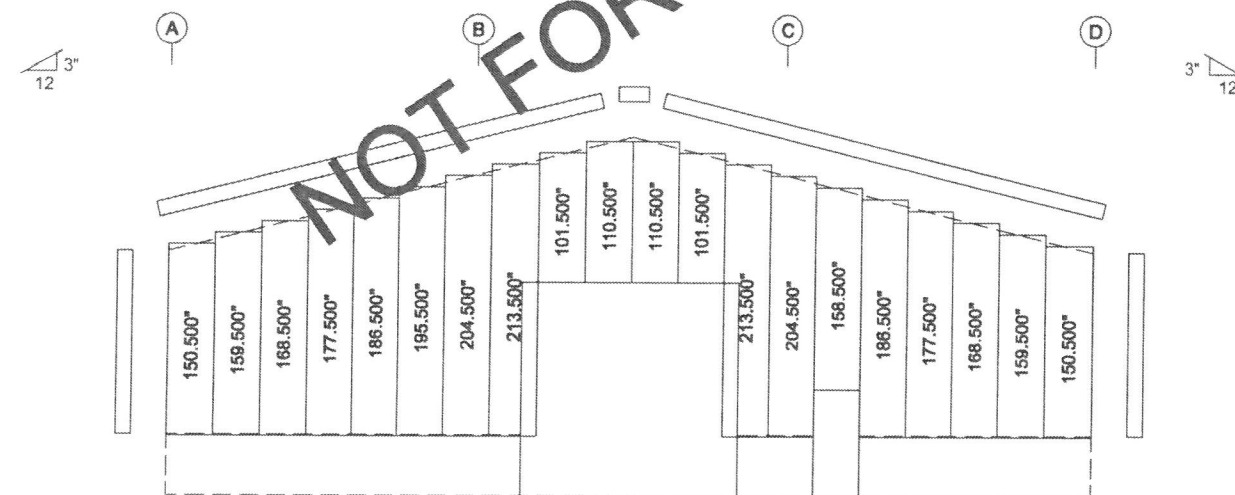
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ENDWALL FRAMING: FRAME LINE 1



ENDWALL SHEETING & TRIM: FRAME LINE 1

PANELS: 26 Ga. CW - Undefined color C

BOLT TABLE				
FRAME LINE 1				
LOCATION	QUAN	TYPE	DIA	LENGTH
ER-1/ER-1	4	A325	1/2"	2"
Columns/Raf	6	A325	1/2"	2"

