

55 ELM ADAPTIVE REUSE

55 ELM ST · HARTFORD · CONNECTICUT

REVISED FEBRUARY 18, 2021

DECEMBER 2020

PREPARED FOR

CROSSKEY ARCHITECTS, LLC

> 750 MAIN ST, HARTFORD, CT



SHEET INDEX

SHEET No. SHEET TITLE COVER SHEET

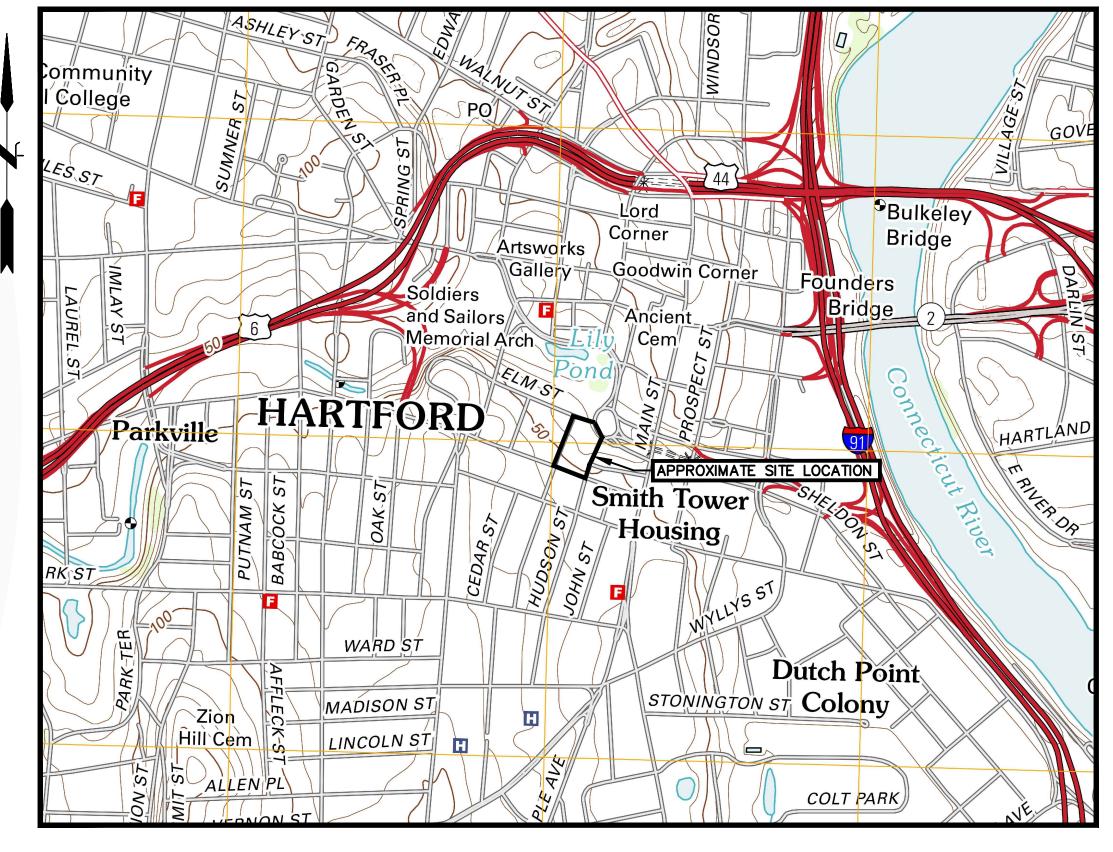
1 OF 2, 2 OF 2 BOUNDARY & TOPOGRAPHIC SURVEY (BY OTHERS)

CP-101 SITE PREPARATION PLAN

CE-101 EROSION & SEDIMENT CONTROL PLAN
CS-101 SITE LAYOUT PLAN
CG-101 GRADING PLAN
CU-101 UTILITY PLAN

CT-101 AMBULANCE TURNING MANEUVER

LP-101 LANDSCAPE PLAN
CD-501-508 SITE DETAILS

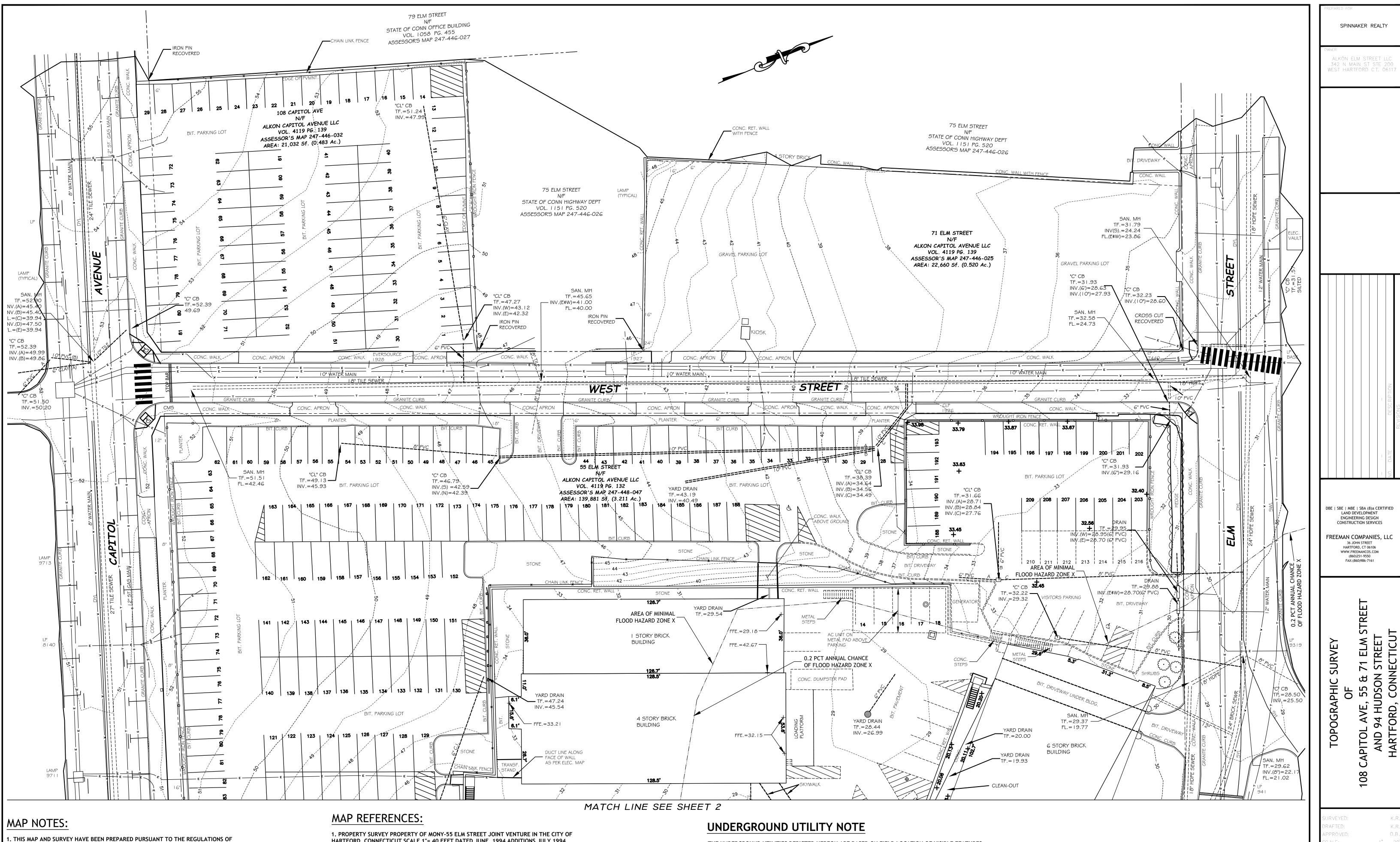


LOCATION MAP

SCALE: 1" = 500'



PROJ. No.: 20071848.A30
DATE: 12/03/2020



CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND "THE MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS ON SEPTEMBER 26, 1996.

2. THE TYPE OF SURVEY PERFORMED AND THE MAPPED FEATURES DEPICTED HEREON ARE IN ACCORDANCE WITH THE REQUIREMENTS OF AN PROPERTY SURVEY.

3. THE HORIZONTAL BASELINE CONFORMS TO A CLASS A-2 ACCURACY. THE VERTICAL BASELINE CONFORMS TO A CLASS V-2 ACCURACY. THE TOPOGRAPHIC FEATURES CONFORM TO A CLASS T-2 ACCURACY.

4. THE NORTH ARROW AND BEARINGS ARE BASED UPON THE CONNECTICUT STATE COORDINATE SYSTEM N.A.D. 1983 (2011). THE ELEVATIONS ARE BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) USING GEOID 12A. COORDINATES AND ELEVATIONS WERE DETERMINED FROM RTK GPS OBSERVATIONS MADE ON JULY 13, 2019.

HARTFORD, CONNECTICUT SCALE 1"= 40 FEET DATED JUNE, 1994 ADDITIONS JULY 1994 REVISIONS JUNE, 1999 PREPARED BY PETERSEN & HOFFMAN-LAND SURVEYORS 998 FARMINGTON AVE., WEST HARTFORD, CONNECTICUT 06107 TELE. (860)233-6312 FOUNDED 1897."

2. SURVEY OF PROPERTIES BOUNDED BY ELM, HUDSON AND MAIN STREETS AND LINDEN PLACE HARTFORD, CONNECTICUT SCALE 1"= 16 FEET DATED SEPTEMBER, 1981 REVISED JAN., 1982 NOV., 1986 DEC., 1986 PETERSEN & HOFFMAN-LAND SURVEYORS SUCCESSORS TO SPENCER & WASHBURN, INC."

3. PROPERTY SURVEY FOR WEST STREET, ELM STREET, & CAPITOL AVENUE HARTFORD, CONNECTICUT SCALE 1"= 16 FEET SEPTEMBER, 1982 PREPARED BY PETERSEN & HOFFMAN-LAND SURVEYORS TO SPENCER & WASHBURN, INC."

4. PROPERTY OF CAPITOL HILL ASSOCIATES ELM, HUDSON, WEST STREETS AND CAPITOL AVENUE HARTFORD, CONNECTICUT SCALE 1 INCH = 16 FEET OCTOBER 7, 1987, FLETCHER-THOMPSON, INC ARCHITECTS, ENGINEERS, PLANNERS."

THE UNDERGROUND UTILITIES DEPICTED HEREON ARE BASED ON FIELD LOCATION OF VISIBLE FEATURES, MAPS AND PLANS OF RECORD, UTILITY MAPPING OR OTHER SOURCES OF INFORMATION. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES DECLARE THAT THEY ARE DEPICTED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

TO MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

OSWALD R. BLINT L.S. #12048

NO CERTIFICATION IS EXPRESSED OR IMPLIED UNLESS THIS MAP BEARS THE ORIGINAL SIGNATURE AND EMBOSSED SEAL OF THE ABOVE NAMED LAND SURVEYOR.

