Wolcott

Southington

Waterbury

Meriden

Prospect

Wallingford

Bethany

Hamden

West Johnson Ave. Pump Station

East Johnson Ave. Pump Station

Moss Farms Pump Station

Mixville Road Pump Station

Town of Cheshire Water Pollution Control Plant

Mountain Road Pump Station

Elmwood Pump Station

Lilac Drive Pump Station

Mansion Road Pump Station

Cook Hill Road Pump Station

Town of Cheshire, Connecticut
Figure 5-2
Sewer Recommendation for Unsewered Properties

March, 2008

METCALF & EDDY | AECOM

0 1,000 2,000 4,000 6,000 8,000 Feet

Legend

- Existing Gravity Sewer
- Existing Force Main
- C & D Growth Areas
- Parcel Boundaries
- R-80 Zoning (Not Considered for Sewers)
- Parcels Reporting Problems with Disposal System
- Parcels Reporting No Problems with Disposal System
- Undeveloped Properties
- Pump Stations
- Infill Properties (Sewer Frontage)
- Infill Properties (Town Assessed)
- Sewered Properties
- Open Space
- Special Flow

Sewer Recommendation

- Recommended
- Not Recommended

G:\Projects\MUNI\60003248CHE\Maps\TM4 GrowthandConservationAreasPotentialSewer.mxd

Wolcott

Southington

Meriden

Waterbury

West Johnson Ave. Pump Station

East Johnson Ave. Pump Station

Moss Farms Pump Station

Lake Pernwal Pump Station

Waterbury Road Pump

Mixville Road Pump Station

Prospect

Elmwood Pump Station

Mountain Road Pump Station

Strathmore Drive Pump

Ashley Court Pump

Mansion Road Pump Station

Lilac Drive Pump Station

Cook Hill Road Pump Station

Wallingford

Bethany

Hamden

N

W

E

S

2018 Town of Cheshire Sewer Service Area

NEGEO
New England Geosystems
www.negeosystems.com
282 Main Street Extension - C2
Middletown, CT 06457 • (203) 404 - 7129

0 1,500 3,000 6,000 9,000 Feet

1 inch = 1,500 feet

Legend

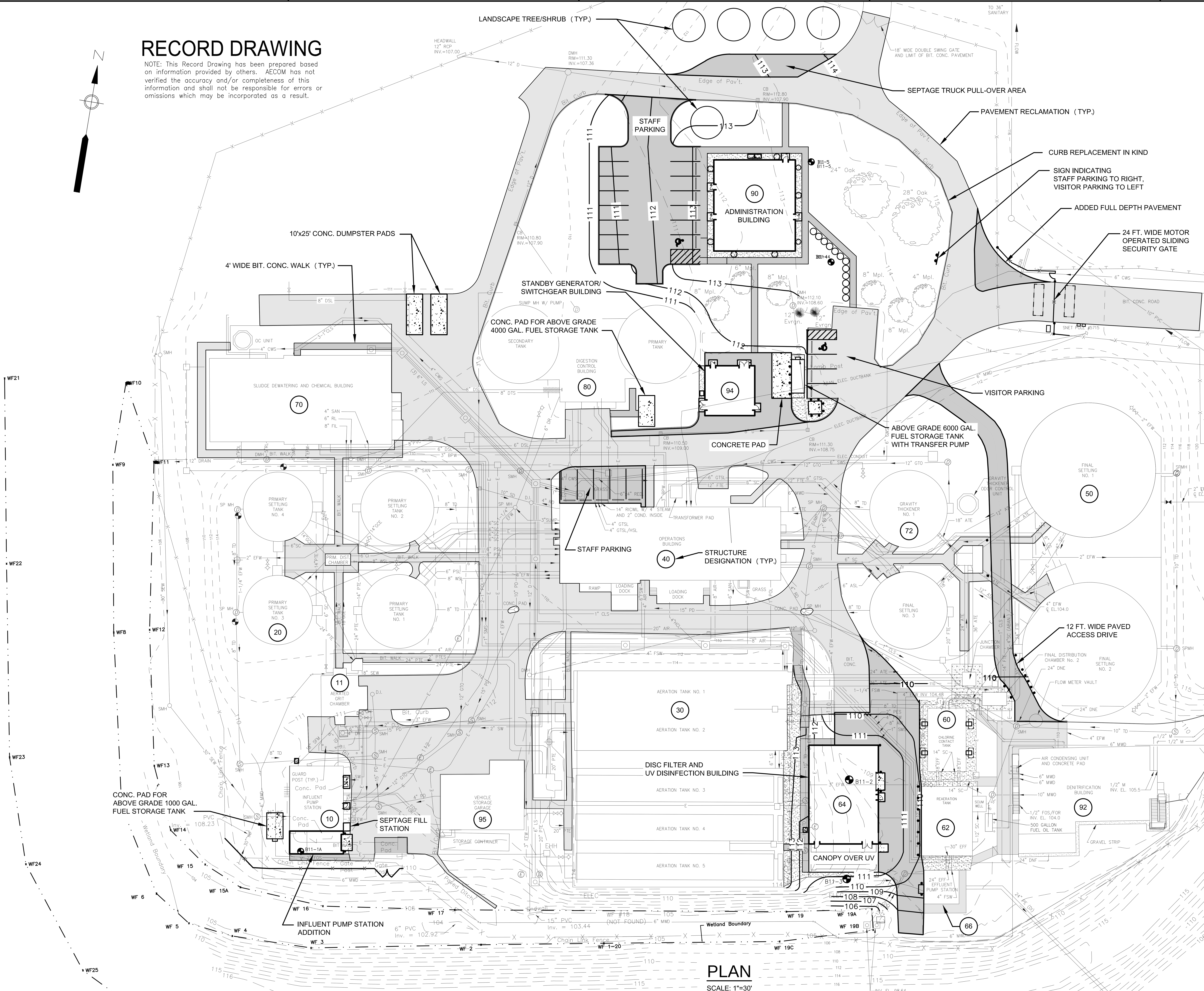
- Pump Stations
- Infill Properties (Sewer Frontage)
- Infill Properties (Town Assessed)
- Existing Force Main
- Existing Gravity Sewer
- Parcels Reporting Problems with Disposal System
- Open Space
- Special Flow
- Sewered Parcels
- Areas Not Recommended for Sewers
- Potential Sewered Parcels
- R-80 Zoning (Not Considered for Sewers)

