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Design DTM
Drawn MJM
Checked DTM

PREPARED FOR:
OMNI HOUSING DEVELOPMENT, LLC
40 BEAVER STREET
ALBANY, NEW YORK

THE IRONWORKS - STUDENT HOUSING
45 MORRISON AVENUE
TROY, NEW YORK
the LANDSCAPE PLAN

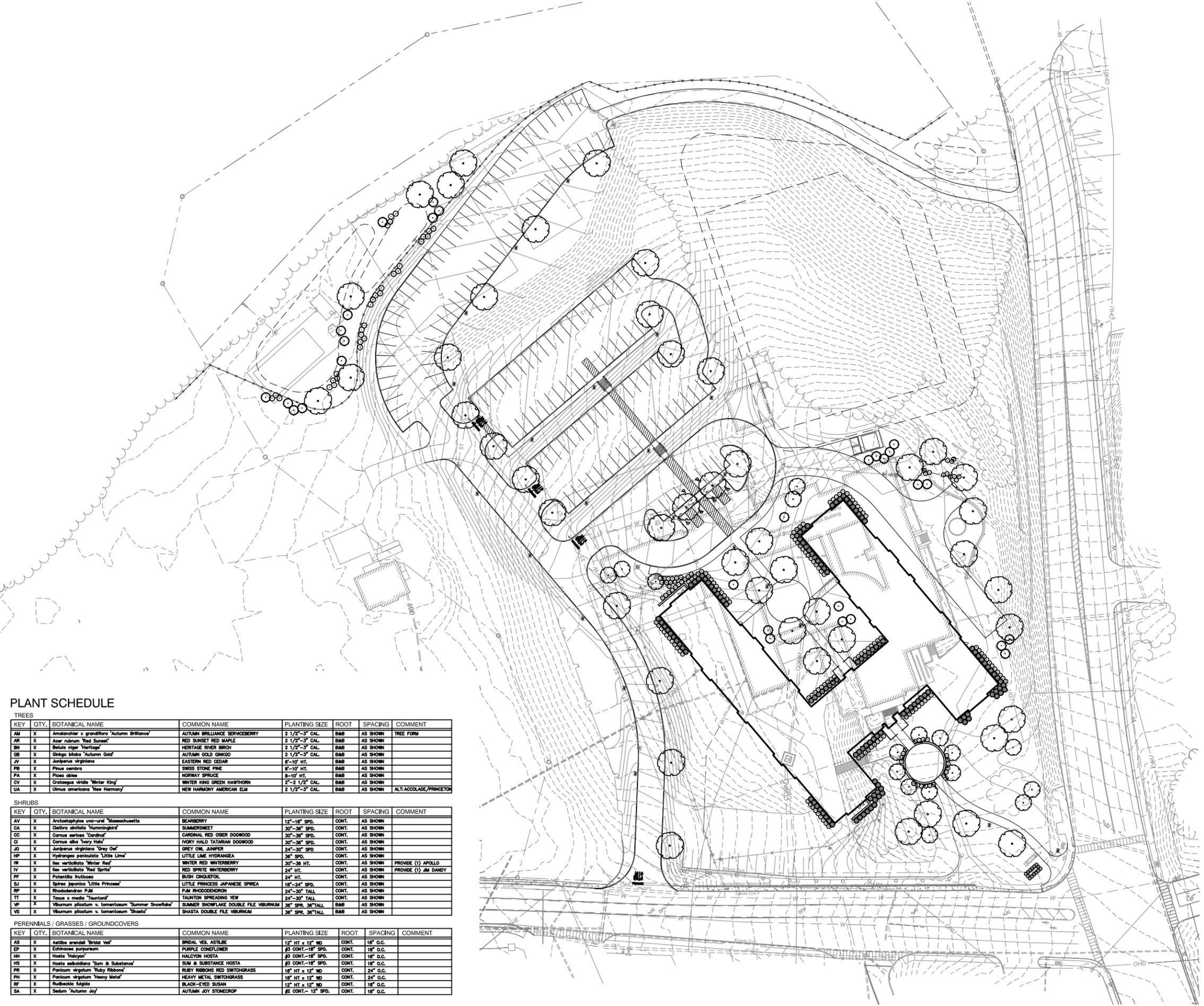
Revisions
Project: 201406
Date: 05/23/2014
Drawing
L400

LEGEND

- DECIDUOUS TREE PLANTING (X 1/8" = 1'00')
- CONIFEROUS TREE PLANTING (X 1/8" = 1'00')
- SHRUB PLANTING (X 1/8" = 1'00')
- PERENNIAL / GROUNDCOVER PLANTING (X 1/8" = 1'00')
- RESTORE LAWN PER SPECIFICATIONS
- SEED MIX - STORM BASIN AQUATIC BENCH PLANTING
- SUBMERGED AQUATIC PLANTING
- LIMIT OF WORK

LANDSCAPE NOTES

1. ALL NEW PLANT MATERIAL SHALL CONFORM TO THE MINIMUM GUIDELINES ESTABLISHED BY THE AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.
2. ALL NEW PLANTS TO BE BALLED AND BURLAPPED OR CONTAINER GROWN UNLESS OTHERWISE NOTED ON PLANT SCHEDULE.
3. ANY PROPOSED SUBSTITUTIONS OF PLANT SPECIES SHALL BE MADE WITH PLANTS OF EQUIVALENT OVERALL FORM, HEIGHT, BRANCHING HABIT, FLOWER, LEAF, COLOR, FRUIT AND CULTURE, AND ONLY AS APPROVED BY THE OWNER'S REPRESENTATIVE.
4. ALL NEW PLANT MATERIAL SHALL BE OF SPECIMEN QUALITY UNLESS APPROVED OTHERWISE BY THE OWNER'S REPRESENTATIVE.
5. WHERE PLANT SIZE IS INDICATED AS A RANGE, THE PLANTS PROVIDED SHALL BE A FAIR REPRESENTATION OF THAT RANGE.
6. THE CONTRACTOR SHALL SUPPLY ALL NEW PLANT MATERIAL IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTING SHOWN ON THE DRAWINGS.
7. THE CONTRACTOR SHALL OBTAIN PLANT APPROVAL FROM THE OWNER'S REPRESENTATIVE AFTER DELIVERY AND PRIOR TO INSTALLATION.
8. THE CONTRACTOR SHALL LOCATE AND VERIFY ALL EXISTING UTILITIES PRIOR TO PLANTING AND SHALL REPORT ANY CONFLICTS TO THE OWNER'S REPRESENTATIVE.
9. THE CONTRACTOR SHALL STAKE THE LOCATIONS OF ALL PROPOSED PLANTING FOR APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF PLANTING.
10. NEW PLANT MATERIAL SHALL BARE THE SAME RELATIONSHIP TO FINISH GRADE AS IT DID IN THE NURSERY.
11. PREPARE ALL PLANTING BEDS TO MIN. OVERALL DEPTHS SHOWN ON PLANTING DETAILS.
12. THE CONTRACTOR SHALL MAINTAIN ALL WORK INCLUDING WATERING, MOWING, AND PROTECTION FROM TRAFFIC UNTIL FINAL ACCEPTANCE OF THE PROJECT.
13. THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR OR REPLACE ALL ITEMS DAMAGED OUTSIDE THE CONSTRUCTION LIMITS, AND ITEMS WITHIN THE SITE THAT ARE NOT PART OF THE IDENTIFIED WORK OF THIS CONTRACT.
14. SEE PLANT SCHEDULE ON THIS SHEET