BOUNDARY &

APITOL AND HARTE

LAND DEVELOPMENT ENGINEERING DESIGN

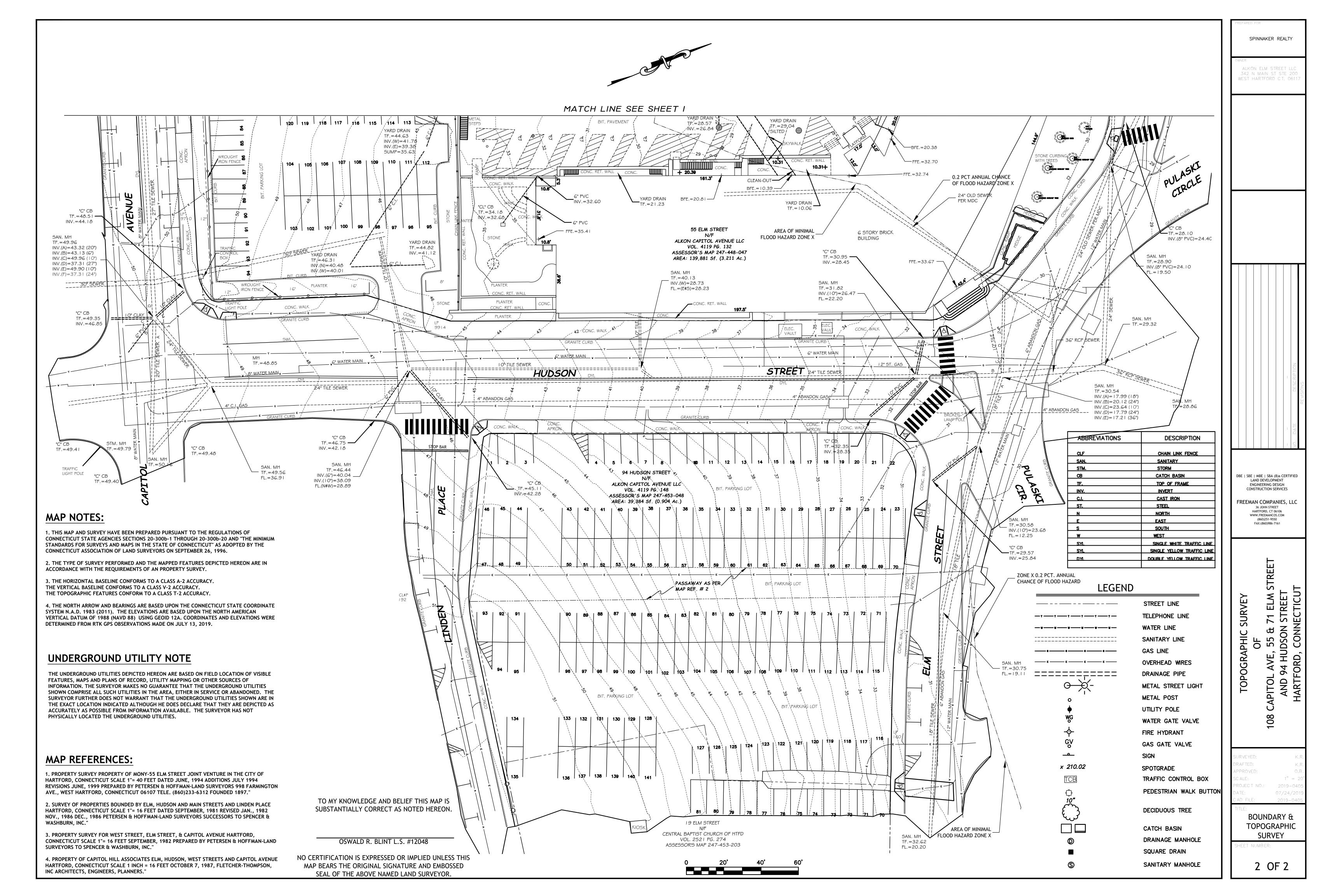
HARTFORD, CT 06106 WWW.FREEMANCOS.COM

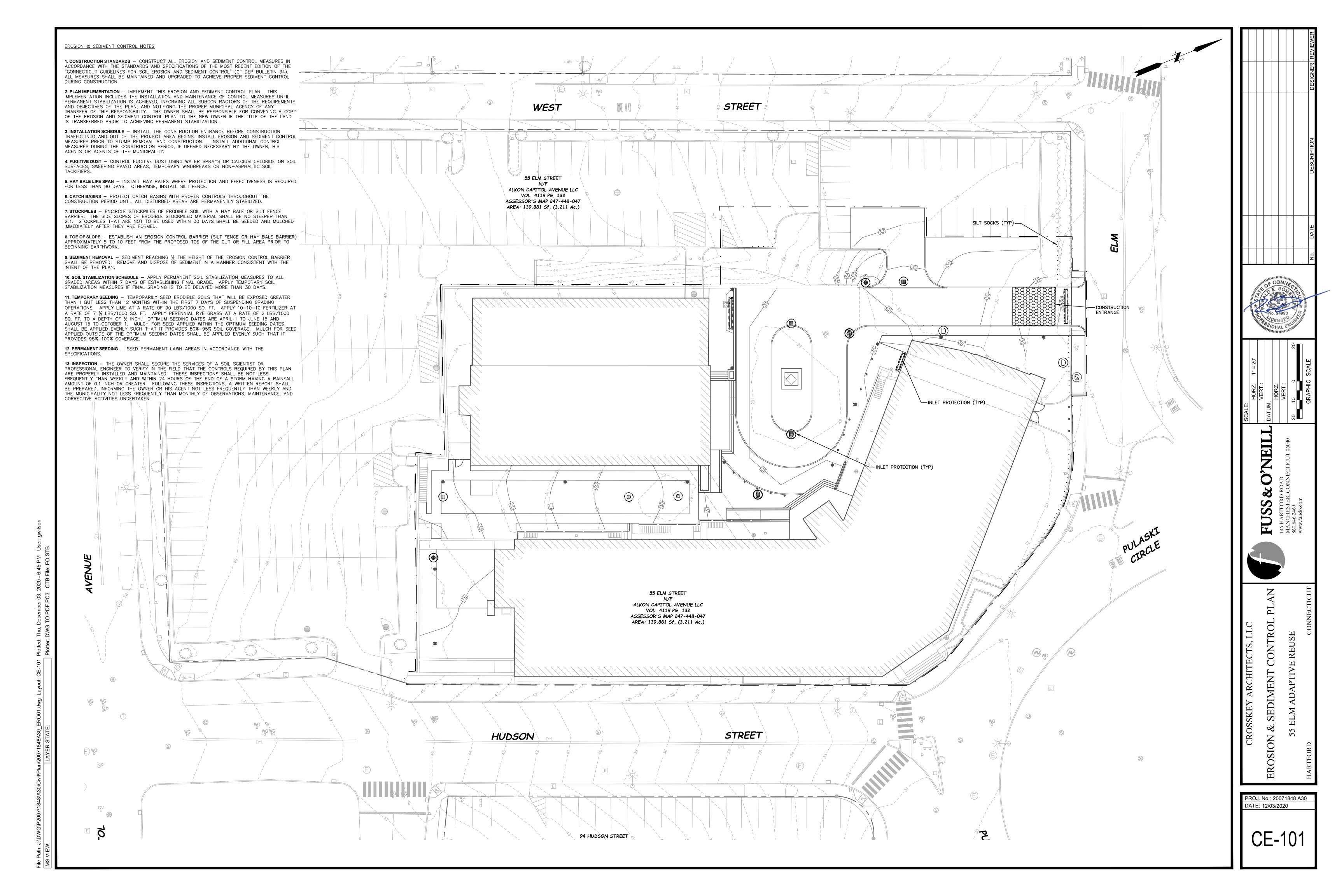
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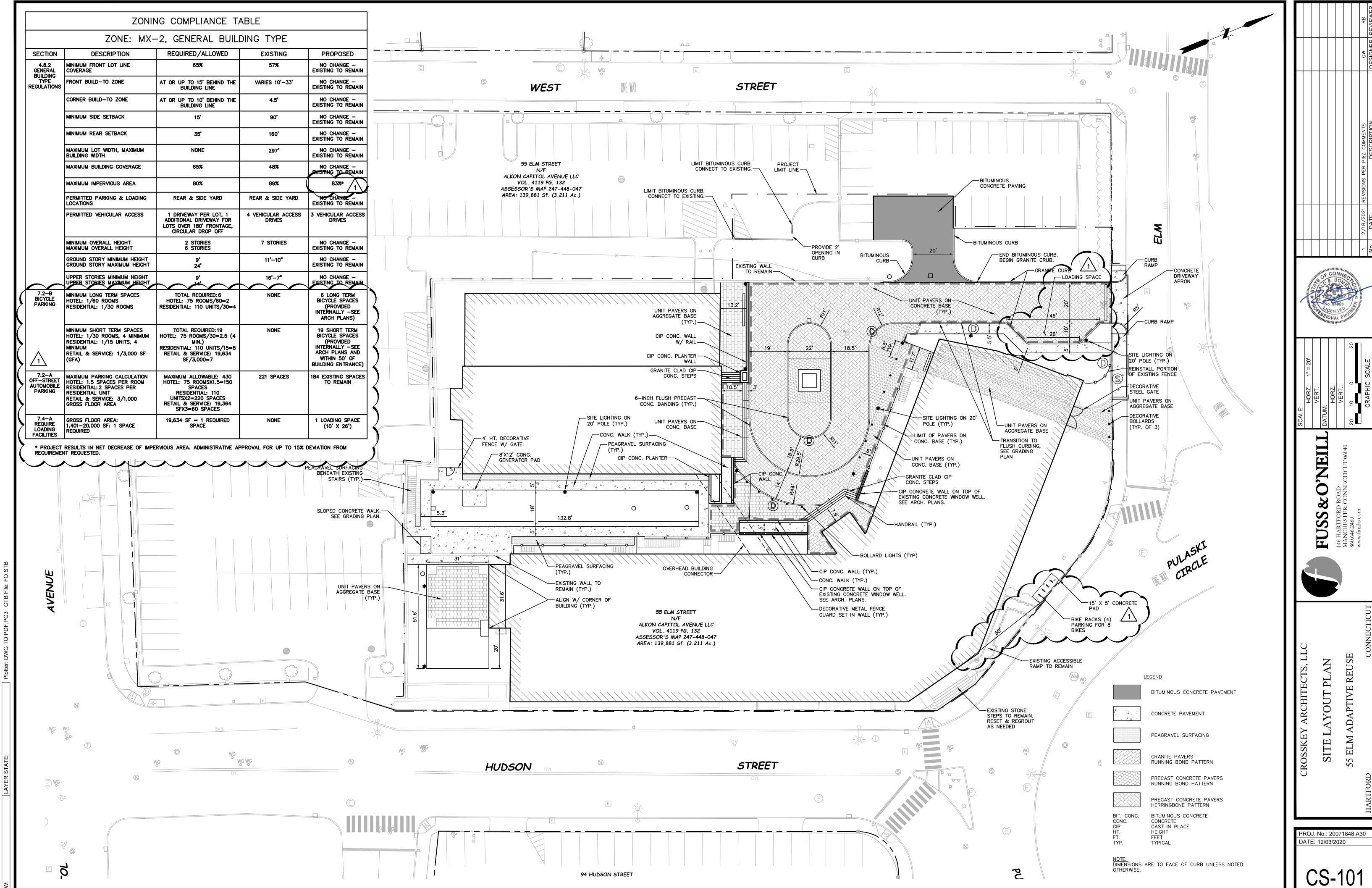
SPINNAKER REALTY

