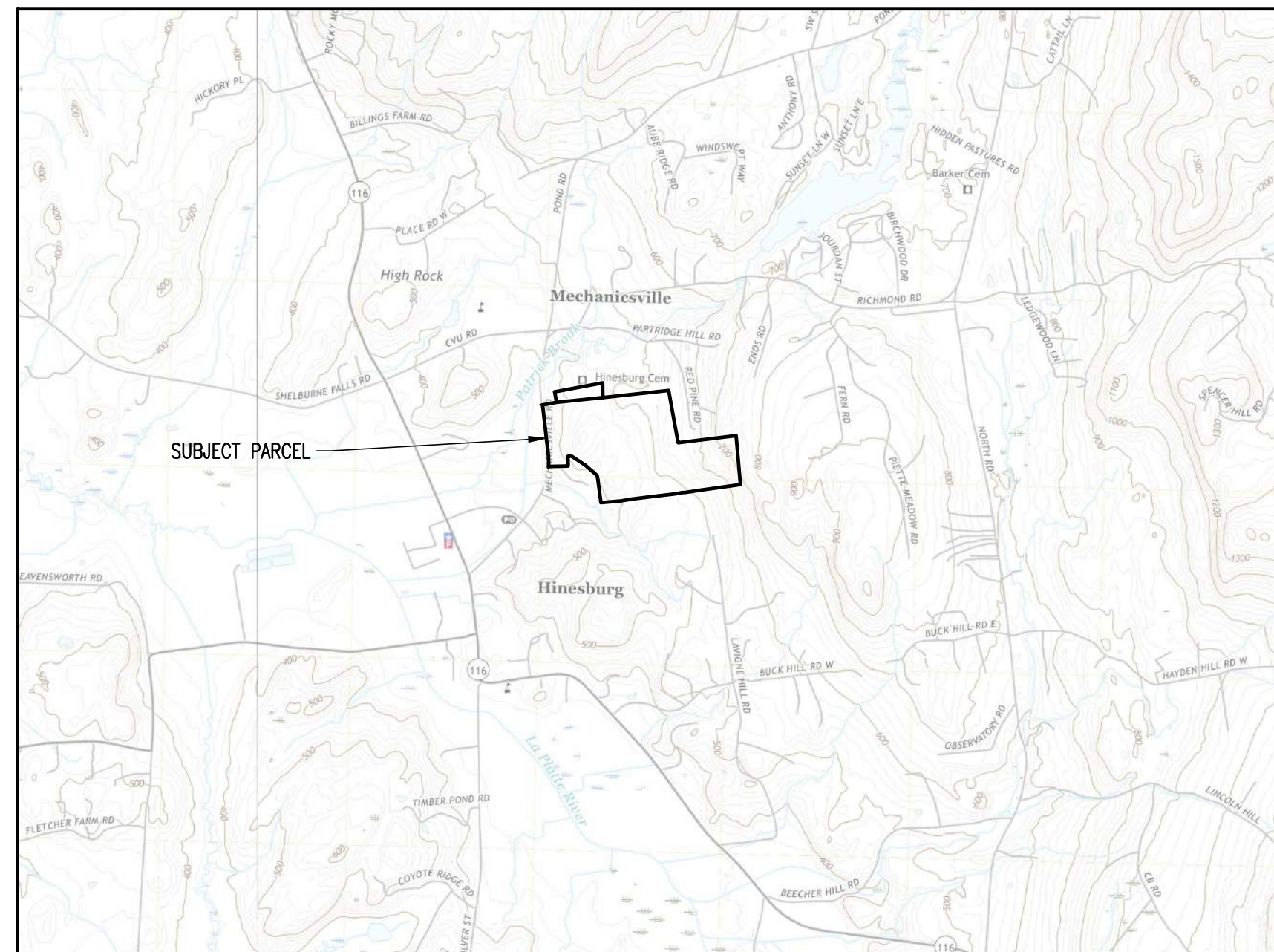
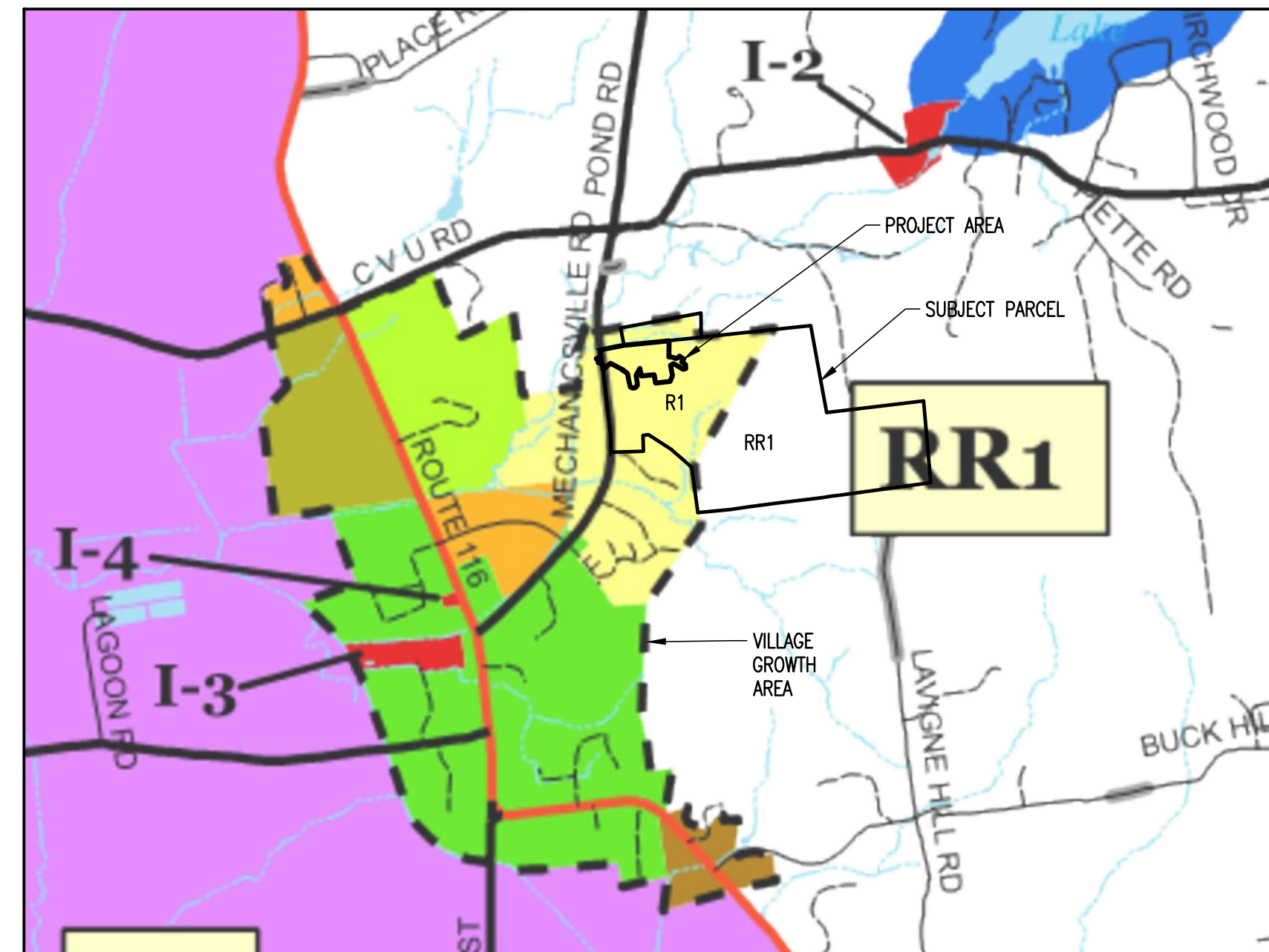


PROPOSED SUBDIVISION, LASTER PROPERTY HINESBURG, VERMONT



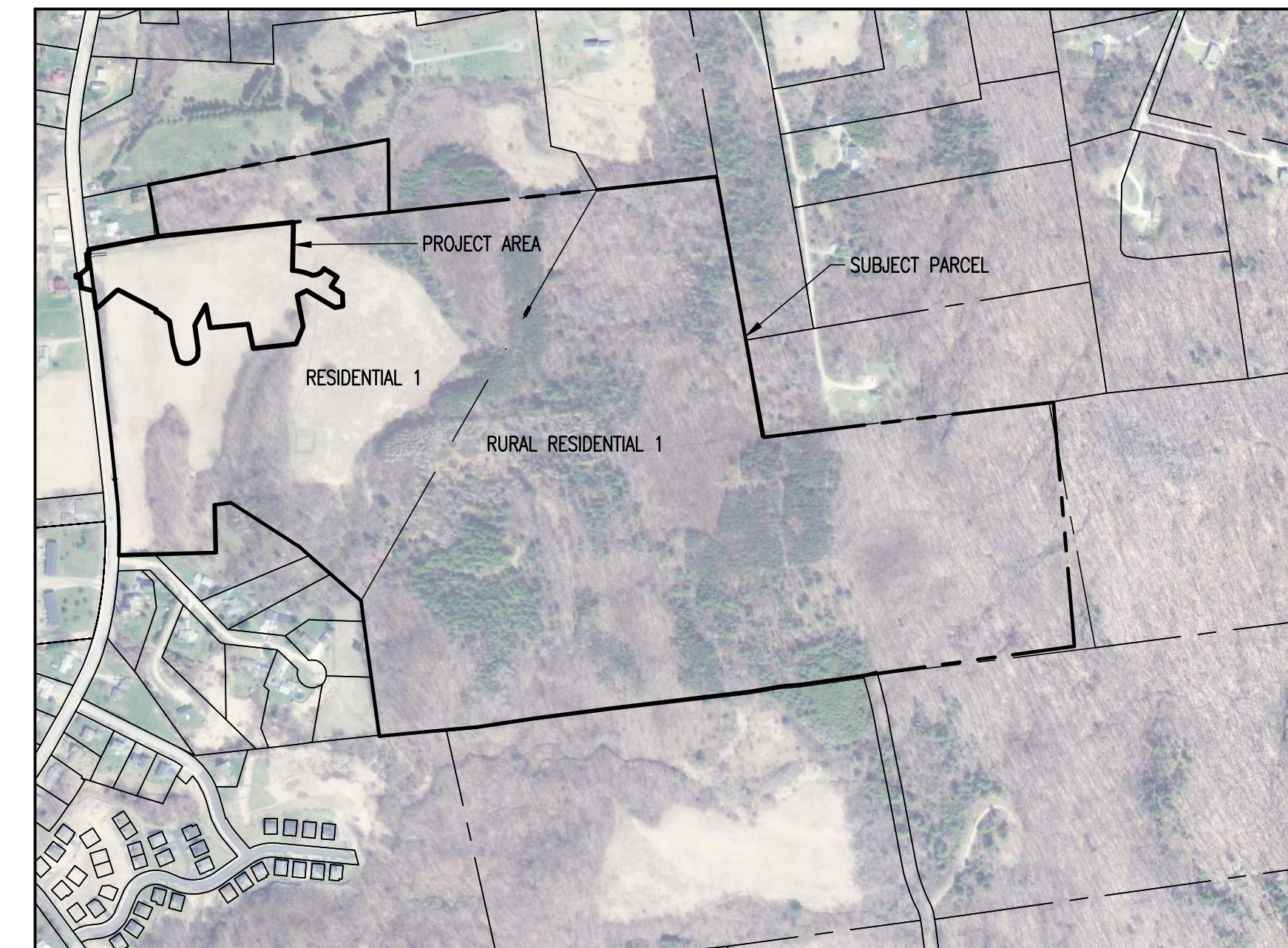
LOCATION MAP

SCALE: 1" = 2,500'



ZONING MAP

SCALE: 1" = 1,500'



AERIAL PHOTO

SCALE: 1" = 500'

CONSULTANTS

CIVIL ENGINEER:
ENGINEERING VENTURES, PC
208 FLYNN AVE, SUITE 2A
BURLINGTON, VT 05401

LAND SURVEYOR:
VERMONT MAPPING & SURVEY CO., LLC
8 ESSEX WAY, SUITE 200B
ESSEX JUNCTION, VT 05452

LANDSCAPE ARCHITECT:
WAGNER HODGSON
7 MARBLE AVENUE
BURLINGTON, CT 05401

TRAFFIC CONSULTANT:
WALL CONSULTANT GROUP
2139 S 1260 W
SALT LAKE CITY, UT 84119-1464

ARCHITECT:
TRUEX CULLINS
209 BATTERY STREET
BURLINGTON, VT 05401

OWNER/APPLICANT

JOSEPH LASTER
1139 LANIER BLVD
ATLANTA, GA 30306
(404) 822-6990

SUBJECT PROPERTY

PARCEL ID: 17-22-62.100
LOCATION: EAST SIDE OF MECHANICSVILLE ROAD
BETWEEN HAWK LANE AND THE TOWN CEMETERY

ZONING DISTRICT DIMENSIONAL STANDARDS

Residential 1 District	Required	Proposed							
		Lot 1	Lot 2	Lot 3	Lot 4	Lot 5	Lot 6	Lot 7	Lot 8
Lot Area	6,000-sf minimum	36,452-sf	17,374-sf	19,288-sf	20,451-sf	18,469-sf	20,745-sf	18,081-sf	13,189-sf
Lot Frontage	60-ft minimum	72.18-ft	90.04-ft	104.33-ft	104.81-ft	104.33-ft	104.79-ft	104.00-ft	114.71-ft
Lot Depth	100-ft minimum	249.90-ft	189.31-ft	189.31-ft	171.15-ft	170.48-ft	204.30-ft	200.22-ft	100.00-ft
Front Setback	10-ft (from ROW edge)	10-ft	10-ft	10-ft	10-ft	10-ft	10-ft	10-ft	10-ft
Side Setback	10-ft	10-ft	10-ft	10-ft	10-ft	10-ft	10-ft	10-ft	10-ft
Rear Setback	10-ft	10-ft	10-ft	10-ft	10-ft	10-ft	10-ft	10-ft	10-ft
Lot Coverage (max.)	60%	11%	20%	35%	35%	35%	35%	35%	35%

PLAN SHEET REFERENCE

- C1.0 OVERALL EXISTING CONDITIONS PLAN
- C1.1 EXISTING CONDITIONS & DEMOLITION PLAN
- C2.1 SITE LAYOUT PLAN
- C2.2 SITE GRADING & UTILITY PLAN
- C2.3 EROSION PREVENTION & SEDIMENT CONTROL PLAN
- C3.1 ROADWAY PLAN AND PROFILE
- C3.2 TYPICAL ROADWAY CROSS SECTION
- C4.0 WATER DETAILS & NOTES
- C4.1 SANITARY DETAILS & NOTES
- C4.2 SITE DETAILS
- C4.3 STORMWATER DETAILS
- C4.5 EROSION PREVENTION & SEDIMENT CONTROL DETAILS & NOTES

PRELIMINARY PLAT
SUBJECT TO CHANGE
04/07/2022



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Atlanta, GA 30306
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Sheet Title:

Cover Sheet

Project Title:

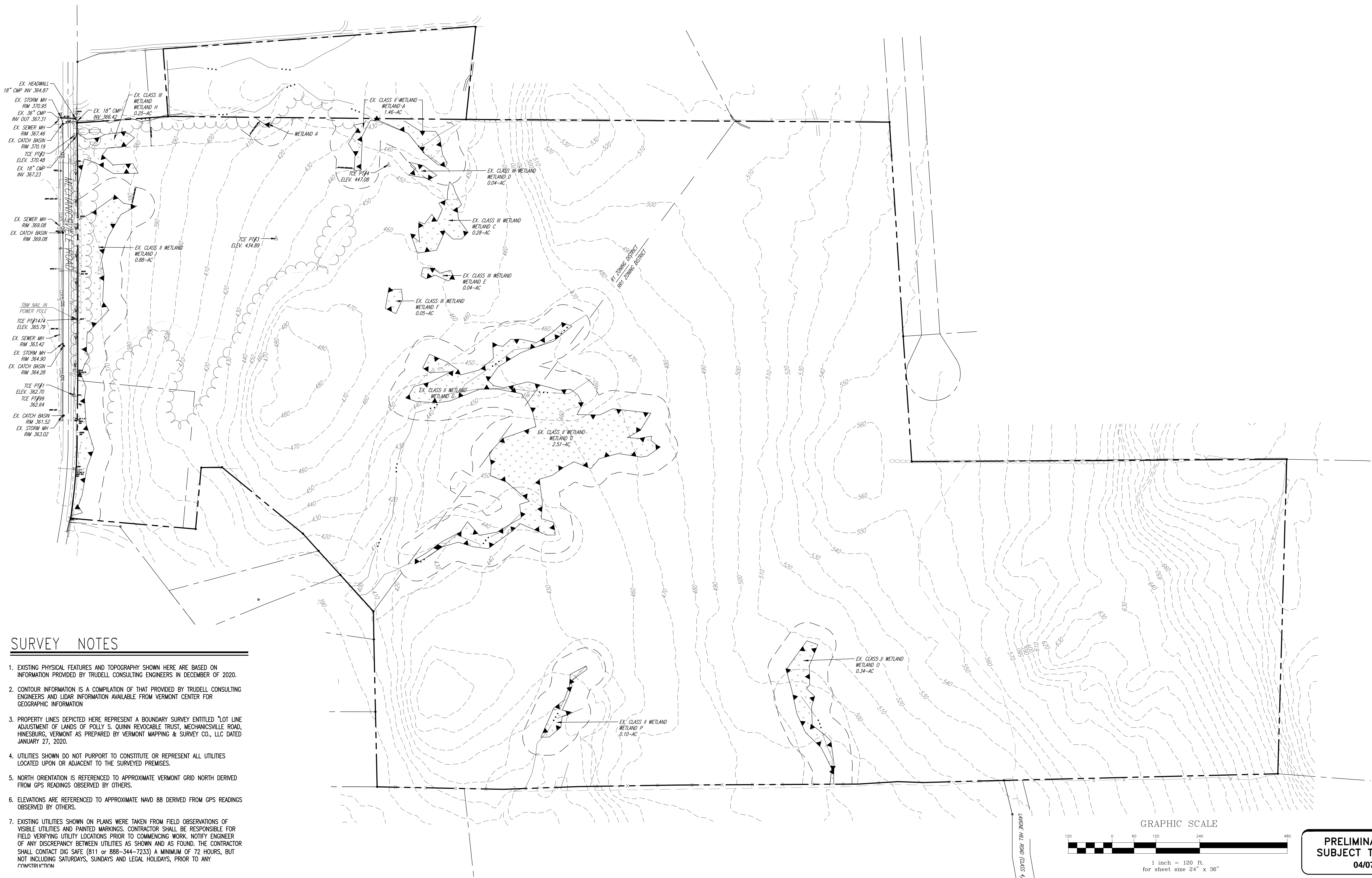
PROPOSED SUBDIVISION
LASTER PROPERTY
TOWN OF HINESBURG, CHITTENDEN COUNTY, VERMONT

EV Project #	20542
Drawn By:	HKW
Checked By:	KW
Scale:	as noted
Date:	04/01/2022

No.	Description	Date

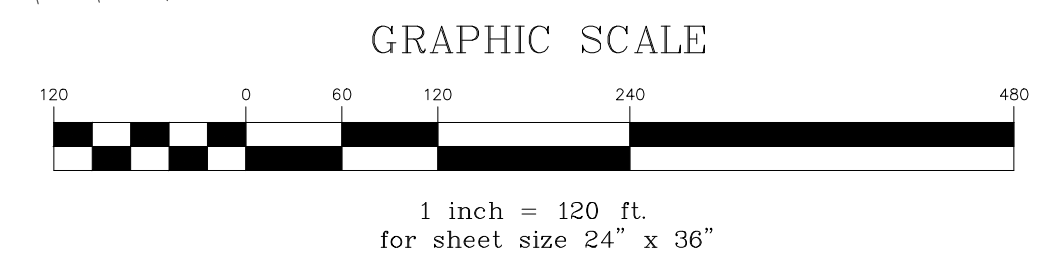
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SURVEY NOTES

- EXISTING PHYSICAL FEATURES AND TOPOGRAPHY SHOWN HERE ARE BASED ON INFORMATION PROVIDED BY TRUDELL CONSULTING ENGINEERS IN DECEMBER OF 2020.
- CONTOUR INFORMATION IS A COMPILATION OF THAT PROVIDED BY TRUDELL CONSULTING ENGINEERS AND LIDAR INFORMATION AVAILABLE FROM VERMONT CENTER FOR GEOGRAPHIC INFORMATION
- PROPERTY LINES DEPICTED HERE REPRESENT A BOUNDARY SURVEY ENTITLED "LOT LINE ADJUSTMENT OF LANDS OF POLLY S. QUINN REVOCABLE TRUST, MECHANICSVILLE ROAD, HINESBURG, VERMONT AS PREPARED BY VERMONT MAPPING & SURVEY CO., LLC DATED JANUARY 27, 2020.
- UTILITIES SHOWN DO NOT PURPORT TO CONSTITUTE OR REPRESENT ALL UTILITIES LOCATED UPON OR ADJACENT TO THE SURVEYED PREMISES.
- NORTH ORIENTATION IS REFERENCED TO APPROXIMATE VERMONT GRID NORTH DERIVED FROM GPS READINGS OBSERVED BY OTHERS.
- ELEVATIONS ARE REFERENCED TO APPROXIMATE NAVD 88 DERIVED FROM GPS READINGS OBSERVED BY OTHERS.
- EXISTING UTILITIES SHOWN ON PLANS WERE TAKEN FROM FIELD OBSERVATIONS OF VISIBLE UTILITIES AND PAINTED MARKINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING UTILITY LOCATIONS PRIOR TO COMMENCING WORK. NOTIFY ENGINEER OF ANY DISCREPANCY BETWEEN UTILITIES AS SHOWN AND AS FOUND. THE CONTRACTOR SHALL CONTACT DIG SAFE (811 or 888-344-7233) A MINIMUM OF 72 HOURS, BUT NOT INCLUDING SATURDAYS, SUNDAYS AND LEGAL HOLIDAYS, PRIOR TO ANY CONSTRUCTION



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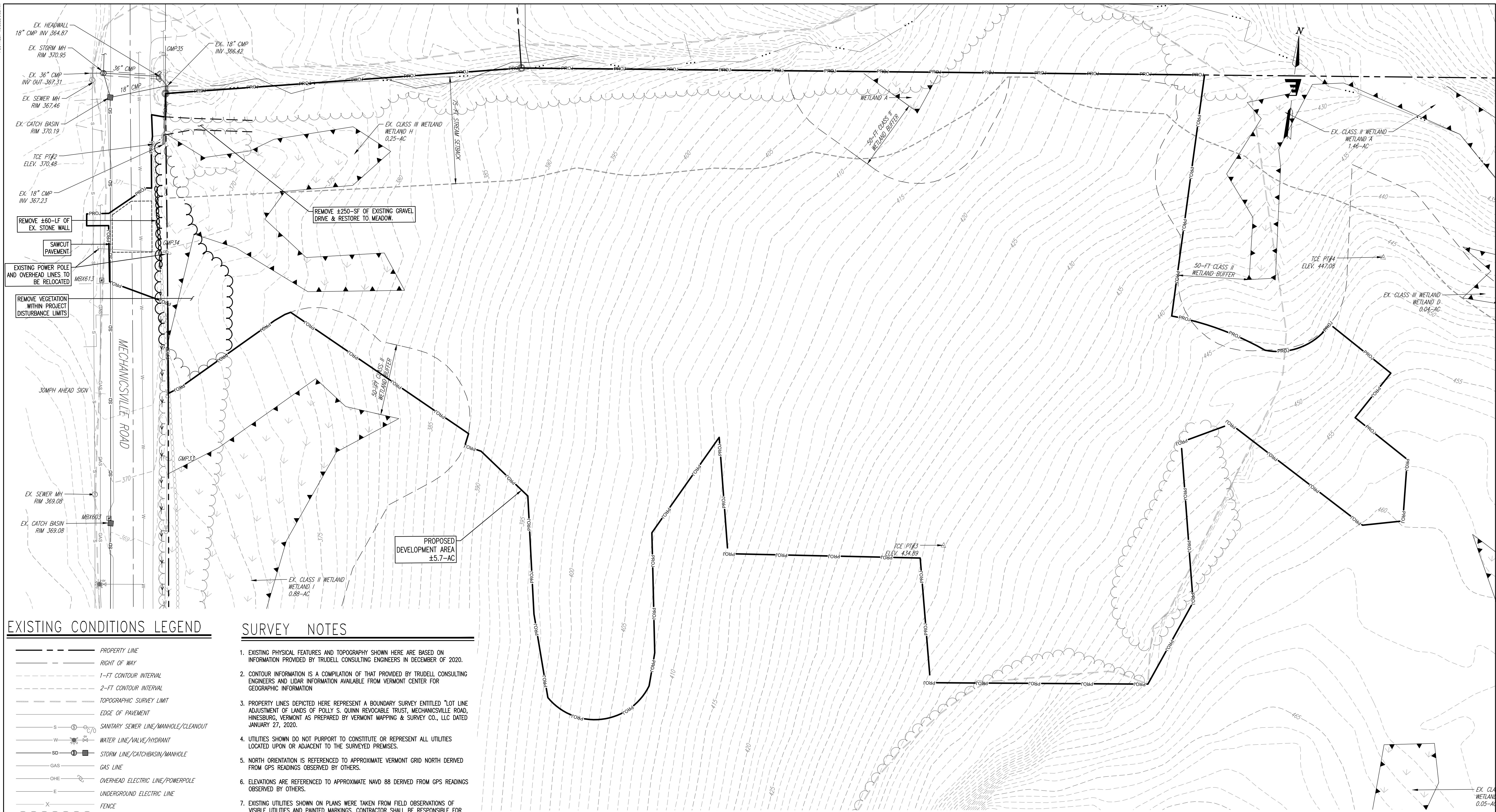
Sheet Title:	OVERALL EXISTING CONDITIONS PLAN
Project Title:	PROPOSED SUBDIVISION LASTER PROPERTY TOWN OF HINESBURG, CHITTENDEN COUNTY, VERMONT

EV Project #	20542
Drawn By:	HKW
Checked By:	KW
Scale:	1" = 120'
Date:	04/01/2022

No.	Description	Date

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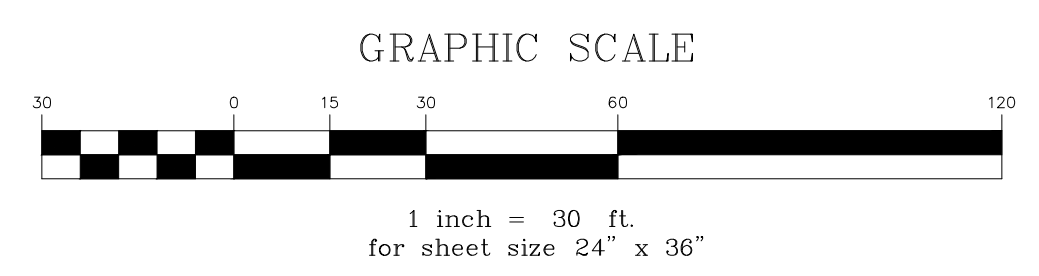


EXISTING CONDITIONS LEGEND

- PROPERTY LINE
- RIGHT OF WAY
- 1-FT CONTOUR INTERVAL
- 2-FT CONTOUR INTERVAL
- TOPOGRAPHIC SURVEY LIMIT
- EDGE OF PAVEMENT
- S --- SANITARY SEWER LINE/MAHOLE/CLEANOUT
- W --- WATER LINE/VALVE/HYDRANT
- SD --- STORM LINE/CATCHBASIN/MAHOLE
- GAS LINE
- OHE --- OVERHEAD ELECTRIC LINE/POWERPOLE
- E --- UNDERGROUND ELECTRIC LINE
- X --- FENCE
- TREELINE
- STONE WALL
- WATERCOURSE
- 75-FT STREAM SETBACK
- EDGE OF WETLAND (CLASS II OR CLASS III)
- 50-FT CLASS II WETLAND BUFFER

SURVEY NOTES

1. EXISTING PHYSICAL FEATURES AND TOPOGRAPHY SHOWN HERE ARE BASED ON INFORMATION PROVIDED BY TRUDELL CONSULTING ENGINEERS IN DECEMBER OF 2020.
2. CONTOUR INFORMATION IS A COMPILATION OF THAT PROVIDED BY TRUDELL CONSULTING ENGINEERS AND LIDAR INFORMATION AVAILABLE FROM VERMONT CENTER FOR GEOGRAPHIC INFORMATION
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8. WETLAND DELINEATION SHOWN ON THIS PLAN WAS PERFORMED ON 10/16/2020 & 10/17/2020 BY BRITANY LEBEAU OF TRUDELL CONSULTING ENGINEERS AND CONFIRMED BY VERMONT STATE WETLANDS COORDINATOR LAURA LAPIERRE ON 10/23/2020.