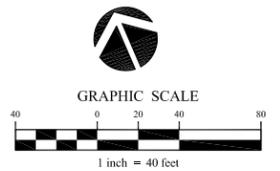


PLANT SCHEDULE

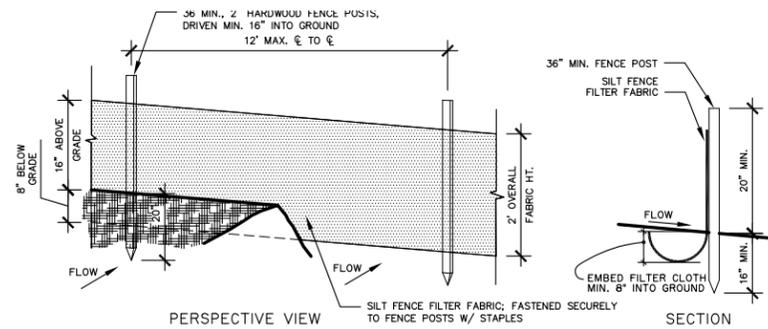
TREES							
KEY	QTY.	BOTANICAL NAME	COMMON NAME	PLANTING SIZE	ROOT	SPACING	COMMENT
AM	X	<i>Ambrosia artemisiifolia</i> 'Autumn Brilliance'	AUTUMN BRILLIANCE SERICEWBERRY	2 1/2"-3" CAL.	B&B	AS SHOWN	TREE FORM
AR	X	<i>Acer rubrum</i> 'Red Sunset'	RED SUNSET RED MAPLE	2 1/2"-3" CAL.	B&B	AS SHOWN	
BH	X	<i>Betula nigra</i> 'Heritage'	HERITAGE RIVER BIRCH	2 1/2"-3" CAL.	B&B	AS SHOWN	
GB	X	<i>Ginkgo biloba</i> 'Autumn Gold'	AUTUMN GOLD GINKGO	2 1/2"-3" CAL.	B&B	AS SHOWN	
JV	X	<i>Juniperus virginiana</i>	EASTERN RED CEDAR	8"-10" HT.	B&B	AS SHOWN	
PS	X	<i>Pinus oemula</i>	SWISS STONE PINE	8"-10" HT.	B&B	AS SHOWN	
PI	X	<i>Pinus strobus</i>	NORWAY SPRUCE	8"-10" HT.	B&B	AS SHOWN	
CV	X	<i>Crotaegus viridis</i> 'Winter King'	WINTER KING GREEN HAWTHORN	2"-2 1/2" CAL.	B&B	AS SHOWN	
UA	X	<i>Ulmus americana</i> 'New Harmony'	NEW HARMONY AMERICAN ELM	2 1/2"-3" CAL.	B&B	AS SHOWN	ALT:ACCOLADE,PRINCETON

SHRUBS							
KEY	QTY.	BOTANICAL NAME	COMMON NAME	PLANTING SIZE	ROOT	SPACING	COMMENT
AV	X	<i>Arctostaphylos uva-ursi</i> 'Massachusetts'	BEARBERRY	12"-18" SPD.	CONT.	AS SHOWN	
CA	X	<i>Ceanothus divaricatus</i> 'Hammingsbird'	SUMMERSWEET	30"-36" SPD.	CONT.	AS SHOWN	
CO	X	<i>Cornus sericea</i> 'Coralia'	CARDINAL RED OSER DOGWOOD	30"-36" SPD.	CONT.	AS SHOWN	
CI	X	<i>Cornus alba</i> 'Trophy Halo'	IVORY HALO TATARIAN DOGWOOD	30"-36" SPD.	CONT.	AS SHOWN	
JD	X	<i>Juniperus virginiana</i> 'Grey Owl'	GREY OWL JUNIPER	24"-30" SPD.	CONT.	AS SHOWN	
HP	X	<i>Hydrangea paniculata</i> 'Little Lime'	LITTLE LIME HYDRANGEA	36" SPD.	CONT.	AS SHOWN	
HW	X	<i>Ilex verticillata</i> 'Winter Red'	WINTER RED WINTERBERRY	30"-36" HT.	CONT.	AS SHOWN	PROVIDE (1) APOLLO
IV	X	<i>Ilex verticillata</i> 'Red Sprite'	RED SPRITE WINTERBERRY	24" HT.	CONT.	AS SHOWN	PROVIDE (1) JIM DANDY
BU	X	<i>Bush Cineraria</i>	BUSH CINERARIA	24" HT.	CONT.	AS SHOWN	
SJ	X	<i>Spiraea japonica</i> 'Little Princess'	LITTLE PRINCESS JAPANESE SPIREA	18"-24" SPD.	CONT.	AS SHOWN	
RP	X	<i>Rhododendron P.M.</i>	P.M. RHODODENDRON	24"-30" TALL.	CONT.	AS SHOWN	
TT	X	<i>Taxus x media</i> 'Tauntonii'	TAUNTON SPREADING YEW	24"-30" TALL.	CONT.	AS SHOWN	
VP	X	<i>Viburnum plicatum</i> v. <i>tomentosum</i> 'Summer Snowflake'	SUMMER SNOWFLAKE DOUBLE FILE VIBURNUM	36" SPD. 36" TALL.	B&B	AS SHOWN	
VS	X	<i>Viburnum plicatum</i> v. <i>tomentosum</i> 'Shasta'	SHASTA DOUBLE FILE VIBURNUM	36" SPD. 36" TALL.	B&B	AS SHOWN	