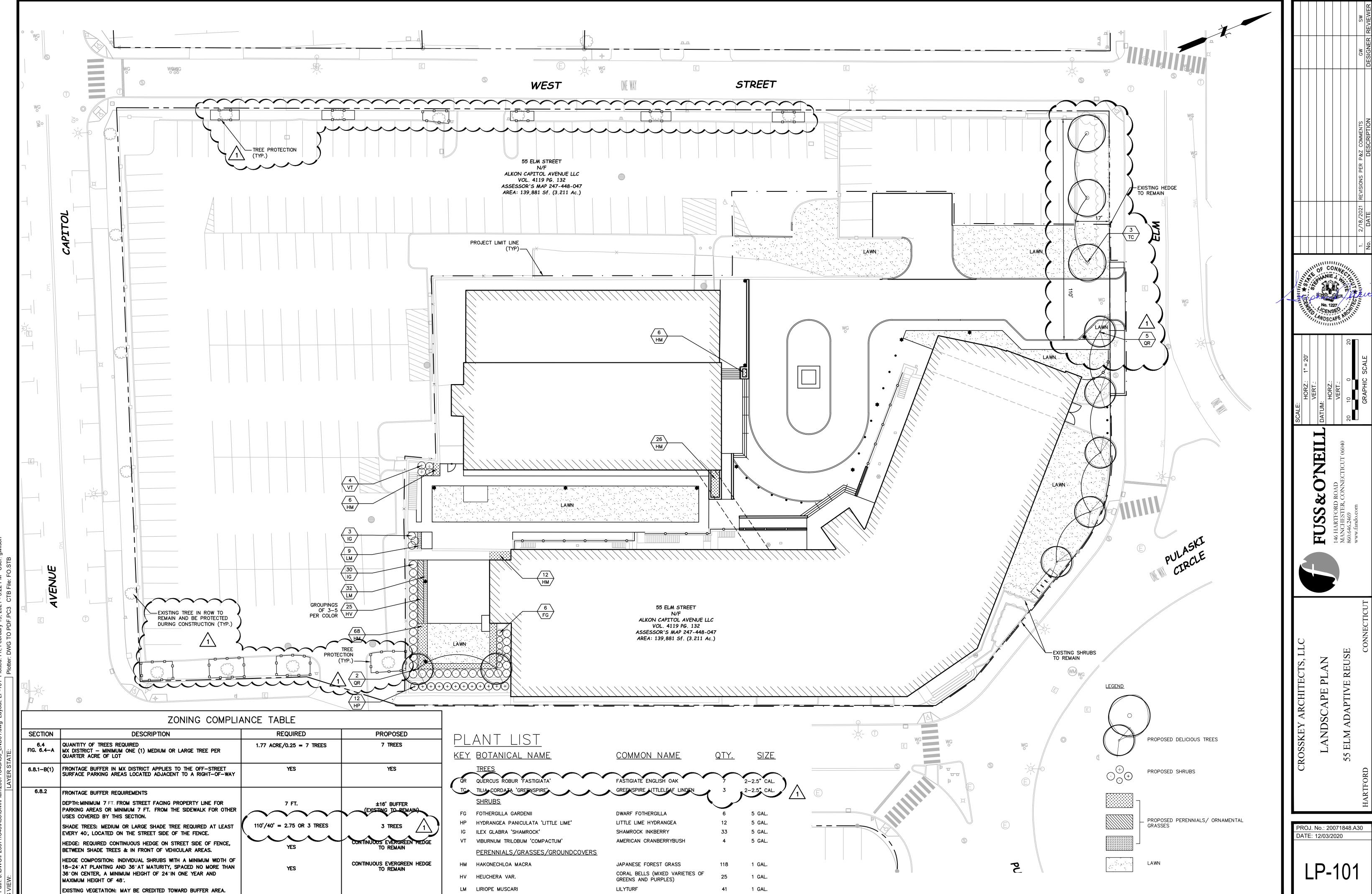
TOPOGRAPHIC SURVEY

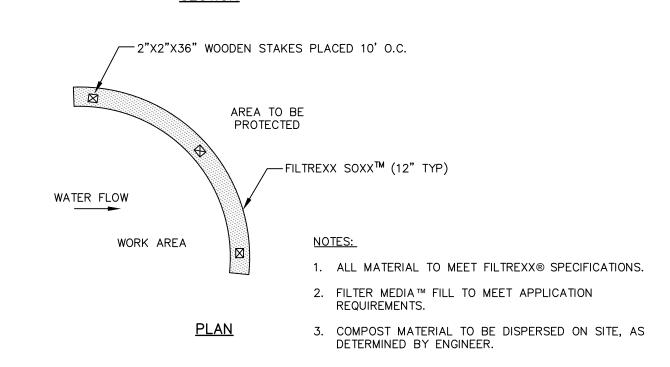
1 OF 2







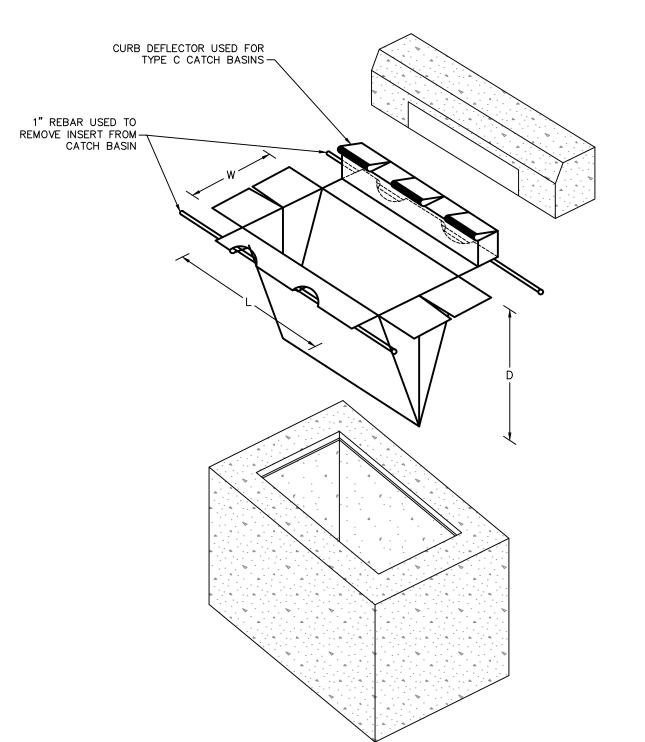


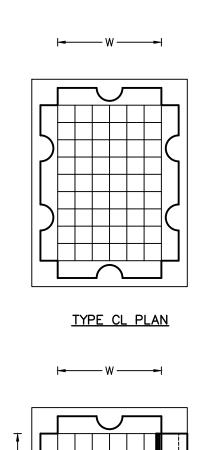


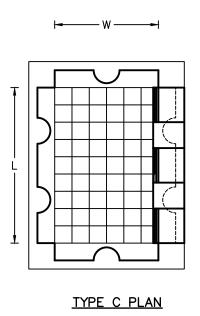
COMPOST FILTER SOCK SEDIMENT CONTROL

→—ACCESS—— STONE: CT DOT NO.3 SPEC. M.01.01-SUBGRADE -<u>SECTION</u> ACCESS ROAD TO WORK AREA PAVED (12' MIN)

NOT TO SCALE







TYPE CL SIDE ELEVATION

TYPE C SIDE ELEVATION

CATCH BASIN INSERT

EROSION & SEDIMENT CONTROL NOTES

1. CONSTRUCTION STANDARDS - CONSTRUCT ALL EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE MOST RECENT EDITION OF THE "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" (CT DEP BULLETIN 34). ALL MEASURES SHALL BE MAINTAINED AND UPGRADED TO ACHIEVE PROPER SEDIMENT CONTROL DURING CONSTRUCTION.

2. PLAN IMPLEMENTATION - IMPLEMENT THIS EROSION AND SEDIMENT CONTROL PLAN. THIS IMPLEMENTATION INCLUDES THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES UNTIL PERMANENT STABILIZATION IS ACHIEVED, INFORMING ALL SUBCONTRACTORS OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN, AND NOTIFYING THE PROPER MUNICIPAL AGENCY OF ANY TRANSFER OF THIS RESPONSIBILITY. THE OWNER SHALL BE RESPONSIBLE FOR CONVEYING A COPY OF THE EROSION AND SEDIMENT CONTROL PLAN TO THE NEW OWNER IF THE TITLE OF THE LAND IS TRANSFERRED PRIOR TO ACHIEVING PERMANENT STABILIZATION.

3. INSTALLATION SCHEDULE - INSTALL THE CONSTRUCTION ENTRANCE BEFORE CONSTRUCTION TRAFFIC INTO AND OUT OF THE PROJECT AREA BEGINS. INSTALL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO STUMP REMOVAL AND CONSTRUCTION. INSTALL ADDITIONAL CONTROL MEASURES DURING THE CONSTRUCTION PERIOD, IF DEEMED NECESSARY BY THE OWNER, HIS AGENTS OR AGENTS OF THE MUNICIPALITY.

4. FUGITIVE DUST - CONTROL FUGITIVE DUST USING WATER SPRAYS OR CALCIUM CHLORIDE ON SOIL SURFACES, SWEEPING PAVED AREAS, TEMPORARY WINDBREAKS OR NON-ASPHALTIC SOIL

5. HAY BALE LIFE SPAN - INSTALL HAY BALES WHERE PROTECTION AND EFFECTIVENESS IS REQUIRED FOR LESS THAN 90 DAYS. OTHERWISE, INSTALL SILT FENCE.

6. CATCH BASINS - PROTECT CATCH BASINS WITH PROPER CONTROLS THROUGHOUT THE CONSTRUCTION PERIOD UNTIL ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED.

7. STOCKPILES — ENCIRCLE STOCKPILES OF ERODIBLE SOIL WITH A HAY BALE OR SILT FENCE BARRIER. THE SIDE SLOPES OF ERODIBLE STOCKPILED MATERIAL SHALL BE NO STEEPER THAN 2:1. STOCKPILES THAT ARE NOT TO BE USED WITHIN 30 DAYS SHALL BE SEEDED AND MULCHED IMMEDIATELY AFTER THEY ARE FORMED.

8. TOE OF SLOPE — ESTABLISH AN EROSION CONTROL BARRIER (SILT FENCE OR HAY BALE BARRIER) APPROXIMATELY 5 TO 10 FEET FROM THE PROPOSED TOE OF THE CUT OR FILL AREA PRIOR TO

9. SEDIMENT REMOVAL - SEDIMENT REACHING 1/2 THE HEIGHT OF THE EROSION CONTROL BARRIER SHALL BE REMOVED. REMOVE AND DISPOSE OF SEDIMENT IN A MANNER CONSISTENT WITH THE INTENT OF THE PLAN.

10. SOIL STABILIZATION SCHEDULE - APPLY PERMANENT SOIL STABILIZATION MEASURES TO ALL GRADED AREAS WITHIN 7 DAYS OF ESTABLISHING FINAL GRADE. APPLY TEMPORARY SOIL STABILIZATION MEASURES IF FINAL GRADING IS TO BE DELAYED MORE THAN 30 DAYS.