**PRELIMINARY PLAT
SUBJECT TO CHANGE
04/07/2022**

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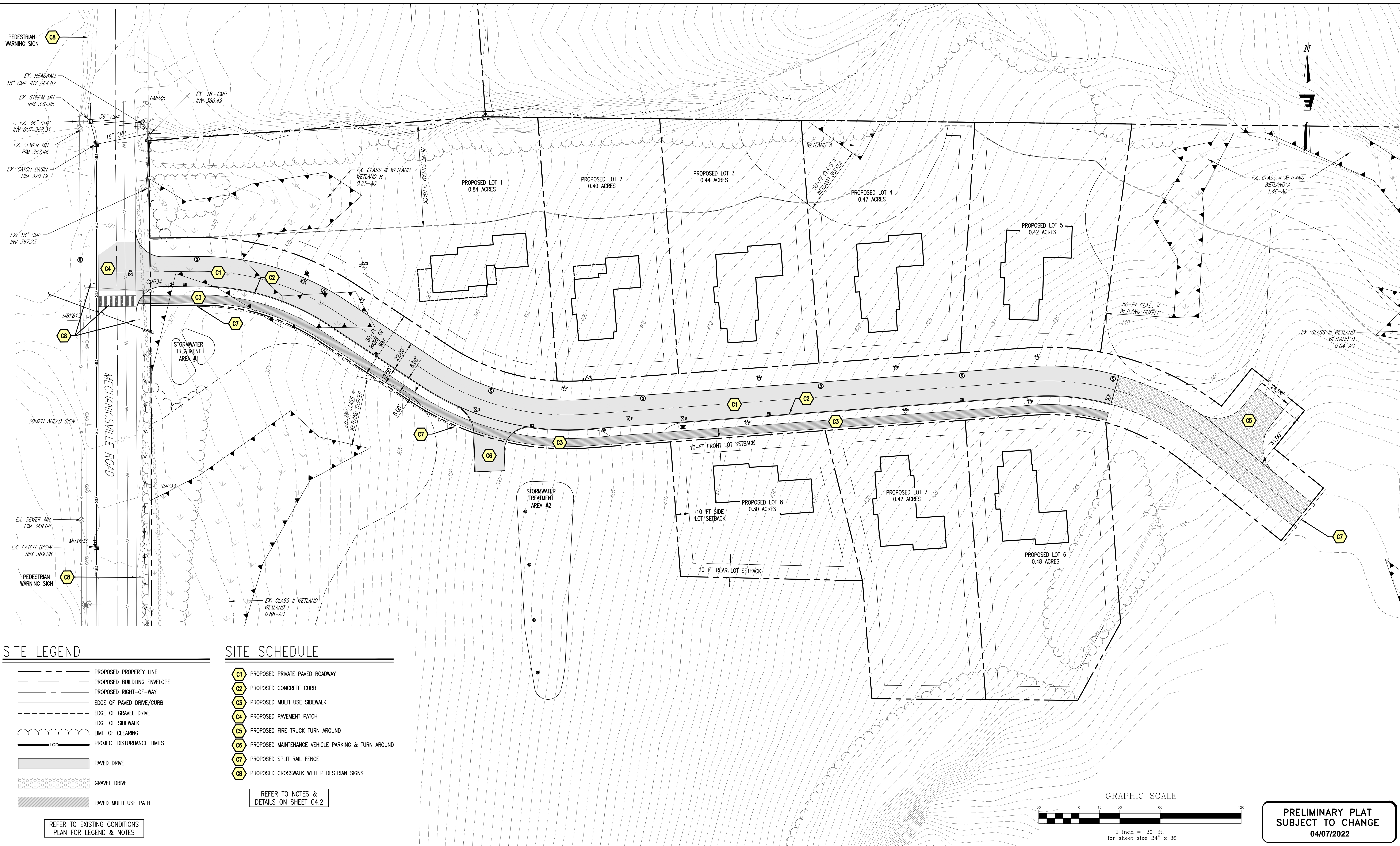
Sheet Title: **EXISTING CONDITIONS & DEMOLITION PLAN**
 Project Title: **PROPOSED SUBDIVISION LASTER PROPERTY TOWN OF HINESBURG, CHITTENDEN COUNTY, VERMONT**

E.V. Project #	20542
Drawn By:	HKW
Checked By:	KW
Scale:	1" = 30'
Date:	04/01/2022

No.	Description	Date

C1.1

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SITE LEGEND

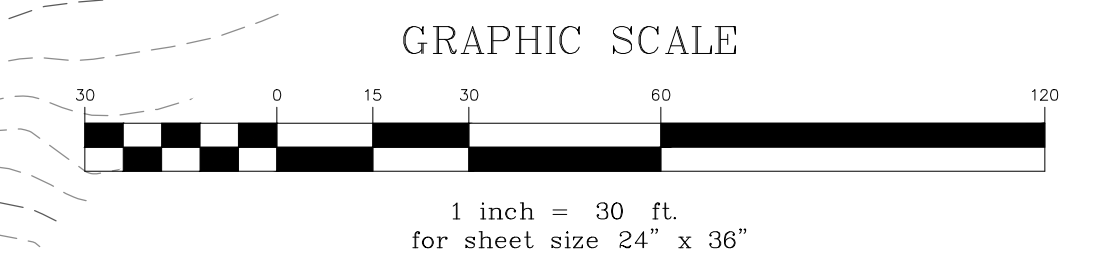
- PROPOSED PROPERTY LINE
- PROPOSED BUILDING ENVELOPE
- PROPOSED RIGHT-OF-WAY
- EDGE OF PAVED DRIVE/CURB
- EDGE OF GRAVEL DRIVE
- EDGE OF SIDEWALK
- LIMIT OF CLEARING
- PROJECT DISTURBANCE LIMITS
- PAVED DRIVE
- GRAVEL DRIVE
- PAVED MULTI USE PATH

REFER TO EXISTING CONDITIONS PLAN FOR LEGEND & NOTES

SITE SCHEDULE

- C1 PROPOSED PRIVATE PAVED ROADWAY
- C2 PROPOSED CONCRETE CURB
- C3 PROPOSED MULTI USE SIDEWALK
- C4 PROPOSED PAVEMENT PATCH
- C5 PROPOSED FIRE TRUCK TURN AROUND
- C6 PROPOSED MAINTENANCE VEHICLE PARKING & TURN AROUND
- C7 PROPOSED SPLIT RAIL FENCE
- C8 PROPOSED CROSSWALK WITH PEDESTRIAN SIGNS

REFER TO NOTES & DETAILS ON SHEET C4.2



PRELIMINARY PLAT
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04/07/2022

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Atlanta, GA 30306
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Sheet Title: **SITE LAYOUT PLAN**

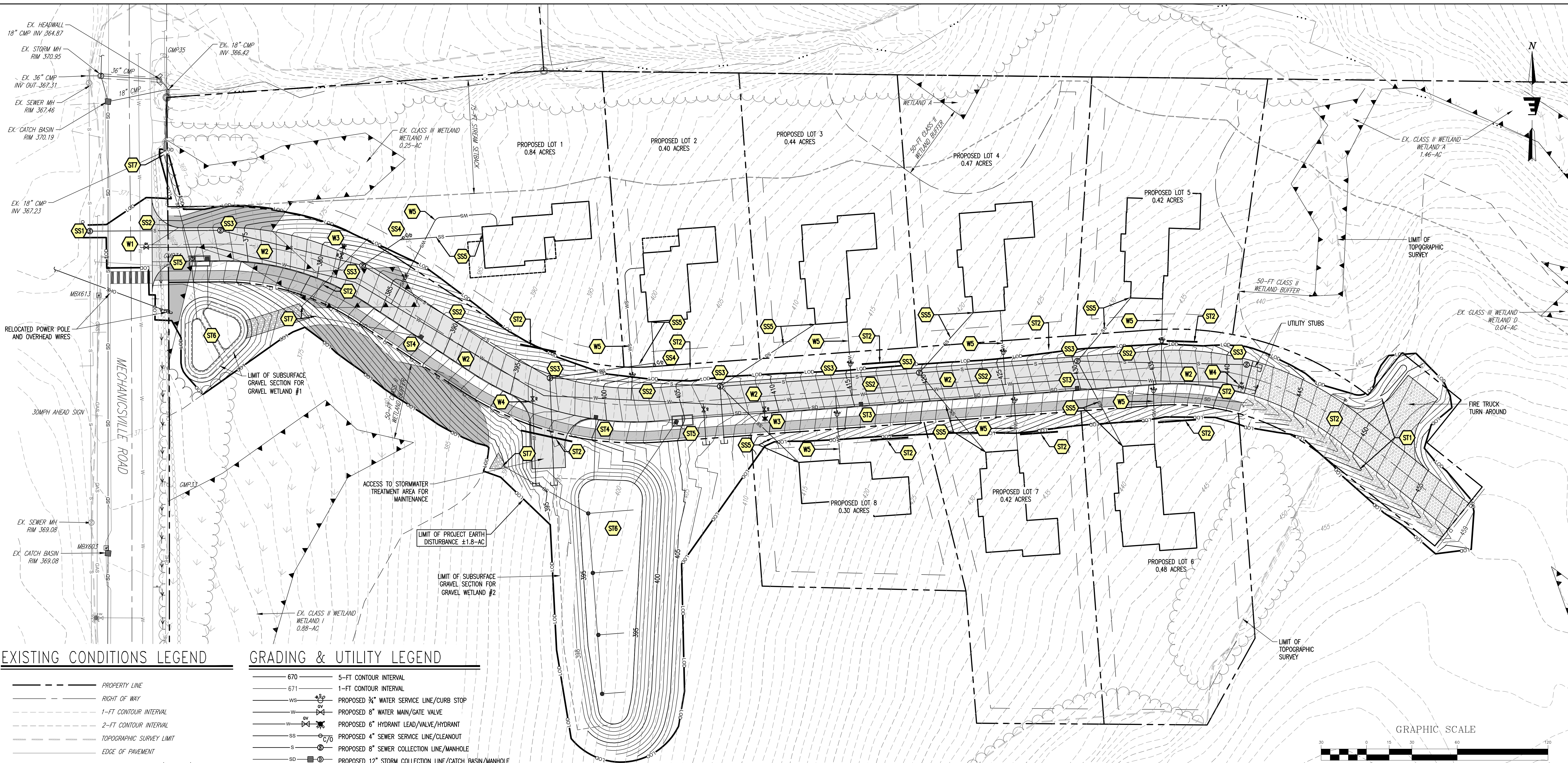
Project Title: **PROPOSED SUBDIVISION LASTER PROPERTY**
TOWN OF HINESBURG, CHITTENDEN COUNTY, VERMONT

EV Project #	20542
Drawn By:	HKW
Checked By:	KW
Scale:	1" = 30'
Date:	04/01/2022

No.	Description	Date

C2.1

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EXISTING CONDITIONS LEGEND

- PROPERTY LINE
- RIGHT OF WAY
- - - 1-FT CONTOUR INTERVAL
- - - 2-FT CONTOUR INTERVAL
- - - TOPOGRAPHIC SURVEY LIMIT
- - - EDGE OF PAVEMENT
- C/O SANITARY SEWER LINE/MANHOLE/CLEANOUT
- W WATER LINE/VALVE/HYDRANT
- SD STORM LINE/CATCHBASIN/MANHOLE
- GAS LINE
- OHE OVERHEAD ELECTRIC LINE/POWERPOLE
- E UNDERGROUND ELECTRIC LINE
- X FENCE
- TREE LINE
- STONE WALL
- WATERCOURSE
- 75-FT STREAM SETBACK
- EDGE OF WETLAND (CLASS II OR CLASS III)
- 50-FT CLASS II WETLAND BUFFER

GRADING & UTILITY LEGEND

- 670 5-FT CONTOUR INTERVAL
- 671 1-FT CONTOUR INTERVAL
- WS PROPOSED 3/4" WATER SERVICE LINE/CURB STOP
- W PROPOSED 8" WATER MAIN/GATE VALVE
- W-HYDRANT PROPOSED 6" HYDRANT LEAD/VALVE/HYDRANT
- SS PROPOSED 4" SEWER SERVICE LINE/CLEANOUT
- S PROPOSED 8" SEWER COLLECTION LINE/MANHOLE
- SD PROPOSED 12" STORM COLLECTION LINE/CATCH BASIN/MANHOLE
- PROPOSED STORMWATER CONVEYANCE SWALE

ENVIRONMENTAL IMPACT SUMMARY

	Temporary Impacts	Permanent Impacts
Class II Wetland	0 sf	0 sf
Class II Wetland Buffer	2780 sf	185 sf
Class III Wetland	1700 sf	3855 sf
Stream Buffer Impact	200 sf (install storm pipe)	
Stream Buffer Restoration	524 sf (remove ex. gravel)	

WATER SCHEDULE [REFER TO DETAILS & NOTES ON SHEET C4.0]

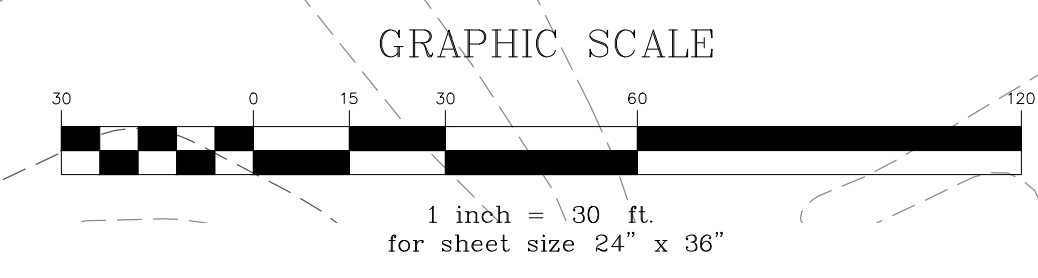
- W1 PROPOSED 8" TAPPING SLEEVE AND VALVE FOR CONNECTION TO MUNICIPAL WATER LINE
- W2 PROPOSED 8" DIA. DUCTILE IRON WATER MAIN, PROVIDE MIN. 6-FT BURY DEPTH
- W3 PROPOSED HYDRANT WITH 6" DIA. DUCTILE IRON LEAD AND GATE VALVE
- W4 PROPOSED GATE VALVE
- W5 PROPOSED WATER SERVICE FOR SINGLE FAMILY HOME PROVIDE 3/4" DIA. CTS PLASTIC WATER SERVICE LINE, WITH MIN. 6-FT BURY DEPTH AND CURB STOP WITHIN ROADWAY R.O.W.

STORMWATER SCHEDULE [REFER TO DETAILS & NOTES ON SHEET C4.3]

- ST1 PROPOSED GRASSED SWALE
- ST2 PROPOSED 12" HDPE CULVERT
- ST3 PROPOSED CATCH BASIN
- ST4 PROPOSED DEEP SUMP CATCH BASIN FOR PRETREATMENT
- ST5 PROPOSED PRE-TREATMENT TANK
- ST6 PROPOSED GRAVEL WETLAND TREATMENT AREA
- ST7 PROPOSED FLARED END SECTION WITH STONE APRON

SEWER SCHEDULE [REFER TO DETAILS & NOTES ON SHEET C4.1]

- SS1 PROPOSED 4-FT I.D. SEWER DOGHOUSE MANHOLE RIM ±371.0 INV IN EXISTING (UNKNOWN) VERIFY IN FIELD INV IN ±365.0 (MINIMUM) INV OUT EXISTING (UNKNOWN) VERIFY IN FIELD
- SS2 PROPOSED 8" SDR 35 PVC SEWER MAIN AT MIN. 0.6% SLOPE
- SS3 PROPOSED 4-FT I.D. SEWER MANHOLE
- SS4 PROPOSED SEWER CLEANOUT & FITTINGS
- SS5 PROPOSED SEWER SERVICE FOR SINGLE FAMILY HOME PROVIDE 4" SDR 35 PVC AT MIN. 2% SLOPE



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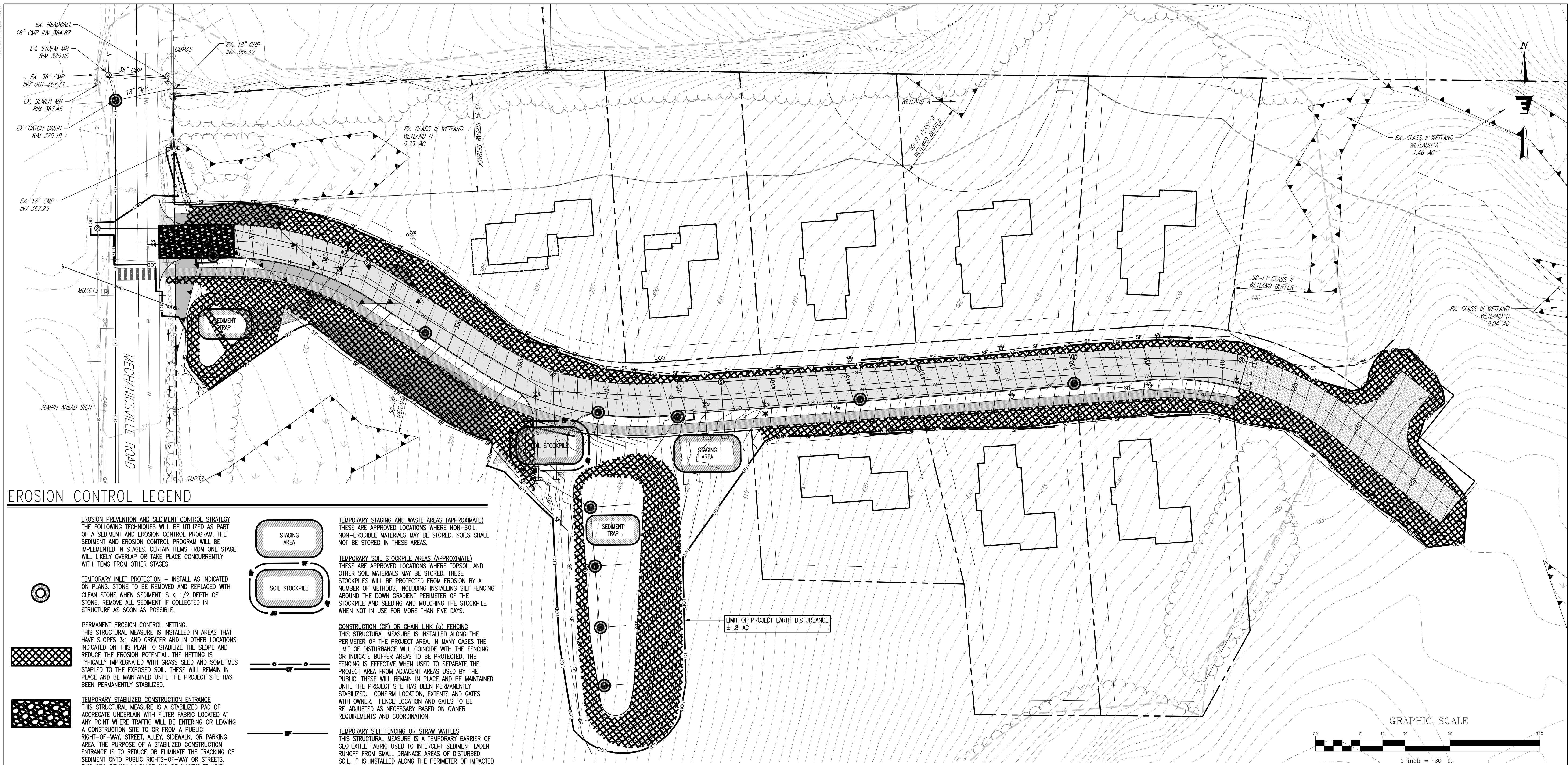
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Sheet Title: **SITE GRADING & UTILITY PLAN**
 Project Title: **PROPOSED SUBDIVISION LASTER PROPERTY TOWN OF HINESBURG, CHITTENDEN COUNTY, VERMONT**

EV Project #	No.	Description	Date
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Drawn By: HKW			
Checked By: KW			
Scale: 1" = 30'			
Date: 04/01/2022			

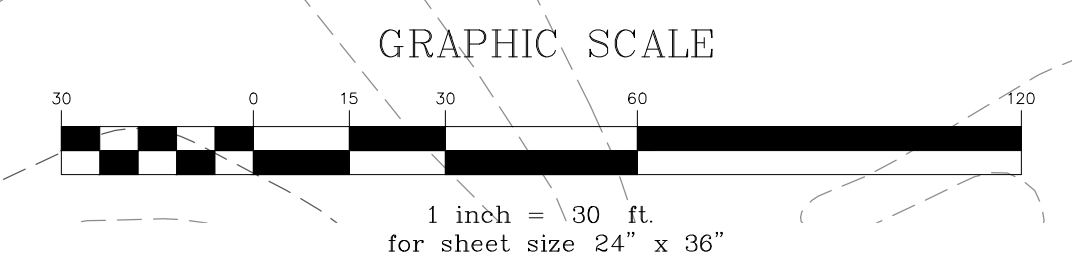
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EROSION CONTROL LEGEND

- EROSION PREVENTION AND SEDIMENT CONTROL STRATEGY**
 THE FOLLOWING TECHNIQUES WILL BE UTILIZED AS PART OF A SEDIMENT AND EROSION CONTROL PROGRAM. THE SEDIMENT AND EROSION CONTROL PROGRAM WILL BE IMPLEMENTED IN STAGES. CERTAIN ITEMS FROM ONE STAGE WILL LIKELY OVERLAP OR TAKE PLACE CONCURRENTLY WITH ITEMS FROM OTHER STAGES.
- TEMPORARY INLET PROTECTION** - INSTALL AS INDICATED ON PLANS. STONE TO BE REMOVED AND REPLACED WITH CLEAN STONE WHEN SEDIMENT IS $\leq 1/2$ DEPTH OF STONE. REMOVE ALL SEDIMENT IF COLLECTED IN STRUCTURE AS SOON AS POSSIBLE.
- PERMANENT EROSION CONTROL NETTING**
 THIS STRUCTURAL MEASURE IS INSTALLED IN AREAS THAT HAVE SLOPES 3:1 AND GREATER AND IN OTHER LOCATIONS INDICATED ON THIS PLAN TO STABILIZE THE SLOPE AND REDUCE THE EROSION POTENTIAL. THE NETTING IS TYPICALLY IMPREGNATED WITH GRASS SEED AND SOMETIMES STAPLED TO THE EXPOSED SOIL. THESE WILL REMAIN IN PLACE AND BE MAINTAINED UNTIL THE PROJECT SITE HAS BEEN PERMANENTLY STABILIZED.
- TEMPORARY STABILIZED CONSTRUCTION ENTRANCE**
 THIS STRUCTURAL MEASURE IS A STABILIZED PAD OF AGGREGATE UNDERLAIN WITH FILTER FABRIC LOCATED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE TO OR FROM A PUBLIC RIGHT-OF-WAY, STREET, ALLEY, SIDEWALK, OR PARKING AREA. THE PURPOSE OF A STABILIZED CONSTRUCTION ENTRANCE IS TO REDUCE OR ELIMINATE THE TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY OR STREETS. THIS WILL REMAIN IN PLACE AND BE MAINTAINED UNTIL THE PROJECT SITE HAS BEEN PERMANENTLY STABILIZED. ONCE REMOVED, THE IMPACTED AREA SHALL BE SEEDED AND MULCHED.
- TEMPORARY SEDIMENT BASIN**
 THIS STRUCTURAL MEASURE INVOLVES CONSTRUCTING TEMPORARY SEDIMENT BASINS IN THE LOCATION OF PROPOSED STORMWATER PONDS. GENERALLY THE STORMWATER PONDS CAN BE CONSTRUCTED AS SHOWN ON THE PLANS HOWEVER ORIFICE ON THE OUTLET STRUCTURES SHALL BE OMITTED UNTIL THE SITE IS STABILIZED TO IMPOUND RUNOFF AND ALLOW FOR SETTLING OF SUSPENDED FINES. THIS WILL REMAIN IN PLACE AND BE MAINTAINED UNTIL THE PROJECT SITE HAS BEEN PERMANENTLY STABILIZED. ONCE THE SITE IS STABILIZED, SEDIMENT SHALL BE REMOVED FROM THE BASINS AND THE OUTLET ORIFICE SHALL BE DRILLED INTO THE OUTLET STRUCTURE AS NOTED ON THE PLANS.
- TEMPORARY STAGING AND WASTE AREAS (APPROXIMATE)**
 THESE ARE APPROVED LOCATIONS WHERE NON-SOIL, NON-ERODIBLE MATERIALS MAY BE STORED. SOILS SHALL NOT BE STORED IN THESE AREAS.
- TEMPORARY SOIL STOCKPILE AREAS (APPROXIMATE)**
 THESE ARE APPROVED LOCATIONS WHERE TOPSOIL AND OTHER SOIL MATERIALS MAY BE STORED. THESE STOCKPILES WILL BE PROTECTED FROM EROSION BY A NUMBER OF METHODS, INCLUDING INSTALLING SILT FENCING AROUND THE DOWN GRADIENT PERIMETER OF THE STOCKPILE AND SEEDING AND MULCHING THE STOCKPILE WHEN NOT IN USE FOR MORE THAN FIVE DAYS.
- CONSTRUCTION (CF) OR CHAIN LINK (C) FENCING**
 THIS STRUCTURAL MEASURE IS INSTALLED ALONG THE PERIMETER OF THE PROJECT AREA. IN MANY CASES THE LIMIT OF DISTURBANCE WILL COINCIDE WITH THE FENCING OR INDICATE BUFFER AREAS TO BE PROTECTED. THE FENCING IS EFFECTIVE WHEN USED TO SEPARATE THE PROJECT AREA FROM ADJACENT AREAS USED BY THE PUBLIC. THESE WILL REMAIN IN PLACE AND BE MAINTAINED UNTIL THE PROJECT SITE HAS BEEN PERMANENTLY STABILIZED. CONFIRM LOCATION, EXTENTS AND GATES WITH OWNER. FENCE LOCATION AND GATES TO BE RE-ADJUSTED AS NECESSARY BASED ON OWNER REQUIREMENTS AND COORDINATION.
- TEMPORARY SILT FENCING OR STRAW WATTLES**
 THIS STRUCTURAL MEASURE IS A TEMPORARY BARRIER OF GEOTEXTILE FABRIC USED TO INTERCEPT SEDIMENT LADEN RUNOFF FROM SMALL DRAINAGE AREAS OF DISTURBED SOIL. IT IS INSTALLED ALONG THE PERIMETER OF IMPACTED AREAS AND ALONG THE BASE OF THE FILL SLOPES. ADDITIONALLY, WHEN DESIGNATED ALONG THE LIMITS OF DISTURBANCE, INSTALL CONSTRUCTION FENCE BEHIND THE SILT FENCE. SILT FENCING IS EFFECTIVE IN REDUCING STORMWATER RUNOFF VELOCITIES, ASSIST IN THE DEPOSITION OF TRANSPORTED SEDIMENT LOAD AND PREVENT EROSION OF SOILS ONTO ADJACENT AREAS. THESE WILL REMAIN IN PLACE AND BE MAINTAINED UNTIL THE PROJECT SITE HAS BEEN PERMANENTLY STABILIZED.
- LIMITS OF DISTURBANCE**
 THE CONTRACTOR SHALL CONTAIN ANY EARTH MOVING ACTIVITIES WITHIN THE DESIGNATED LIMITS SHOWN ON THIS PLAN. THE ENGINEER SHALL REVIEW THE SITE TO MAKE ANY ADJUSTMENTS TO ACCOUNT FOR ENVIRONMENTALLY SENSITIVE AREAS, SPECIMEN TREES AND SPECIAL AREAS OF CONCERN.



**PRELIMINARY PLAT
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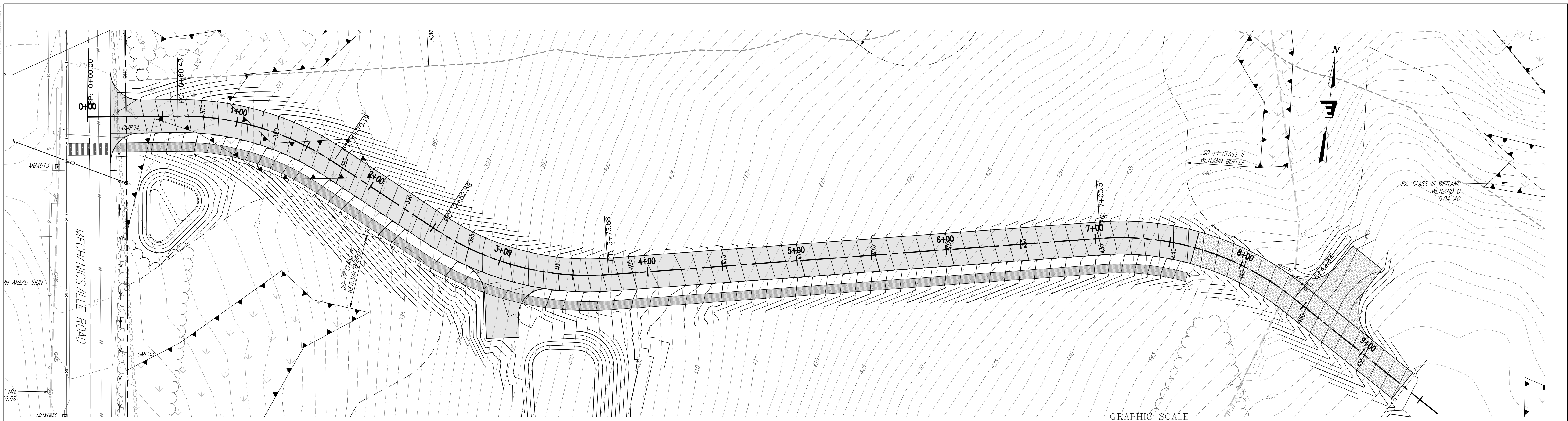
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Sheet Title: **EROSION PREVENTION & SEDIMENT CONTROL PLAN**
 Project Title: **PROPOSED SUBDIVISION LASTER PROPERTY**
 TOWN OF HINESBURG, CHITTENDEN COUNTY, VERMONT

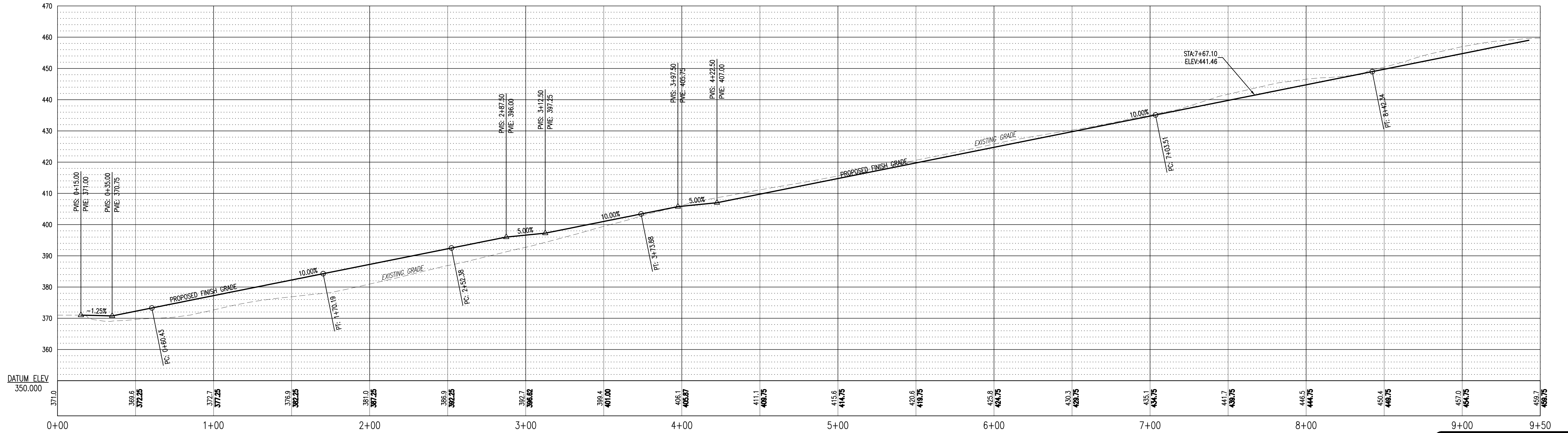
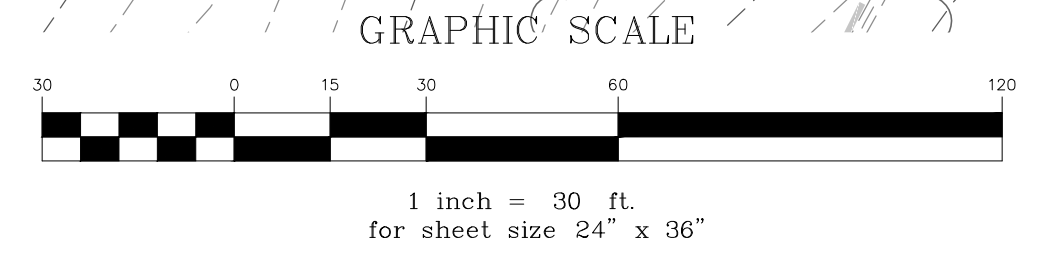
EV Project #	20542	No.	Description	Date
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Checked By:	KW			
Scale:	1" = 30'			
Date:	04/01/2022			