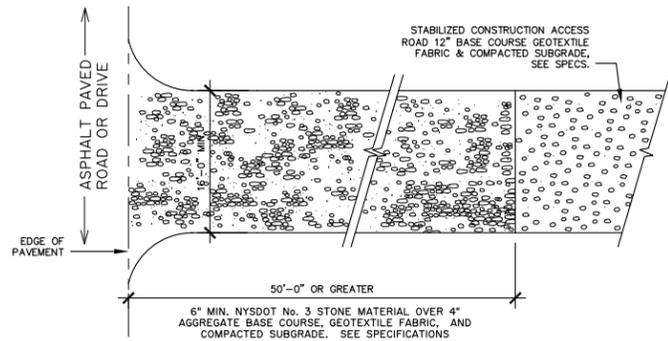
PERENNIALS / GRASSES / GROUNDCOVERS							
KEY	QTY.	BOTANICAL NAME	COMMON NAME	PLANTING SIZE	ROOT	SPACING	COMMENT
AS	X	<i>Astilbe areolata</i> 'Bird's Nest'	BIRDAL VEX ASTILBE	12" HT x 12" WD.	CONT.	18" O.C.	
EP	X	<i>Echinacea purpurea</i>	PURPLE CONEFLOWER	#3 CONT.-18" SPD.	CONT.	18" O.C.	
HI	X	<i>Hosta 'Halcyon'</i>	HALCYON HOSTA	#3 CONT.-18" SPD.	CONT.	18" O.C.	
HS	X	<i>Hosta subdolina</i> 'Sun & Substance'	SUN & SUBSTANCE HOSTA	#3 CONT.-18" SPD.	CONT.	18" O.C.	
PR	X	<i>Panicum virgatum</i> 'Ruby Ribbon'	RUBY RIBBONS RED SWITCHGRASS	18" HT x 12" WD.	CONT.	24" O.C.	
PH	X	<i>Panicum virgatum</i> 'Heavy Metal'	HEAVY METAL SWITCHGRASS	18" HT x 12" WD.	CONT.	24" O.C.	
RF	X	<i>Rudbeckia fulgida</i>	BLACK-EYED SUSAN	12" HT x 12" WD.	CONT.	18" O.C.	
SA	X	<i>Sedum 'Autumn Joy'</i>	AUTUMN JOY STONECROP	#2 CONT.-12" SPD.	CONT.	18" O.C.	



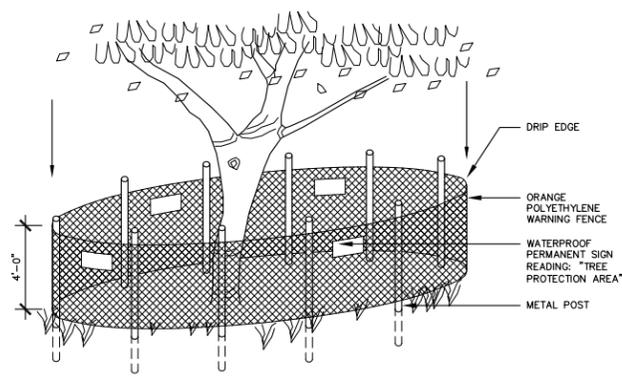
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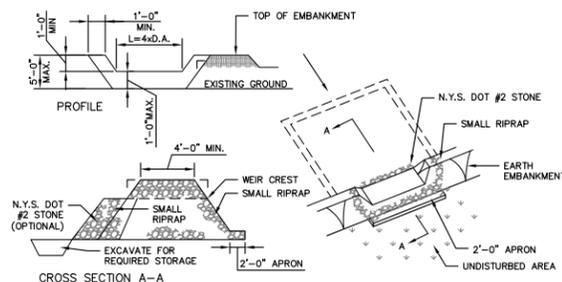
1 SILT FENCE SCALE: NTS



2 STABILIZED CONSTRUCTION ENTRANCE SCALE: NTS

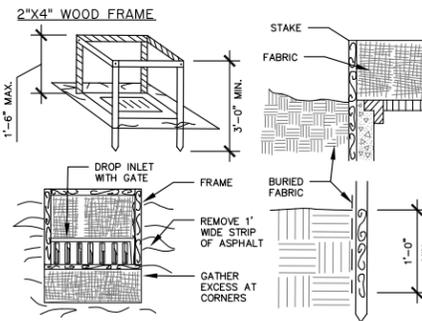


3 TREE PROTECTION FENCE SCALE: NTS



NOTES:
 1. AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED, AND STRIPPED OF ANY VEGETATION AND ROOT MATERIAL. THE POOL AREA SHALL BE CLEARED.
 2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS AND OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
 3. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
 4. THE STONES USED IN THE OUTLET SHALL BE SMALL RIPRAP 4"-8" ALONG WITH A 1"-0" THICKNESS OF 2" AGGREGATE PLACED ON THE UP-GRADE SIDE OF THE SMALL RIPRAP OR EMBEDDED FILTER CLOTH IN THE RIPRAP.
 5. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. IT SHALL BE PLACED ON SITE AND STABILIZED.
 6. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
 7. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND SEDIMENT ARE CONTROLLED.
 8. THE STRUCTURE SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

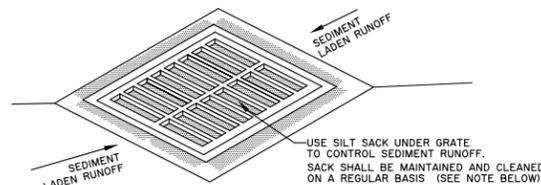
4 SEDIMENT TRAP STONE OUTLET SCALE: NTS



CONSTRUCTION SPECIFICATIONS:
 1. FILTER FABRIC SHALL HAVE AN EOS OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
 2. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
 3. STAKE MATERIALS WILL BE STANDARD 2" x 4" WOOD OR EQUIVALENT METAL WITH A MINIMUM LENGTH OF 3 FEET.
 4. SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
 5. FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
 6. A 2" x 4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY.
 7. TO BE USED OUTSIDE OF PAVED AREAS.