11. TEMPORARY SEEDING - TEMPORARILY SEED ERODIBLE SOILS THAT WILL BE EXPOSED GREATER THAN 1 BUT LESS THAN 12 MONTHS WITHIN THE FIRST 7 DAYS OF SUSPENDING GRADING OPERATIONS. APPLY LIME AT A RATE OF 90 LBS/1000 SQ. FT. APPLY 10-10-10 FERTILIZER AT A RATE OF 7 ½ LBS/1000 SQ. FT. APPLY PERENNIAL RYE GRASS AT A RATE OF 2 LBS/1000 SQ. FT. TO A DEPTH OF 1/2 INCH. OPTIMUM SEEDING DATES ARE APRIL 1 TO JUNE 15 AND AUGUST 15 TO OCTOBER 1. MULCH FOR SEED APPLIED WITHIN THE OPTIMUM SEEDING DATES SHALL BE APPLIED EVENLY SUCH THAT IT PROVIDES 80%-95% SOIL COVERAGE. MULCH FOR SEED APPLIED OUTSIDE OF THE OPTIMUM SEEDING DATES SHALL BE APPLIED EVENLY SUCH THAT IT PROVIDES 95%-100% COVERAGE.

12. PERMANENT SEEDING - SEED PERMANENT LAWN AREAS IN ACCORDANCE WITH THE

13. INSPECTION — THE OWNER SHALL SECURE THE SERVICES OF A SOIL SCIENTIST OR PROFESSIONAL ENGINEER TO VERIFY IN THE FIELD THAT THE CONTROLS REQUIRED BY THIS PLAN ARE PROPERLY INSTALLED AND MAINTAINED. THESE INSPECTIONS SHALL BE NOT LESS FREQUENTLY THAN WEEKLY AND WITHIN 24 HOURS OF THE END OF A STORM HAVING A RAINFALL AMOUNT OF 0.1 INCH OR GREATER. FOLLOWING THESE INSPECTIONS, A WRITTEN REPORT SHALL BE PREPARED, INFORMING THE OWNER OR HIS AGENT NOT LESS FREQUENTLY THAN WEEKLY AND THE MUNICIPALITY NOT LESS FREQUENTLY THAN MONTHLY OF OBSERVATIONS, MAINTENANCE, AND CORRECTIVE ACTIVITIES UNDERTAKEN.

EII



DETAILS

CONSTRUCTION

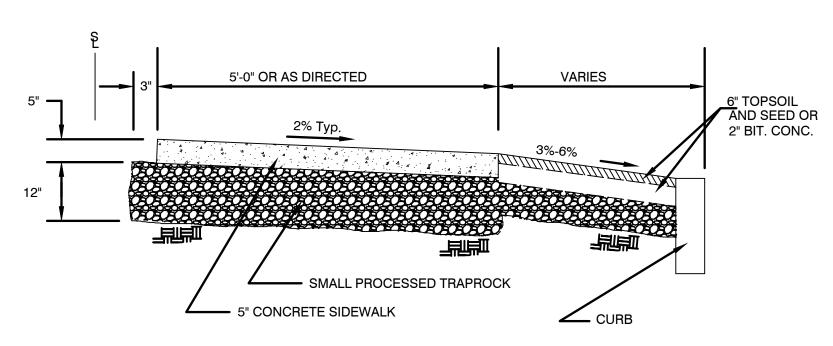
PROJ. No.: 20071848.A30 DATE: 12/03/2020

CD-501

<u>PLAN</u>

CONSTRUCTION ENTRANCE

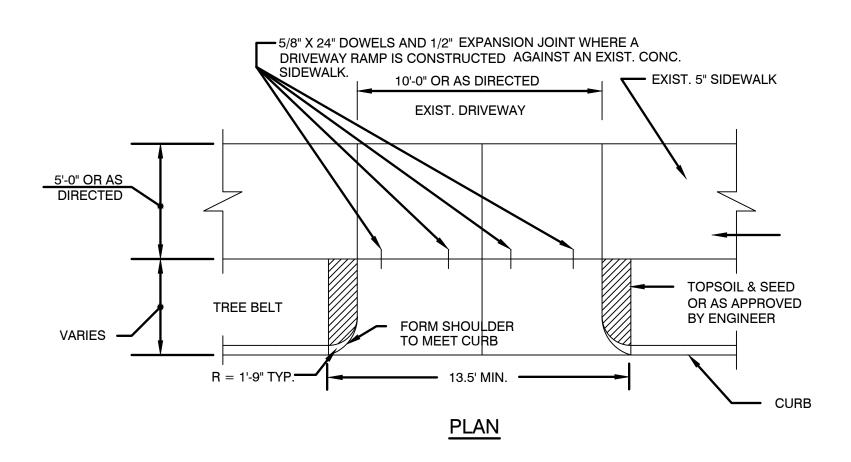
NOT TO SCALE

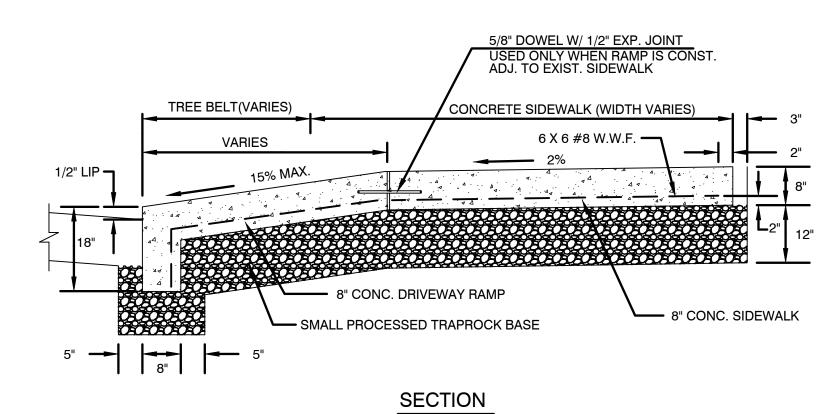


SECTION

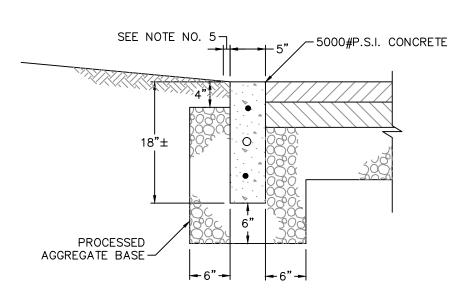
5" CONCRETE SIDEWALK IN R.O.W.

CITY OF HARTFORD DETAIL - NOT TO SCALE





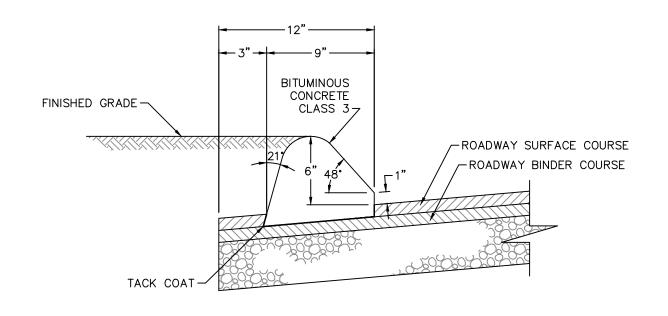
8" REINFORCED CONCRETE DRIVEWAY CITY OF HARTFORD DETAIL - NOT TO SCALE



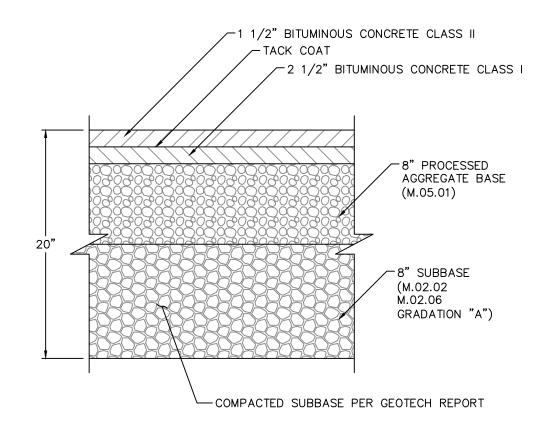
SECTION

- 1. LENGTH OF CURB SECTION SHALL BE 6 FT. MIN. (80%) AND 4 FT. MIN. (20%). RANDOMLY SET DIFFERENT LENGTHS.
- 2. ENDS SHALL BE SQUARE TO TOP AND FACE.
- 3. BUTT ENDS TOGETHER AS CLOSE AS POSSIBLE. MAXIMUM SPACE OF 1/2" ALLOWED. 8" DOWN FROM TOP. JOINT SHALL BE MORTARED FULL DEPTH.
- 4. 1/2" EXPANSION JOINT EVERY 50± FEET.
- 5. 1/2" EXPANSION JOINT AND FILLER WHEN CURB IS ADJACENT TO CONCRETE SIDEWALK.

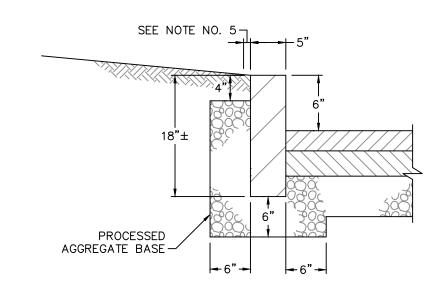
FLUSH PRECAST CONCRETE CURB NOT TO SCALE



BITUMINOUS CONCRETE CURB NOT TO SCALE



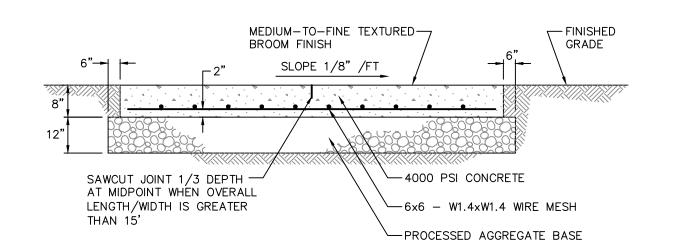
BITUMINOUS CONCRETE PAVEMENT NOT TO SCALE



<u>SECTION</u>

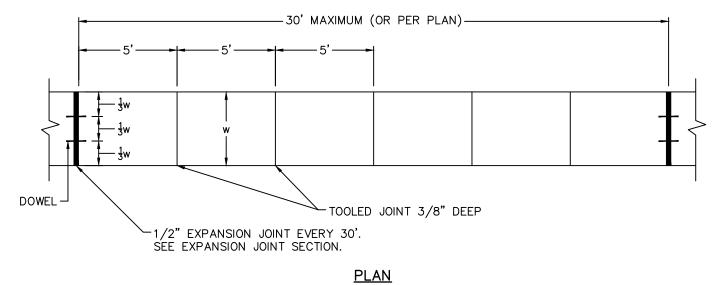
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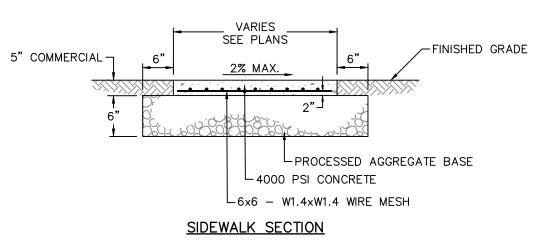
STRAIGHT GRANITE CURB NOT TO SCALE