SEAL • TOWN OF CHESHIRE CONNECTICUT SETTLED 1694

Map Produced: May 2018

RECORD DRAWING

NOTE: This Record Drawing has been prepared based on information provided by others. AECOM has not verified the accuracy and/or completeness of this information and shall not be responsible for errors or omissions which may be incorporated as a result.



LANDSCAPE TREE/SHRUB (TYP.)
SEPTAGE TRUCK PULL-OVER AREA
PAVEMENT RECLAMATION (TYP.)
CURB REPLACEMENT IN KIND
SIGN INDICATING STAFF PARKING TO RIGHT, VISITOR PARKING TO LEFT
ADDED FULL DEPTH PAVEMENT
24 FT. WIDE MOTOR OPERATED SLIDING SECURITY GATE
STAFF PARKING
ADMINISTRATION BUILDING
10'x25' CONC. DUMPSTER PADS
4' WIDE BIT. CONC. WALK (TYP.)
STANDBY GENERATOR/ SWITCHGEAR BUILDING
CONC. PAD FOR ABOVE GRADE 4000 GAL. FUEL STORAGE TANK
PLANT ACCESS ROAD
RELOCATED WPCP SIGN
VISITOR PARKING
FOR LIMITS OF CONTRACTOR STORAGE AREA, SEE SHEET 00 C-104
ABOVE GRADE 6000 GAL. FUEL STORAGE TANK WITH TRANSFER PUMP
CONCRETE PAD
STAFF PARKING
STRUCTURE DESIGNATION (TYP.)
12 FT. WIDE PAVED ACCESS DRIVE
DISC FILTER AND UV DISINFECTION BUILDING
CONC. PAD FOR ABOVE GRADE 1000 GAL. FUEL STORAGE TANK
SEPTAGE FILL STATION
CANOPY OVER UV
INFLUENT PUMP STATION ADDITION
QUINNIPIAC RIVER
SLUDGE DEWATERING AND CHEMICAL BUILDING
PRIMARY SETTLING TANK NO. 4
PRIMARY SETTLING TANK NO. 2
PRIMARY SETTLING TANK NO. 3
PRIMARY SETTLING TANK NO. 1
AERATED GRIT CHAMBER
INFLUENT PUMP STATION
VEHICLE STORAGE GARAGE
AERATION TANK NO. 1
AERATION TANK NO. 2
AERATION TANK NO. 3
AERATION TANK NO. 4
AERATION TANK NO. 5
OPERATIONS BUILDING
GRAVITY THICKENER NO. 1
FINAL SETTLING NO. 1
FINAL SETTLING NO. 2
FINAL SETTLING NO. 3
CHLORINE CONTACT TANK
REAERATION TANK
DENITRIFICATION BUILDING
EFFLUENT PUMP STATION
DIGESTION CONTROL BUILDING
SECONDARY TANK
PRIMARY TANK
METHANOL FACILITY

PLAN
SCALE: 1"=30'

I hereby certify that the Inland Wetland and Watercourse boundary line (s) shown on the map is substantially correct.
SOIL SCIENCE AND ENVIRONMENTAL SERVICES, INC.
Kenneth C. Stevens, Jr. — Registered Professional Soil Scientist
2-20-2013 — Date