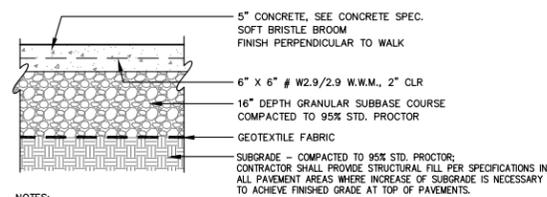
MAXIMUM DRAINAGE AREA 1 ACRE

5 INLET PROTECTION - LAWN AREAS SCALE: NTS



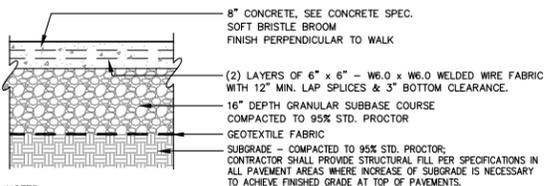
NOTE:
 1. SILT SACK SHALL BE MAINTAINED & REMOVED ONLY AFTER ACCEPTANCE OF ROADWAY. SILT SACK SHALL BE CLEANED PERIODICALLY TO KEEP CATCH BASIN WORKING PROPERLY WHILE IN PLACE AT REMOVAL OF SILT SACK ALL CATCH BASINS SHALL BE CLEANED OF DEBRIS AND SEDIMENT.
 2. GRATE SILT SACK SHALL ONLY BE USED FOR IN-PAVEMENT STRUCTURES ONLY DURING AND AFTER INSTALLATION OF PAVEMENT.

6 INLET PROTECTION - FINISHED PAVED AREAS SCALE: NTS



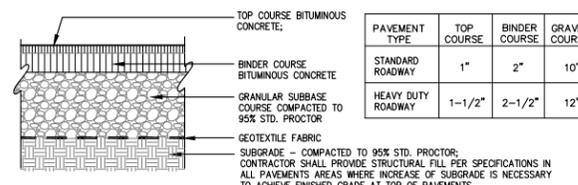
NOTES:
 -EXPANSION JOINT SPACING - 20-25' O.C. - UNLESS OTHERWISE NOTED ON PLANS.
 -CONTROL JOINT SPACING - 5' O.C. NOMINAL - UNLESS OTHERWISE NOTED ON PLANS.
 -CROSS SLOPE - 1/8" TO 1/4" PER FOOT (MAX. SLOPE 2% TYP.)
 -MAX SLOPE ALONG LENGTH OF WALK SHOULD NOT EXCEED 1:20

7 STANDARD CONCRETE PAVEMENT SCALE: NTS

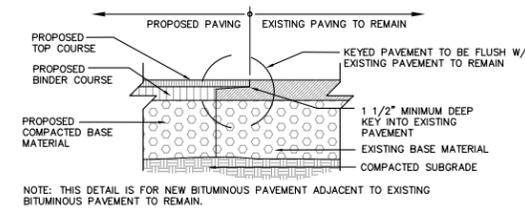


NOTES:
 -EXPANSION JOINT SPACING - 20-25' O.C. - UNLESS OTHERWISE NOTED ON PLANS.
 -CONTROL JOINT SPACING - 5' O.C. NOMINAL - UNLESS OTHERWISE NOTED ON PLANS.
 -CROSS SLOPE - 1/8" TO 1/4" PER FOOT (MAX. SLOPE 2% TYP.)
 -MAX SLOPE ALONG LENGTH OF WALK SHOULD NOT EXCEED 1:20

8 HEAVY DUTY CONCRETE PAVEMENT SCALE: NTS

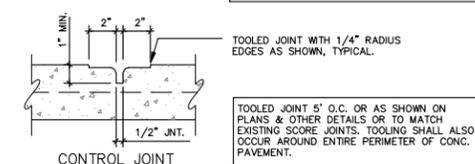
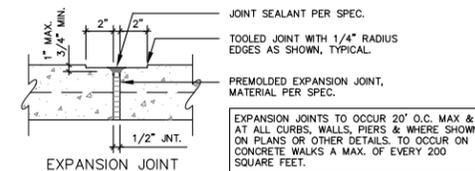


9 ASPHALT PAVEMENT SCALE: NTS

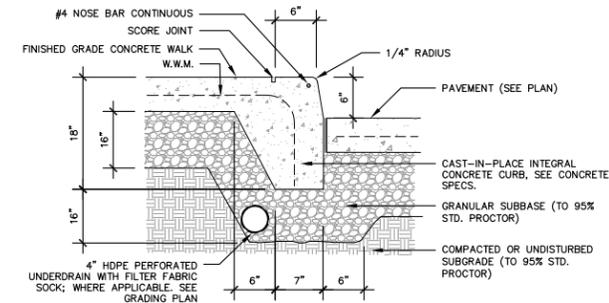


NOTE: THIS DETAIL IS FOR NEW BITUMINOUS PAVEMENT ADJACENT TO EXISTING BITUMINOUS PAVEMENT TO REMAIN.

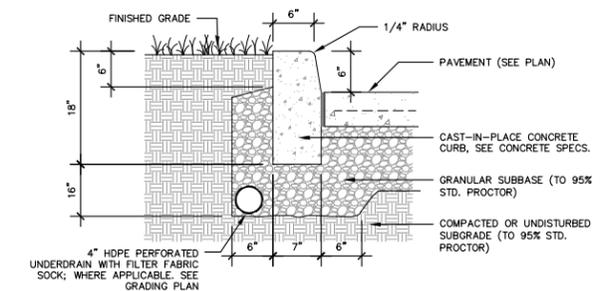
10 ASPHALT PAVEMENT KEY SCALE: NTS



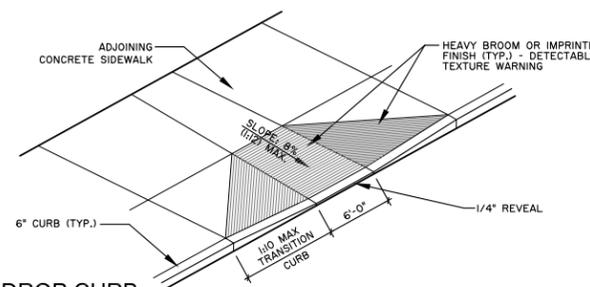
11 EXPANSION / TOOLED CONTROL JOINT SCALE: NTS