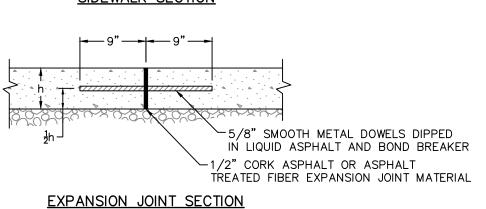


CONCRETE EQUIPMENT PAD

NOT TONSICALE





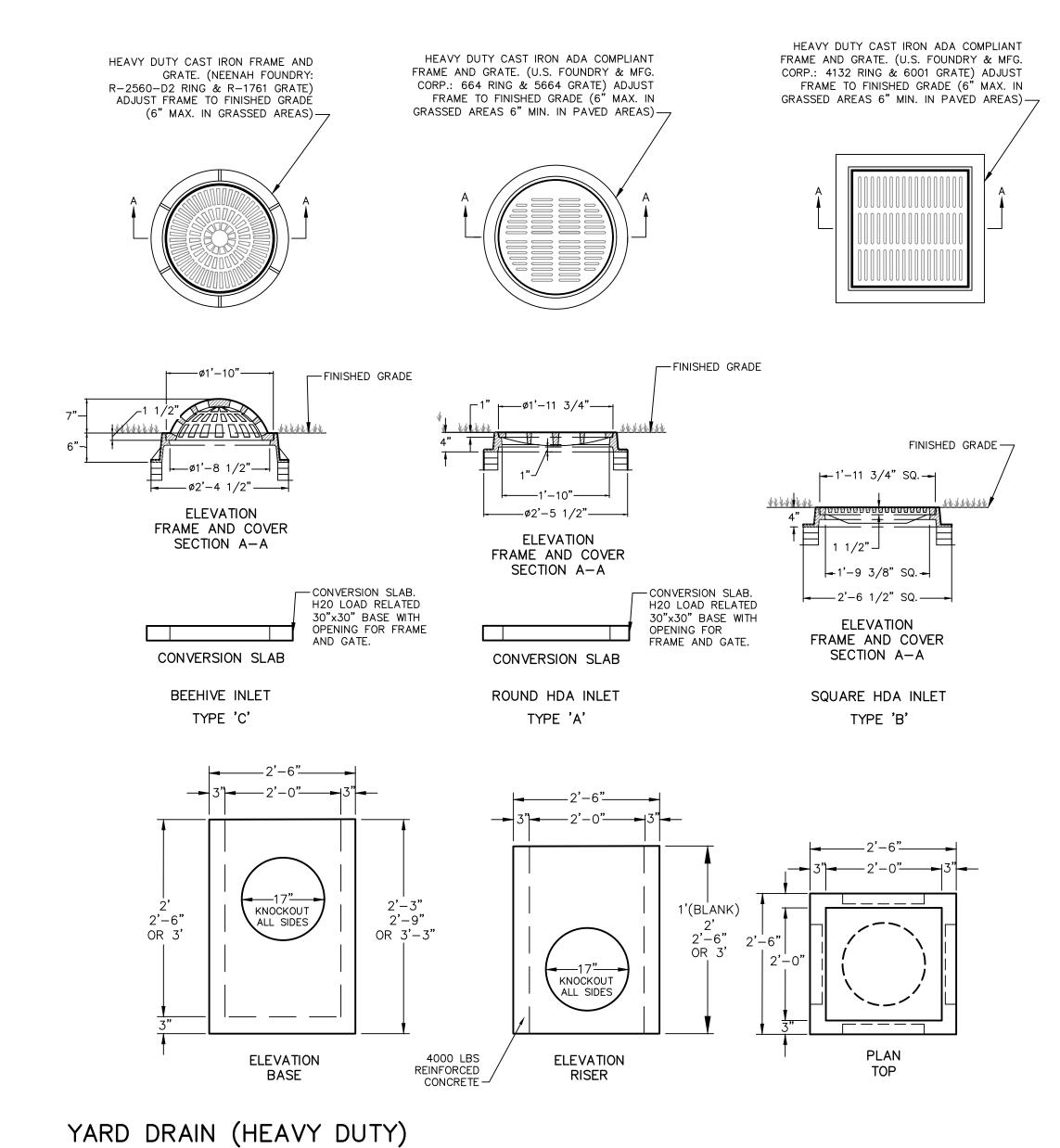


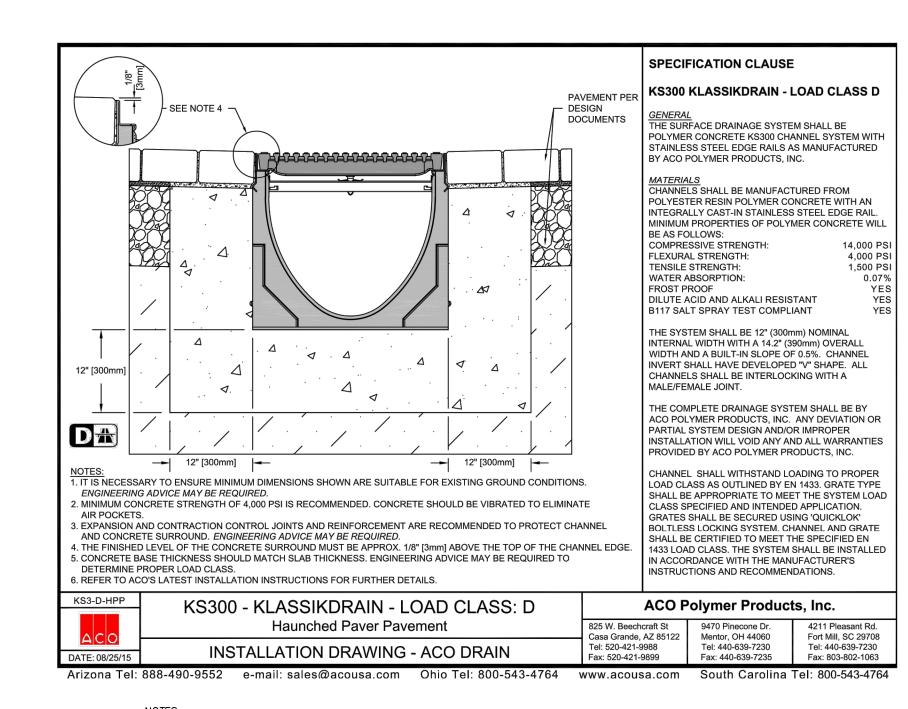
CONCRETE SIDEWALK NOT TO SCALE

PROJ. No.: 20071848.A30 DATE: 12/03/2020

CD-502

NOT TO SCALE





1. ALL TRENCH DRAINS SHALL BE 12" WIDE
2. ALL TRENCH DRAINS SHALL BE EQUIPED WITH HEAVY-DUTY GRATES

TRENCH DRAIN

NOT TO SCALE



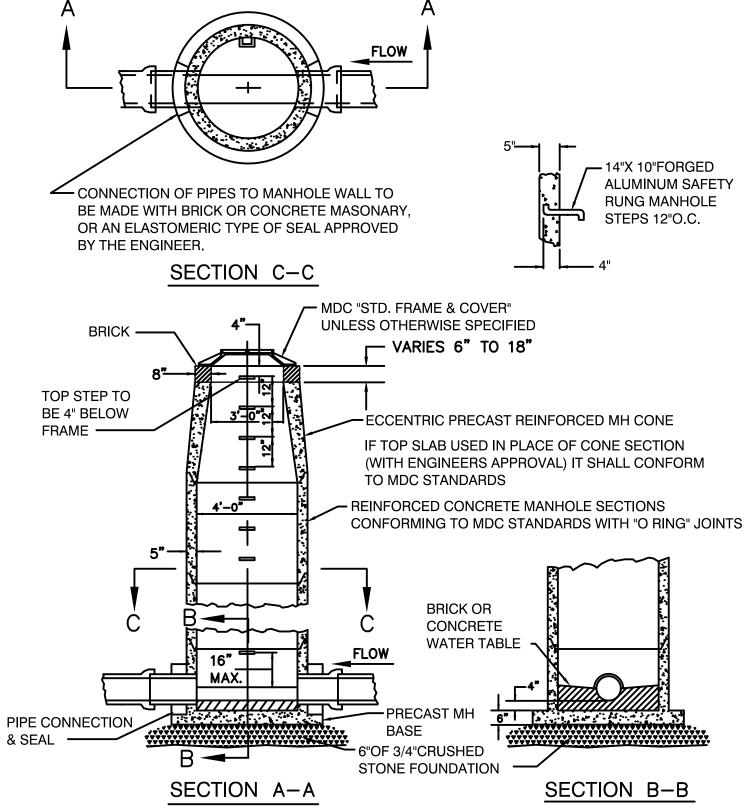


CONSTRUCTION DETAILS

PROJ. No.: 20071848.A30

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DATE: 12/03/2020



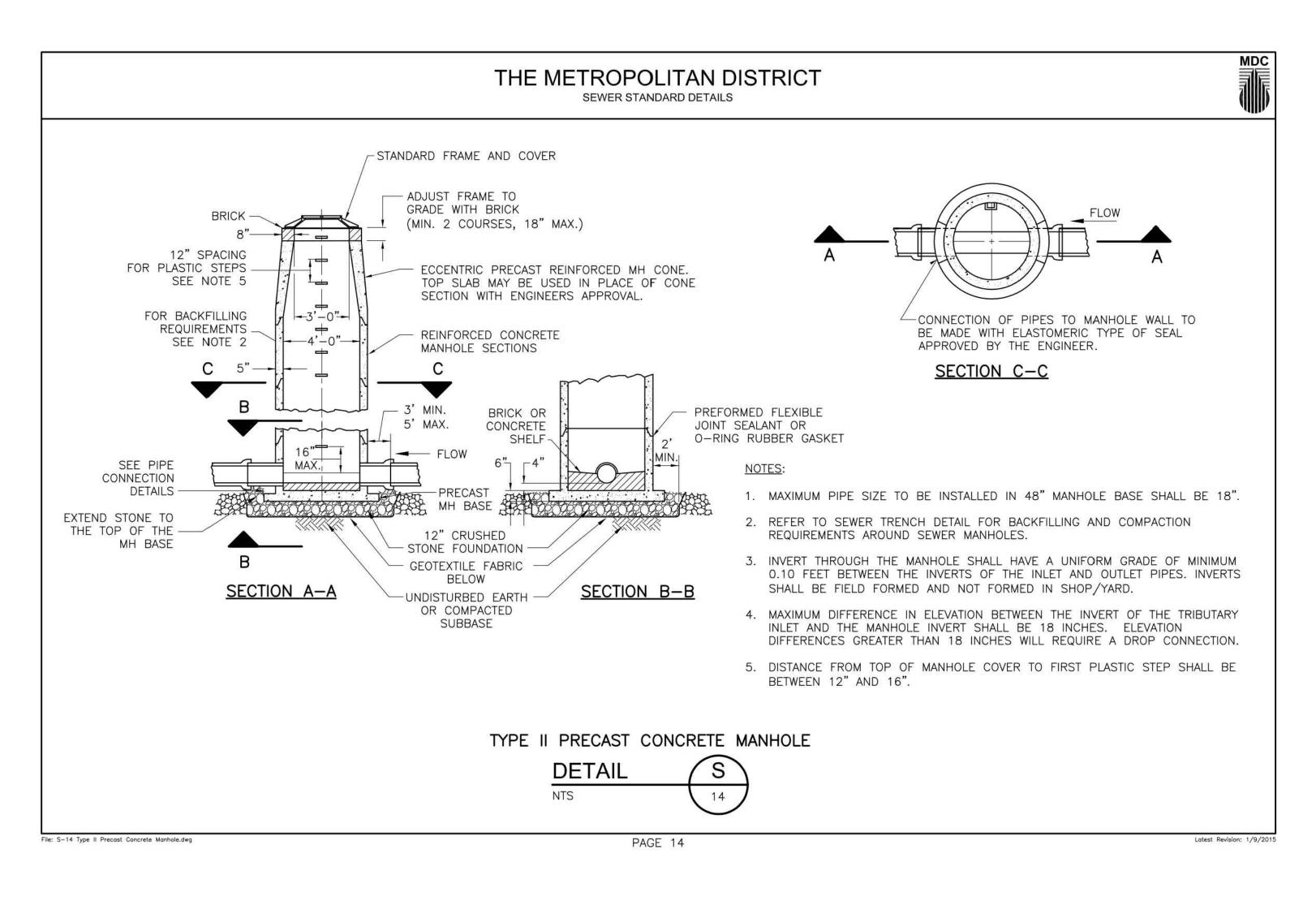
TYPE II STORM DRAINAGE MANHOLE TYPICAL PRECAST MANHOLE