STRUCTURE DESIGNATION LEGEND

10	INFLUENT PUMP STATION
11	AERATED GRIT CHAMBER
20	PRIMARY SETTLING TANKS
30	AERATION TANKS
40	OPERATIONS BUILDING
50	FINAL SETTLING TANKS
60	FORMER CHLORINE CONTACT TANK (NEW COAGULATION/FLOCCULATION TANK)
62	REAERATION TANK
64	DISC FILTER AND UV DISINFECTION BUILDING
66	EFFLUENT PUMP STATION
70	SLUDGE DEWATERING AND CHEMICAL BUILDING
72	GRAVITY THICKENER
80	DIGESTION CONTROL BUILDING
90	ADMINISTRATION BUILDING
92	DENITRIFICATION BUILDING
94	STANDBY GENERATOR AND SWITCHGEAR BUILDING
95	MISCELLANEOUS STRUCTURES

NOTES:

1. FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES, SEE SHEET 00 C-001.

SCALE: 1" = 30'

MARK	DATE	MADE BY	CHECKED	DESCRIPTION
1	5/5/17	BS	MF	REVISED FOR RECORD DRAWINGS

REVISIONS

AECOM TECHNICAL SERVICES, INC.
250 APOLLO DRIVE
CHELMSFORD, MA 01824
PHONE (978) 905-2100

AECOM

TOWN OF CHESHIRE, CONNECTICUT
CHESHIRE WPCP UPGRADE

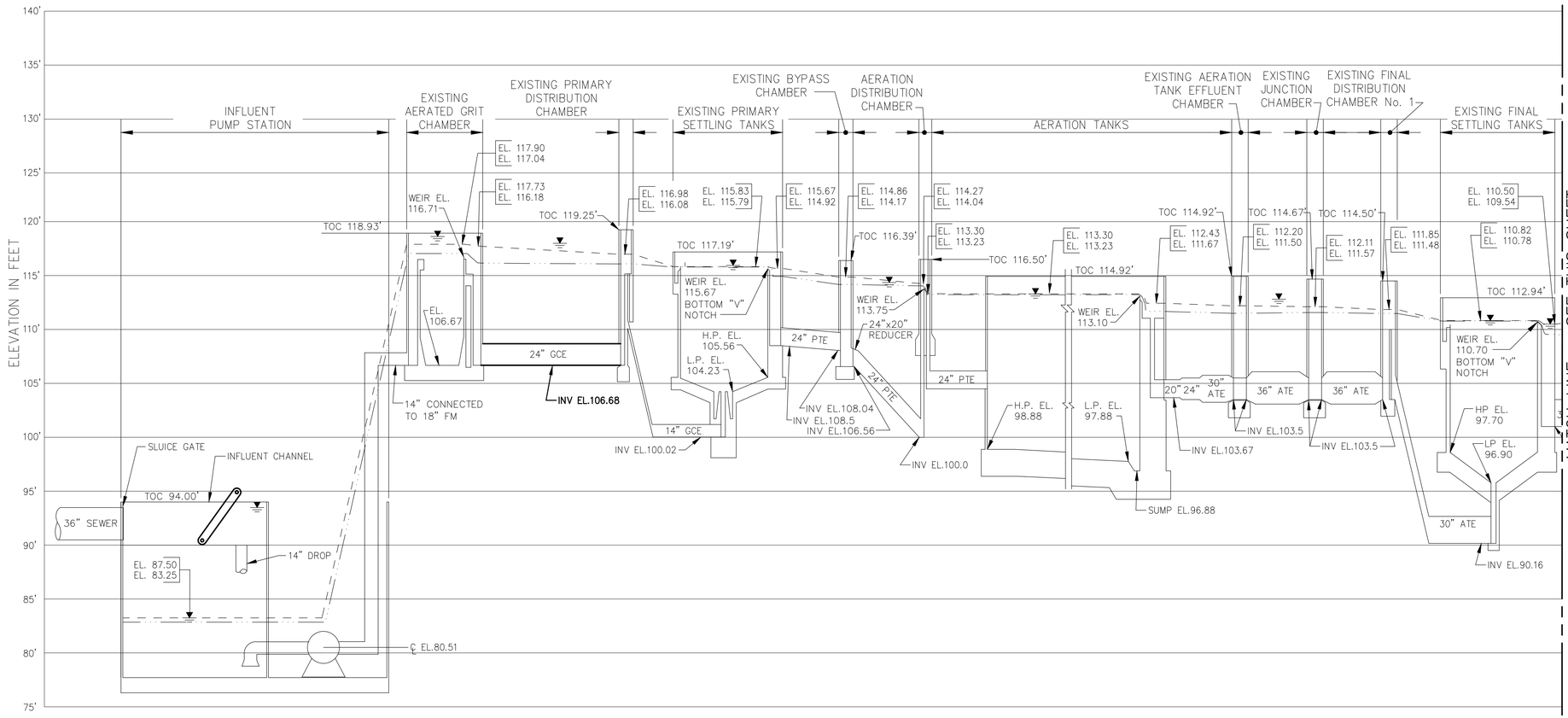
OVERALL SITE PLAN

GENERAL

PROJECT NO:	60197025
CAD DWG FILE:	00 G-004
DESIGNED BY:	J. TRAINOR
DRAWN BY:	S. NAPOLITANO
DEPT CHECK:	C. BENZIGER
PROJ CHECK:	M. FORMICA
DATE:	MAY 2013
SCALE:	AS NOTED

00 G-004
SHEET OF

PATH/FILENAME: P:\60197025 - CHESHIRE WPCP UPGRADE\SHEETS\00 G-004.DWG
LAST UPDATE: Wednesday, March 29, 2017 4:39:05 PM
PLOT DATE: Tuesday, May 09, 2017 1:53:39 PM
ANSI D - 29-Mar-17



BASIS OF HYDRAULIC PROFILE

	DESIGN AVERAGE DAILY	DESIGN PEAK HOUR
FLOW (MGD)	4.0	11.0
RETURN SLUDGE (MGD)	4.0	4.32
RECYCLES (MGD)	0.3	0.3
UNITS IN SERVICE		
GRIT CHAMBERS	2	2
PRIMARY SETTLING TANKS	4	3
AERATION TANKS	5	4
FINAL SETTLING TANKS	2	2
DN FILTERS	5	5
DISC FILTERS	2	2
UV CHANNELS	1	1

NOTES:

1. PROFILES COMPUTED ALONG PATH OF GREATEST HEAD LOSS.
2. ELEVATIONS INDICATED REFER TO USGS MEAN SEA LEVEL DATUM. FINAL SETTLING TANK EQUIPMENT TO BE SIZED BASED ON THE RETURN SLUDGE RATES SPECIFIED IN SECTION 11539

LEGEND

EL. DESIGN PEAK
EL. DESIGN AVERAGE

EXISTING STRUCTURE/PIPE
NEW STRUCTURE/PIPE
HYDRAULIC GRADE LINE AT DESIGN PEAK FLOW
HYDRAULIC GRADE LINE AT DESIGN AVERAGE FLOW

NOTES:

1. FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES, SEE SHEET 00 C–001.

HORIZONTAL SCALE: NONE
VERTICAL SCALE: 1"=6'

1" = 6' SCALE 0 6 12 18 FEET

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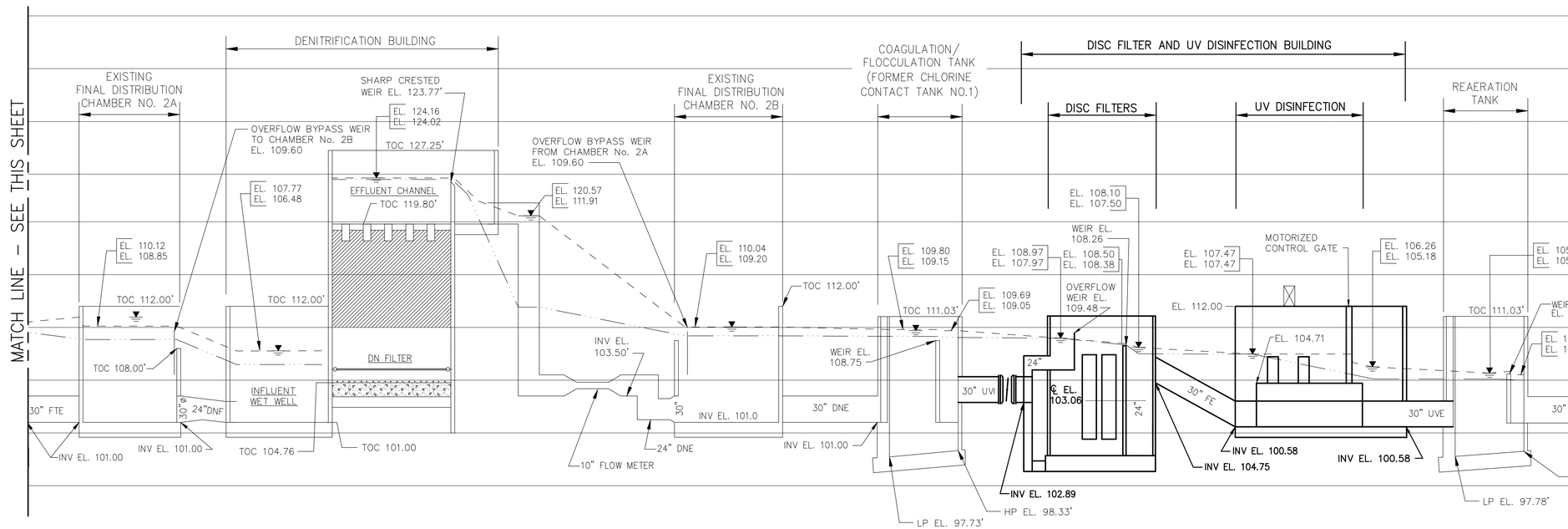