12 INTEGRAL CONCRETE CURB SCALE: NTS



13 CONCRETE CURB SCALE: NTS



14 DROP CURB SCALE: NTS

Revisions

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Drawing

L500



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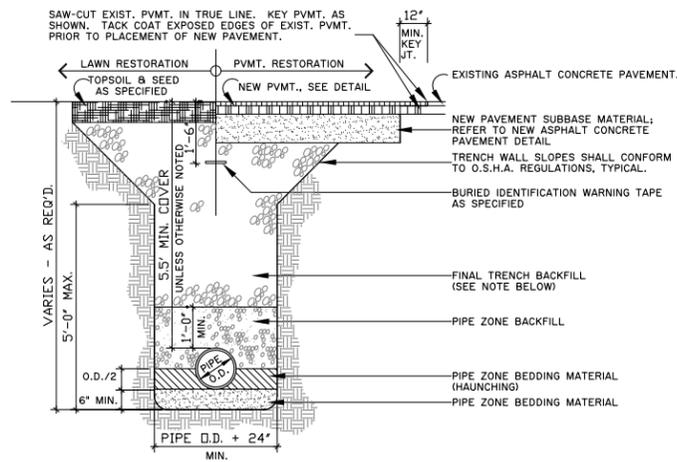
THE IRONWORKS - STUDENT HOUSING
45 MORRISON AVENUE
TROY, NEW YORK
THE SITE DETAILS

Revisions

Project: 201406
Date: 05/23/2014

Drawing

L502

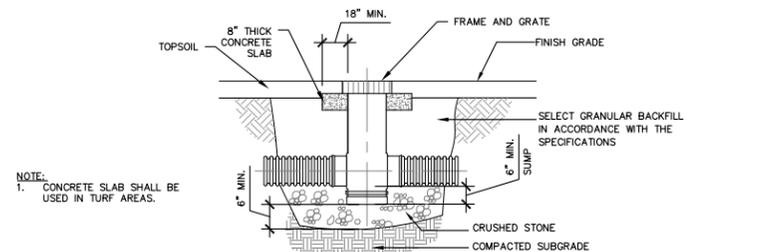


ITEM	DEPTH	MATERIAL	NYSDOT TYPE AGGREGATE	METHOD OF PLACEMENT
PIPE ZONE BEDDING (ENCOUNTERED DRY COND.)	6" MIN.	CRUSHED STONE	1	MECHANICAL COMPACTION
PIPE ZONE BEDDING (HAUNCHING/ ENCOUNTERED WET CONDITION)	6" MIN.	CRUSHED STONE	2	MECHANICAL COMPACTION
PIPE ZONE BEDDING (HAUNCHING)	PIPE O.D./2	CRUSHED STONE	1	MECHANICAL COMPACTION
PIPE ZONE BACKFILL	12" MIN. COVER	CRUSHED STONE	1	MECHANICAL COMPACTION
FINAL TRENCH BACKFILL	VARIES	SEE NOTE	SEE NOTE	MECHANICAL COMPACTION

- NOTES:
- FINAL TRENCH BACKFILL
 - IN NON-PAVED AREAS, FINAL TRENCH BACKFILL SHALL BE EXCAVATED MATERIAL WHEN DETERMINED SUITABLE BY THE ENGINEER OF RECORD; OTHERWISE IT SHALL BE NYSDOT TYPE 1 (ITEM NO. 304.02). MIN. MOD. PROCTOR DENSITY SHALL BE 90 PERCENT.
 - IN PAVED AREAS, FINAL TRENCH BACKFILL SHALL BE NYSDOT TYPE 2 (ITEM NO. 304.03). MIN. MODIFIED PROCTOR DENSITY SHALL BE 95 PERCENT.
 - ALL PIPE ZONE BEDDING, PIPE ZONE BACKFILL, AND FINAL TRENCH BACKFILL SHALL BE PLACED IN 6 INCH MAXIMUM, COMPACTED LIFTS. ALL BEDDING AND BACKFILL MATERIALS SHALL BE MECHANICALLY COMPACTED TO THE SATISFACTION OF THE ENGINEER.
 - EXCAVATION SHALL BE KEPT DRY AND DEWATERED AT ALL TIMES DURING TRENCHING OPERATIONS.
 - ALL PAVEMENT SAWCUTS SHALL BE IN SOUND EXISTING PAVEMENT ACCEPTABLE TO THE ENGINEER.