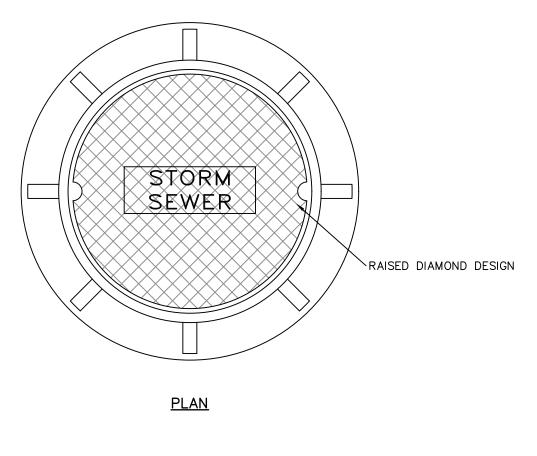
CITY OF HARTFORD DETAIL - NOT TO SCALE

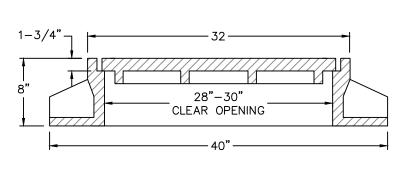
MAXIMUM SIZE OF PIPE TO BE INSTALLED IN A TYPE II MANHOLE TO BE 18"

MAXIMUM DEPTH OF R.C. PIPE MANHOLES WITH 5" THICK WALL IS 30 FT.

BURBER GASKETS USED FOR "OLDING" JOINTS SHALL CONFORM TO MDC STANDARDS



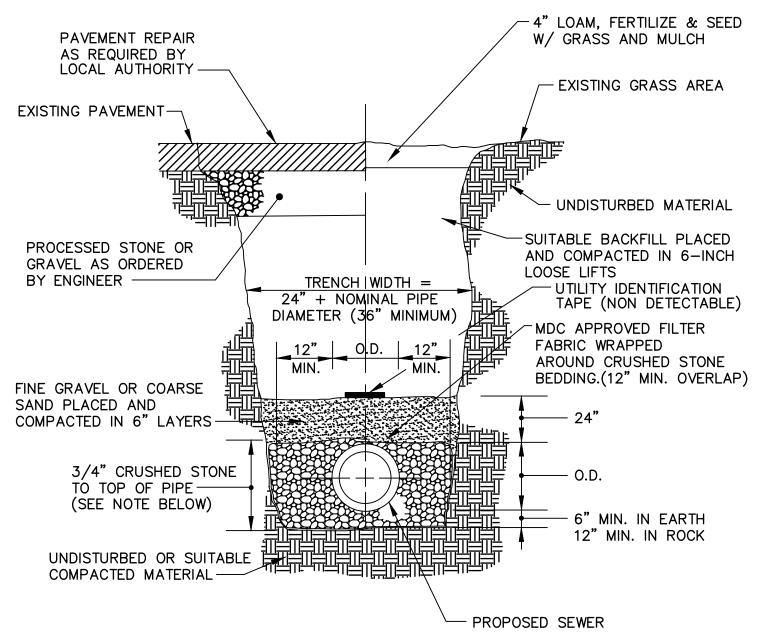




FRAME AND COVER SHALL BE LeBARON FOUNDRY CATALOG NO. LA328-1

SECTION

STANDARD STORM MANHOLE FRAME & COVER NOT TO SCALE



SEWER TRENCH DETAIL

FIGURE - 6



CROSSKEY ARCHIT

PROJ. No.: 20071848.A30 DATE: 12/03/2020

EIL

FUSS

DETAIL

CD-504

HYDRODYNAMIC SEPARATOR NOT TO SCALE

LAYER STATE: Plotter: AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 CTB File: FO.STB

CROSSKEY ARCHITECTS, LLC
CONSTRUCTION DETAILS

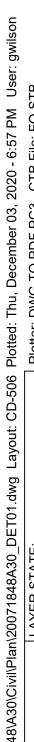
FUSS & O'NEILL

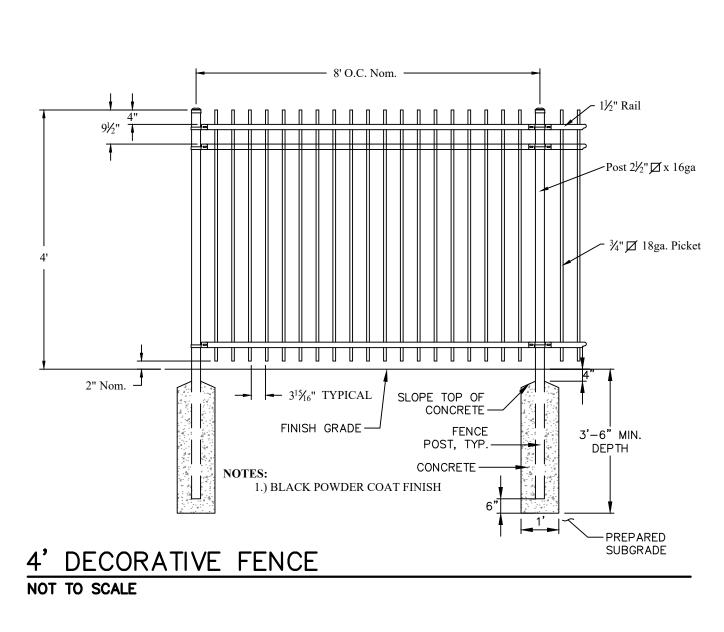
146 HARTFORD ROAD

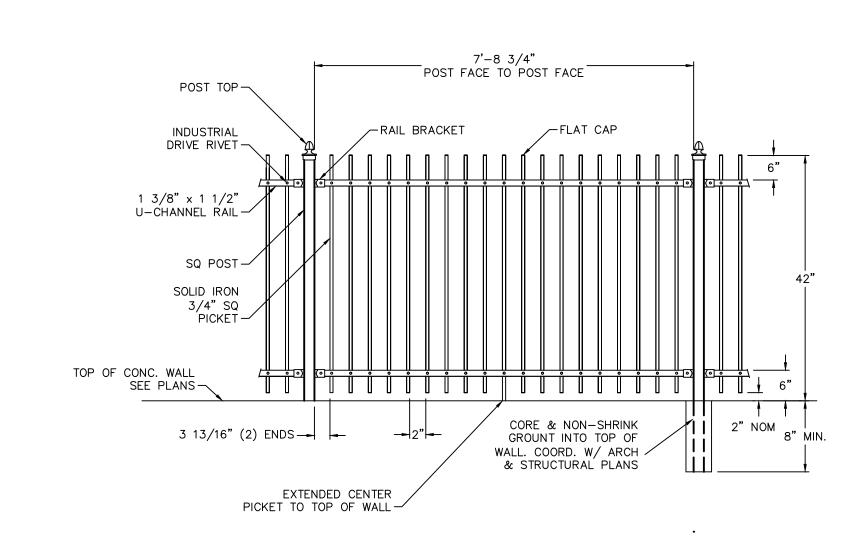
MANCHESTER, CONNECTICUT 06040

PROJ. No.: 20071848.A30
DATE: 12/03/2020

CD-505



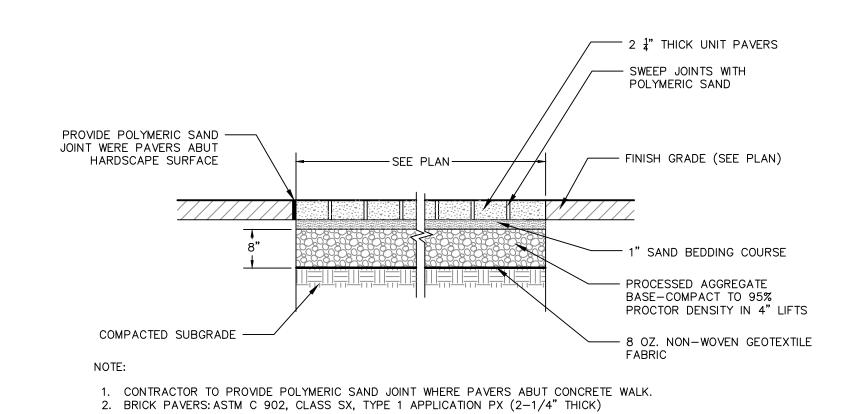




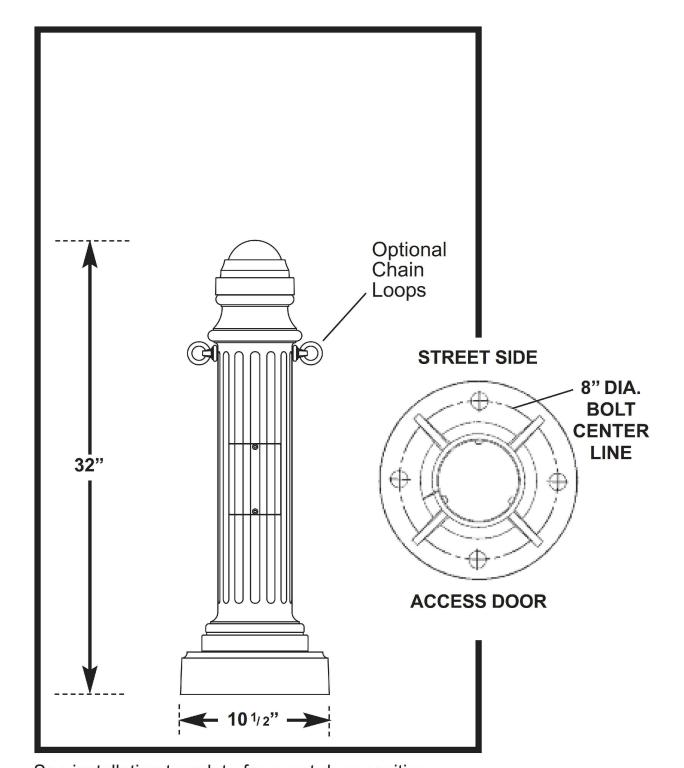


FINAL GUARD DESIGN SUBJECT TO SHPO REVIEW AND APPROVAL

NOT TO SCALE FINISH: BLACK



UNITS PAVERS ON AGGREGATE BASE NOT TO SCALE



See installation template for exact door position.