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SCALE: 1" = 30'



SCALE: HORIZ. 1" = 30'
VERT.: 1" = 15'

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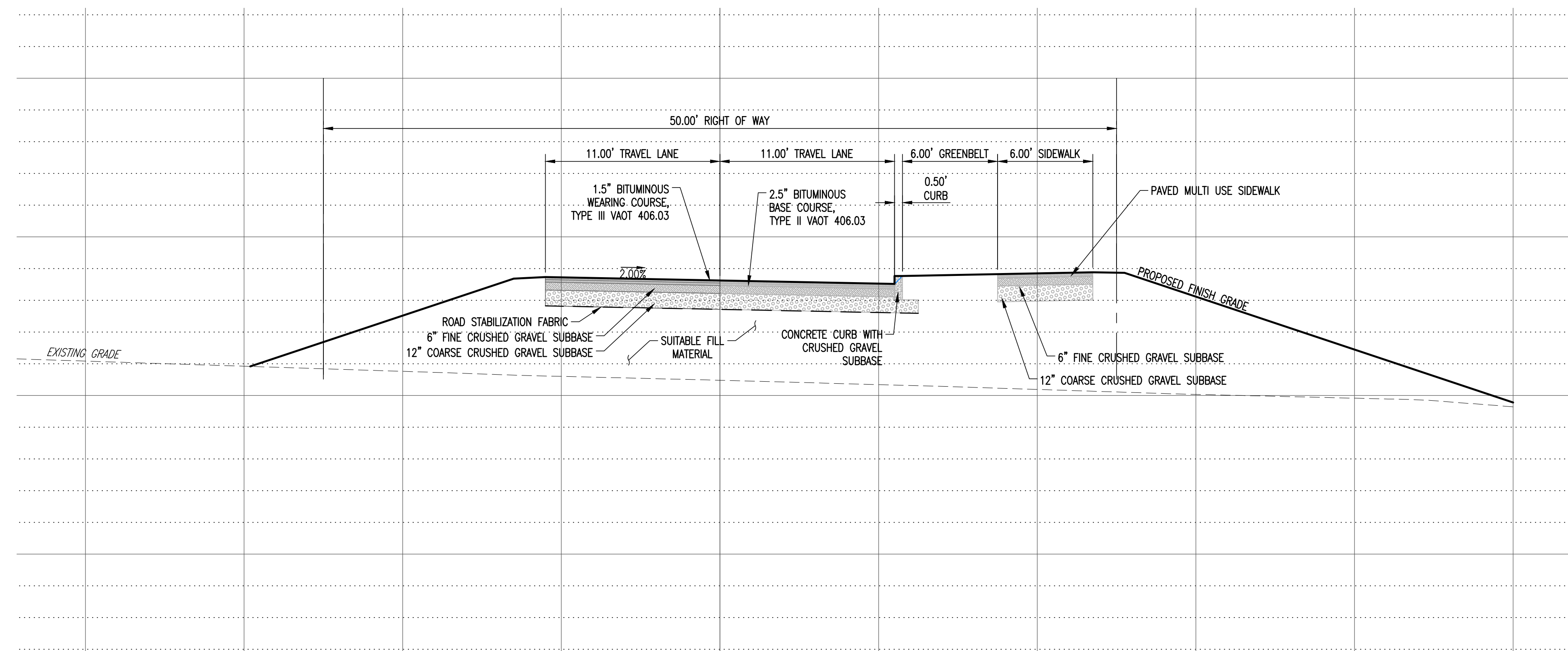
Sheet Title: **Roadway Plan & Profile**
 Project Title: **PROPOSED SUBDIVISION LASTER PROPERTY**
 TOWN OF HINESBURG, CHITTENDEN COUNTY, VERMONT

EV Project #: 20542
 Drawn By: HKW
 Checked By: KW
 Scale: 1" = 30'
 Date: 04/01/2022

No.	Description	Date

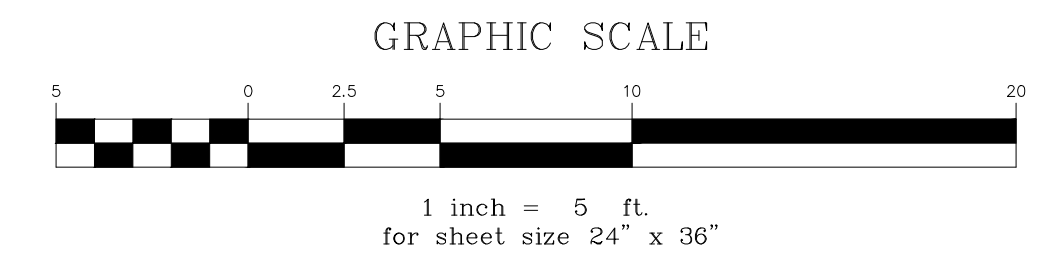
C3.1

PLOTTED: 4/9/2022 10:10 AM



TYPICAL ROADWAY SECTION, STA 2+00

SCALE: 1" = 5'



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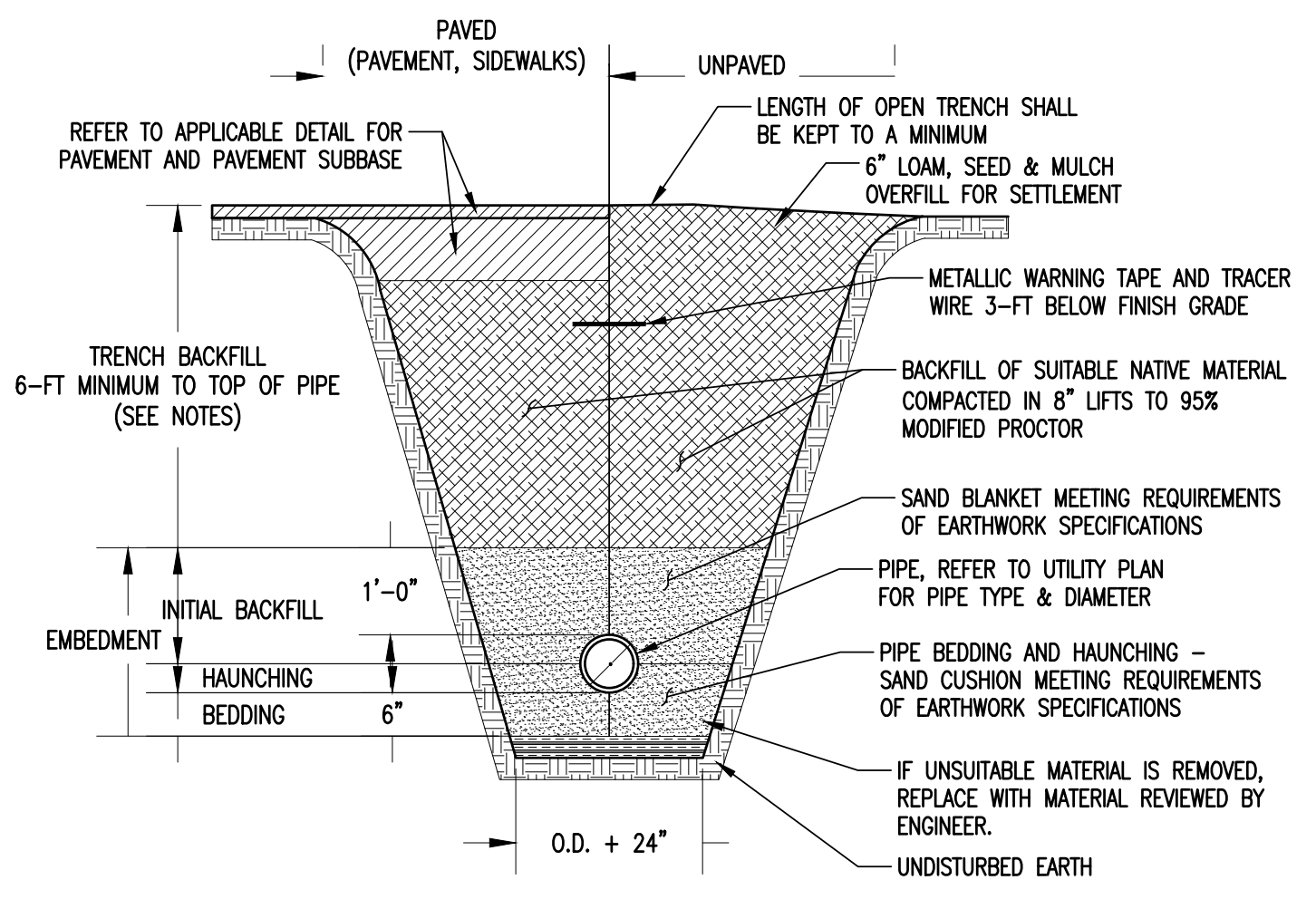
JOE LASTER
1139 Lanier Boulevard
Atlanta, GA 30306
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Sheet Title: Typical Roadway Cross Section
 Project Title: PROPOSED SUBDIVISION
 LASTER PROPERTY
 TOWN OF HINESBURG, CHITTENDEN COUNTY, VERMONT

EV Project #: 20542
 Drawn By: HKW
 Checked By: KW
 Scale: 1" = 5'
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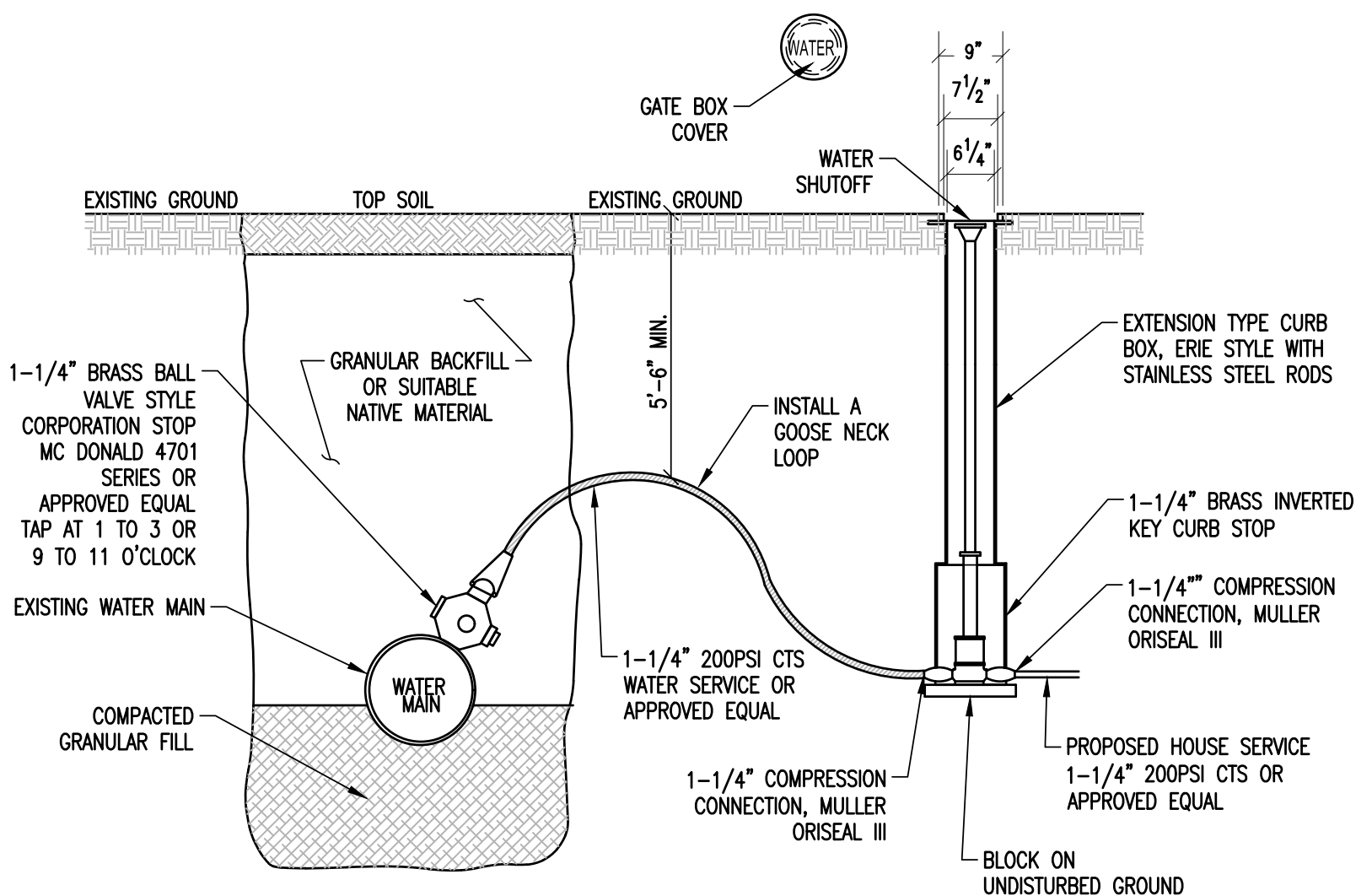
C3.2



- WATER TRENCH NOTES:**
- UNLESS OTHERWISE NOTED, ASSUME CLASS "C" SOILS. PERFORM ALL EXCAVATIONS TO OSHA REQUIREMENTS.
 - BEDDING TO PROVIDE A FIRM, STABLE, CONTINUOUS AND UNIFORM SUPPORT FOR FULL LENGTH OF PIPE.
 - PROVIDE 6-FT MINIMUM COVER OVER WATER PIPE.
 - INSTALL WATER PIPE IN ACCORDANCE WITH ANWA STANDARD C600.
 - BACKFILL SHALL BE OF A SUITABLE MATERIAL REMOVED FROM EXCAVATION EXCEPT WHERE OTHER MATERIAL IS SPECIFIED. DEBRIS, FROZEN MATERIAL, LARGE CLODS OR STONES, ORGANIC MATTER, OR OTHER UNSTABLE MATERIALS SHALL NOT BE USED FOR BACKFILL WITHIN TWO FEET OF THE TOP OF THE PIPE.
 - LEDGE, ROCK, BOULDERS AND LARGE STONES SHALL BE REMOVED TO PROVIDE A MINIMUM CLEARANCE OF FOUR INCHES BELOW AND ON EACH SIDE OF ALL PIPES.

WATER TRENCH DETAIL

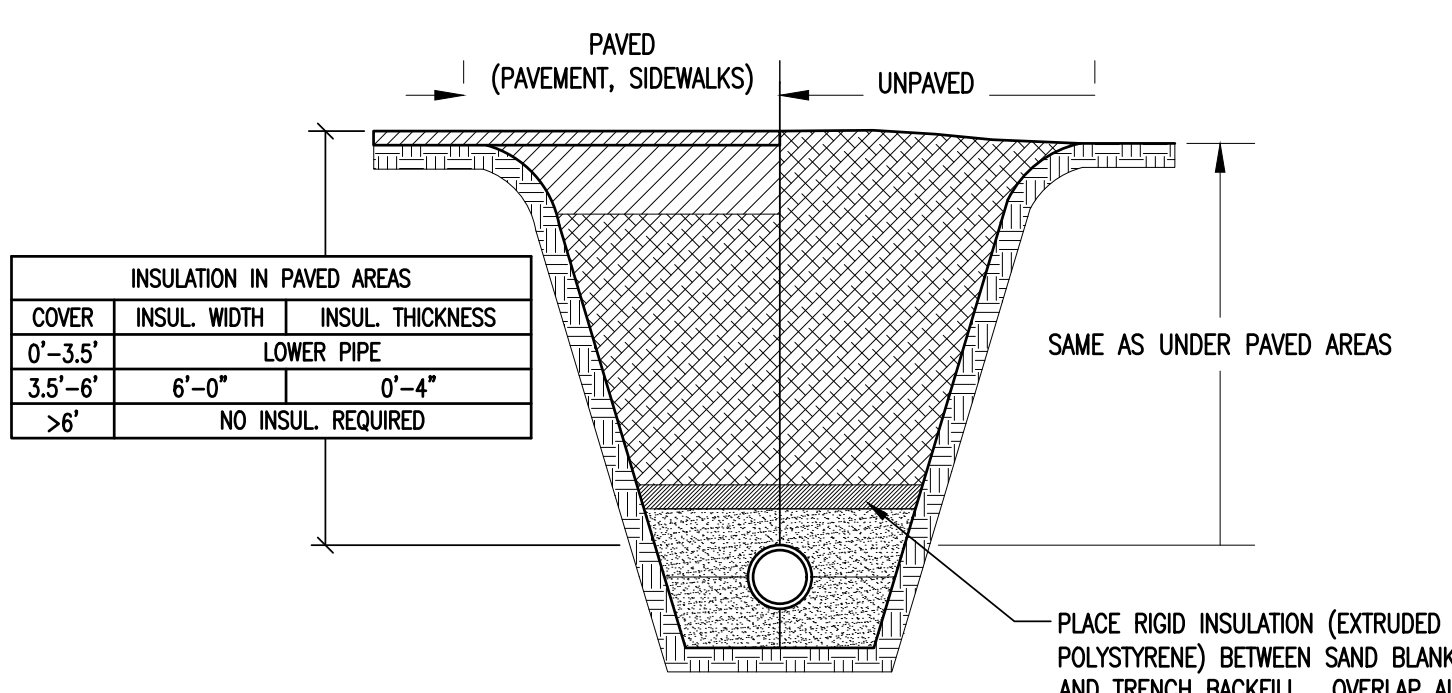
NOT TO SCALE 1



- SERVICE CONNECTION NOTES:**
- TEFLON THREADED SEALANT TAPE WILL BE USED ON ALL CORPORATION STOPS PRIOR TO INSTALLATION.
 - SPIRAL WRAP COMPLETELY COVERING THE THREAD AREA WITH TWO WRAPS.
 - PIPE DOPE OR OTHER LIQUID THREAD SEALANTS ARE NOT ACCEPTABLE.
 - LEAVE UP TO THREE THREADS SHOWING OUTSIDE OF PIPE. A TORQUE OF 35 POUNDS IS RECOMMENDED.
 - WATER SERVICE LINE AND CONNECTION SHALL BE INSTALLED ACCORDING TO THE TOWN OF HINESBURG PUBLIC WORKS DEPARTMENT STANDARDS.
 - HINESBURG WATER DEPARTMENT WILL PROVIDE A 3/4" x 1/2" WATER METER (FOR 1-20 GPM RESIDENTIAL OPERATING RANGE). HINESBURG WATER DEPARTMENT WILL BE RESPONSIBLE FOR INSPECTION, MAINTENANCE, REPAIR OR REPLACEMENT OF DEFECTIVE OR NON-WORKING METERS WITHIN THE WATER SYSTEM. THE OWNER SHALL PROVIDE ACCESS TO THE BUILDING UPON REQUEST AND SHALL BE RESPONSIBLE FOR TAKING REASONABLE MEASURE TO PROTECT THE INSIDE METER AND OUTSIDE READER FROM DAMAGE.

WATER SERVICE CONNECTION DETAIL

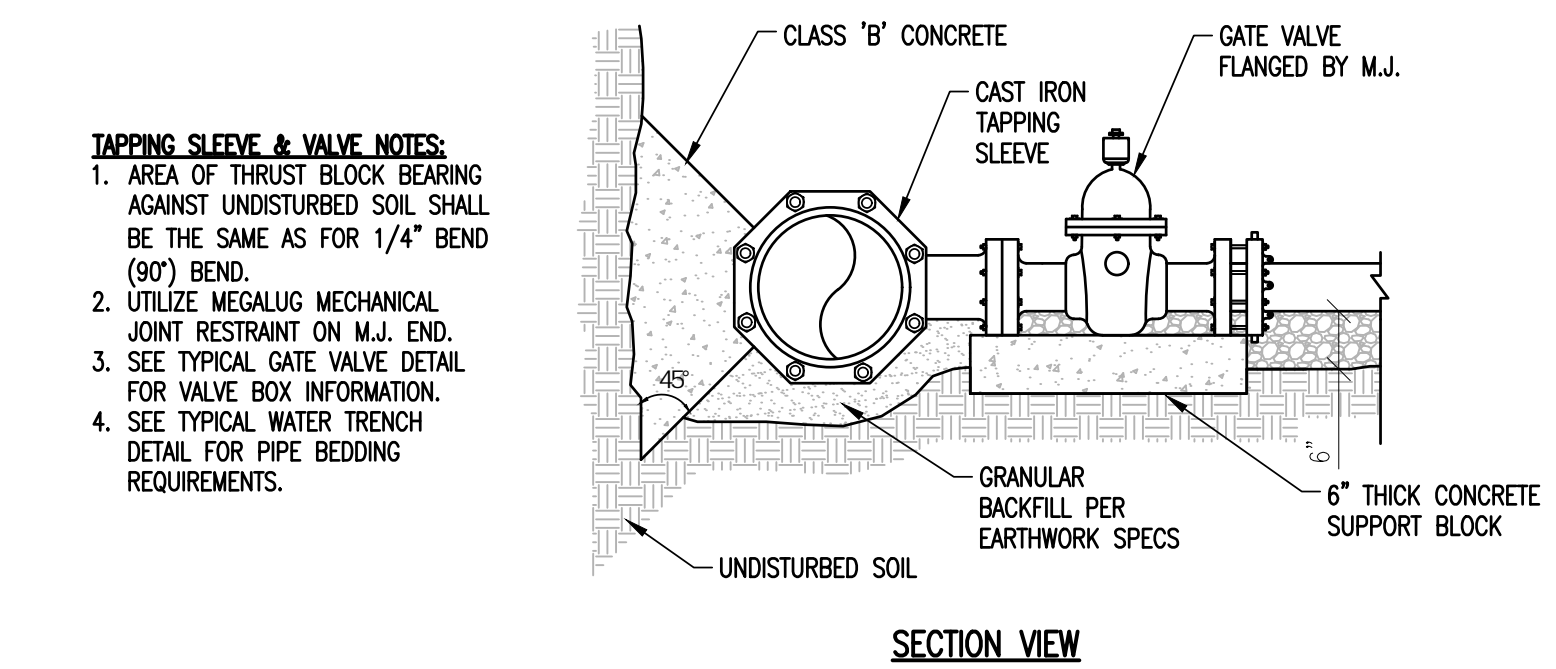
NOT TO SCALE 4



- WATER INSULATION NOTES:**
- REFER TO APPLICABLE TRENCH DETAIL FOR SPECIFIC BACKFILL INFORMATION.
 - RIGID EXTRUDED POLYSTYRENE INSULATION SHALL CONFORM WITH ASTM C578 STANDARD SPECIFICATION FOR RIGID CELLULAR POLYSTYRENE THERMAL INSULATION AND SHALL BE DOW STYROFOAM HIGH LOAD 40 OR EQUIVALENT.

INSULATION OVER SHALLOW WATER LINE DETAIL

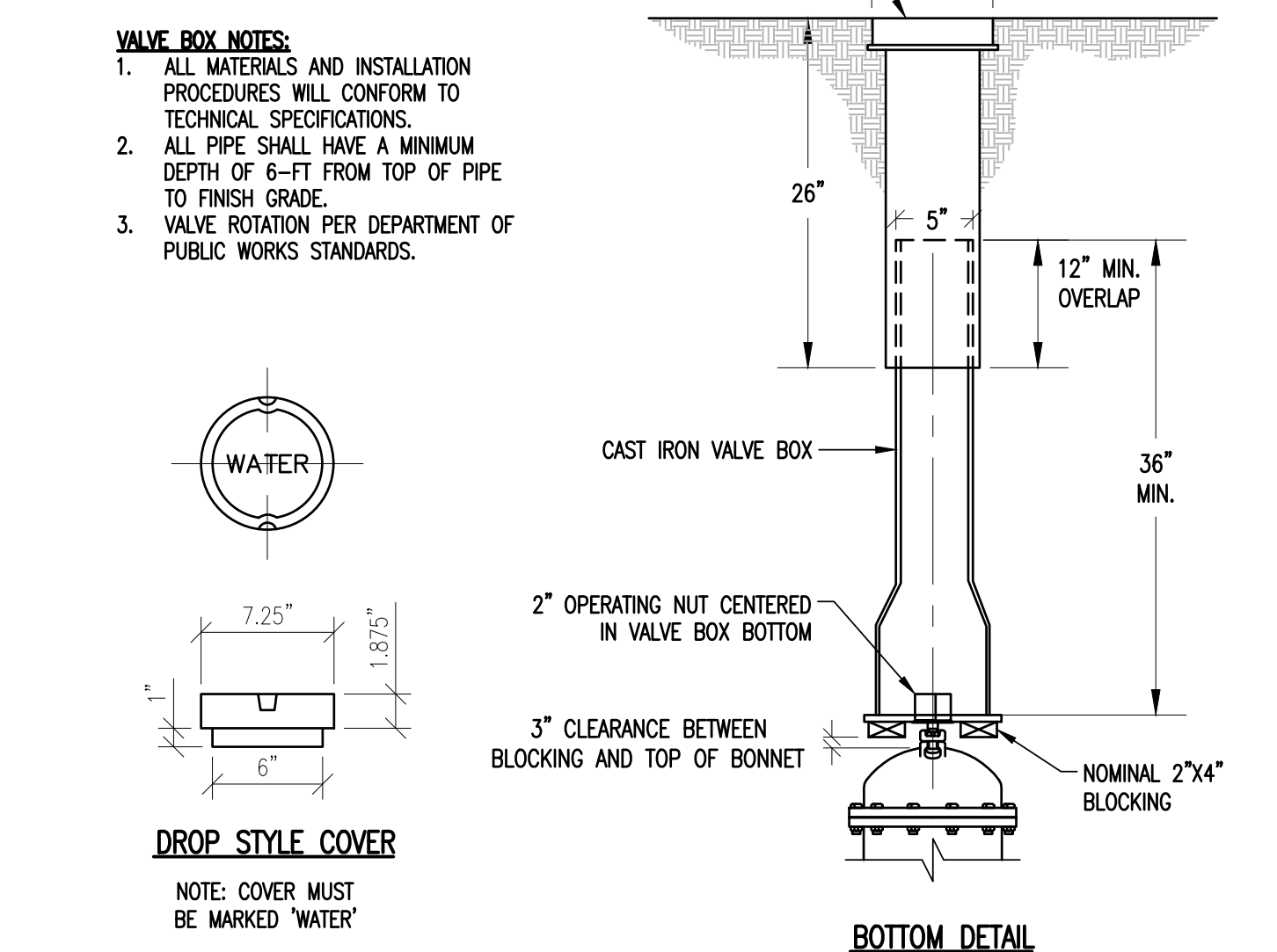
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- TAPPING SLEEVE & VALVE NOTES:**
- AREA OF THRUST BLOCK BEARING AGAINST UNDISTURBED SOIL SHALL BE THE SAME AS FOR 1/4" BEND (90°) BEND.
 - UTILIZE MEGALUG MECHANICAL JOINT RESTRAINT ON M.J. END.
 - SEE TYPICAL GATE VALVE DETAIL FOR VALVE BOX INFORMATION.
 - SEE TYPICAL WATER TRENCH DETAIL FOR PIPE BEDDING REQUIREMENTS.

TAPPING SLEEVE AND VALVE DETAIL

NOT TO SCALE 5



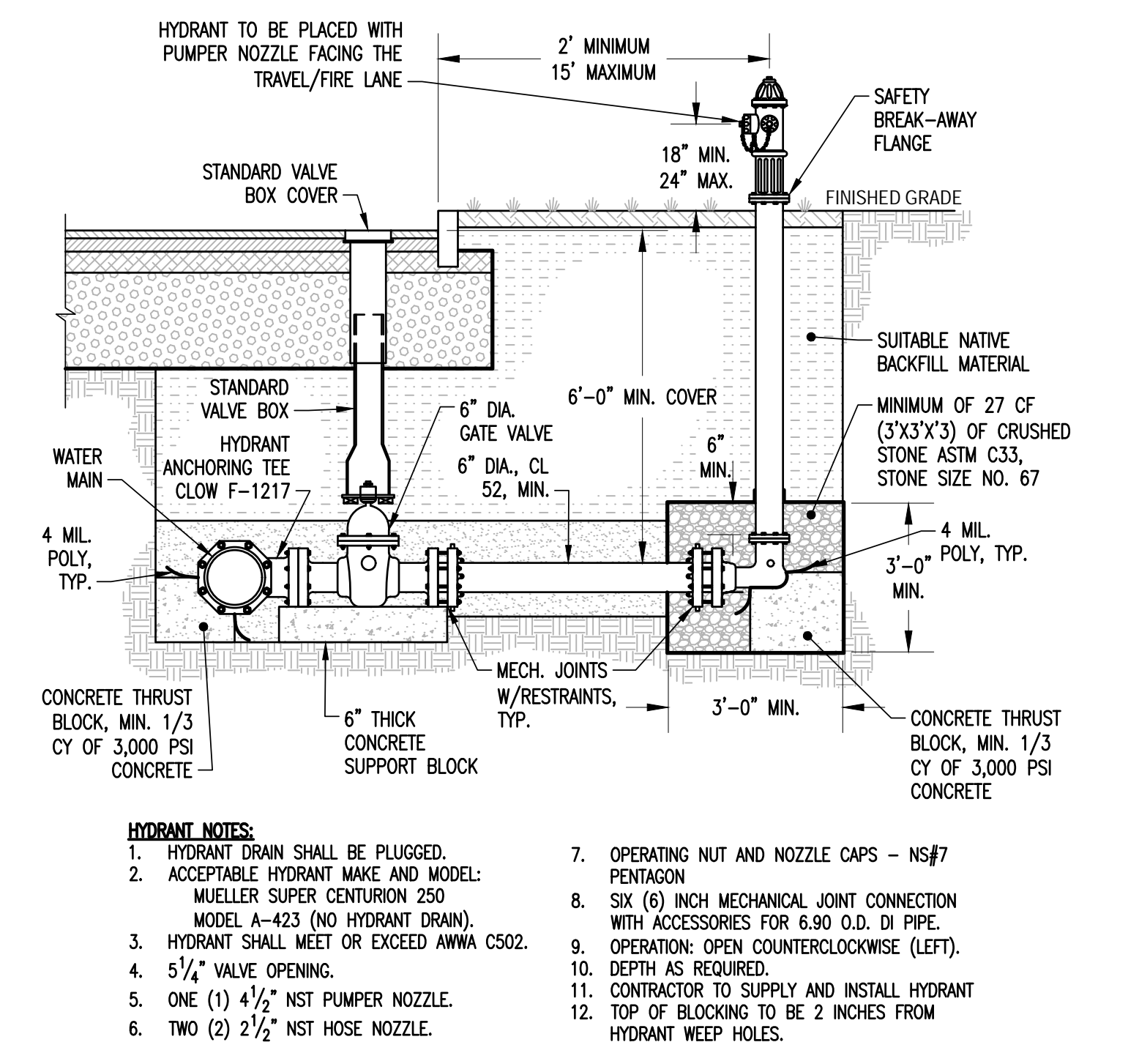
- VALVE BOX NOTES:**
- ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TECHNICAL SPECIFICATIONS.
 - ALL PIPE SHALL HAVE A MINIMUM DEPTH OF 6-FT FROM TOP OF PIPE TO FINISH GRADE.
 - VALVE ROTATION PER DEPARTMENT OF PUBLIC WORKS STANDARDS.