MARK	DATE	MADE BY	CHECKED	DESCRIPTION
1	5/5/17	BS	MF	REVISED FOR RECORD DRAWINGS

REVISIONS

AECOM TECHNICAL SERVICES, INC.
250 APOLLO DRIVE
CHELMSFORD, MA 01824
PHONE (978) 905-2100

AECOM

STATE OF CONNECTICUT — No. 19262 — REGISTERED PROFESSIONAL ENGINEER — C. J. S. S.

TOWN OF CHESHIRE, CONNECTICUT
CHESHIRE WPCP UPGRADE

HYDRAULIC PROFILE

GENERAL

PROJECT NO:	60197025
CAD DWG FILE:	00 G-005
DESIGNED BY:	J. TRAINOR
DRAWN BY:	S. NAPOLITANO
DEPT CHECK:	C. BENZIGER
PROJ CHECK:	M. FORMICA
DATE:	MAY 2013
SCALE:	AS NOTED

00 G-005

SHEET OF

PATH/FILENAME: P:\60197025 – CHESHIRE WPCP UPGRADE\SHEETS\G\00 G-005.DWG
LAST UPDATE: Friday, March 17, 2017 12:18:15 PM
PLOT DATE: Tuesday, May 09, 2017 1:53:42 PM
ANSI D – 17–Mar–17

GENERAL NOTES:

1. TOPOGRAPHY AND EXISTING SITE INFORMATION SHOWN ON THE PLANS IS BASED ON FIELD SURVEY PROVIDED BY AI ENGINEERS, MIDDLETOWN, CT., MAY, 2011. THE REFERENCE HORIZONTAL DATUM IS ASSUMED. THE REFERENCE VERTICAL DATUM IS USGS MEAN SEA LEVEL DATUM DATED 1929. ELEVATIONS ARE IN FEET.
2. PROJECT ELEVATIONS ARE BASED ON CGS BENCHMARK #1026. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE ACCURACY OF ALL BENCHMARK ELEVATIONS.
3. PROPERTY LINES SHOWN ARE APPROXIMATE ONLY.
4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING CONDITIONS AT THE SITE.
5. BORING LOCATIONS ARE SHOWN ON THE PLANS. BORING LOGS ARE PROVIDED IN APPENDIX TO THE SPECIFICATIONS.
6. THE WETLANDS SHOWN WERE FIELD LOCATED AND FLAGGED IN THE FIELD BY SOIL SCIENCE AND ENVIRONMENTAL SERVICES, CHESHIRE, CT., MARCH, 2011.
7. THE CONTRACTOR SHALL ERECT EROSION CONTROL MEASURES PRIOR TO COMMENCING ANY EXCAVATION OR STORAGE OF BACKFILL MATERIAL ON-SITE. REFER TO SPECIFICATION SECTION 01568 AND CIVIL DETAILS.
8. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES AND SHALL PROVIDE ALL NECESSARY CONTINUOUS BARRIERS OF SUFFICIENT TYPE, SIZE AND STRENGTH TO PREVENT ACCESS TO OPEN EXCAVATIONS AT THE COMPLETION OF EACH DAY'S WORK.
9. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM ALL WORK AS INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER IN CONFORMANCE WITH ALL APPLICABLE CODES IN A PROPER AND WORKMANLIKE MANNER.
10. THE ENGINEER MAY DIRECT THE CONTRACTOR TO VARY THE PROPOSED WORK DURING CONSTRUCTION TO MEET EXISTING CONDITIONS.
11. ALL CONSTRUCTION ACTIVITY SHALL BE CONFINED TO THE AREA WITHIN THE LIMIT OF WORK AS SHOWN ON THE SITE PLAN.
12. NO EQUIPMENT, VEHICLES OR CONSTRUCTION MATERIALS SHALL BE STORED OUTSIDE OF DESIGNATED WORK AREAS DURING EITHER WORKING OR NON-WORKING HOURS. THE LOCATION FOR ANY STORAGE OF EQUIPMENT BY THE CONTRACTOR DURING NON-WORKING HOURS SHALL BE AS APPROVED BY OWNER.
13. WORKING HOURS WITHIN THE TOWN ARE 7:00 A.M. TO 4:00 P.M., MONDAY THROUGH FRIDAY. PERMISSION IS REQUIRED FROM THE TOWN VIA THE ENGINEER TO WORK ON SATURDAY, SUNDAY, LEGAL HOLIDAYS, OR ANY WEEKDAY NIGHT PAST THE HOURS SPECIFIED. THIS PERMISSION MUST BE REQUESTED 72 HOURS IN ADVANCE. SUNDAY WORK WILL ONLY BE ALLOWED IN CASE OF EMERGENCY.
14. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF THE EXISTING FEATURES AND STRUCTURES WITHIN AND ADJACENT TO THE WORK. ANY ITEM DISTURBED OR IN CONFLICT WITH THE PROPOSED WORK SHALL BE REMOVED AND RESET OR REPLACED AT THE CONTRACTOR'S EXPENSE. IN THE EVENT OF DAMAGE, THE REPAIRS OR REPLACEMENT SHALL BE COMPLETED AT THE CONTRACTOR'S EXPENSE AS APPROVED BY THE ENGINEER.
15. THE CONTRACTOR SHALL PERFORM CLEARING AND GRUBBING AS NECESSARY TO CONSTRUCT THE WORK AS SHOWN ON DRAWINGS. NO TREES OR TREE LIMBS SHALL BE CUT UNLESS DIRECTED BY THE ENGINEER.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTINUOUS CLEANING OF MUD, DIRT AND DEBRIS OFF STREETS, WHEN SUCH MUD, DIRT OR DEBRIS IS DEPOSITED THERE AS A RESULT OF HIS CONSTRUCTION ACTIVITY. ANY DEBRIS, MUD, OR DELETERIOUS MATERIAL FROM THE PROJECT WILL BE REMOVED FROM THE STREET AND SURROUNDING STREETS BY CONTRACTOR AT THE END OF EACH WORKING DAY, OR BEFORE, IF DIRECTED BY THE OWNER OR ENGINEER.