DECORATIVE BOLLARD NOT TO SCALE



STONY CREEK GRANITE (TO MATCH EXISTING BUILDING) FLAME FINISH

GRANITE PAVERS NOT TO SCALE



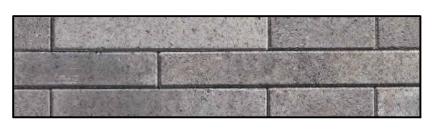
COLOR: NEW HICKORY

PRECAST CONCRETE PAVERS PEDESTRIAN NOT TO SCALE



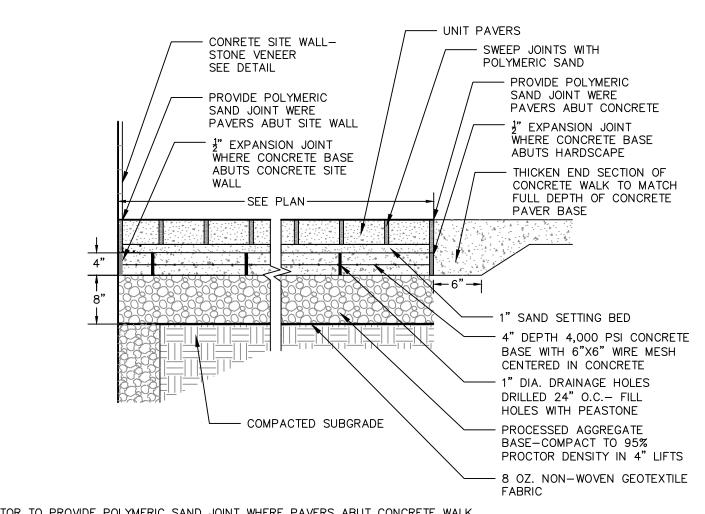
COLOR: NATURAL

PRECAST CURB/DECORATIVE BANDING NOT TO SCALE



COLOR: NATURAL/CHARCOAL BLEND

PRECAST CONCRETE PAVERS <u>VEHICULAR</u> NOT TO SCALE



CONTRACTOR TO PROVIDE POLYMERIC SAND JOINT WHERE PAVERS ABUT CONCRETE WALK.
 CONTRACTOR TO PROVIDE EXPANSION JOINT WHERE CONCRETE BASE FOR UNIT PAVERS ABUT CONCRETE.
 BRICK PAVERS: ASTM C 902, CLASS SX, TYPE 1 APPLICATION PX (2-1/4" THICK)

UNIT PAVERS ON CONCRETE BASE NOT TO SCALE

PROJ. No.: 20071848.A30 DATE: 12/03/2020

DETAILS

CONSTRUCTION

MEILL

CD-506

BOLLARD LIGHT

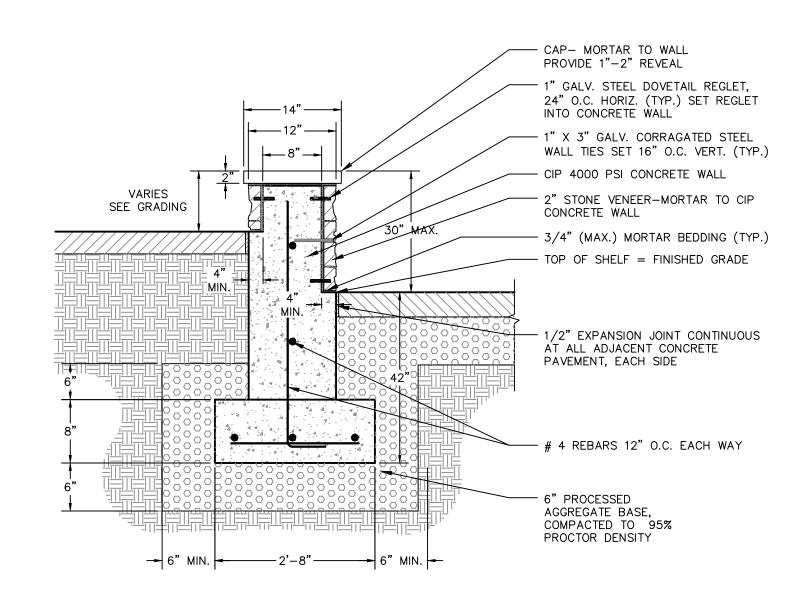
NOT TO SCALE



SITE LIGHTING — FIXTURE NOT TO SCALE

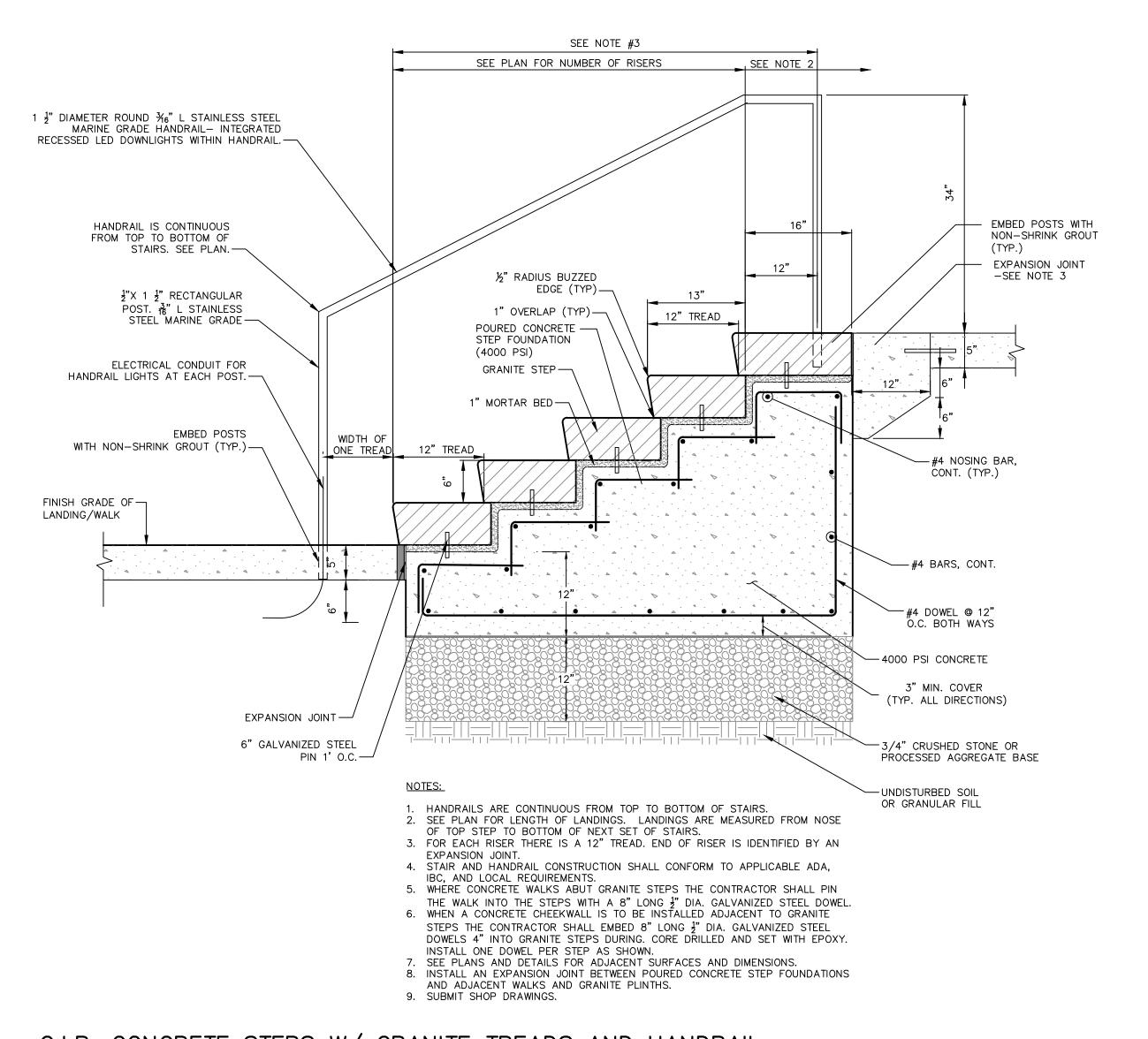


SITE LIGHTING - POLE BASE NOT TO SCALE



STONE VENEERED C.I.P. CONCRETE SEATWALL

SCALE: NOT TO SCALE



C.I.P. CONCRETE STEPS W/ GRANITE TREADS AND HANDRAIL

NOT TONSTORLE

DATE: 12/03/2020 CD-507

PROJ. No.: 20071848.A30

CONSTRUCTION DETAILS

METT

FUSS

PLANTING SOIL NOTES

SOIL MATERIAL:

1.1. PLANTING SOIL SHALL HAVE A SANDY LOAM, LOAMY SAND, OR LOAM TEXTURE PER USDA TEXTURAL TRIANGLE. MÁXIMUM CLAY CONTENT IS <15%; SOIL MIXTURE SHALL BE 50-60% SAND; 20-30% PINE BARK MULCH; AND 20-30% TOPSOIL.

1.2. THE SOIL SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS, OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR DUMPED WITHIN THE BIORETENTION THAT MAY BE HARMFUL TO PLANT GROWTH, OR PROVE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF BERMUDA GRASS, QUACKGRASS, JOHNSON GRASS, MUGWORT, NUTSEDGE, POISON IVY, CANADIAN THISTLE, TEARTHUB, OR OTHER NOXIOUS WEEDS.

1.3. SOIL MIXTURE SHALL HAVE 3-5% ORGANIC MATTER BY VOLUME. 2. LABORATORY TESTING:

2.1. SOIL MUST BE TESTED AND APPROVED AS CLEAN FILL IN ACCORDANCE WITH THE REMEDIAL ACTION WORK PLAN (RAWP) PRIOR TO IMPORTATION TO THE SITE.

2.2. A TEXTURAL ANALYSIS IS REQUIRED TO ENSURE THE SOIL MEETS THE FOLLOWING SPECIFICATIONS.

2.3. THE SOIL SHALL ALSO BE TESTED FOR THE FOLLOWING CRITERIA:

A. PH RANGE 5.2 - 7.0 MAGNESIUM NOT TO EXCEED 32 PPM

PHOSPHORUS P205 NOT TO EXCEED 69 PPM

POTASSIUM K20 NOT TO EXCEED 78 PPM E. SOLUBLE SALTS NOT TO EXCEED 500 PPM

3. SOIL MAY BE MODIFIED TO ADJUST PH (HIGHER) WITH LIME OR (LOWER) WITH IRON SULFATE PLUS SULFUR.

2" SHREDDED HARDWOOD MULCH

SUBSOIL TO BE 6" DEEP BED OF PLANTING BROKEN WITH SOIL MIXTURE

A PICK AXE NOTE:
GROUND COVERS SHOULD BE POT OR CONTAINER GROWN.

GROUND COVER/ANNUAL PLUG PLANTING NOT TO SCALE

> LOCAL NURSERY STOCK PLANT MATERIAL. MARK NORTH SIDE OF TREE IN THE FIELD BEFORE TRANSPLANTING AND ROTATE TREE TO FACE NORTH UPON INSTALLATION. TREE SHALL BE SET PLUMB.

DO NOT CUT MAIN LEADER. PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS AND ALL DEAD OR DAMAGED BRANCHES. INTERIOR TWIGS MAY BE REMOVED BUT DO NOT CUT TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.

GARDEN HOSE FRICTION GUARD AT FIRST BRANCHING.

WIRE- TWISTED (TWO GUYS PER TREE, SPREAD 180° APART).