DROP STYLE COVER

NOTE: COVER MUST BE MARKED 'WATER'

VALVE BOX DETAIL

NOT TO SCALE 3



- HYDRANT NOTES:**
- HYDRANT DRAIN SHALL BE PLUGGED.
 - ACCEPTABLE HYDRANT MAKE AND MODEL: MUELLER SUPER CENTURION 250 MODEL A-423 (NO HYDRANT DRAIN).
 - HYDRANT SHALL MEET OR EXCEED ANWA C502.
 - 5 1/2" VALVE OPENING.
 - ONE (1) 4 1/2" NST PUMPER NOZZLE.
 - TWO (2) 2 1/2" NST HOSE NOZZLE.
 - OPERATING NUT AND NOZZLE CAPS - NS#7 PENTAGON
 - SIX (6) INCH MECHANICAL JOINT CONNECTION WITH ACCESSORIES FOR 6.90 O.D. DI PIPE.
 - OPERATION: OPEN COUNTERCLOCKWISE (LEFT).
 - DEPTH AS REQUIRED.
 - CONTRACTOR TO SUPPLY AND INSTALL HYDRANT
 - TOP OF BLOCKING TO BE 2 INCHES FROM HYDRANT WEEP HOLES.

HYDRANT DETAIL

NOT TO SCALE 6

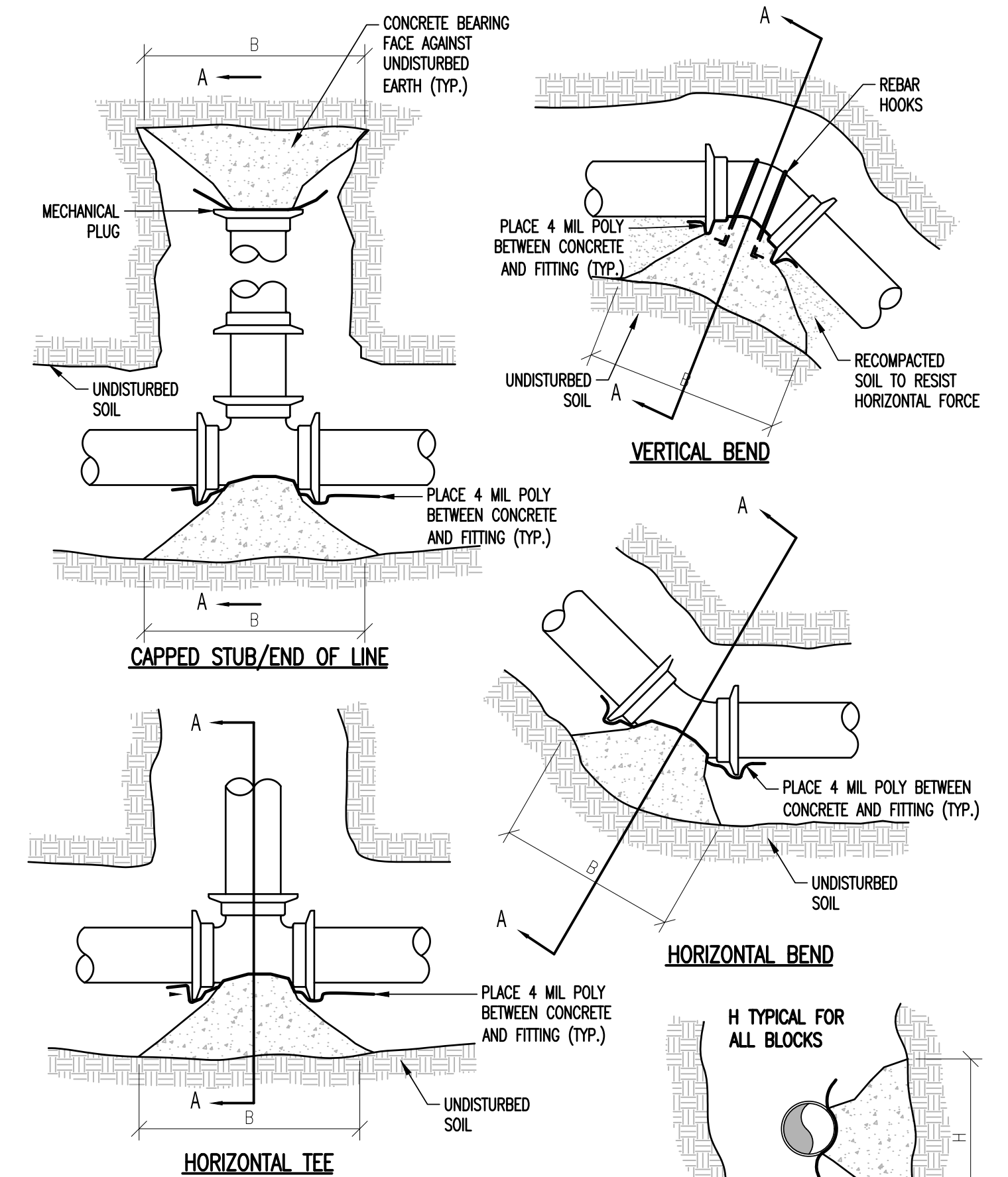


TABLE 1 - BEARING STRENGTH OF UNDISTURBED SOIL

SOIL TYPE	BEARING STRENGTH
PEAT, ETC.	0 lb/ft ²
SOFT CLAY	500 lb/ft ²
SAND	1000 lb/ft ²
SAND AND GRAVEL	1500 lb/ft ²
SAND AND GRAVEL WITH CLAY	2000 lb/ft ²
SAND AND GRAVEL CEMENTED WITH CLAY	4000 lb/ft ²
HARD PAN	5000 lb/ft ²

TABLE 2 - THRUST DEVELOPED PER 100PSI PRESSURE (lbs force)

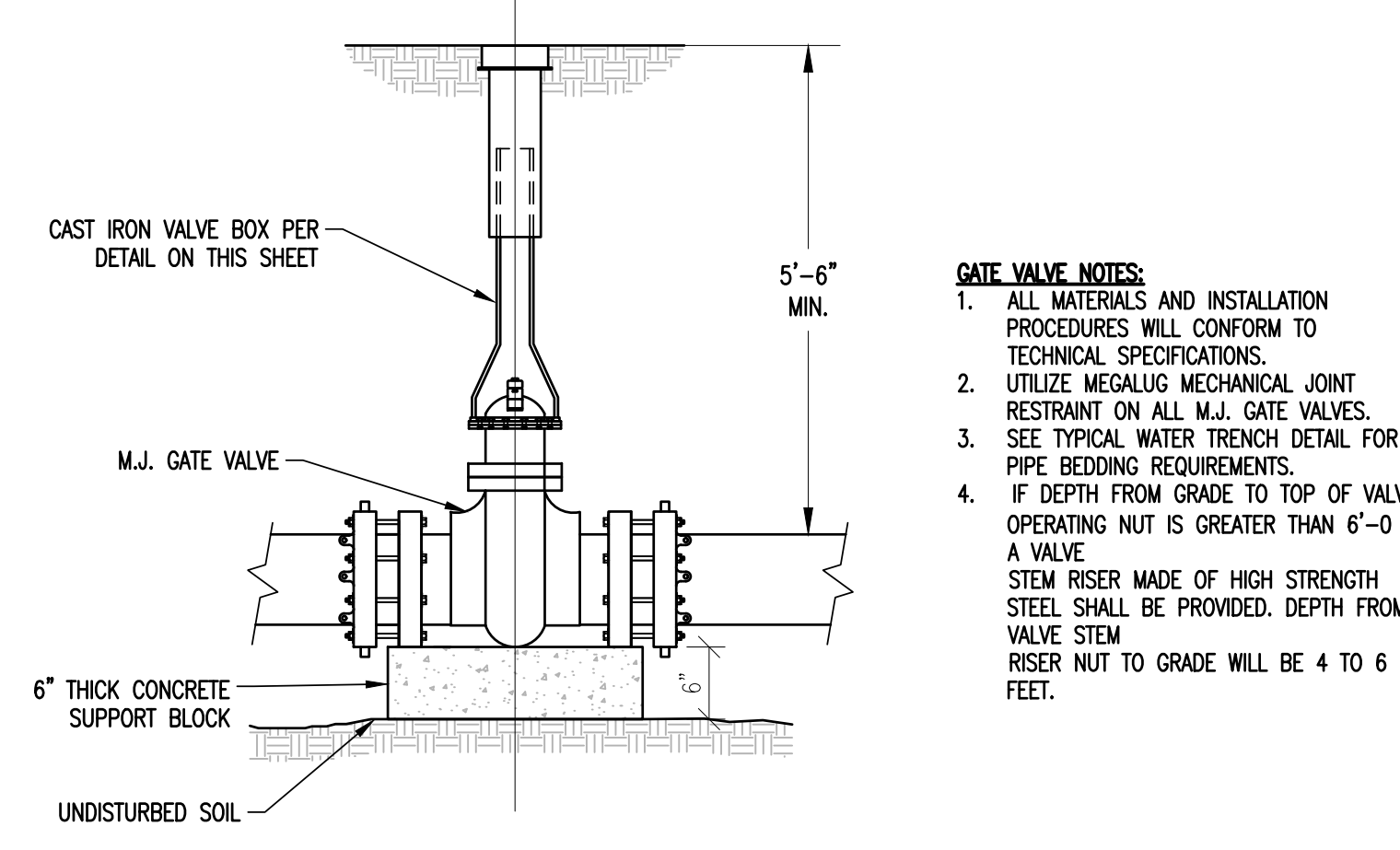
PIPE DIAMETER (INCHES)	VALVES AND DEAD ENDS, TEES	90° BENDS	45° BENDS	22 1/2° BENDS	11 1/2° BENDS
4	1810	2560	1390	635	320
6	3740	5290	2860	1370	690
8	6430	9100	4920	2320	1170
10	9680	13680	7410	3610	1820
12	13690	19350	10470	5090	2550
14	18380	25990	14100	6100	3080
16	23780	33630	18280	7960	4020

DETERMINING MINIMUM BEARING FACE AREA:
 THE AREA (ft²) SHALL BE CALCULATED BY DETERMINING THE TOTAL THRUST GENERATED AT THE FITTING. DIVIDE THE THRUST DEVELOPED (lbs force) FROM TABLE 2) BY THE BEARING STRENGTH OF THE SOIL (FROM TABLE 1). THE RESULT IS THE AREA OF THE SOIL REQUIRED TO RESIST THE THRUST (A). THE AREA CALCULATED WILL BE FOR THE AREA OF CONCRETE UP AGAINST THE TRENCH WALL (i.e. THE BACK SIDE OF THE BLOCK). USE THE TEST PRESSURE TO DETERMINE THE TOTAL THRUST.

$AREA = \frac{THRUST DEVELOPED (lbs force)}{BEARING STRENGTH OF SOIL}$

TYPICAL BEARING THRUST BLOCK

NOT TO SCALE 7



- GATE VALVE NOTES:**
- ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TECHNICAL SPECIFICATIONS.
 - UTILIZE MEGALUG MECHANICAL JOINT RESTRAINT ON ALL M.J. GATE VALVES.
 - SEE TYPICAL WATER TRENCH DETAIL FOR PIPE BEDDING REQUIREMENTS.
 - IF DEPTH FROM GRADE TO TOP OF VALVE OPERATING NUT IS GREATER THAN 6'-0", A VALVE STEM RISER MADE OF HIGH STRENGTH STEEL SHALL BE PROVIDED. DEPTH FROM VALVE STEM RISER NUT TO GRADE WILL BE 4 TO 6 FEET.

GATE VALVE DETAIL

NOT TO SCALE 8

WATER NOTES

- GENERAL**
- THE CONTRACTOR SHALL OBTAIN A BURIED UTILITY PERMIT FROM THE HINESBURG TOWN ADMINISTRATOR FOR WORK WITHIN THE RIGHT-OF-WAY.
 - THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE TOWN OF HINESBURG DPW AT LEAST 48 HOURS IN ADVANCE OF:
 - BEGINNING WATER LINE WORK - TO SCHEDULE OVSIGHT OF THE EXCAVATION WITH THE WATER WORKS DEPARTMENT
 - METER INSTALLATION
 - FINAL INSPECTION
 - THE CONTRACTOR SHALL COLLECT AND MAINTAIN "AS BUILT" INFORMATION DURING THE INSTALLATION OF THE WATER SYSTEM. "AS BUILT" DRAWINGS SHALL BE PREPARED BY THE CONTRACTOR UPON COMPLETION OF THE WATER SYSTEM.
- WATER MAINS**
- PERFORM FLUSHING, PRESSURE AND LEAKAGE TESTING ACCORDING TO ANWA C600 AND NFPA 24 (LATEST REVISION) ON EACH PIPE LINE.
 - THE ENGINEER SHALL BE GIVEN AT LEAST 48 HOURS NOTICE BEFORE THE TEST IS CONDUCTED. ALL TESTING MUST BE WITNESSED BY THE ENGINEER.
 - SPECIFIED TEST PRESSURE IS A MINIMUM OF 200 PSI OR 1.5X THE WORKING PRESSURE, WHICHEVER IS GREATER. THE PRESSURE DURING TEST SHALL NOT VARY BY MORE THAN 5 PSI.
- EXISTING UTILITIES**
- LOCATION OF UTILITY INSTALLATIONS AND UNDERGROUND STRUCTURES ARE SHOWN AS APPROXIMATE ON THE CONTRACT DOCUMENTS.
 - ALL UTILITIES SHALL BE LOCATED BY THE CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION.
 - EXISTING UTILITIES SHALL BE PROTECTED AND SUPPORTED DURING CONSTRUCTION.
 - ALL WATER, GAS, CABLE, TELEPHONE, ELECTRIC, SEWER, AND OTHER UTILITIES FOUND TO INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED IN A MANNER ACCEPTABLE TO THE ENGINEER.
- PIPE BEDDING**
- SAND BEDDING MEETING REQUIREMENTS OF EARTHWORK SPECIFICATIONS.
 - SAND BLANKET MEETING REQUIREMENTS OF EARTHWORK SPECIFICATIONS.
 - TRENCH FINAL BACKFILL MATERIAL - MATERIAL WILL EXCLUDE PIECES OF PAVEMENT, ORGANIC MATTER, TOPSOIL, ALL WET OR SOFT MUCK, PEAT, CLAY, LARGE ROCKS (6" DIMENSION), OR ANY MATERIAL DETERMINED BY THE ENGINEER THAT WILL NOT BE SUITABLE.
- PIPE TECHNICAL SPECIFICATIONS**
- MEET EARTHWORK SPECIFICATIONS FOR PLACEMENT AND COMPACTION.
 - DUCTILE IRON PIPE (WATER)
 - D.I. PIPE CONFORM TO ANWA/ANSI C151.
 - LINEES AND LINING REPAIR TO ANWA/ANSI C104.
 - JOINTS CONFORM TO ANWA/ANSI C111 AND C115.
 - FITTINGS CONFORM TO ANWA/ANSI C110, C153, C105.
 - KEEP INSIDE OF PIPE CLEAN AND FREE OF DEBRIS.
 - REJECT ANY PIPE WHICH IS DROPPED DURING HANDLING.
 - MECHANICAL JOINT GLANDS SHALL BE "MEGA-LUG" RETAINER GLANDS.
 - CAST IRON FITTINGS: ANSI A21.10, 250 PSI PRESSURE RATING.
 - DUCTILE IRON FITTINGS: ANSI A21.10, 300 PSI PRESSURE RATING.
 - JOINTS: MECHANICAL, PUSH-ON, AND FLANGED.
 - RUBBER GASKET JOINT: ANSI A21.11
 - MECHANICAL AND PUSH-ON JOINTS: ANSI A21.11
 - FLANGED JOINT: 3/4" THICK RING OR FULL FACED RUBBER, ANSI A21.15.
 - SOFT GASKETS:
 - MECHANICAL JOINT: ANSI A21.11
 - FLANGED JOINT: ANSI A21.15
 - LINEES:
 - INTERIOR - CEMENT LINED-DOUBLE THICKNESS WITH BITUMINOUS SEAL.
 - EXTERIOR - BITUMINOUS COATING APPROX. 1 MIL THICK, ANSI A21.51, ANSI A21.15, AND ANSI A21.10.
 - FLANGE MACHINED FACE COATING: ANSI A21.15.
 - LAYING PIPE:
 - PIPE SHALL BE LAID WITH BELL ENDS FACING IN THE DIRECTION OF LAYING.
 - WHERE PIPE IS LAID ON A SLOPE OF 5% OR MORE, THE LAYING SHALL START AT THE LOW END AND PROCEED UPHILL WITH THE BELL ENDS UP.
 - A WATERSTOP PLUG SHALL BE PLACED IN THE OPEN ENDS OF INSTALLED PIPE WHEN PIPE LAYING IS NOT IN PROGRESS.
 - MAX. PERMISSIBLE DEFLECTION IS 75% OF ANWA SPEC. C600.
 - SERATED SILICON BRIDGE WEDES:
 - D.I. PIPE SIZE 3"-12" - 2 PER JOINT.
 - D.I. PIPE SIZE 12" - 4 PER JOINT.
- CONNECTIONS OF CONCRETE WATER LINES**
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 48 HOURS IN ADVANCE OF BEGINNING ANY DISSECTION OF WATER MAINS.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR BACTERIOLOGICAL TESTING AS REQUIRED BY THIS SPECIFICATION AND REFERENCE STANDARDS MENTIONED.
 - DISINFECT ALL NEW PIPELINE SYSTEMS IN ACCORDANCE WITH ANWA C651, INCLUDING:
 - METHOD OF CHLORINE APPLICATION: USE CONTINUOUS FEED METHOD OR SLUG METHOD. (TABLET METHOD IS NOT ACCEPTABLE)
 - FORM OF CHLORINE UTILIZED.
 - FINAL FLUSHING.
 - BACTERIOLOGICAL TESTING
 - REPETITION OF PROCEDURE

- GATE VALVES**
- RESILIENT SEAT GATE VALVES BY AMERICAN FLOW CONTROL (AFC), SERIES 2500, (HARTFORD, VT).
 - DUCTILE IRON BODY GATE VALVES TO MEET ANWA C515 AND SHALL BE EPOXY COATED (FUSION BONDED) INSIDE AND OUT.
 - STEM CONSTRUCTION: NON-RISING.
 - STEM SEALS: DOUBLE O-RING.
 - GATE: DUCTILE IRON RUBBER ENCAPSULATED WEDGE.
 - BONNET HARDWARE: STAINLESS STEEL.
 - OUTLET CONNECTION: STANDARD MECHANICAL JOINT
 - OPERATION: OPEN COUNTERCLOCKWISE.
- TAPPING SLEEVES AND VALVES**
- TAPPING VALVES TO MEET ANWA/ANSI C515, STANDARD FOR RESILIENT SEATED GATE VALVES.
 - VALVES SHALL HAVE A MINIMUM WORKING PRESSURE OF 250 PSI.
 - VALVES SHALL OPEN RIGHT.
 - INLET FLANGES SHALL BE CLASS 125, ANSI B16.1, OR ANSI/ANWA C110/A21.10.
 - OUTLET CONNECTION: STANDARD MECHANICAL JOINT.
 - STEM SEALS: O-RING.
 - STEM CONSTRUCTION: NON-RISING.
 - SEATING: PARALLEL SEAT
 - END CONNECTIONS: MECHANICAL ON RUN, FLANGED ON BRANCH.
 - TAPPING SLEEVES
 - ANWA C515, LATEST REVISION.
 - ANWA C207 CLASS B, MAX WORKING PRESSURE OF 150 PSI.
 - SLEEVES: SPLIT SLEEVES OF CAST IRON OR DUCTILE IRON.
 - MECHANICAL JOINT ENDS WITH END AND GASKET SEALS.
 - PROVIDE A 3/4" NPT TEST PLUG OR OTHER PROVISION FOR AIR TESTING THE VALVE AND SLEEVE AT MAXIMUM WORKING PRESSURE.
 - BOLTS AND NUTS, MECHANICAL JOINTS: HIGH STRENGTH CAST IRON OR HIGH STRENGTH LOW ALLOY STEEL, ANSI/ANWA C111/A21.11-90.
 - BOLTS AND NUTS, FLANGED JOINTS: HIGH STRENGTH, LOW CARBON STEEL CONFORMING TO ANSI/ANWA C110/A21.10-87, APPENDIX A.
 - COAT ALL NUTS AND BOLTS WITH A RUST RESISTANT LUBRICANT.
 - ALL BOLTS AND NUTS USED WITH PIPE SLEEVES SHALL BE BRUSH COATED HEAVILY AFTER FINAL TIGHTENING WITH BITUMINOUS COLD-APPLIED MATERIAL TO THOROUGHLY COVER ALL EXPOSED SURFACES OF BOLTS AND NUTS.

- VALVE BOXES**
- ACCEPTABLE MANUFACTURER'S: MUELLER, CLOW, OR EQUAL.
 - CLOW F-2452 SLIDING TYPE, TWO PIECE, OR EQUAL.
 - 1/2" INCH SHAFT.
 - SIZE 66-4 (40-60 INCH OVERALL LENGTH).
 - CAST IRON.
 - CLOW F-2460 LBS OR EQUAL.
 - THE WORD "WATER" TO BE CAST INTO TOP OF COVERS, AND ARROW SHOWING DIRECTION OF OPENING.
 - IF DEPTH FROM GRADE TO TOP OF VALVE OPERATING NUT IS GREATER THAN 6'-0", A VALVE STEM RISER MADE OF HIGH STRENGTH STEEL SHALL BE PROVIDED. DEPTH FROM VALVE STEM RISER NUT TO GRADE WILL BE 4 TO 6 FEET.
- CONCRETE**
- CLASS B CONCRETE SHALL HAVE:
 - MIN. COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS
 - AIR ENTRAINMENT OF 4% TO 6% BY VOLUME.
 - MINIMUM CEMENT CONTENT FOR 4000 PSI CONCRETE IS 564 LBS PER CUBIC YARD.
 - SLUMP OF 3 TO 5 INCHES.
 - CONCRETE SHALL NOT BE PLACED WHEN AMBIENT TEMPERATURE IS BELOW 40 DEGREES FAHRENHEIT OR MORE THAN 90 DEGREES FAHRENHEIT.
 - CONCRETE SHALL NOT BE DROPPED MORE THAN SIX FEET INSIDE A FORM.
 - MAINTAIN TEMPERATURE OF CONCRETE SURFACE AT MINIMUM 50 DEGREES FAHRENHEIT FOR 72 HOURS AFTER PLACING CONCRETE. PREHEAT ALL ENCLOSURES FOR A MINIMUM OF 2 HOURS TO PROVIDE A MIN. SURFACE TEMPERATURE OF 45 DEGREES FAHRENHEIT.
 - ALLOW TO SET AND CURE ALL THRUST BLOCKS, CONCRETE SUPPORTS, AND ANCHORS A MINIMUM OF 24 HOURS BEFORE BACKFILLING.
 - COMPLETELY CURE AND SET CONCRETE BEFORE ANY HYDROSTATIC OR LEAKAGE TESTING OF PIPELINE SYSTEMS.
 - NONSHRINK GROUT SHALL BE HALCO TRADEMARK, AS MANUFACTURED BY LEWIS & FINK INDUSTRIAL PRODUCTS.
 - DO NOT PLACE ANY MORTAR OR GROUT WHEN AMBIENT TEMPERATURE IS BELOW 40 DEGREES FAHRENHEIT.
 - MORTAR FOR MANHOLES SHALL CONSIST OF THE FOLLOWING:
 - CEMENT-TYPE II, ASTM C150.
 - HYDRATED LIME-TYPE N, ASTM C207.
 - SAND: ASTM C 33, 30 MESH, FOR CONCRETE.
 - WATER-CLEAN, SUITABLE FOR DRINKING.
 - MIX (BY VOLUME): 1 PART CEMENT, 1/2 PART LIME, 4 1/2 PARTS SAND.

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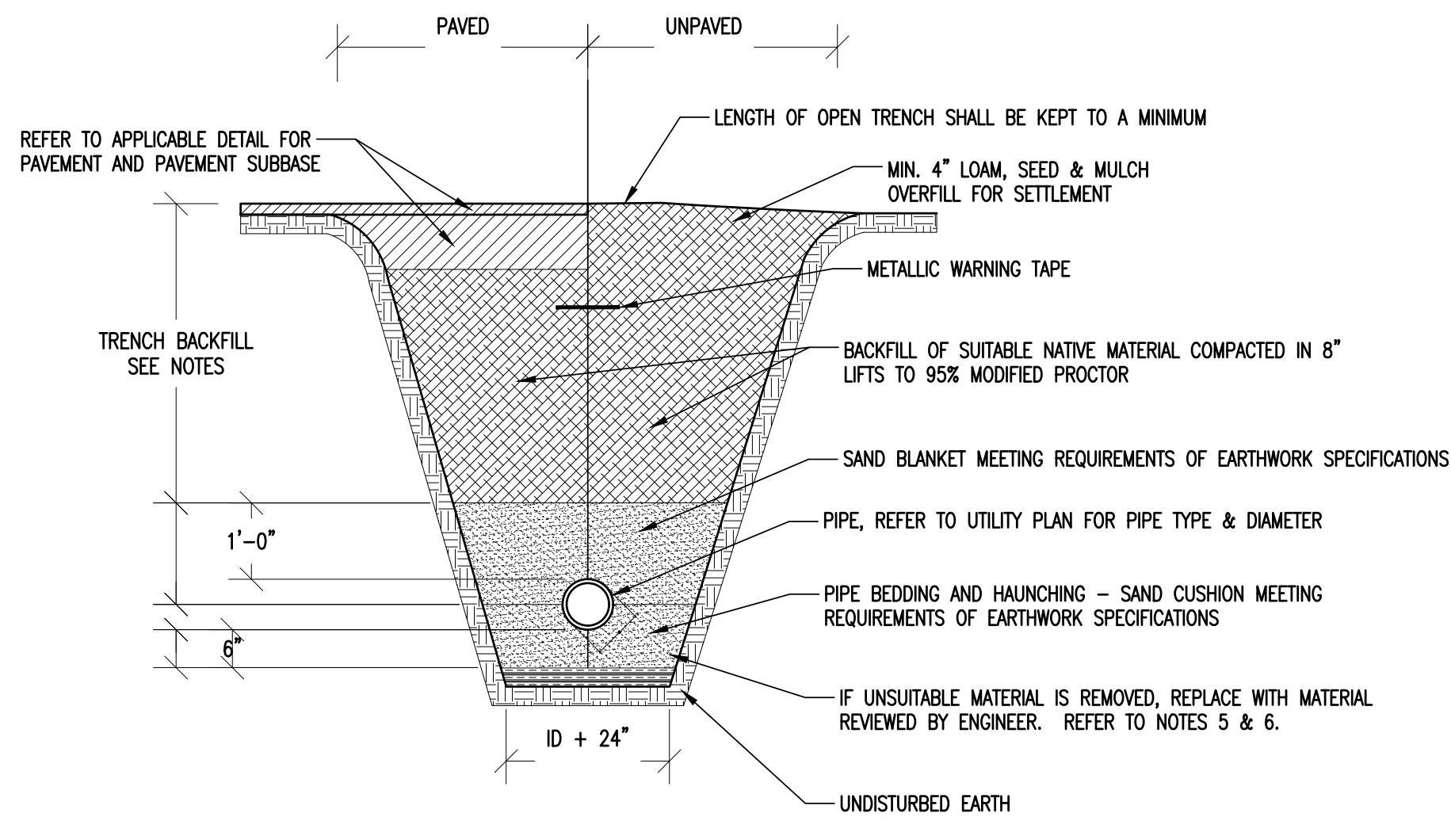
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Water Details & Notes
 PROPOSED SUBDIVISION
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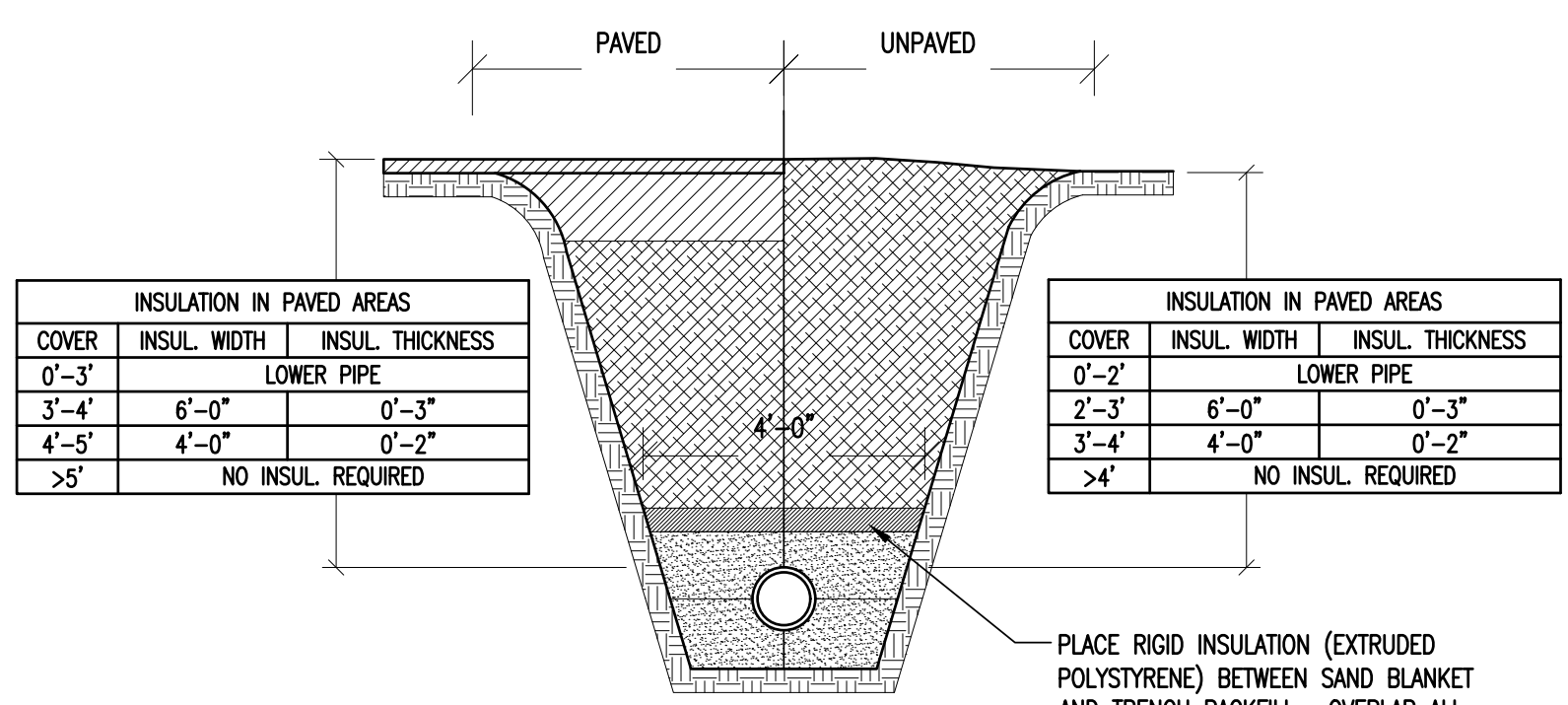