17. USE WATER SPRINKLING, TEMPORARY ENCLOSURES AND OTHER SUITABLE METHODS TO LIMIT DUST AND DIRT RISING AND SCATTERING IN THE AIR.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING A SITE FOR DISPOSAL OF ALL EXCAVATED UNACCEPTABLE MATERIAL THAT IS UNSUITABLE FOR USE AS BACKFILL AND ALL OTHER EXCESS EXCAVATED MATERIALS. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH THE LOCATION OF THE DISPOSAL SITE AND WRITTEN PERMISSION FOR USE OF THE SITE FROM THE PROPERTY OWNER. THE COST FOR SECURING AND MAINTAINING THE DISPOSAL SITE SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
19. ROCK REMOVAL BY THE MECHANICAL METHOD SHALL CONSIST OF CUTTING AWAY ROCK AT TRENCH BOTTOM TO FORM A LEVEL BEARING SURFACE 6" BELOW INVERT ELEVATION OF PIPE.
20. ALL UNEXCAVATED ROCK WITHIN 3'-0" HORIZONTALLY OF THE ENDS OF BUILDING CONNECTIONS, BRANCHES AND STUBS, AND DOWN TO A HORIZONTAL PLANE 6-INCHES BELOW THE BOTTOMS OF SUCH CONNECTIONS, BRANCHES AND STUBS, SHALL BE REMOVED.
21. ALL EXCESS SOIL FROM CONSTRUCTION TO BE STOCKPILED OUTSIDE OF 100 FOOT BUFFER ZONE. DISPOSE OF EXCESS AND UNSUITABLE MATERIAL IN ACCORDANCE WITH SPECIFICATION SECTION 01110.
22. IF AT ANY TIME THE CONSTRUCTION EXCAVATION REVEALS ANY ARTICLE OF HISTORIC OR ARCHEOLOGICAL SIGNIFICANCE, WORK AT THE LOCATION WILL CEASE AND THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER.
23. THE CONTRACTOR IS RESPONSIBLE FOR RESTORING UNPAVED AREAS DISTURBED BY THE CONTRACTOR TO ORIGINAL CONDITIONS INCLUDING ALL GRADING, LOAMING, SEEDING, ETC. ASSOCIATED WITH CONSTRUCTION.
24. EXCAVATION OF ANY TYPE SHALL BE ACCOMPLISHED IN SUCH A MANNER THAT UNDERGROUND UTILITIES OR STRUCTURES ARE NOT DAMAGED. ALL ROADWAYS, PARKING AREAS, SIDEWALKS AND OTHER STRUCTURES DISTURBED BY CONSTRUCTION IN OR OUTSIDE THE PROJECT AREA SHALL BE RETURNED TO THEIR ORIGINAL CONDITION OR BETTER AND SHALL BE GRADED TO MEET PROPOSED CONSTRUCTION AS DIRECTED BY THE ENGINEER. ALL COSTS RELATED TO THE REPAIR OF DAMAGED UTILITIES OR STRUCTURES SHALL BE BORNE BY THE CONTRACTOR.
25. EXISTING TREES, BUSHES AND SHRUBS SHALL BE PROTECTED BY THE CONTRACTOR FROM ALL DAMAGE UNLESS IN DIRECT CONFLICT WITH PROPOSED STRUCTURES, ROADWAYS, ETC. REFER TO SPECIFICATION SECTION 01110 – ENVIRONMENTAL PROTECTION PROCEDURES, AND SECTION 01046, CONTROL OF WORK WITH REGARD TO PROTECTION OF LAND RESOURCES.
26. ALL BUILDINGS, STRUCTURES AND ROADWAYS SHALL BE LOCATED OFF THE BASELINES DEFINED ON THE CIVIL LAYOUT PLANS.
27. ALL LAYOUT DIMENSIONS REFER TO OUTSIDE FACE OF STRUCTURE AT GRADE LINE, UNLESS OTHERWISE NOTED.
28. WITHIN THE LIMITS INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL PROVIDE COMPLETE PAVEMENT OVERLAY, PAVEMENT RECLAMATION OR NEW PAVEMENT IN ACCORDANCE WITH THE DRAWINGS AND DETAILS. FOR ADDITIONAL REQUIREMENTS, REFER TO THE SPECIFICATIONS.
29. PROVIDE UNIFORM SLOPE OF ROADWAY BETWEEN ELEVATIONS INDICATED ON THE PLANS. ALL ROADWAYS SHALL BE GRADED AT 1/4" PER FOOT UNLESS OTHERWISE INDICATED BY SPOT ELEVATIONS OR CONTOURS.
30. THE CONTRACTOR SHALL FILL AND GRADE AREAS ADJACENT TO NEW CONSTRUCTION FOR POSITIVE DRAINAGE AS DIRECTED BY THE ENGINEER.
31. ALL COVERS, FRAMES AND GRATES FROM UTILITY STRUCTURES WHICH ARE ABANDONED UNDER THIS CONTRACT SHALL BE PROTECTED FROM DAMAGE AND TURNED OVER TO THE OWNER.
32. ALL UTILITY COVERS, BOXES, FRAMES AND GRATES, ETC. NOT TO BE ABANDONED BY THIS CONTRACT SHALL BE RESET TO FINAL GRADE.
33. THERE ARE NUMEROUS REQUIREMENTS INVOLVING WORK SEQUENCE. REFER TO SPECIFICATION SECTION 01015 FOR DETAILED REQUIREMENTS.