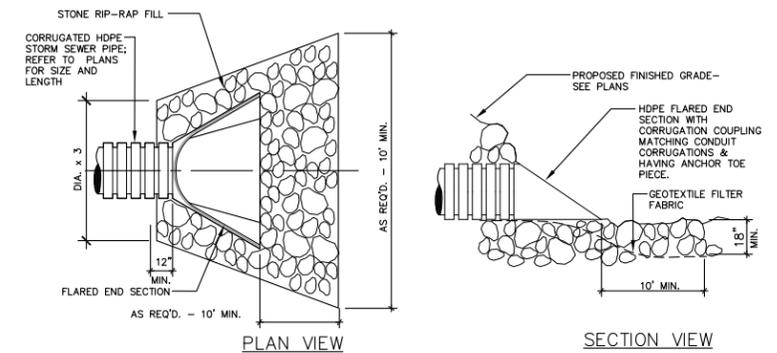
1 TYPICAL SANITARY/STORM TRENCH

SCALE: NTS



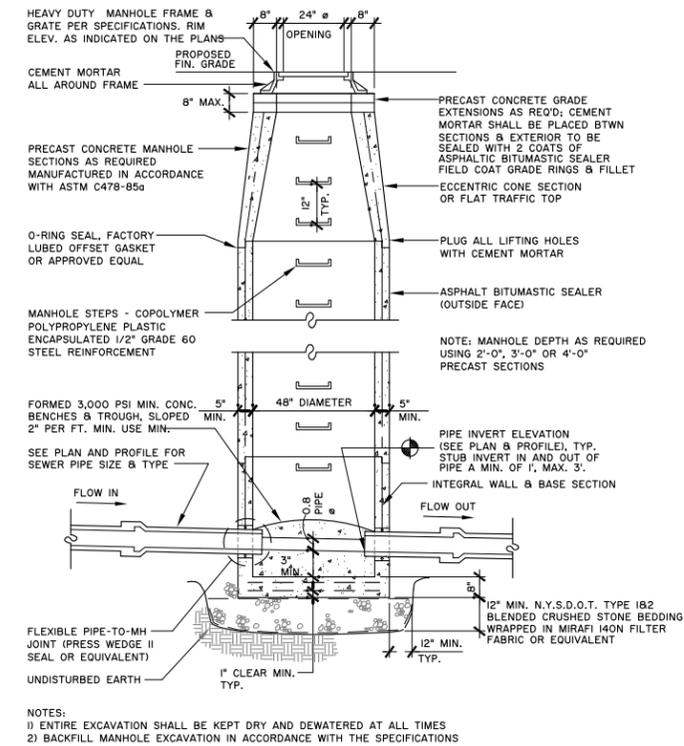
3 YARD DRAIN

SCALE: NTS



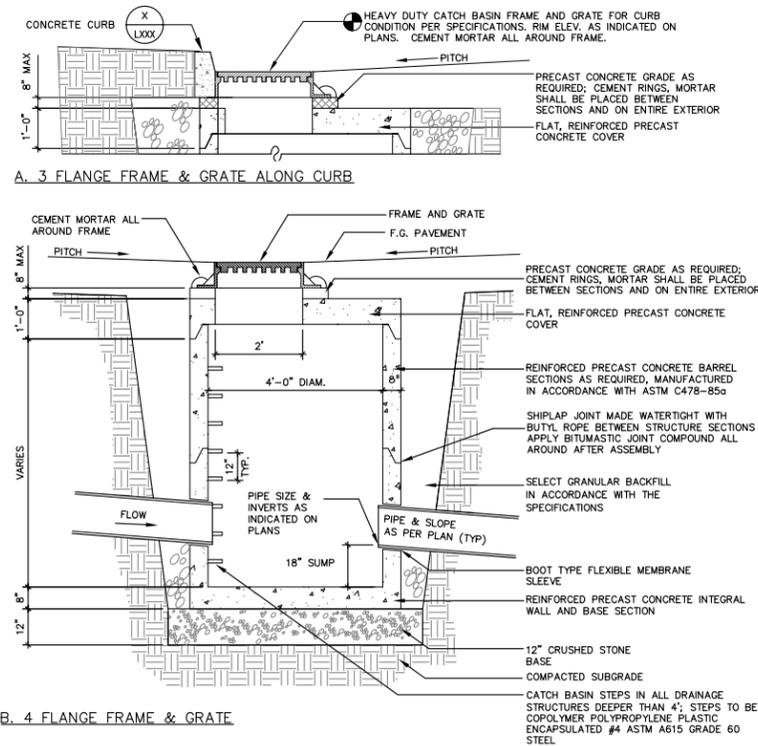
4 FLARED-END SECTION

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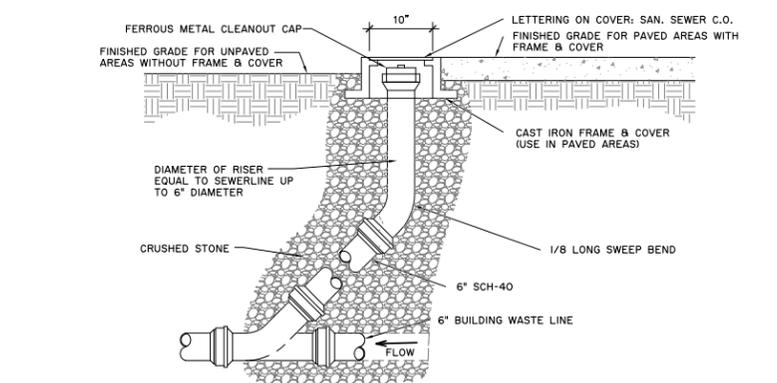
6 SANITARY SEWER MANHOLE DETAIL

SCALE: NTS



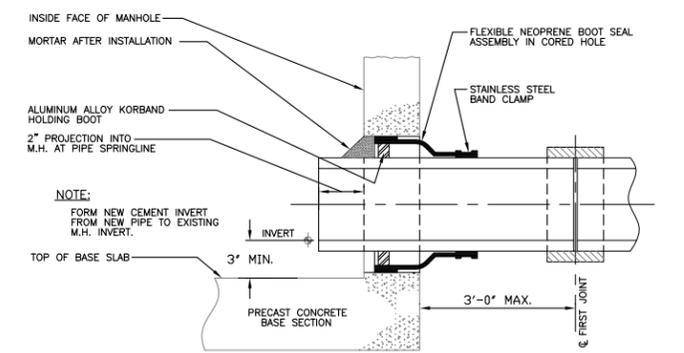
2 CATCH BASIN

SCALE: NTS



5 SANITARY CLEAN OUT

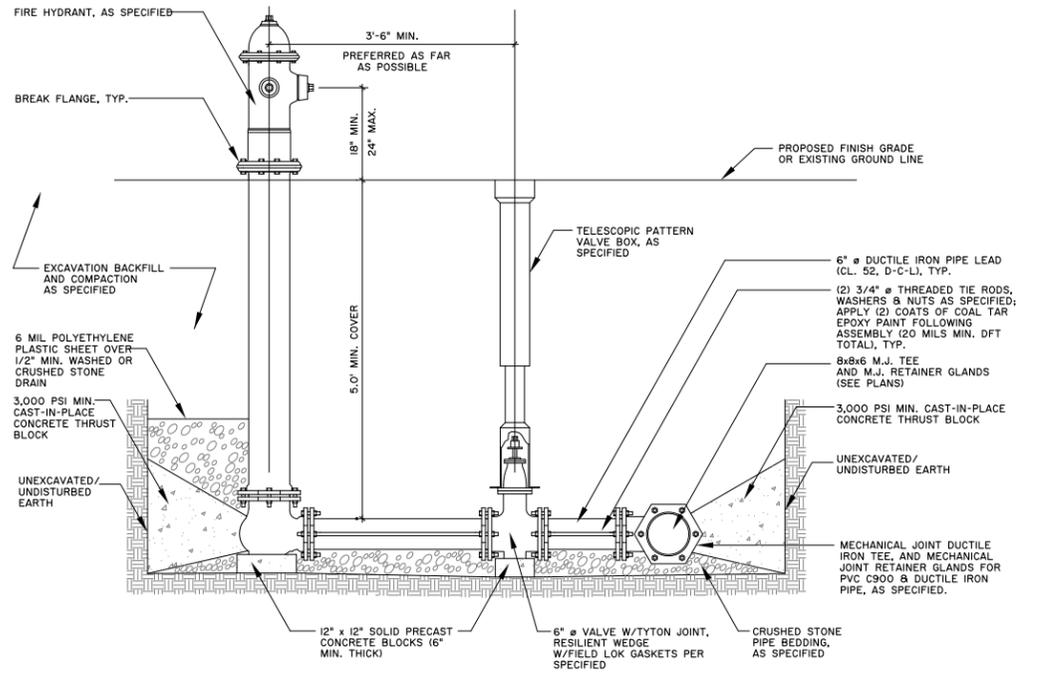
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7 EXISTING MANHOLE WALL PIPE PENETRATION DETAIL