SANITARY SEWER TRENCH NOTES:

- UNLESS OTHERWISE NOTED, ASSUME CLASS "C" SOILS. PERFORM ALL EXCAVATIONS TO OSHA REQUIREMENTS.
- BEDDING TO PROVIDE A FIRM, STABLE, CONTINUOUS AND UNIFORM SUPPORT FOR FULL LENGTH OF PIPE.
- FOR BUILDING SEWERS THE MINIMUM DEPTH TO THE TOP OF THE PIPE SHALL BE 4'-0" WHERE BUILDING SEWERS ARE TO BE INSTALLED AT A DEPTH LESS THAN 3'-0" UNDER DRIVEWAYS, EXTRA HEAVY CAST IRON OR OTHER HIGH STRENGTH PIPE SHALL BE USED. OTHERWISE, REFER TO INSULATION OVER SHALLOW SEWER LINE DETAIL.
- FOR SEWER COLLECTION SYSTEMS THE MINIMUM DEPTH TO THE TOP OF THE PIPE SHALL BE 5'-0". THIS DEPTH SHALL BE INCREASED TO 6'-0" IN AREAS TO BE FLOODED DURING THE WINTER MONTHS. OTHERWISE, REFER TO INSULATION OVER SHALLOW SEWER LINE DETAIL.
- BACKFILL SHALL BE OF A SUITABLE MATERIAL REMOVED FROM EXCAVATION EXCEPT WHERE OTHER MATERIAL IS SPECIFIED. DEBRIS, FROZEN MATERIAL, LARGE CLOUDS OR STONES, ORGANIC MATTER, OR OTHER UNSTABLE MATERIALS SHALL NOT BE USED FOR BACKFILL WITHIN TWO FEET OF THE TOP OF THE PIPE.
- LEDGE, ROCK, BOULDERS AND LARGE STONES SHALL BE REMOVED TO PROVIDE A MINIMUM CLEARANCE OF FOUR INCHES BELOW AND ON EACH SIDE OF ALL PIPES.
- SEWERS ON 20 PERCENT SLOPES OR GREATER SHALL BE ANCHORED SECURELY WITH CONCRETE ANCHORS OR EQUIVALENT, SPACED AS FOLLOWS:
 - NOT OVER 36 FEET CENTER TO CENTER ON GRADES 20 PERCENT AND UP TO 35 PERCENT
 - NOT OVER 24 FEET CENTER TO CENTER ON GRADES 35 PERCENT AND UP TO 50 PERCENT
 - NOT OVER 18 FEET CENTER TO CENTER ON GRADES 50 PERCENT AND OVER

SANITARY SEWER TRENCH DETAIL

NOT TO SCALE 1

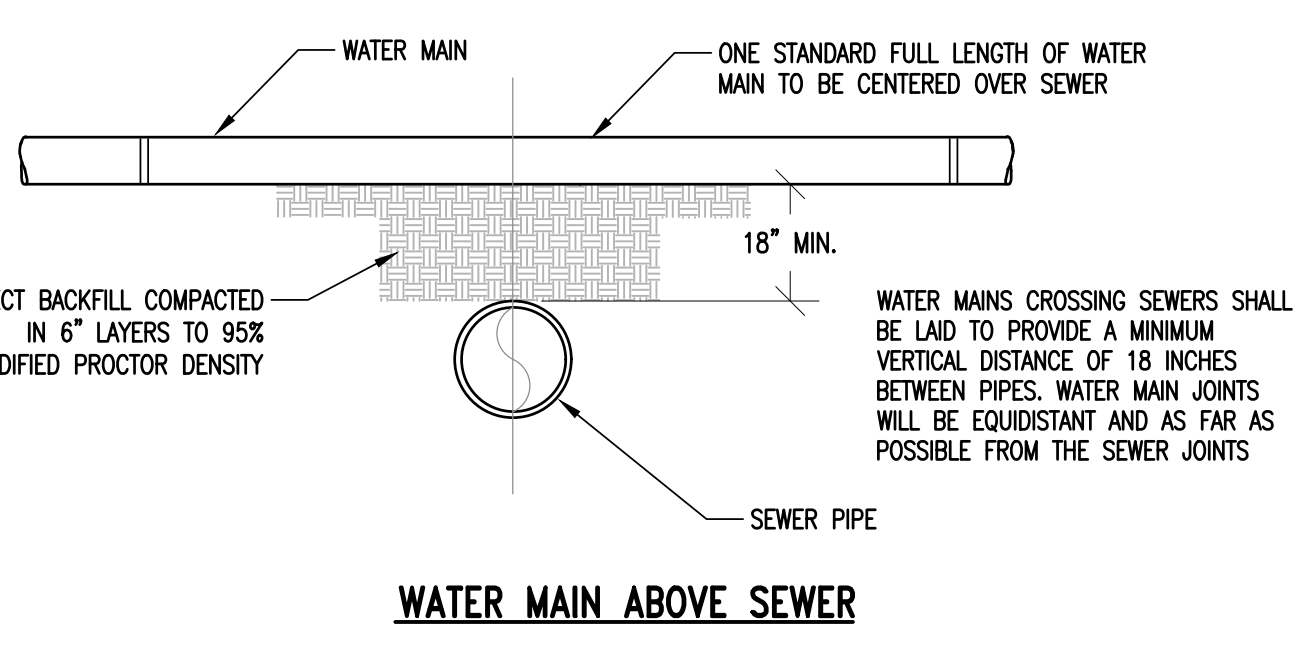


SANITARY INSULATION NOTES:

- REFER TO APPLICABLE TRENCH DETAIL FOR SPECIFIC BACKFILL INFORMATION.
- RIGID EXTRUDED POLYSTYRENE INSULATION SHALL CONFORM WITH ASTM C578 - STANDARD SPECIFICATION FOR RIGID CELLULAR POLYSTYRENE THERMAL INSULATION AND SHALL BE DOW STYROFOAM HIGH LOAD 40 OR EQUIVALENT.

INSULATION OVER SHALLOW SEWER LINE DETAIL

NOT TO SCALE 2

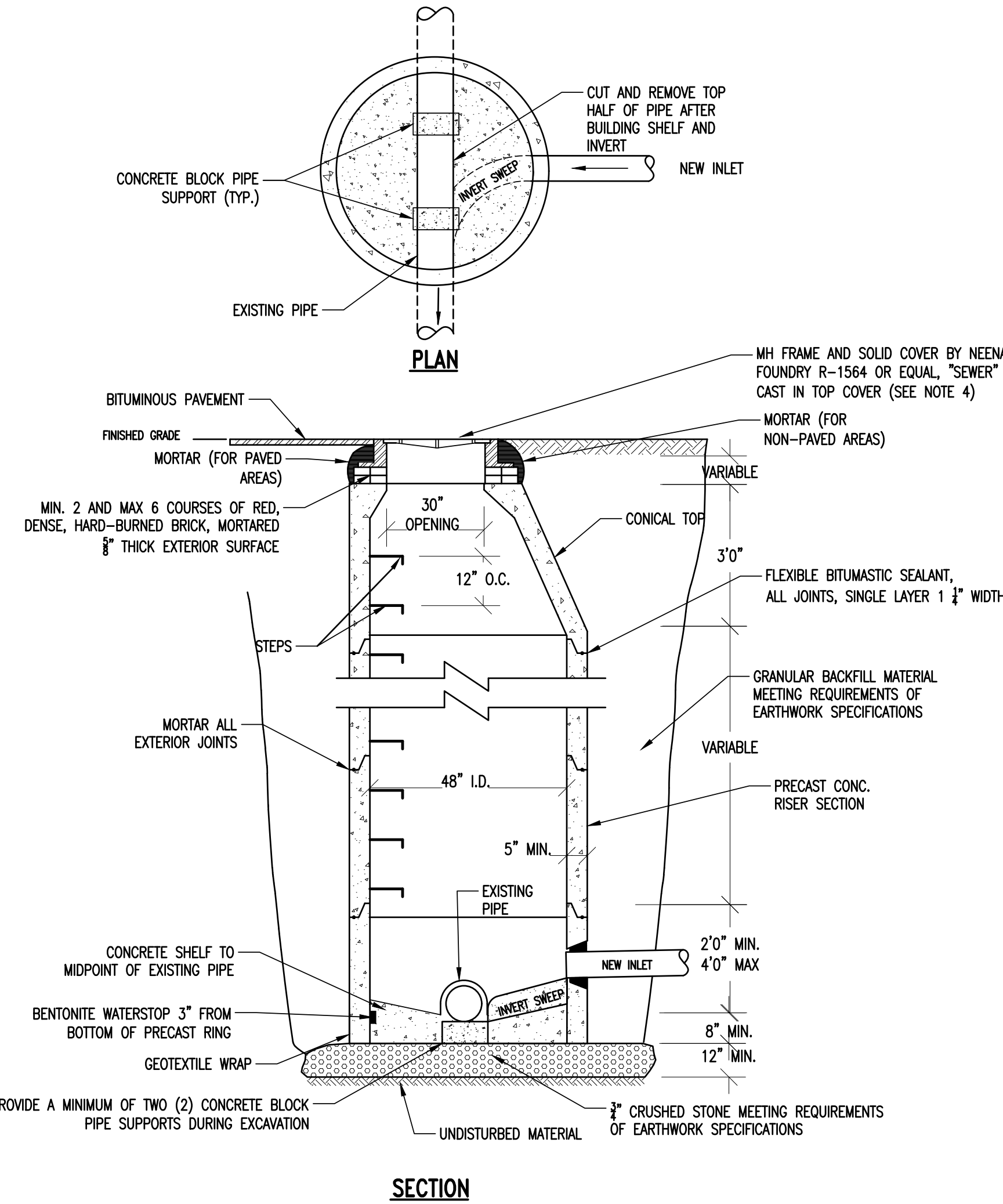


SEPARATION NOTES:

- WATER MAIN RELATIONS TO SEWER SHALL BE IN ACCORDANCE WITH SECTION 8.6 OF APPENDIX A OF THE VERMONT WATER SUPPLY RULE.
- WATER MAINS SHALL BE LAID AT LEAST 18 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED SEWERS. THE DISTANCE SHALL BE MEASURED EDGE TO EDGE. IF THIS DISTANCE CANNOT BE OBTAINED, THEN THE PIPES SHALL BE INSTALLED IN A SEPARATE TRENCH AT AN ELEVATION SO THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER.
- WHEN IT IS IMPOSSIBLE TO MAINTAIN 18" VERTICAL SEPARATION OR WHERE THE SEWER MUST BE LAID ABOVE THE WATER MAIN: 1) THE CROSSING SHALL BE ARRANGED SO THAT ONE FULL LENGTH OF SEWER IS CENTERED ABOVE OR BELOW THE WATER LINE WITH SEWER JOINTS AS FAR AS POSSIBLE FROM WATER JOINTS; 2) THE SEWER PIPE MUST BE CONSTRUCTED TO WATER MAIN STANDARDS FOR A MINIMUM DISTANCE OF 20 FEET EITHER SIDE OF THE CROSSING OR A TOTAL OF THREE PIPE LENGTHS, WHICHEVER IS GREATER; 3) THE SECTION CONSTRUCTED TO WATER MAIN STANDARDS MUST BE PRESSURE TESTED TO MAINTAIN 50 PSI FOR 15 MINUTES WITHOUT LEAKAGE PRIOR TO BACKFILLING BEYOND ONE FOOT ABOVE THE PIPE TO ASSURE WATER TIGHTNESS.

SANITARY SEWER / WATER LINE CROSSING

NOT TO SCALE 3

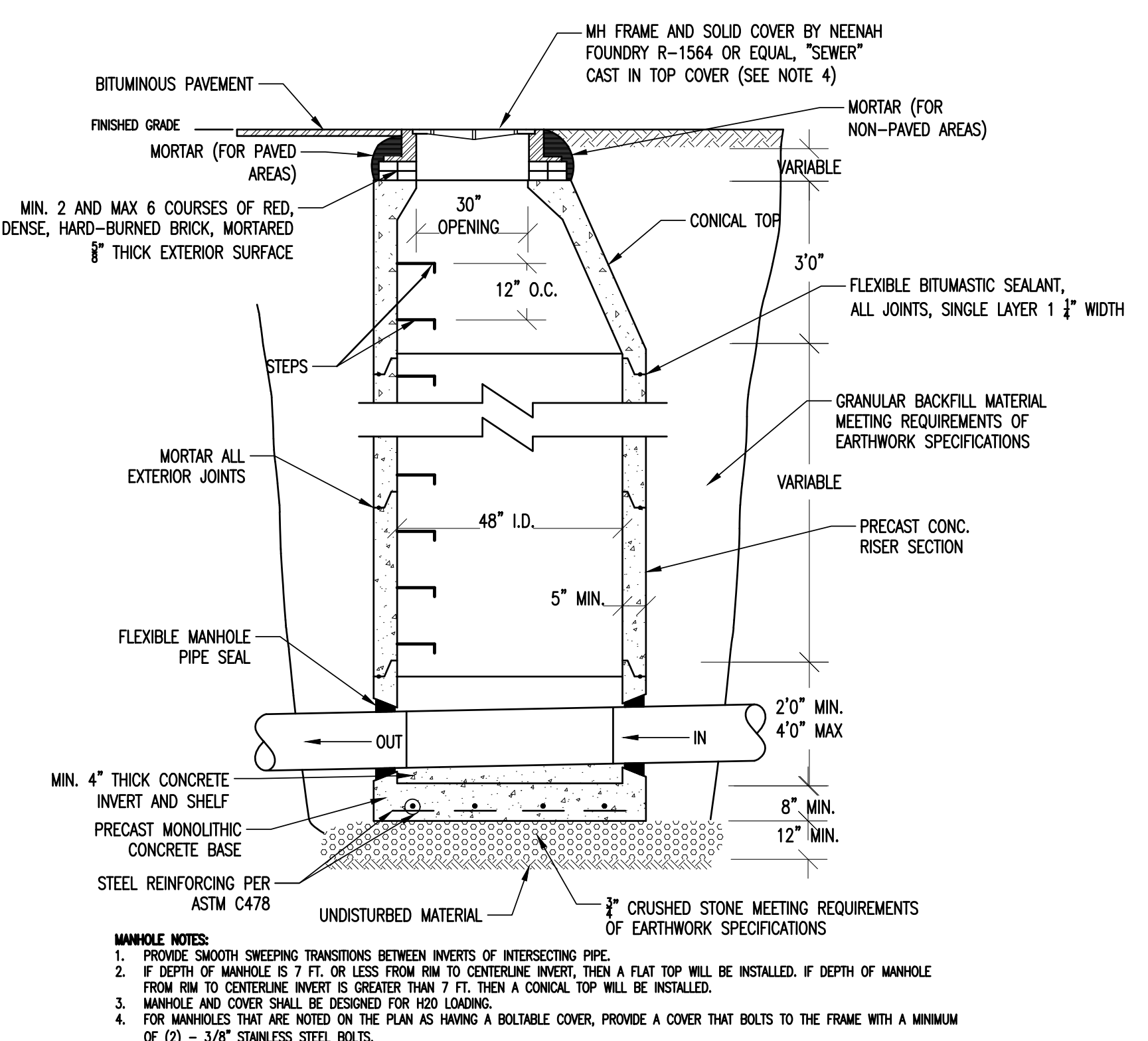


MANHOLE NOTES:

- PROVIDE SMOOTH SWEEEPING TRANSITIONS BETWEEN INVERTS OF INTERSECTING PIPE.
- IF DEPTH OF MANHOLE IS 7 FT. OR LESS FROM RIM TO CENTERLINE INVERT, THEN A FLAT TOP WILL BE INSTALLED. IF DEPTH OF MANHOLE FROM RIM TO CENTERLINE INVERT IS GREATER THAN 7 FT. THEN A CONICAL TOP WILL BE INSTALLED.
- MANHOLE AND COVER SHALL BE DESIGNED FOR 120 LOADING.
- FOR MANHOLES THAT ARE NOTED ON THE PLAN AS HAVING A BOLTABLE COVER, PROVIDE A COVER THAT BOLTS TO THE FRAME WITH A MINIMUM OF (2) - 3/8" STAINLESS STEEL BOLTS.

DOGHOUSE MANHOLE DETAIL

NOT TO SCALE 4

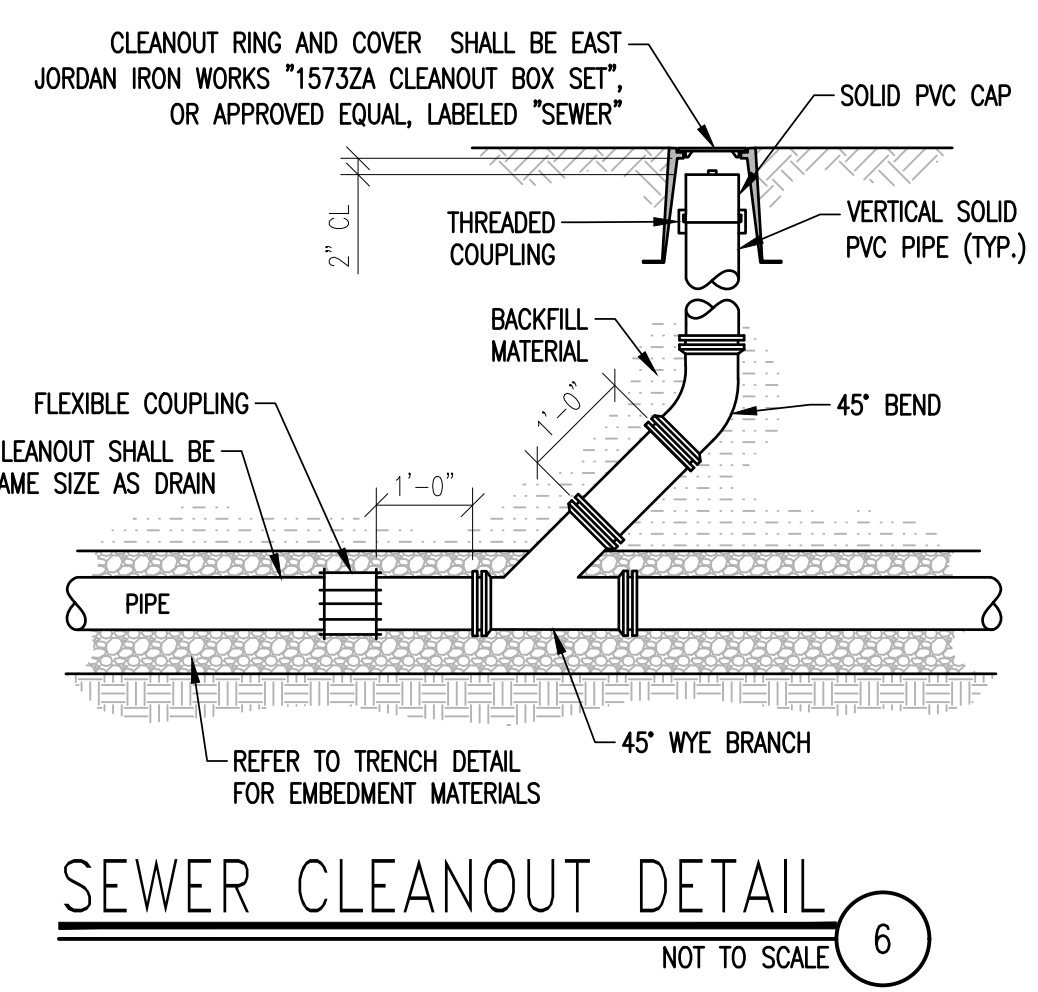


MANHOLE NOTES:

- PROVIDE SMOOTH SWEEEPING TRANSITIONS BETWEEN INVERTS OF INTERSECTING PIPE.
- IF DEPTH OF MANHOLE IS 7 FT. OR LESS FROM RIM TO CENTERLINE INVERT, THEN A FLAT TOP WILL BE INSTALLED. IF DEPTH OF MANHOLE FROM RIM TO CENTERLINE INVERT IS GREATER THAN 7 FT. THEN A CONICAL TOP WILL BE INSTALLED.
- MANHOLE AND COVER SHALL BE DESIGNED FOR 120 LOADING.
- FOR MANHOLES THAT ARE NOTED ON THE PLAN AS HAVING A BOLTABLE COVER, PROVIDE A COVER THAT BOLTS TO THE FRAME WITH A MINIMUM OF (2) - 3/8" STAINLESS STEEL BOLTS.

SANITARY SEWER MANHOLE DETAIL

NOT TO SCALE 5



SANITARY SEWER NOTES

- CONTRACTOR SHALL CONFORM TO GUIDELINES DETAILED IN THE VERMONT STATE SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR READING AND FOLLOWING THE FULL COMPLETE EDITION PROVIDED BY THE STATE.
- A. THE BUILDING SEWER SHALL BE CONSTRUCTED IN A MANNER WHICH WILL PREVENT LEAKING, BREAKING OR CLOGGING.
- B. SIZING AND SLOPE: MINIMUM BUILDING SEWER SIZE IS 4 INCHES (UNLESS SHOWN ON THE PLAN) AND A MINIMUM SLOPE IS 1/4" PER FOOT.
- C. CLEANOUTS: CLEANOUTS SHALL BE PROVIDED AT EACH HORIZONTAL CHANGE IN DIRECTION OF THE BUILDING SEWER GREATER THAN 45 DEGREES AND WHERE INDICATED ON THE DESIGN DRAWINGS. BUILDING SEWER CHANGES IN DIRECTION WHICH EXCEED 45 DEGREES SHOULD BE MADE WITH TWO 45 DEGREE ELBS OR LONG SWEEP FITTINGS. MANHOLES ARE ACCEPTABLE IN LIEU OF CLEANOUTS. WHERE BUILDING SEWERS ARE TO BE INSTALLED AT A DEPTH OF LESS THAN 3 FEET UNDER DRIVEWAYS ARE ANTICIPATED, EXTRA HEAVY CAST IRON PIPE SHALL BE USED.
- D. LEAKAGE: BUILDING SEWERS SHALL MEET THE LEAKAGE STANDARDS PRESCRIBED IN THE STATE OF VERMONT SPECIFICATIONS (EPR - CHAPTER 1). SEE BELOW FOR MORE DETAIL.
- E. SLOPE: VELOCITY: ALL GRAVITY SEWER LINES SHALL BE INSTALLED WITH NOT LESS THAN THE SLOPES SHOWN BELOW:
- | PIPE SIZE (INCHES) | SLOPE (FEET/100 FEET) |
|--------------------|-----------------------|
| 4" | 0.2% |
| 6" | 0.3% |
| 8" | 0.4% |
- F. CHANGES IN PIPE SIZE: WHEN A SMALLER SEWER JOINS A LARGER ONE, THE INVERT OF THE LARGER SEWER SHALL BE LOWERED SUFFICIENTLY TO MAINTAIN THE SAME ENERGY GRADIENT.
- G. MATERIAL: PVC SDR 35, ASTM D3034, WITH PUSH-ON GASKETED JOINTS. GASKETS SHALL CONFORM TO ASTM D3212. SEWER JOINTS SHALL BE CONSTRUCTED TO MINIMIZE INFILTRATION AND TO PREVENT THE ENTRANCE OF ROOTS INTO THE SYSTEM.
- H. TRENCHING: LEDGE, ROCK, BOULDERS AND LARGE STONES SHALL BE REMOVED TO PROVIDE A MINIMUM CLEARANCE OF FOUR INCHES BELOW AND ON EACH SIDE OF ALL PIPES.
- I. BEDDING: SEE TRENCH DETAIL DRAWING FOR MATERIALS. TRENCH BACKFILL SHALL BE OF A SUITABLE NATIVE MATERIAL FREE FROM DEBRIS, FROZEN MATERIAL, LARGE CLOUDS OR STONES, ORGANIC MATTER, OR OTHER UNSTABLE MATERIALS.
- J. LEAKAGE TESTS: UPON COMPLETION OF SEWER LINE CONSTRUCTION, THE SEWER LINE SHALL BE TESTED IN ACCORDANCE WITH THE STATE OF VERMONT SPECIFICATIONS (EPR - CHAPTER 1, APPENDIX "A").
- LEAKAGE TESTS FOR GRAVITY SEWERS
- PERFORM A PRESSURIZED AIR TEST ON THE GRAVITY LINE IN ACCORDANCE WITH THE VERMONT ENVIRONMENTAL PROTECTION RULES ON EACH SECTION OF THE GRAVITY SEWER. THE ENGINEER SHALL BE GIVEN 72 HOURS NOTICE BEFORE THE TEST IS CONDUCTED. TEST MUST BE WITNESSED BY THE ENGINEER.
- PLUG ALL OPENINGS IN THE TEST SECTION. ADD AIR UNTIL THE INTERNAL PRESSURE OF THE LINE IS RAISED TO APPROXIMATELY 4.0 POUNDS/SQUARE INCH (PSI) GREATER THAN THE AVERAGE PRESSURE OF ANY GROUND WATER. AFTER THIS PRESSURE IS REACHED, ALLOW THE PRESSURE TO STABILIZE. THE PRESSURE WILL NORMALLY DROP AS THE AIR TEMPERATURE STABILIZES. THIS USUALLY TAKES 2 TO 5 MINUTES DEPENDING ON THE PIPE SIZE. THE PRESSURE MAY BE REDUCED TO 3.5 PSI BEFORE STARTING THE TEST.
- WHEN THE PRESSURE HAS STABILIZED AND IS AT OR ABOVE THE STARTING TEST PRESSURE OF 3.5 PSI ABOVE THE PIPE, START THE TEST. IF THE PRESSURE DROPS MORE THAN 1.0 PSI DURING THE TEST TIME, THE LINE IS PRESUMED TO HAVE FAILED THE TEST. IF A 1.0 PSI DROP DOES NOT OCCUR WITHIN THE TEST TIME THE LINE HAS PASSED THE TEST. THE TEST TIME SHALL BE DERIVED FROM THE FOLLOWING TABLE. IF THE SECTION OF LINE TO BE TESTED INCLUDES MORE THAN ONE PIPE SIZE, CALCULATE THE TEST TIME FOR EACH SIZE AND ADD THE TEST TIMES TO ARRIVE AT THE TOTAL TEST TIME FOR THE SECTION.
- | PIPE SIZE (IN) | T (TIME) (MIN./100FT) |
|----------------|-----------------------|
| 3 | 0.2 |
| 4 | 0.3 |
| 6 | 0.7 |
| 8 | 1.2 |
- K. INSTALLATION: PIPE SHALL BE LAID WITH BELL ENDS FACING UPGRADE AND LAYING SHALL START AT THE DOWNGRADE END.
- L. WATER LINE SEPARATION
- a. HORIZONTAL SEPARATION: SEWERS SHALL BE LAID FLAT AT LEAST TEN FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN. THE DISTANCE SHALL BE MEASURED EDGE TO EDGE.
- WHERE IMPOSSIBLE OR IMPRACTICABLE TO MAINTAIN THE TEN FOOT SEWER/WATER PIPE HORIZONTAL SEPARATION, (DUE TO LEDGE, BOULDERS OR OTHER UNUSUAL CONDITIONS) THE WATER LINE MAY BE IN A SEPARATE TRENCH OR ON AN EARTH SHELF IN THE SEWER TRENCH PROVIDED THAT THE BOTTOM OF THE WATER LINE IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER. WHEREVER IMPOSSIBLE OR IMPRACTICAL TO MAINTAIN THE 18 INCH VERTICAL SEPARATION, THE SEWER LINE SHALL BE CONSTRUCTED USING PRESSURE PIPE TO NORMAL WATER LINE STANDARDS AND PRESSURE TESTED TO 50 PSI FOR 15 MINUTE PRIOR TO BACKFILLING.
- b. CROSSINGS: SEWERS CROSSING WATER MAINS SHALL BE LAID BENEATH THE WATER MAIN WITH AT LEAST 18 INCHES VERTICAL CLEARANCE BETWEEN THE OUTSIDE OF THE SEWER AND THE OUTSIDE OF THE WATER MAIN. WHEN IT IS IMPOSSIBLE TO MAINTAIN THE 18 INCH VERTICAL SEPARATION:
- THE CROSSING SHALL BE ARRANGED SO THAT ONE FULL LENGTH OF SEWER IS CENTERED ABOVE OR BELOW THE WATER LINE WITH SEWER JOINTS AS FAR AWAY AS POSSIBLE FROM WATER JOINTS;
 - THE SEWER PIPE MUST BE CONSTRUCTED TO WATER MAIN STANDARDS FOR A MINIMUM DISTANCE OF 20 FEET EITHER SIDE OF THE CROSSING OR A TOTAL OF THREE PIPE LENGTHS, WHICHEVER IS GREATER;
 - THE SECTION CONSTRUCTED TO WATER MAIN STANDARDS MUST BE PRESSURE TESTED TO MAINTAIN 50 PSI FOR 15 MINUTES WITHOUT LEAKAGE PRIOR TO BACKFILLING BEYOND ONE FOOT ABOVE THE PIPE TO ASSURE WATER TIGHTNESS;
 - WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE WATER MAIN.
- M. MANHOLES
- a. DIAMETER: THE MINIMUM DIAMETER OF MANHOLES SHALL BE 48 INCHES. LARGE DIAMETERS ARE PREFERRED FOR CONNECTION TO LARGE DIAMETER SEWERS. A MINIMUM ACCESS DIAMETER OF 24 INCHES SHALL BE PROVIDED.
- b. FLOW CHANNEL: FLOW CHANNELS SHALL BE PROVIDED IN THE BASE OF ALL MANHOLES AND THE FLOW CHANNEL THROUGH MANHOLES SHOULD BE MADE TO CONFORM IN SHAPE AND SLOPE TO THAT OF THE SEWERS.
- c. MANHOLES SHALL BE OF THE PRE-CAST CONCRETE OR POUR-IN PLACE CONCRETE TYPE. MANHOLES SHALL BE WATERPROOFED ON THE EXTERIOR.
- d. INLET AND OUTLET PIPES SHALL BE JOINED TO THE MANHOLE WITH A RUBBER-GASKETED FLEXIBLE WATER-TIGHT CONNECTION THAT ALLOWS DIFFERENTIAL SETTLEMENT OF THE PIPE AND MANHOLE WALL TO TAKE PLACE.
- e. ALL MANHOLES SHALL BE TESTED FOR LEAKAGE. LEAKAGE TESTING OF GRAVITY SEWERS UTILIZING THE WATER TESTING PROCEDURES TAKES INTO ACCOUNT THE LEAKAGE FROM ONE MANHOLE IN THE TEST SECTION. OTHERWISE, MANHOLES SHALL BE TESTED FOR LEAKAGE IN ACCORDANCE WITH THE FOLLOWING PROCEDURE:
- AFTER THE MANHOLE HAS BEEN ASSEMBLED IN PLACE, ALL LIFTING HOLES AND EXTERIOR JOINTS SHALL BE FILLED WITH AND POINTED WITH AN APPROVED NON-SHRINKING MORTAR. ALL PIPES AND OTHER OPENINGS INTO THE MANHOLE SHALL BE SUITABLY PLUGGED AND THE PLUGS PLACED TO PREVENT BLOWOUT.
- EACH MANHOLE SHALL BE CHECKED FOR INFILTRATION BY FILLING WITH WATER TO THE TOP OF THE CONE SECTION. A STABILIZATION PERIOD OF ONE HOUR SHALL BE PROVIDED TO ALLOW FOR ABSORPTION. AT THE END OF THIS PERIOD, THE MANHOLE SHALL BE REFILLED TO THE TOP OF THE CONE. IF NECESSARY, AND THE MEASURING TIME OF AT LEAST SIX HOURS BEGUN. AT THE END OF THE TEST PERIOD, THE MANHOLE SHALL BE REFILLED TO THE TOP OF THE CONE. MEASURING THE VOLUME OF WATER ADDED. THIS AMOUNT SHALL BE CONVERTED TO A 24 HOUR RATE AND THE LEAKAGE DETERMINED ON THE BASIS OF DEPTH. THE LEAKAGE FOR EACH MANHOLE SHALL NOT EXCEED ONE GALLON PER VERTICAL FOOT FOR A 24 HOUR PERIOD FOR INFILTRATION AND THERE SHALL BE NO VISIBLE INFILTRATION. IF AN AIR TEST IS PERFORMED ON THE MANHOLE, INSTEAD OF THE WATER TEST, THE MANHOLE SHALL REMAIN UN-BACKFILLED DOWN TO THE SEWER LINE INVERTS DURING THE AIR TEST.