YARD PIPING NOTES:

1. EXISTING PIPING, CONDUITS, AND STRUCTURES SHALL BE REMOVED OR ABANDONED AS REQUIRED TO COMPLETE THE PROPOSED WORK UNLESS SHOWN OTHERWISE ON THE DRAWINGS OR DIRECTED BY THE ENGINEER.
2. ALL ABANDONED PIPES SHALL BE DISCONNECTED AT THE OUTSIDE WALL OF THE STRUCTURE. ALL OPEN ENDS OF ABANDONED PIPES SHALL BE PLUGGED AS DIRECTED.
3. LOCATIONS OF EXISTING PIPING ARE FROM THE BEST INFORMATION AVAILABLE. EXACT LOCATIONS AND COMPLETENESS ARE NOT GUARANTEED. ELEVATION AND DIRECTION OF NEW YARD PIPING ARE SHOWN FOR THE PURPOSE OF INDICATING THE BASIC PARAMETERS USED DURING DESIGN. THE CONTRACTOR SHALL MAKE TEST PITS AS REQUIRED IN ORDER TO DETERMINE THE EXACT LOCATION OF EXISTING PIPES. CONTRACTOR SHALL ALSO MAKE ALL REQUIRED FIELD MEASUREMENTS TO VERIFY EXISTING AND CONTRACT INTERFACE DIMENSIONS, LOCATIONS, AND OTHER CONDITIONS. FINAL LOCATIONS OF PIPES WILL BE DETERMINED IN THE FIELD. ANY CHANGES SHALL BE APPROVED BY THE ENGINEER/OWNER.
4. ALL PIPES SHALL SLOPE UNIFORMLY BETWEEN ELEVATIONS SHOWN ON MECHANICAL DRAWINGS UNLESS OTHERWISE INDICATED ON THE DRAWINGS OR DIRECTED BY THE ENGINEER. NO SAGS OR CRESTS IN PIPING WILL BE PERMITTED.
5. JOINTS SHALL BE PROVIDED AT THE WALL OF STRUCTURES ON ALL PIPELINES, EXCEPT WHERE SLEEVES ARE INDICATED. THIS SHALL BE ACCOMPLISHED BY CASTING A BELL WALL FITTING, BELL END STUB, OR WALL CASTING INTO THE STRUCTURE. ALL WALL AND SLAB PENETRATIONS SHALL BE SEALED WATERTIGHT.
7. PIPES AT STRUCTURES SHALL HAVE EITHER TWO PIPE JOINTS, TWO SOLID SLEEVE COUPLINGS, OR ONE OF EACH WITHIN 16 FT OF THE STRUCTURE, NOT INCLUDING THE JOINT AT THE WALL OF THE STRUCTURE, EXCEPT AS INDICATED.
8. ALL PIPING EXCEPT DRAINAGE PIPING SHALL HAVE 4'-6" MINIMUM COVER UNLESS SPECIFICALLY INDICATED OTHERWISE OR DIRECTED BY THE ENGINEER.
9. FOR LOCATIONS OF PROPOSED ELECTRICAL CONDUITS, SEE ELECTRICAL DRAWINGS.
10. SEE MECHANICAL DRAWINGS FOR PIPE ELEVATIONS AT WALLS OF STRUCTURES.
11. OUTSIDE PIPING MATERIAL SHALL BE AS INDICATED AND SPECIFIED.
12. PROVIDE JOINT RESTRAINT FOR ALL NEW DUCTILE IRON PIPE, UNLESS OTHERWISE INDICATED OR DIRECTED BY THE ENGINEER.
13. PROVIDE FITTINGS AT ALL POINTS OF CONNECTION BETWEEN NEW AND EXISTING WORK.
14. ALL PIPING UNDER STRUCTURES SHALL BE ENCASED IN CONCRETE (REFER TO STRUCTURAL DETAILS).
15. REFER TO SHEET 00 D-003 FOR PIPE TESTING INFORMATION AND OTHER REQUIREMENTS.