- DOUBLE STRAND OF 12 GAUGE GALV.

3" DIAMETER X 8' CEDAR STAKE

2 OPPOSITE PER TREE -EXPOSE ROOT FLARE & REMOVE EXCESS SOIL FROM TOP OF BALL. TREE SHALL BE PLANTED SO THAT ROOT FLARE IS 2" ABOVE FINISHED

GRADE AFTER SETTLEMENT. DO NOT PLANT TOO DEEP!

REMOVE ALL SYNTHETIC MATERIALS.

REMOVE ALL TWINE & STRAPS. CUT AND REMOVE BURLAP AND WIRE CAGE FROM TOP 1/3 OF BALL.

CONSTRUCT EARTH SAUCER WITH 4" HIGH BERM-FLOOD WITH WATER TWICE IN FIRST 24 HRS. AFTER PLANTING.

4" SHREDDED HARDWOOD MULCH. EXTEND OVER BERM. DO NOT PLACE IN CONTACT WITH BARK OF TREE. -BACKFILL WITH PLANTING SOIL MIXTURE IN 9" LAYERS. WATER EACH LAYER UNTIL SETTLED. DO NOT TAMP.

NOTES:

1. STAKES & GUYS SHALL BE REMOVED AT THE END OF THE FIRST GROWING SEASON AFTER PLANTING. 2. SPRAY WITH ANTIDESICCANT IN ACCORDANCE WITH MFG'S INSTRUCTIONS IF FOLIGAE IS PRESENT. 3. ALL TREES PLANTED WITHIN PARKING LOT ISLANDS SHALL BE INSTALLED WITH "ROOT BARRIER" EQUAL TO UNIVERSAL BARRIER MODEL UB-24-2 AS MAN BY DEEP ROOT. PLACE BARRIER AT PERIMETER OF

PLANTING AND GUYING FOR TREES LESS THAN 3" CALIPER, BALLED & BURLAPPED

3X ROOT BALL DIAMETER

EDGE OF MULCH

EDGE OF

FINISHED GRADE-

MULCH RING-

RING TO BE 8" MIN.

OUTSIDE OF WHERE

STAKES ENTER GROUND

BREAK SUBSOIL-

WITH A PICK OR

OVEREXCAVATE

BELOW ROOT BALL

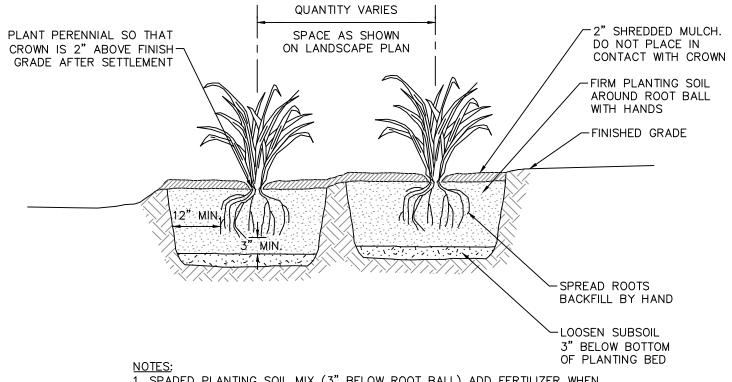
LEDGE TO 12"

-PRUNE DEAD AND BROKEN BRANCHES -SHRUB SHALL BE PLANTED SO THAT CROWN
IS 2" ABOVE FINISH GRADE AFTER SETTLEMENT SHREDDED HARDWOOD MULCH -EXTEND OVER BERM. <u>DO NOT</u> PLACE IN CONTACT WITH BARK OF SHRUB. -CONSTRUCT EARTH SAUCER WITH 3" HIGH BERM REMOVE CONTAINER AND BREAK APART ENCIRCLING ROOT MASSES BREAK SUB-SOIL WITH A PICK --BACKFILL WITH PLANTING SOIL MIXTURE IN 9" LAYERS. WATER EACH LAYER UNTIL SETTLED. DO NOT TAMP SPRAY WITH ANTI DESICCANT IN ACCORDANCE WITH

MFG.'S RECOMMENDATIONS IF FOLIAGE IS PRESENT. FOR CONTAINER GROWN SHRUBS, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCLING THE

PERIMETER OF THE CONTAINER. INCORPORATE COMMERCIALLY PREPARED MYCORRHIZA SPORES IN THE SOIL IMMEDIATELY AROUND THE ROOT BALL AT RATES SPECIFIED BY THE MANUFACTURER.

SHRUB PLANTING DETAIL FOR CONTAINERIZED SHRUBS NOT TO SCALE



1. SPADED PLANTING SOIL MIX (3" BELOW ROOT BALL) ADD FERTILIZER WHEN MIXING. DO NOT COMPACT AFTER PLANTING.

2. WATER THOROUGHLY AFTER PLANTING.

3. PROVIDE WELL DRAINING SUBSOIL WHEN SOIL IS HEAVY OR COMPACTED.

4. FOR CONTAINER GROWN PLANTS, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER.

PERENNIAL PLANT BED

CONSTRUCTION

KEII A

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DETAIL

PROJ. No.: 20071848.A30 DATE: 12/03/2020

Stormwater Management Plan 55 Elm Adaptive Reuse

55 Elm Street Hartford, Connecticut

December 2020



146 Hartford Road Manchester, CT 06040

Project Number 20071848.A10



Stormwater Management Plan 55 Elm Adaptive Reuse December 2020

Spinnaker Real Estate Partners, LLC proposes an adaptive reuse project at 55 Elm Street in Hartford, Connecticut. The proposed development is within a Multi-Use Mix (MX-2) district in Hartford. The 3.2-acre site is bounded by Elm Street and Pulaski Circle to the north, Hudson Street to the east, Capitol Avenue to the south, and West Street to the west.

There are two existing buildings on the site. The main building is a 7-story structure with a footprint of approximately 22,157 square feet that is currently occupied by the State of Connecticut personnel. The State will be vacating the building in January of 2021. There is also a three story annex building with a footprint of approximately 6,858 square feet located to the rear of the property which is connected to the main building by an underground tunnel and as well as an enclosed bridge on the 3rd floor.

Site improvements include converting and renovating the both buildings from office use to mixed-use development, construction of drop-off area behind the main building, and landscape enhancements. The rear courtyard (currently the loading dock and back entry) will be converted into a drop off zone for the hotel and residences. The existing loading docks at the main building and the annex will be converted into building entries. The grade in the courtyard will be raised approximately two feet to improve accessibility into the buildings. The courtyard will remain as a hardscape space with new pavers and minimal landscape as recommended by the State Historic Preservation Office (SHPO). The existing tunnel at the first floor will remain and get repurposed into a pedestrian only corridor. The existing driveway and parking lot will be modified and regraded to allow vehicular access into the rear courtyard. The rest of the site will remain as parking.

For the purposes of our stormwater analysis, Fuss & O'Neill evaluated existing (pre-development) and proposed (post-development) hydrologic conditions within the project limit identified on the plans. Overall drainage patterns of the entire site will be unchanged by the project. Stormwater will be collected through a series of catch basins and yard drains and conveyed through a pipe network that discharges to the existing stormwater management system located in Elm Street. This *Stormwater Management Plan* presents the design calculations for the peak stormwater runoff flow rates leaving the site and Best Management Practices (BMPs) that will be used for water quality improvement for the project. The proposed development has been designed to effectively convey and attenuate the peak discharge flows leaving the project area as compared to the existing conditions for the 2-, 10-, 25-, and 100-year design storm events.

Construction of the proposed development will result in a decrease of approximately 4,650 square feet of impervious surface. Due to the reduction in the impervious area, stormwater management detention facilities were not provided. Square footage of impervious and pervious areas for pre- and post-development are shown in the table below.



Stormwater Management Plan 55 Elm Adaptive Reuse December 2020

Surface	Existing	Proposed	Net
Туре	Area	Area	Area
Туре	(SF)	(SF)	(SF)
Impervious	48,340	43,690	-4,650
Pervious	5,360	10,010	4,650

The existing and proposed drainage analysis for the development was completed using the HydroCAD Software Solutions computer program. The HydroCAD program runoff method selected for the watershed modeling is based on NRCS TR-20 methods. Results from modeling of pre- and post-development peak flow rates are shown in the table that immediately follow this paragraph. The HydroCAD report is available upon request.

Design Storm Event	Existing Flow	Proposed Flow	Net Change	Net Change
	(CFS)	(CFS)	(CFS)	(%)
2 Year Design Storm	3.58	3.46	-0.12	-3%
10 Year Design Storm	5.45	5.35	-0.10	-2%
25 Year Design Storm	6.91	6.82	-0.09	-1%
100 Year Design Storm	9.82	9.75	-0.07	-1%

2 Year Design Storm Event		
Design Point	Existing Flow (CFS)	Proposed Flow (CFS)
West Lot	0.59	0.54
Parking Lot and Small Building	2.99	2.92

25 Year Design Storm Event		
Design Point	Existing Flow (CFS)	Proposed Flow (CFS)
West Lot	1.13	1.09
Parking Lot and Small Building	5.78	5.73

10 Year Design Storm Event		
Design Point	Existing Flow (CFS)	Proposed Flow (CFS)
West Lot	0.89	0.85
Parking Lot and Small Building	4.56	4.5

100 Year Design Storm Event			
Design Point	Existing Flow (CFS)	Proposed Flow (CFS)	
West Lot	1.60	1.57	
Parking Lot and Small Building	8.22	8.18	

The water quality of stormwater runoff from the developed site will be improved using Best Management Practices (BMP's). Deep sumps in catch basins and hydrodynamic separators will be used to help achieve the removal of 80% of Total Suspended Solids that may be present in the stormwater runoff.



Stormwater Management Plan 55 Elm Adaptive Reuse December 2020

The stormwater management design meets the guidelines of the Connecticut Stormwater Quality Manual, Connecticut General Permit of the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities, as well as the requirements of the Town of Hartford. Water quality volume (WQV) treatment will be achieved through the use of hydrodynamic separator. WQV is equivalent to the first inch of rainfall in any storm event that should be captured and treated to remove a majority of the stormwater pollutants on an annual basis.

To ensure these measures continue to operate adequately over time, the following maintenance procedures should be followed:

- Inlet Sumps Catch basin/yard drain sumps must be inspected at regular intervals and cleaned
 when necessary. At a minimum, inspections should be conducted twice per year, once in the spring
 and again in the fall. More inspections may be required during winter months where heavy sanding
 operations may lead to rapid sediment accumulation within the structure. Cleaning operations are
 typically done using a vacuum truck.
- Hydrodynamic Separators The hydrodynamic separators must be inspected at regular intervals and maintained when necessary to ensure optimum performance. At a minimum, inspections should be conducted twice per year; once in the spring and again in the fall. More inspections may be required during winter months where heavy sanding operations may lead to rapid sediment accumulation within the structure. The structures should be cleaned when the level of sediment has reached 75% of capacity in the isolated sump or when appreciable level of hydrocarbons and trash has accumulated. Cleaning operations are typically done using a vacuum truck.

These design measures incorporate commonly used Best Management Practices and follows guidelines set forth by the CTDEEP Stormwater Quality Manual, and the Connecticut and federal stormwater regulations.

Based on the results of the foregoing analysis, it is the professional opinion of Fuss & O'Neill that the proposed development will not have an adverse impact on receiving drainage facilities.