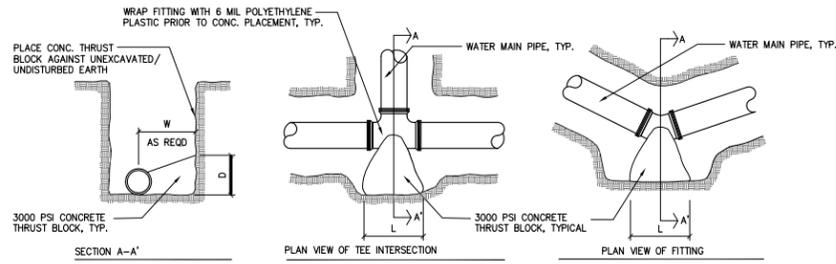
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1 FIRE HYDRANT

SCALE: NTS



PIPE SIZE (IN.)	TEE (NOTE #1)		90° (1/4) BEND		45° (1/8) BEND		22.5° (1/16) BEND		11.25° (1/32) BEND	
	AREA SQ.FT.	DIMENSIONS D x L	AREA SQ.FT.	DIMENSIONS D x L	AREA SQ.FT.	DIMENSIONS D x L	AREA SQ.FT.	DIMENSIONS D x L	AREA SQ.FT.	DIMENSIONS D x L
3"	1.39	1.0x1.5	1.96	1.0x2.0	1.06	0.8x1.5	0.54	0.8x0.8	0.27	0.5x0.8
4"	2.04	1.3x2.0	2.88	1.58x2.0	1.56	1.3x1.3	0.77	0.8x1.3	0.40	0.5x1.0
6"	4.3	1.8x2.5	5.96	2.0x3.0	3.22	1.5x2.3	1.65	1.3x1.5	0.83	0.8x1.5
8"	7.24	2.5x3.0	10.3	2.8x3.8	5.6	2.3x2.5	2.9	1.5x2.0	1.5	1.0x1.5

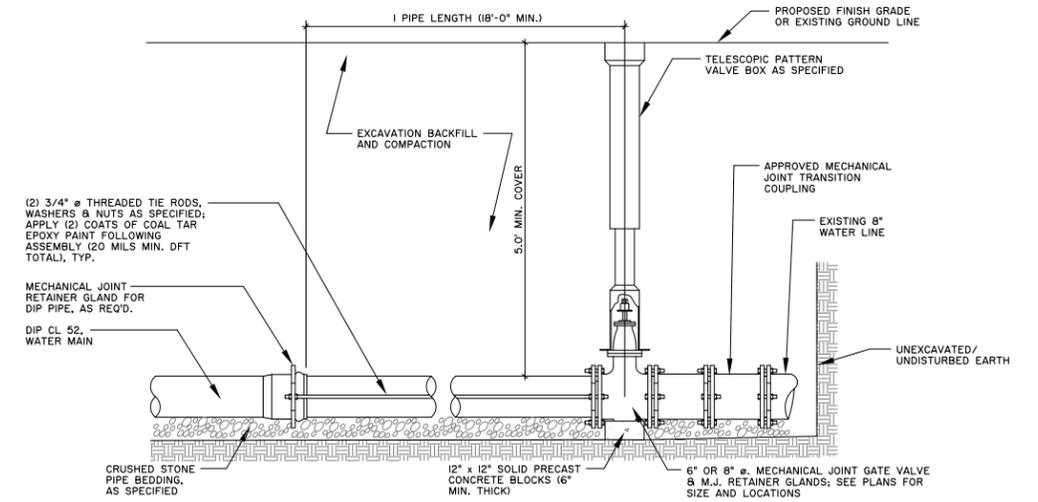
- NOTES:
- VALUES FOR TEES APPLY TO TEES, END PLUGS, CAPS, AND TAPPING SLEEVES.
 - MINIMUM REQUIRED BEARING AREAS ARE DUE TO THRUSTS CAUSED BY 150 P.S.I. WORKING PRESSURE PLUS 50% (75 P.S.I.) SURGE ALLOWANCE RESULTING IN 225 P.S.I. INTERNAL PRESSURE.
 - REQUIRED BEARING AREAS ARE BASED ON ALLOWABLE SOIL BEARING CAPACITY OF 2000 POUNDS PER SQUARE FOOT FOR SAND. DUE TO OTHER SOIL CONDITIONS WHICH MAY BE ENCOUNTERED DURING THE WORK, THRUST BLOCK BEARING AREAS MAY BE MODIFIED BY THE ENGINEER OF RECORD. BY MULTIPLYING THE MINIMUM REQUIRED BEARING AREA GIVEN IN THE TABLE ABOVE FOR THE APPROPRIATE PIPE SIZE AND FITTING BY THE CORRECTION FACTORS BELOW. THE CONTRACTOR SHALL NOTIFY THE ENGINEER CONCERNING ENCOUNTERED SOIL CONDITIONS WHICH ARE NOT SAND. THE CONTRACTOR SHALL NOT MODIFY THE REQUIRED THRUST BLOCK SIZES WITHOUT THE ENGINEER'S WRITTEN APPROVAL.