TOWN OF HINESBURG DEMAND FLOW BASIS

EXISTING FLOWS (PROPOSED LOTS 1 & 2)

Wastewater Design Flows			
source: Vermont Wastewater System & Potable Water Supply Rule, dated April 2019			
per table 8-1 for systems receiving 50,000 gpd or more of flow			
Single Family Home	210 gal/day per living unit	1 living unit	210 gpd
Accessory Structure	210 gal/day per living unit	1 living unit	210 gpd
		Total	420 gpd

Water Design Flows			
source: Vermont Water Supply Rule, dated April 2019			
per table A2-1 for Single Family Dwellings			
Single Family Home	150 gal/day per bedroom	3 bedrooms	450 gpd
Accessory Structure	150 gal/day per bedroom	2 bedrooms	300 gpd
		Total, with 10% reduction applied for low flow fixtures	675 gpd

PROPOSED FLOWS (PROPOSED LOTS 3-8)

Wastewater Design Flows			
source: Vermont Wastewater System & Potable Water Supply Rule, dated April 2019			
per table 8-1 for systems receiving 50,000 gpd or more of flow			
Single Family Home	210 gal/day per living unit	1 living unit	210 gpd
		Total for Lots 3-8	1260 gpd

Water Design Flows			
source: Vermont Water Supply Rule, dated April 2019			
per table A2-1 for Single Family Dwellings			
Single Family Home	150 gal/day per bedroom	3 bedrooms	450 gpd
		Total for Lots 3-8, with 10% reduction applied for low flow fixtures	2430 gpd

**PRELIMINARY PLAT
SUBJECT TO CHANGE
04/07/2022**

Stamp

Date

Description

No.

ENGINEERING VENTURES PC

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88 Mechanic Street, Suite E2-3, Lebanon, NH 03766 s 603-449-9333
414 Union Street, Schenectady, NY 12305 s 518-630-9614
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1139 Lanier Boulevard
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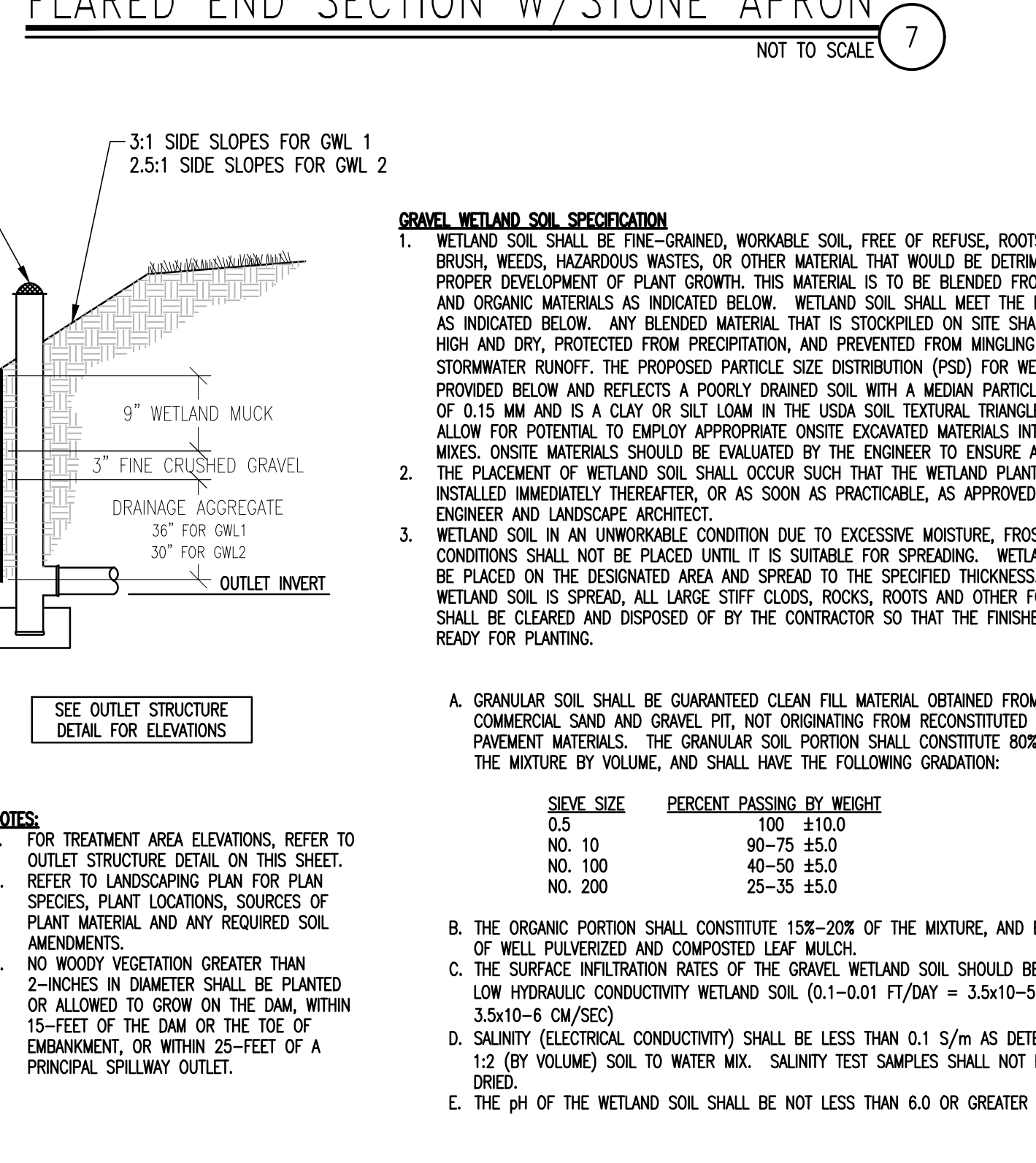
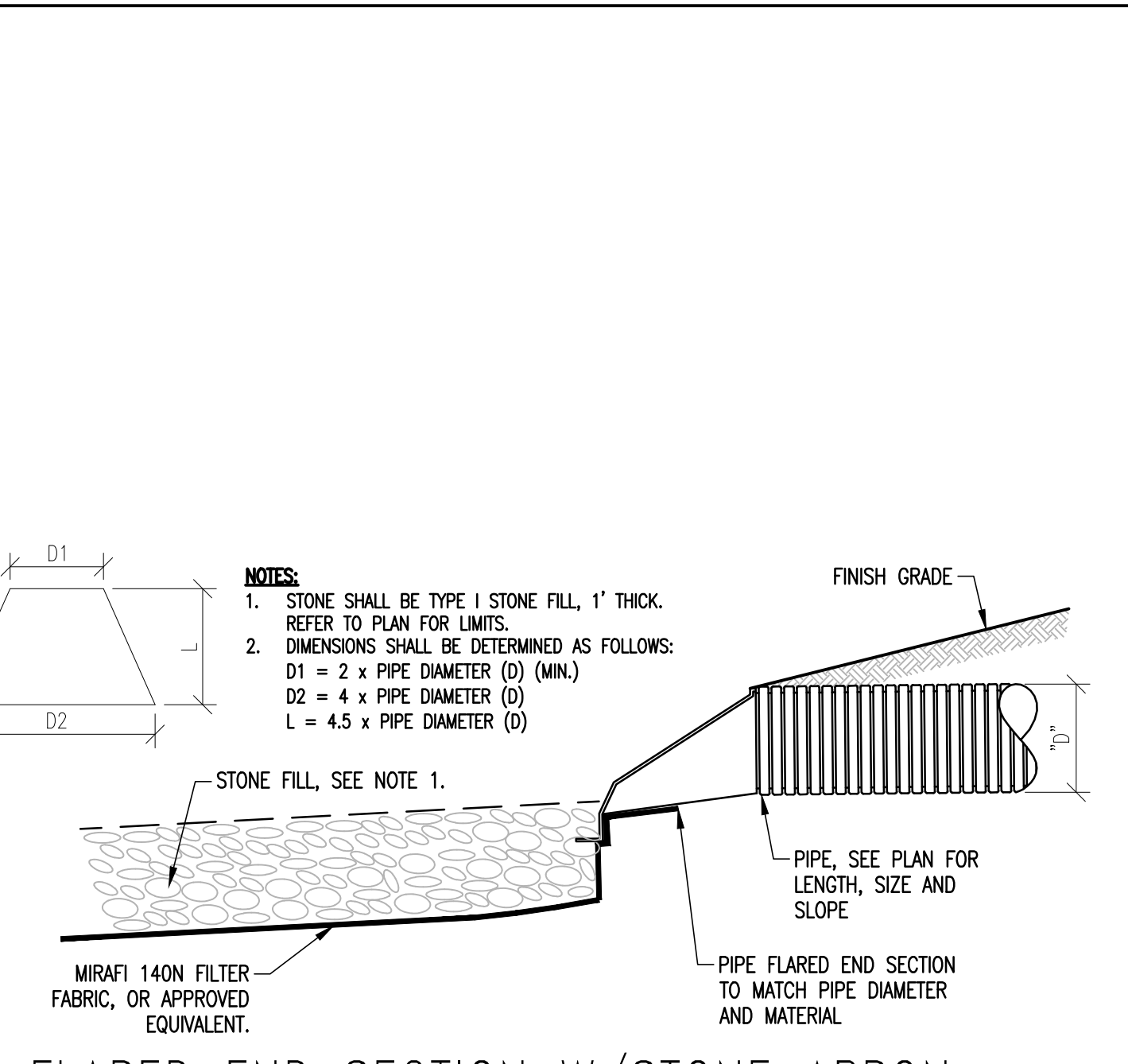
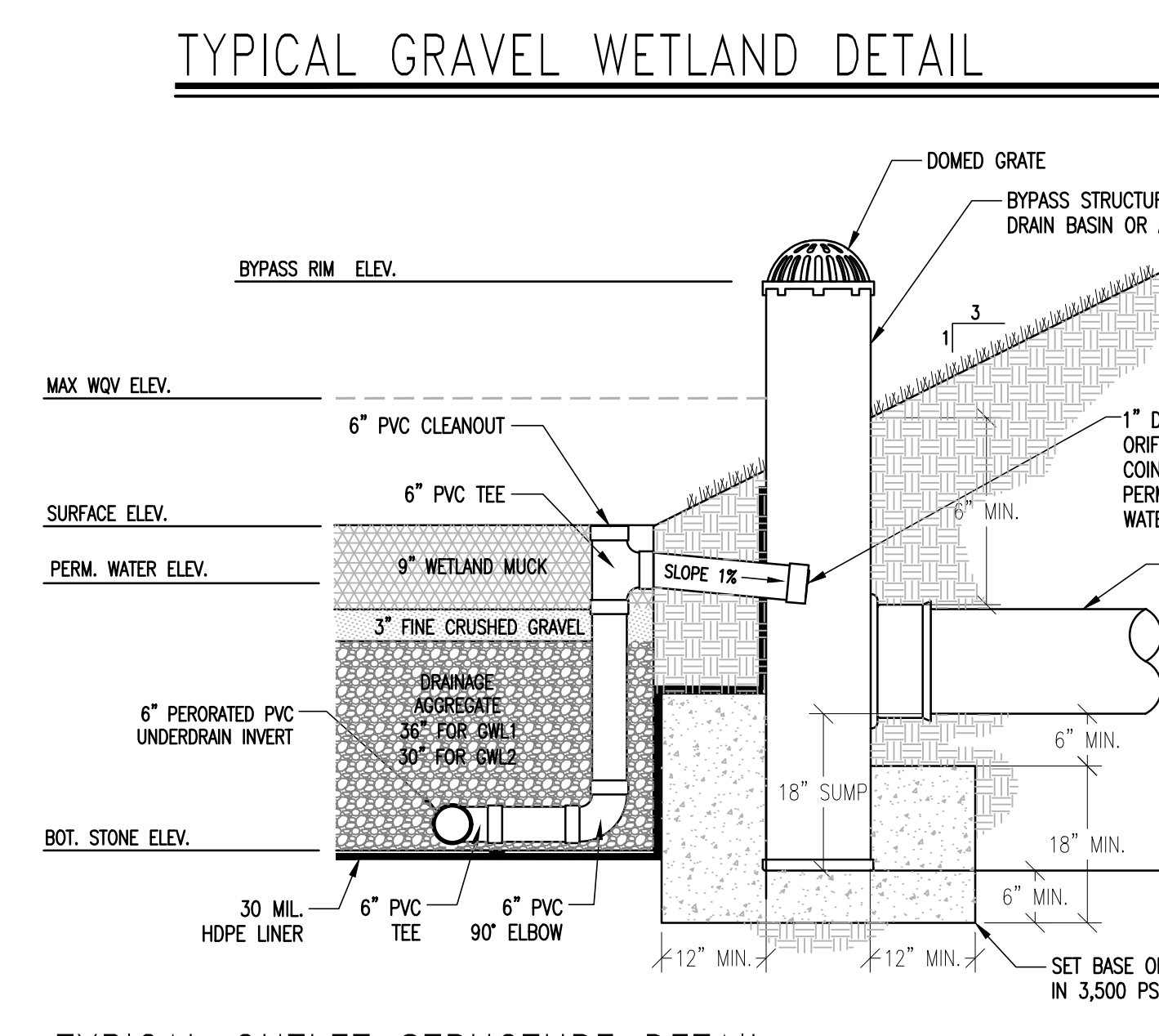
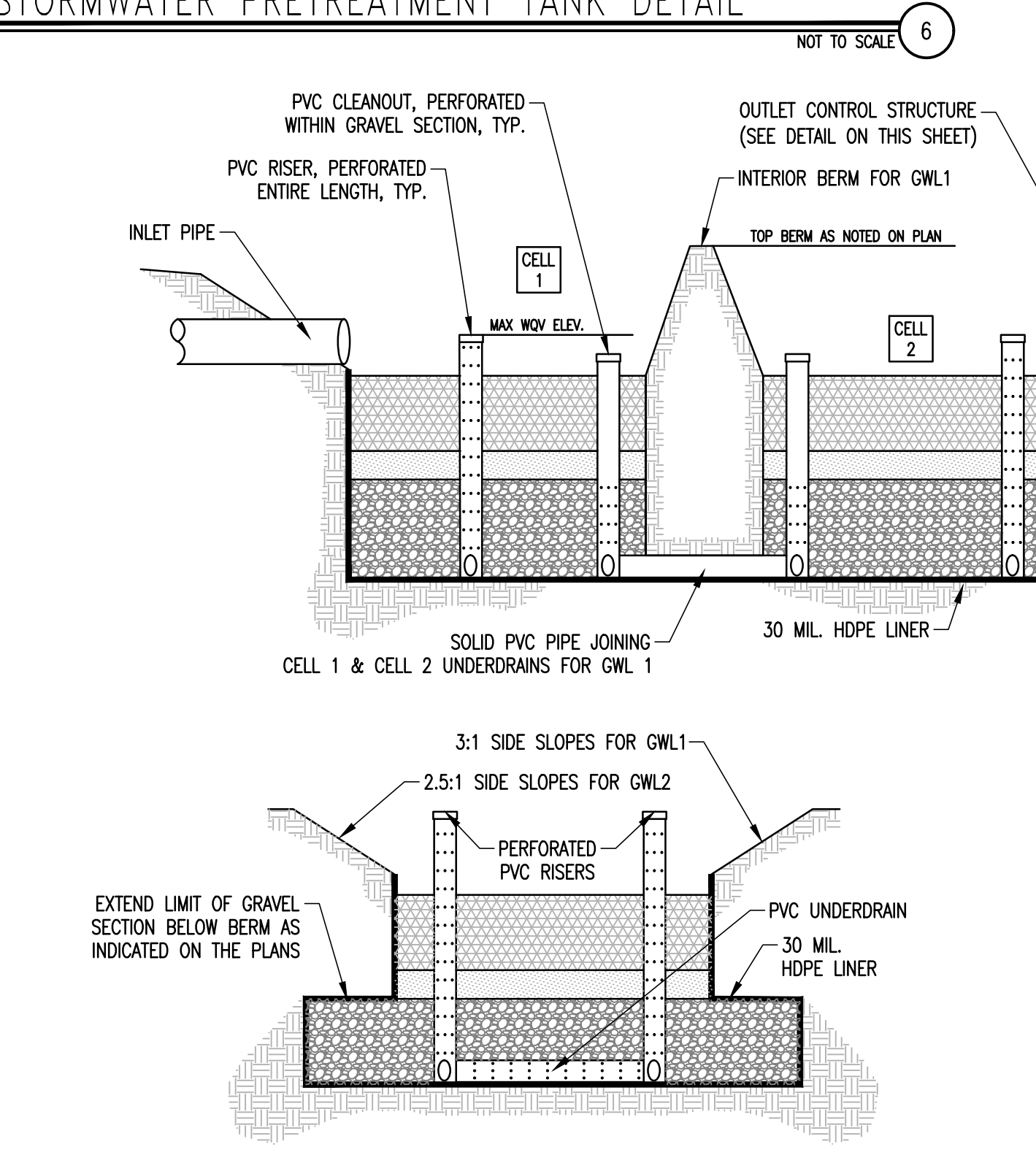
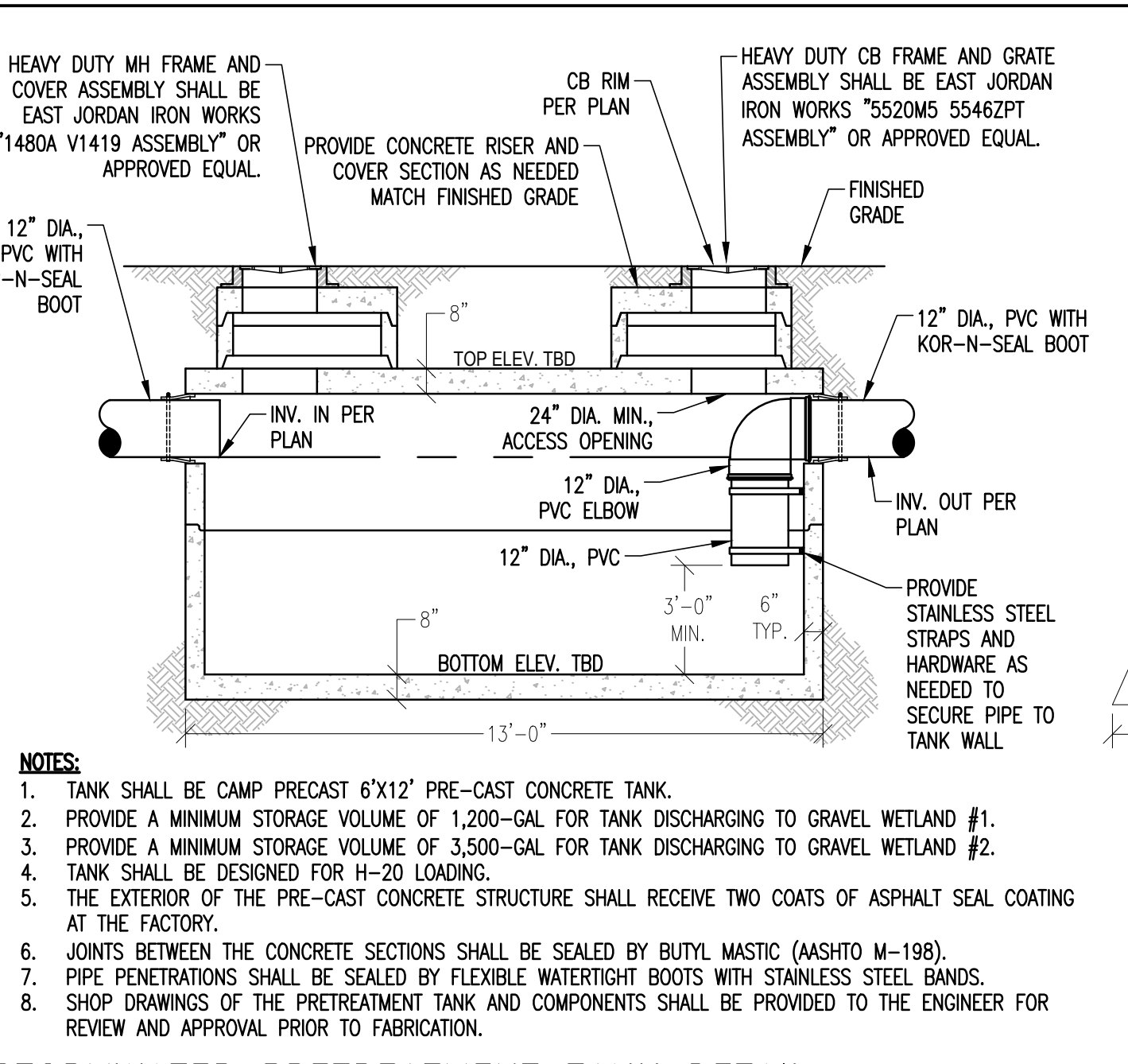
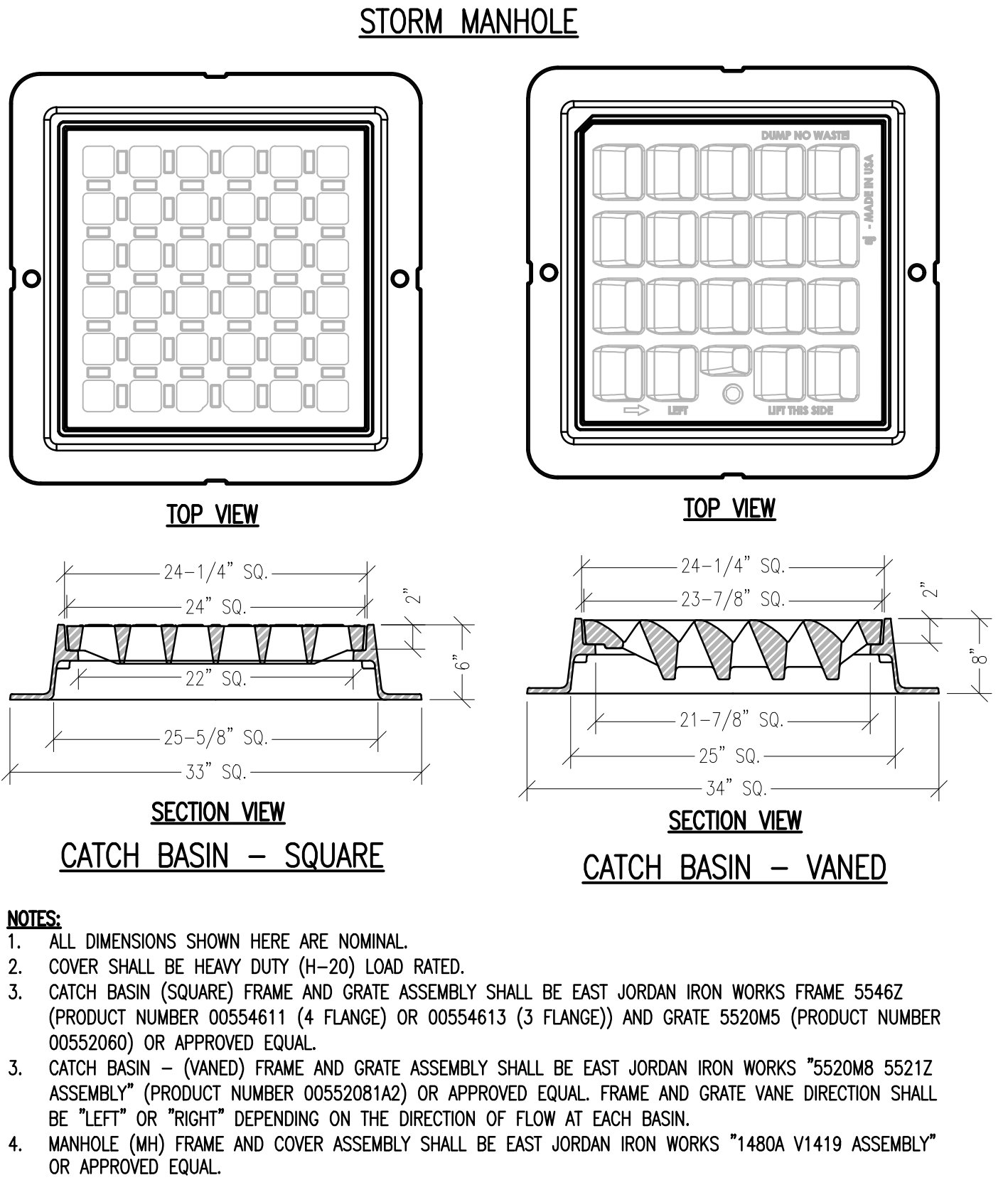
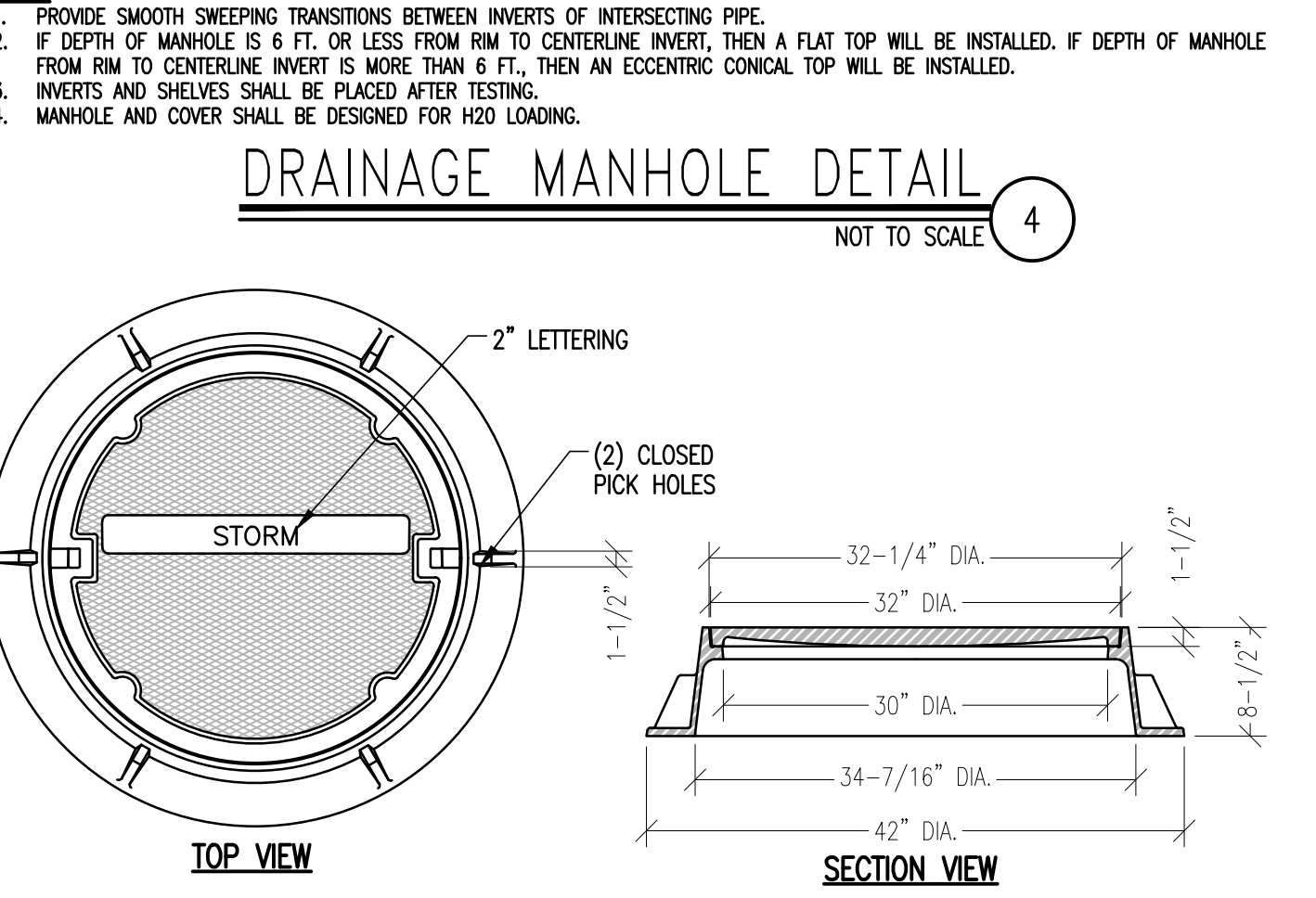
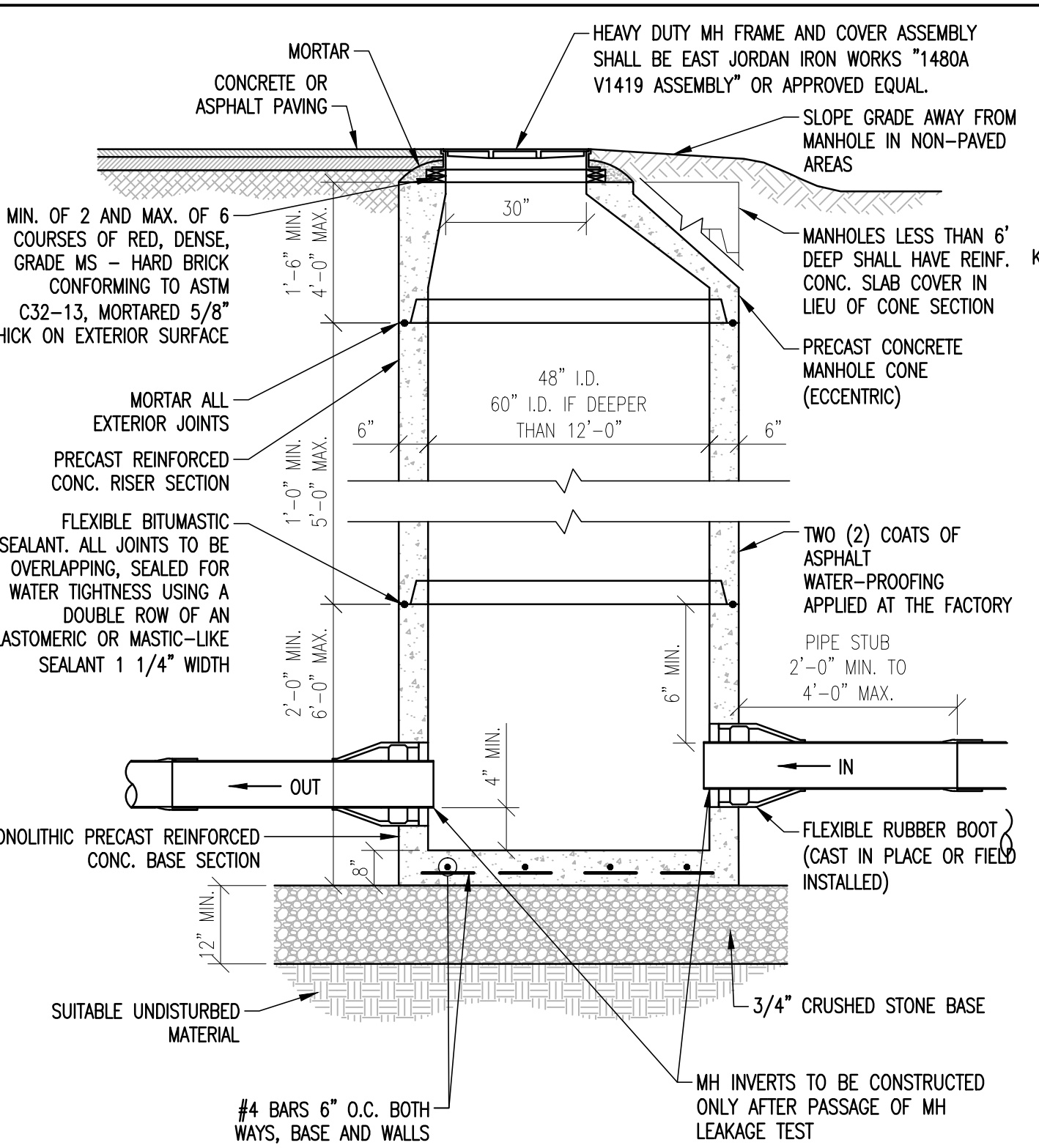
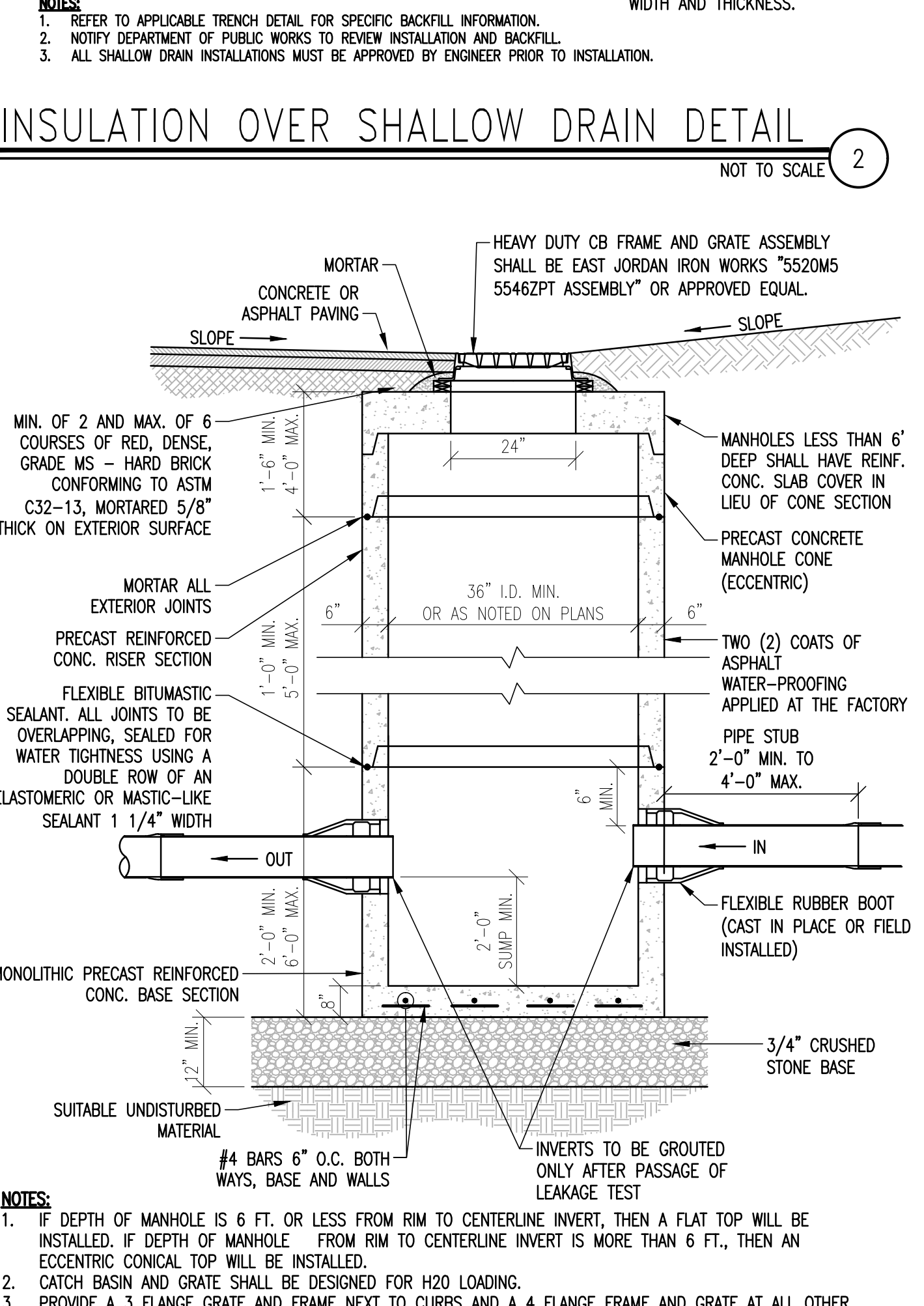
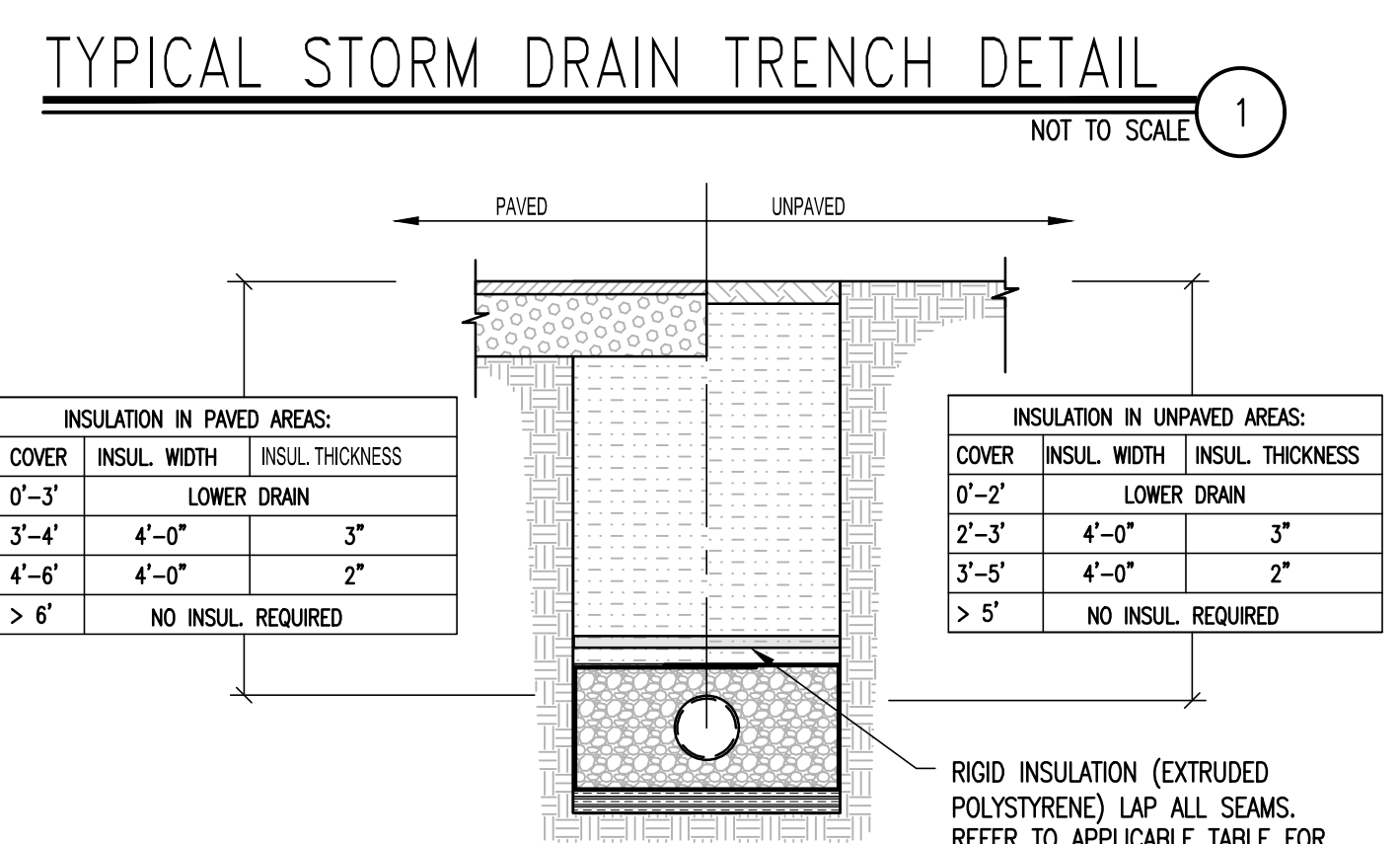
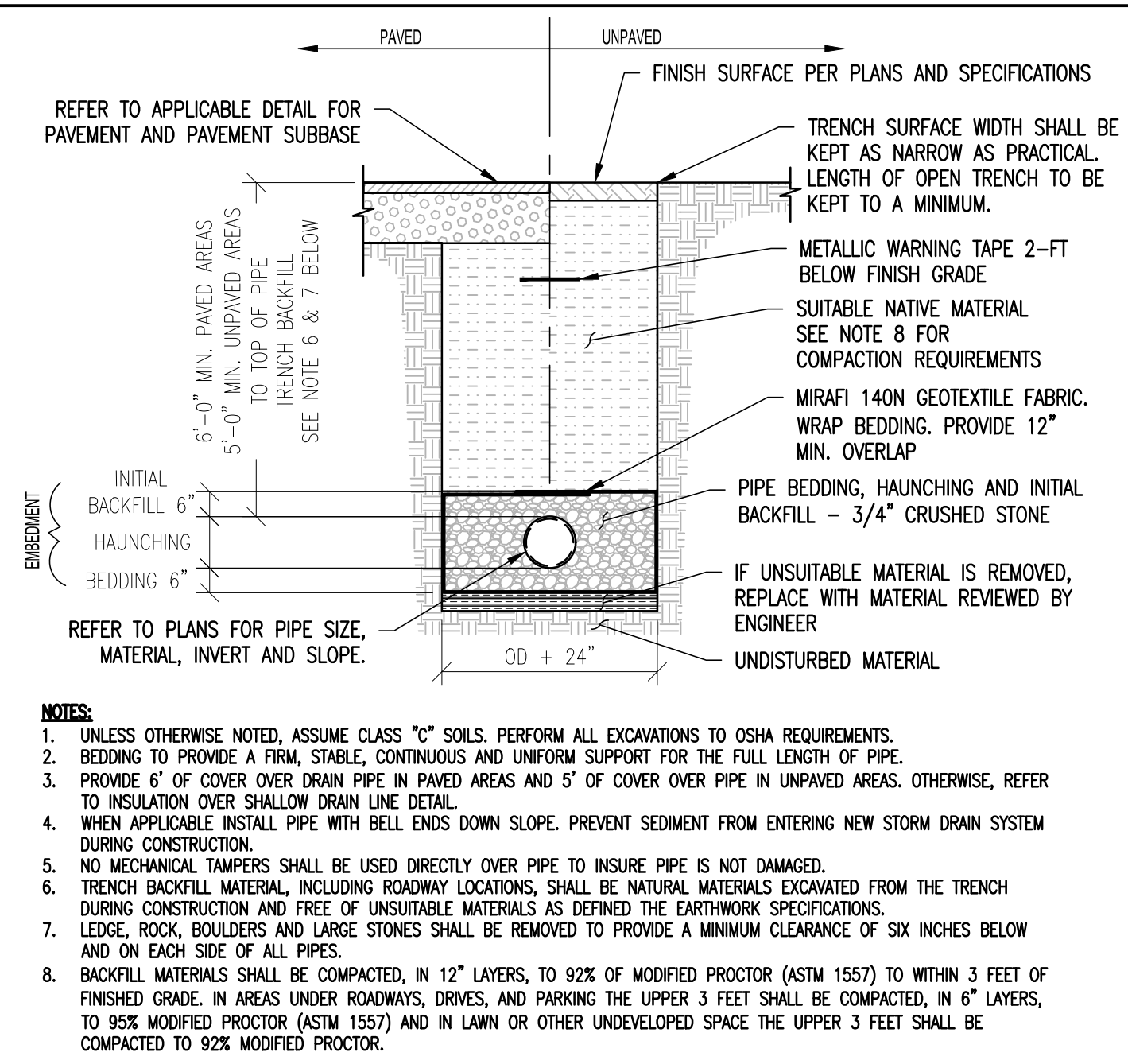
Sanitary Details & Notes