FLANGE BRACE TABLE			
FRAME LINE 1			
▽ ID	#	MARK	CLIP
1	1	FBE01	

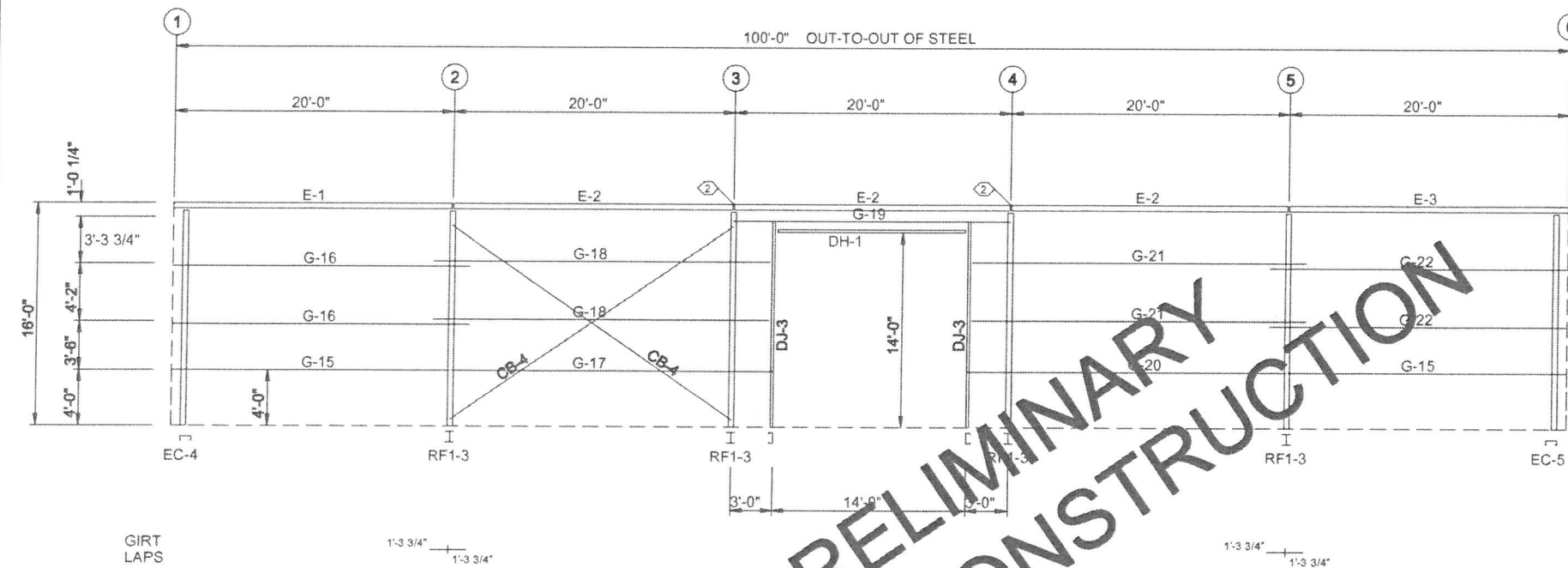
GIRT LOCATIONS SHOWN ARE  
PRELIMINARY AND SUBJECT TO  
CHANGE BASED ON FINAL DESIGN.

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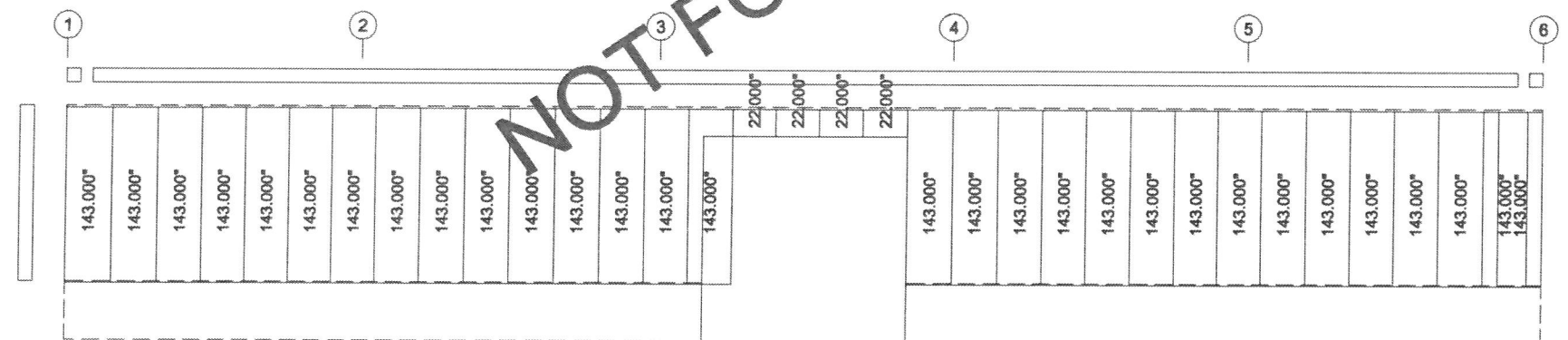
Swanson 60  
03866



SPECIAL BOLTS					
○ ID	QUAN	TYPE	DIA	LENGTH	WASH
2	4	A325	1/2"	2"	1



SIDEWALL FRAMING: FRAME LINE D



SIDEWALL SHEETING & TRIM: FRAME LINE D

PANELS: 26 Ga. CW - Undefined color C

GIRT LOCATIONS SHOWN ARE  
PRELIMINARY AND SUBJECT TO  
CHANGE BASED ON FINAL DESIGN.

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06302001

Swanson 60  
03866