INSITU SOIL CONDITION	ALLOWABLE SOIL PRESSURE (LBS./SQ.FT.)	CORRECTION FACTOR
SOFT CLAY	1000	2.00
SAND	2000	1.00
SAND & GRAVEL	3000	0.67
CEMENTED W/CLAY	4000	0.50
HARD SHALE	10,000	0.20

- IN MUCK, PEAT, OR RECENTLY PLACED FILL ALL THRUSTS SHALL BE RESISTED BY STEEL PILES OR TIE ROD ANCHORAGE TO SOLID APPROVED FOUNDATIONS, OR BY REMOVAL OF SUCH UNSTABLE MATERIAL AND REPLACEMENT WITH BALLAST OF SUFFICIENT STABILITY TO RESIST THE THRUSTS, ALL AS REQUIRED BY THE ENGINEER. ALL PROPOSED PILE CONFIGURATIONS THE CONTRACTOR WISHES TO UTILIZE IN THE WORK SHALL BE DESIGNED AND CERTIFIED BY A QUALIFIED NEW YORK STATE LICENSED PROFESSIONAL ENGINEER HIRED BY THE CONTRACTOR. THE COST OF SAID PROFESSIONAL ENGINEERING SERVICES SHALL BE PAID BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. ALL PILE CONFIGURATIONS AND RESPECTIVE ENGINEERING COMPUTATIONS (AND ANY OTHER SUPPORTING DOCUMENTATION AS DEEMED NECESSARY BY THE ENGINEER OF RECORD), AS PROPOSED BY THE CONTRACTOR, SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR CONTENT REVIEW AND COMMENT; ALL SUBMITTALS SHALL DEPICT A SIGNED AND DATED LICENSED PROFESSIONAL ENGINEER'S SEAL BELONGING TO THE ENGINEER HIRED BY THE CONTRACTOR.
- ALL CAST-IN-PLACE CONCRETE THRUST BLOCKS SHALL BE CONSTRUCTED OF 3,000 PSI MINIMUM CONCRETE HAVING A MAXIMUM WATER-TO-CEMENT RATIO OF 0.44, A MINIMUM CEMENT CONTENT OF 630 POUNDS PER CUBIC YARD AND A MAXIMUM SLUMP OF 4 INCHES AT POINT OF PLACEMENT. ALL CONCRETE THRUST BLOCKS SHALL BEAR AGAINST UNEXCAVATED/UNDISTURBED VIRGIN SOIL OF THE PIPE TRENCH VERTICAL WALL. ALL THRUST BLOCK BEARING AREAS SHALL BE BASED ON THE ACTUAL CONTACT AREA OF THE THRUST BLOCK AGAINST THE VERTICAL TRENCH FACE. CONTACT AREAS OF THRUST BLOCKS AGAINST SLOPED TRENCH WALL FACES WILL NOT UTILIZED IN COMPUTING CONTACT AREAS.
- CONCRETE UTILIZED FOR CONSTRUCTING THRUST BLOCKS SHALL NOT OVERLAP ANY PIPE JOINT, FITTING/PIPE JOINT, MECHANICAL JOINT RETAINER GLAND AND FERROUS-BASED RESTRAINT ANCHORAGE ASSEMBLIES.
- CONCRETE THRUST BLOCKS SHALL BE PLACED IN SUCH A MANNER SO AS NOT TO INTERFERE WITH ANY FUTURE REMOVAL AND/OR MAINTENANCE OF FITTING RESTRAINT HARDWARE. ALL PIPE FITTINGS RECEIVING CONCRETE THRUST BLOCKS SHALL BE WRAPPED WITH 6-MIL MINIMUM POLYETHYLENE PLASTIC SHEETS TO PREVENT CONCRETE BONDING TO FERROUS FITTINGS AND RESTRAINT HARDWARE.
- CONCRETE THRUST BLOCKS SHALL BE PLACED IN SUCH A MANNER SO AS NOT TO BEAR UPON NEW AND EXISTING CONSTRUCTIONS, AND ANY AND ALL UNDERGROUND UTILITIES WHICH MAY OR MAY NOT BE IMPACTED UPON DUE TO IMPARTED WATER MAIN THRUSTS; NO THRUST BLOCK SHALL BE PLACED WHEN THERE IS NOT AT LEAST A 10 FOOT MINIMUM SEPARATION BETWEEN THE REAR OF THE THRUST BLOCK AND AN EXISTING UNDERGROUND UTILITY, WRITTEN APPROVAL IS RECEIVED FROM BOTH THE UTILITY OWNER AND THE ENGINEER.

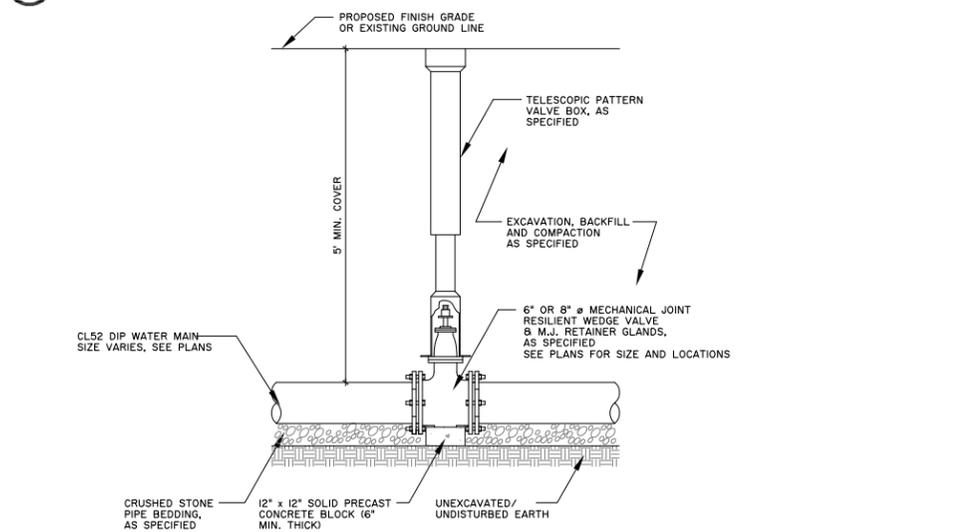
3 THRUST BLOCK

SCALE: NTS



2 CONNECTION TO EXISTING WATER MAIN

SCALE: NTS



4 GATE VALVE

SCALE: NTS



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THE SITE DETAILS

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