PROPOSED SUBDIVISION
LASTER PROPERTY

TOWN OF HINESBURG, CHITTENDEN COUNTY, VERMONT

EV Project # 20542
Drawn By: HKW
Checked By: KW
Scale: not to scale
Date: 04/01/2022

C4.1



GRAVEL WETLAND TREATMENT AREA ELEVATIONS

	GRAVEL WETLAND #1	GRAVEL WETLAND #2
BOT. STONE ELEV.	364.50	381.50
PERM. WATER ELEV.	368.30	384.50
SURFACE ELEV.	368.50	385.00
MAX WQ ELEV.	369.00	385.12
CONTROL ORIFICE DIA. & ELEV.	1" DIA / 368.30	1" DIA / 394.50
OP10 BYPASS DIA. & ELEV.	18" DIA / 370.33	18" DIA / 396.58
OP100 BYPASS DIA. & ELEV.	6-FT LONG WEIR / 370.80	18" DIA / 397.75
OUTLET DIA. & INVERT ELEV.	12" DIA / 367.79	24" DIA / 394.00

**PRELIMINARY PLAT
SUBJECT TO CHANGE
04/07/2022**

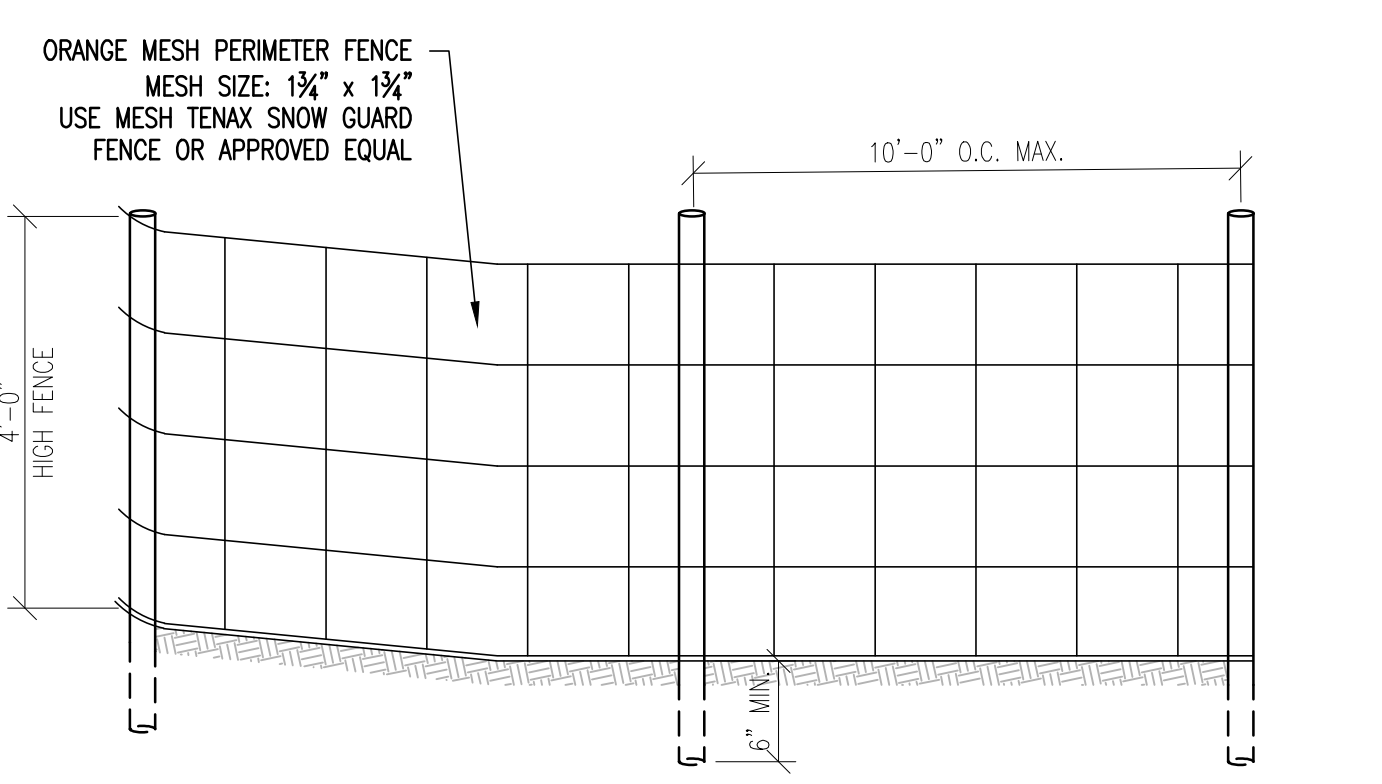
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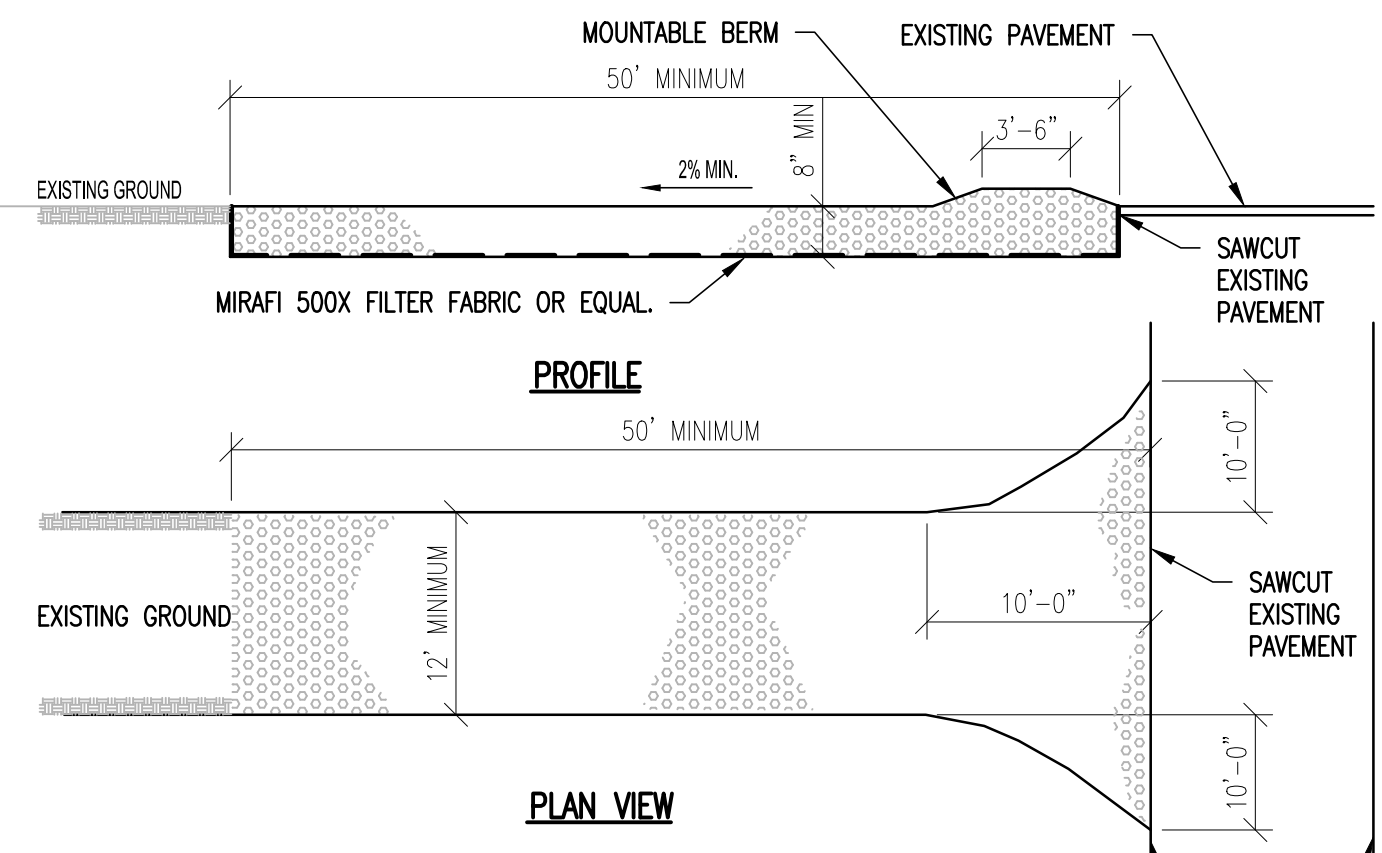
Stormwater Details
PROPOSED SUBDIVISION
LASTER PROPERTY
TOWN OF HINESBURG, CHITTENDEN COUNTY, VERMONT

EV Project # 20542
Drawn By: HKW
Checked By: KW
Scale: not to scale
Date: 04/01/2022

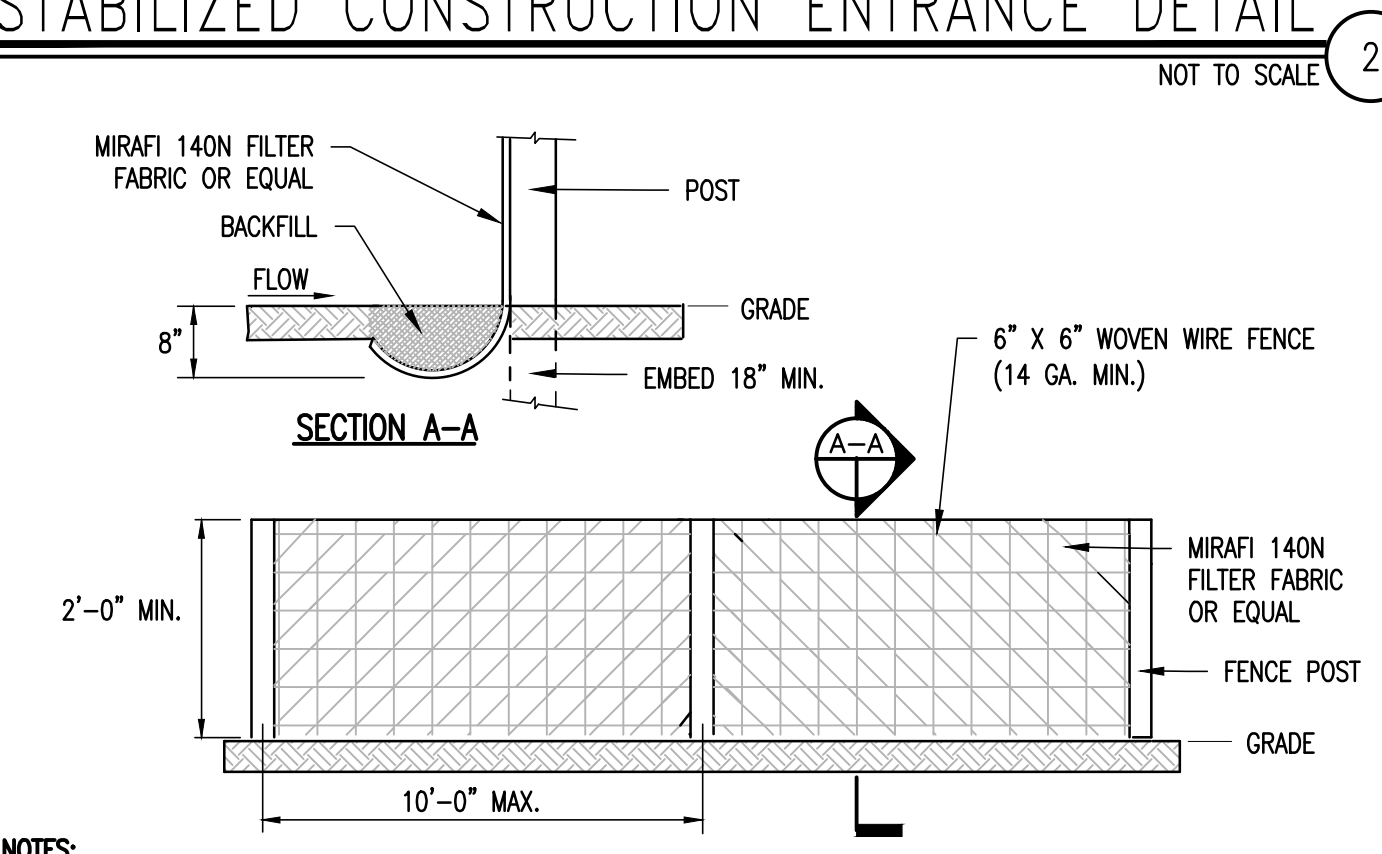
C4.3



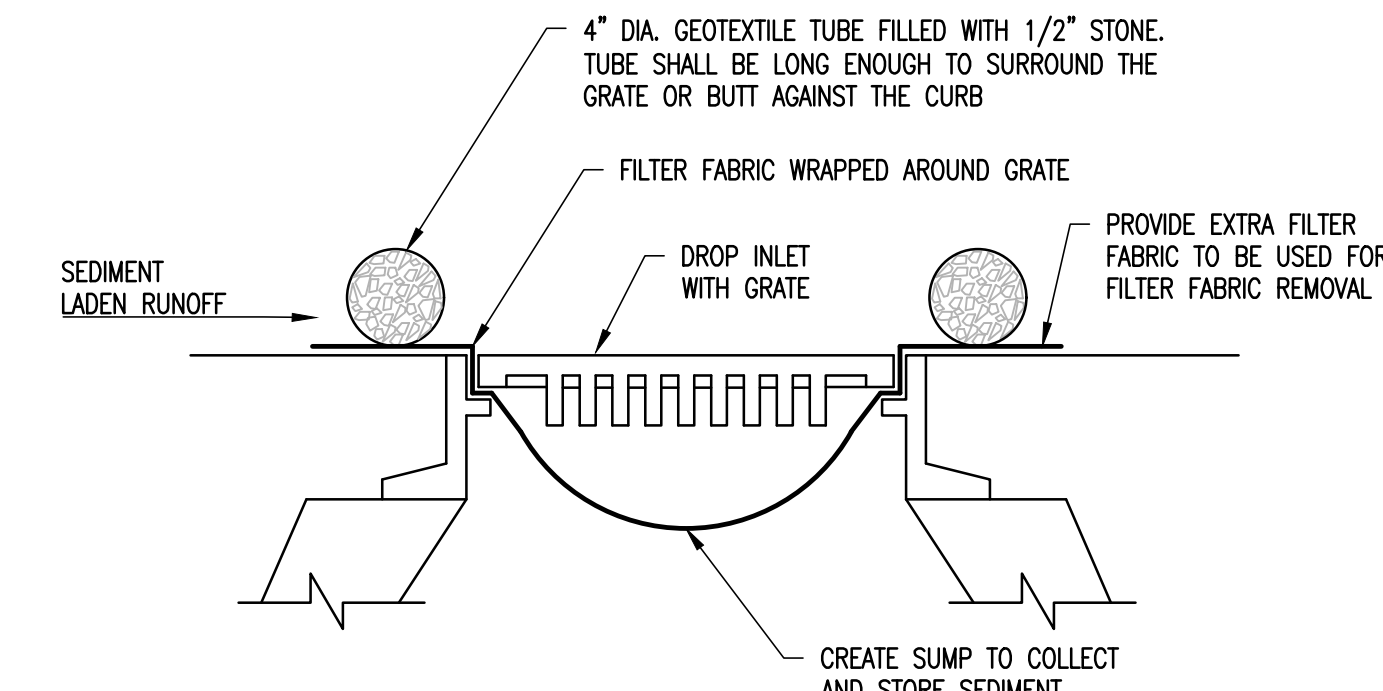
ORANGE CONSTRUCTION FENCE DETAIL
NOT TO SCALE 1



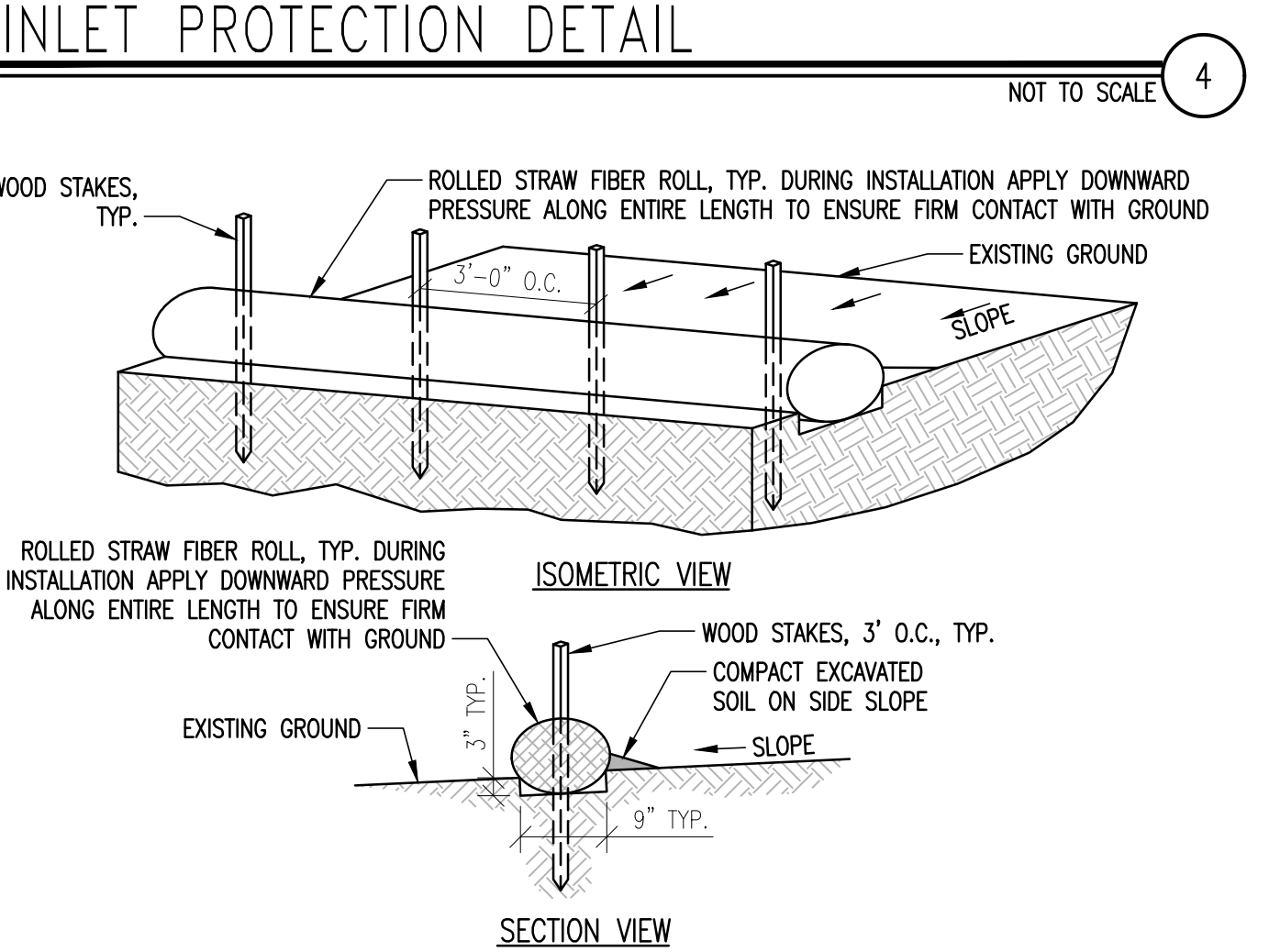
STABILIZED CONSTRUCTION ENTRANCE DETAIL
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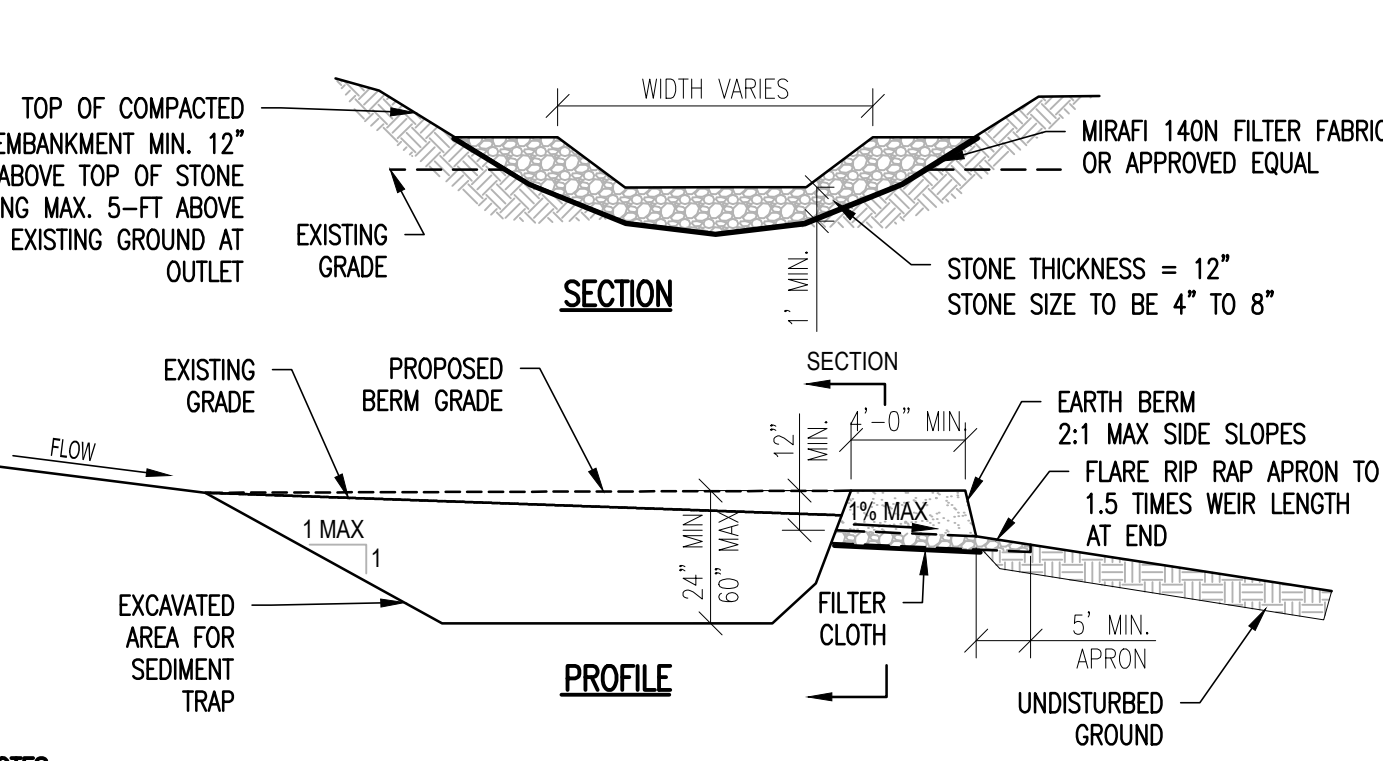
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NOT TO SCALE 3



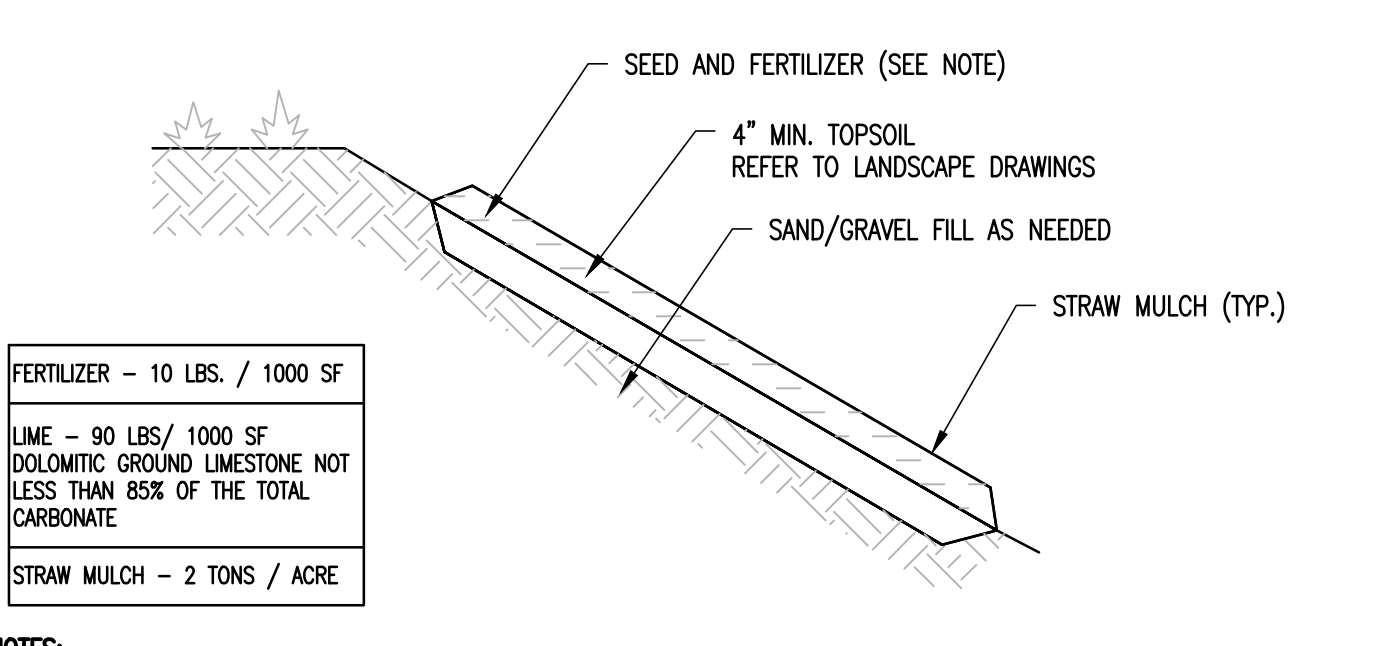
INLET PROTECTION DETAIL
NOT TO SCALE 4



STRAW FIBER ROLL - SOIL
NOT TO SCALE 5



TEMPORARY SEDIMENT TRAP W/RIP-RAP OUTLET
NOT TO SCALE 6



NOTES:

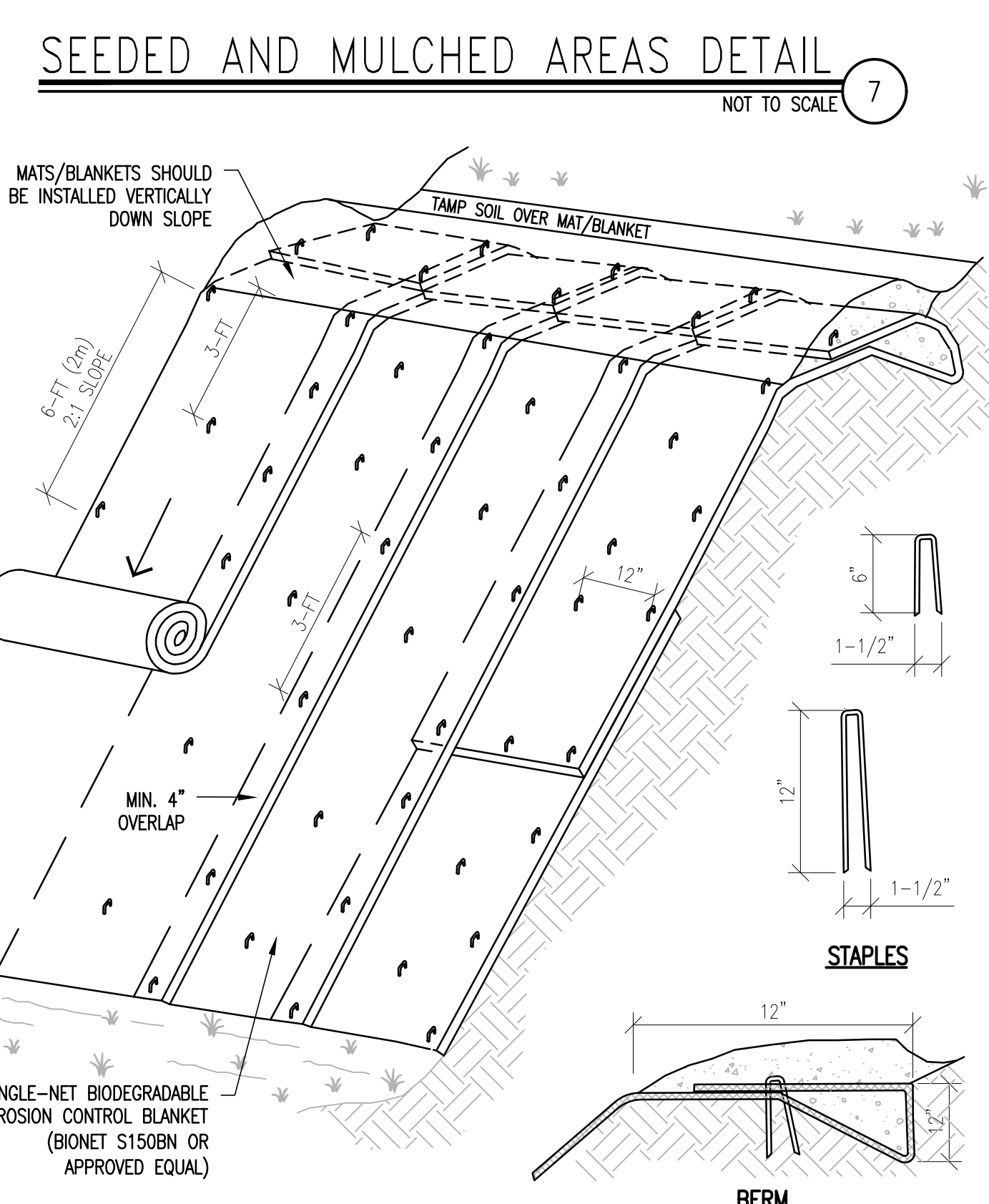
- SEEDING AND MULCHING OF DISTURBED AREAS SHALL TAKE PLACE WITHIN 48 HOURS OF FINAL GRADING.
- MULCH: HAY SHALL NOT BE USED. STRAW MULCH SHALL BE UTILIZED AND SHALL BE APPLIED AT A RATE OF 90-1,000 LBS/1,000 SF. MULCH SHALL NOT BE PLACED ON SLOPES OF GREATER THAN 3:1. SEED IMPREGNATED EROSION CONTROL NETTING SHALL BE USED IN ITS PLACE.
- SEED: SEEDING SHALL OCCUR AFTER APRIL 15 AND PRIOR TO SEPTEMBER 15TH IN ORDER TO ESTABLISH A STAND OF GRASS PRIOR TO GROUND FREEZING. SEED SHALL BE IN ACCORDANCE WITH SEED SPECIFICATION ON THIS SHEET.
- COVER SEED WITH 1/2 INCH SOIL UNLESS A HYDROSEEDER IS USED. MULCH ANCHORING: SHALL BE ACCOMPLISHED BY DEGRADABLE MULCH NETTING. USE WHEN SLOPES ARE GREATER THAN 10%.
- TOPSOIL AND MULCHING NOT TO BE APPLIED IN AREAS OF TRAVEL WAYS.

URBAN MIX GRASS SEED (FOR USE IN GRASSED LAWN AREAS AROUND BUILDINGS AND PARKING)

% BY WEIGHT	LBS. LIVE SEED BY ACRE	TYPE OF SEED
37.5	45	CREeping RED FESCUE
31.3	37.5	KENTUCKY BLUEGRASS
31.3	37.5	WINTER HARDY, PERENNIAL RYE
100	120 LBS. LIVE SEED / ACRE	

CONSERVATION MIX GRASS SEED (FOR USE IN ALL OTHER AREAS)

% BY WEIGHT	LBS. LIVE SEED BY ACRE	TYPE OF SEED
35	77	CREeping RED FESCUE
20	44	KENTUCKY BLUEGRASS
15	33	CUTTER PERENNIAL RYE
15	33	ANNUAL RYE GRASS
10	22	TALL FESCUE
55	11	WHITE CLOVER
100	220 LBS. LIVE SEED / ACRE	



EROSION CONTROL BLANKET
NOT TO SCALE 8

GENERAL EROSION CONTROL NOTES

- THE CONTRACTOR SHALL DESIGNATE AN "ON-SITE EROSION CONTROL PLAN COORDINATOR" WHO WILL BE PRESENT ON-SITE FROM DAY-TO-DAY, AND SHALL BE RESPONSIBLE FOR ENSURING THAT THE EROSION CONTROL MEASURES REQUIRED BY THE EROSION CONTROL PLAN, DETAILS AND NOTES, ARE PROPERLY INSTALLED AND MAINTAINED. THE ON-SITE EROSION CONTROL PLAN COORDINATOR SHALL KEEP A WRITTEN RECORD OF INSPECTIONS AND MAINTENANCE OF EROSION CONTROL FEATURES. A COPY OF THESE PLANS AND INSPECTION/MAINTENANCE RECORDS SHALL BE KEPT ON-SITE AT ALL TIMES.
- THE CONTRACTOR SHALL NOTIFY THE TOWN OF HINESBURG DEPARTMENT OF PUBLIC WORKS DIVISION AT LEAST 24-HOURS PRIOR TO ANY EARTH DISTURBING ACTIVITIES AND SUBMIT THE NAME AND CONTACT INFORMATION (CELL PHONE AND EMAIL) OF THE ON-SITE EROSION CONTROL COORDINATOR FOR THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR POSTING THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN NOTICE IN A VISIBLE LOCATION AT ALL TIMES DURING EARTH DISTURBANCE.
- DISTURBANCE LIMITS ARE TO BE MARKED, AND THE FOLLOWING MANAGEMENT PRACTICES INSTALLED, PRIOR TO BEGINNING EARTHWORK IN ANY GIVEN AREA; SILT FENCE, CONSTRUCTION ENTRANCE, INLET PROTECTION & TREE PROTECTION FENCING.
- COMPLY WITH VERMONT STATE GENERAL CONSTRUCTION PERMIT CONDITIONS. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MOST RECENT VERSION OF THE VERMONT DEC LOW RISK SITE HANDBOOK FOR EROSION PREVENTION & SEDIMENT CONTROL.
- DURING THE NON-WINTER CONSTRUCTION SEASON, ALL DISTURBED AREAS ARE TO BE STABILIZED (TEMPORARY OR FINAL) WITHIN 14-DAYS OF INITIAL DISTURBANCE. AFTER THIS TIME, ANY DISTURBANCE WITHIN THIS WORK AREA MUST BE STABILIZED AT THE END OF EACH WORK DAY, WITH THE FOLLOWING EXCEPTIONS:
 - STABILIZATION IS NOT REQUIRED IF WORK IS TO CONTINUE IN THE AREA WITHIN 24 HOURS AND NO PRECIPITATION IS FORECAST DURING THAT PERIOD
 - WORK IS OCCURRING WITHIN A SELF-CONTAINED EXCAVATION, 2-FEET OR MORE IN DEPTH.
- THE PERIOD BETWEEN NOVEMBER 1ST AND APRIL 15TH IS CONSIDERED THE "WINTER CONSTRUCTION PERIOD". IF SOILS WILL BE EXPOSED AFTER NOVEMBER 1ST, A PLAN FOR WINTER CONSTRUCTION MUST BE DEVELOPED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER OR BEFORE OCTOBER 1ST. THE CONTRACTOR SHALL ENSURE SEDIMENT CONTROL IS INSTALLED PRIOR TO THE SOIL FREEZING. AN INSPECTION WILL BE REQUIRED IF THE PROJECT IS COMPLETED DURING THE WINTER MONTHS TO ENSURE THE SITE IS SECURED FOR THE REMAINDER OF THE SEASON.
- DURING THE WINTER CONSTRUCTION SEASON, ANY NEW DISTURBANCE MUST BE STABILIZED (TEMPORARY OR FINAL) AT THE END OF EACH WORK DAY, WITH THE FOLLOWING EXCEPTIONS:
 - STABILIZATION IS NOT REQUIRED IF WORK IS TO CONTINUE IN THE AREA WITHIN 24 HOURS AND NO PRECIPITATION IS FORECAST DURING THAT PERIOD
 - WORK IS OCCURRING WITHIN A SELF-CONTAINED EXCAVATION, 2-FEET OR MORE IN DEPTH.
- IN NO CASE SHALL SOIL BE EXPOSED FOR MORE THAN 14 DAY WITHOUT BEING STABILIZED.
- ALL DISTURBED AREAS ARE TO BE PERMANENTLY STABILIZED WITHIN 48 HOURS OF FINAL GRADING.
- THE PERIMETER OF THE SITE AND ALL BMPs SHALL BE INSPECTED AT THE END OF EACH WORK DAY TO ENSURE SEDIMENT DOES NOT LEAVE THE SITE. IF SEDIMENT HAS TRAVELED BEYOND THE PROJECT LIMITS, IT SHALL BE RELOCATED IN AN UPGRADE AREA ON SITE AT THE END OF EACH WORK DAY.
- ALL STABILIZATION INVOLVING SEEDING IS TO BE COMPLETED BY SEPTEMBER 15TH.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAILY INSPECTION OF THE ADJACENT ROADWAYS FOR OFF-SITE TRACKING OF SOIL MATERIALS. SOIL, STONE, AND DEBRIS FOUND LEAVING THE SITE ARE TO BE REMOVED (WHEN FOUND) BY SWEEPING AT THE END OF EACH CONSTRUCTION DAY, OR MORE FREQUENTLY WHEN NEEDED TO PREVENT IMPACTS TO ADJACENT ROADS AND SIDEWALKS.
- IF DEWATERING IS REQUIRED FOR CONSTRUCTION, THE CONTRACTOR MUST UTILIZE SEDIMENT FILTER BAGS (OR ALTERNATE APPROVED BY THE ENGINEER) TO PREVENT DISCHARGE OF SEDIMENT-LADEN WATER OFF SITE.
- EXCAVATED MATERIAL FROM EARTH EXCAVATION AND DITCH DIGGING SHALL BE PLACED ON-SITE IN A LOCATION TO BE APPROVED OF BY THE OWNER AND/OR THE ENGINEER OR USED FOR PROJECT FILL MATERIAL IF DETERMINED SUITABLE BY THE OWNER'S REPRESENTATIVE.
- STOCKPILED MATERIAL (TOPSOIL, BORROW, ETC.) SHALL HAVE SILT FENCE CONSTRUCTED AROUND THE PERIMETER. THE STOCKPILED MATERIAL SHALL BE SEEDED AND MULCHED AS SOON AS POSSIBLE TO PREVENT SOIL EROSION AND SEDIMENTATION OFF SITE. LOCATE STOCKPILES ON THE UPHILL SIDE OF DISTURBED AREAS, IF POSSIBLE. DURING WINDY CONDITIONS, STOCKPILED MATERIAL SHALL BE COVERED OR WATERED APPROPRIATELY TO PREVENT WIND EROSION.
- SLOPES GREATER THAN 3:1 SHALL HAVE EROSION CONTROL MATTING INSTALLED TO STABILIZE THE SLOPE AND REDUCE THE EROSION POTENTIAL. MATTING SHALL BE BIODEGRADABLE WITH A 12 MONTH LONGEVITY, S150BN AS MANUFACTURED OR APPROVED EQUIVALENT. INSTALL MATTING OVER MULCHED SLOPES SO THAT ALL PARTS ARE IN CONTACT WITH THE SOIL AND MULCH. PIN MATTING WITH WIRE STAPLES 3 FEET O.C. TO ENSURE FULL BONDING WITH SOIL SURFACE. THE SLOPE SURFACES SHOULD BE LEFT SLIGHTLY ROUGHENED AND NOT SMOOTH. IF LARGE AMOUNTS OF OFFSITE WATER WILL DRAIN OVER THESE SLOPES, TEMPORARY DIVERSION SWALES SHALL BE INSTALLED UP SLOPE UNTIL THE SLOPE VEGETATION STABILIZES.
- THE OWNER SHALL BE NOTIFIED WHEN SITE WORK IS COMPLETED AND THE SITE IS STABILIZED.

WINTER EROSION CONTROL NOTES

- WINTER CONSTRUCTION PROCEDURES**
- DURING WINTER CONSTRUCTION, INSPECTIONS BY THE ON-SITE PLAN COORDINATOR SHALL OCCUR FOR ANY AREAS NOT FULLY STABILIZED, AND WEEKLY FOR THE ENTIRE SITE PRIOR TO ANY FORECASTED RAIN, THAW OR SPRING MELT WHEN TEMPORARY STABILIZATION IS IN PLACE.
 - IN AREAS TO BE STABILIZED BY VEGETATION, ALL SEEDING MUST BE COMPLETED BY SEPTEMBER 15 TO ALLOW GROWTH TO OCCUR PRIOR TO THE GROUND FREEZING. STABILIZATION OF ALL OTHER DISTURBED AREAS SHALL BE COMPLETED BY OCTOBER 15.
 - ENLARGED ACCESS POINTS, STABILIZED TO PROVIDE FOR SNOW STOCKPILING SHALL BE INSTALLED.
 - LIMITS OF DISTURBANCE SHALL BE MOVED OR REPLACED TO REFLECT BOUNDARY OF WINTER WORK.
 - SNOW WILL NOT BE PILED WITHIN 25 FEET OF PERIMETER CONTROLS (SUCH AS SILT FENCE) TO ALLOW FOR CLEARING AND MAINTENANCE. SNOW IS TO BE REMOVED FROM ALL STRUCTURAL EROSION PREVENTION AND SEDIMENTATION CONTROL MEASURES FOLLOWING EACH SIGNIFICANT SNOWFALL. NO SNOW STORAGE UP-GRADE OF DISTURBANCE. NO SNOW DISPOSAL IN SEDIMENT PONDS/BASINS. IF NECESSARY, SNOW/ICE MUST BE REMOVED PRIOR TO STABILIZATION OF DISTURBED AREAS. ACCESS POINTS SHALL BE ENLARGED AND STABILIZED TO ALLOW FOR SNOW STOCKPILING.
 - IN AREAS OF DISTURBANCE WITHIN 100 FT OF A RECEIVING WATER, SILT FENCE SHALL BE REINFORCED OR ELSE REPLACED WITH PERIMETER DIKES, SWALES OR OTHER PRACTICES RESISTANT TO THE FORCES OF SNOW LOADS.
 - DRAINAGE STRUCTURES SHALL BE KEPT OPEN AND FREE OF SNOW AND ICE DAMS.
 - ALL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES ARE TO BE IN PLACE BY OCTOBER 15, OR IF NOT POSSIBLE, THEN PRIOR TO GROUND FREEZE.
 - MULCH IS TO BE APPLIED AT THE END OF EACH WORKDAY TO ALL EXPOSED AREAS THAT HAVE NOT YET REACHED FINAL GRADE AT TWICE THE RATE INDICATED IN THE SEEDING AND MULCHING DETAIL FOR THE REGULAR CONSTRUCTION SEASON. MULCH SHALL BE TRACKED IN OR STABILIZED WITH NETTING.
 - TO ENSURE COVER OF DISTURBED SOIL IN ADVANCE OF A MELT EVENT, AREAS OF DISTURBED SOIL MUST BE STABILIZED AT THE END OF EACH WORK DAY, WITH THE FOLLOWING EXCEPTIONS:
 - IF NO PRECIPITATION WITHIN 24 HOURS IS FORECAST AND WORK WILL RESUME IN THE SAME DISTURBED AREA WITHIN 24 HOURS, DAILY STABILIZATION IS NOT NECESSARY.
 - DISTURBED AREAS THAT COLLECT AND RETAIN RUNOFF, SUCH AS HOUSE FOUNDATIONS OR OPEN UTILITY TRENCHES.
 - SNOW AND ICE SHALL BE REMOVED TO LESS THAN 1" THICKNESS PRIOR TO STABILIZATION.
 - STONE STABILIZATION, 10 TO 20 FT WIDE IN AREAS SUCH AS THE PERIMETER OF BUILDINGS UNDER CONSTRUCTION WHERE CONSTRUCTION VEHICLE TRAFFIC IS ANTICIPATED SHALL BE INSTALLED.

Stamp

Date

Description

No.

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Erosion Prevention & Sediment Control
Details & Notes

PROPOSED SUBDIVISION
LASTER PROPERTY

TOWN OF HINESBURG, CHITTENDEN COUNTY, VERMONT

Sheet Title

Project Title

EV Project # 20542
Drawn By: HKW
Checked By: KW
Scale: not to scale
Date: 04/01/2022

PRELIMINARY PLAT
SUBJECT TO CHANGE
04/07/2022

C4.4