LEGEND

EXISTING

- CHAIN LINK METAL FENCE
- CONTOUR (118)
- STRUCTURE
- EDGE OF ROAD
- EDGE OF RIVER
- WETLANDS DELINEATION
- DRAIN MANHOLE
- SEWER MANHOLE
- CATCH BASIN
- BURIED PIPE WITH PIPE TYPE DESIGNATION (8" W)
- UTILITY POLE
- CULVERT PIPE
- GUARD POST
- VALVE BOX
- VENT
- FIRE HYDRANT
- METER VAULT
- WATER GATE VALVE
- PROPERTY LINE
- POLE AND LIGHT
- LANDSCAPING
- SWING GATE
- BORING WITH NUMBER (B-5, W-9)
- OBSERVATION WELL WITH NUMBER
- WETLAND FLAG AND BOUNDARY (WF #30, WF #31)

PROPOSED

- CHAIN LINK FENCE
- SWING GATE
- PARKING BUMPER
- STRUCTURE
- BURIED PIPE WITH PIPE SIZE AND SYSTEM DESIGNATION (10" TD, 24" CGE)
- DIRECTION OF FLOW
- HYDRANT
- GATE VALVE
- MANHOLE
- GUARDPOST
- FULL DEPTH BITUMINOUS PAVEMENT DRIVE/WALKWAY
- RECLAIM EXISTING PAVEMENT
- CONCRETE
- MOWING STRIP (GRAVEL SURFACE)
- CONTOUR (110)
- SPOT ELEVATION (109.5×)
- EROSION CONTROL
- STRUCTURE DESIGNATION (60)
- DEMOLITION

PROPOSED (CONT.)

- 45° BEND
- 90° BEND
- BUTTERFLY VALVE
- TEE
- REDUCER

ABBREVIATIONS

A	AIR-AERATION AND REAERATION
AGCS	AERATION GAS CLEANING SYSTEM
AIR	AIR-GRIT CHAMBER AERATION
AL	ALUM
ALP	AIR-LOW PRESSURE PROCESS
ASL	ACTIVATED SLUDGE
ATE	AERATION TANK EFFLUENT
BPW	BELT FILTER PRESS WASHWATER
BW	BACKWASH
BWA	BACKWASH AIR
CA	AIR-COMPRESSED PROCESS
CDW	CONDENSER WATER
CDWR	CONDENSER WATER RETURN
CDWS	CONDENSER WATER SUPPLY
CHW	CHILLED WATER
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CLS	CHLORINE SOLUTION
CRL	CHLORINE RESIDUAL LINE
CRS	CHLORINE RESIDUAL SAMPLE
CW, CWS	CITY WATER/CITY WATER SUPPLY (POTABLE)
D	DRAIN
DG	DIGESTER GAS
DNE	DENITRIFICATION EFFLUENT
DNF	DENITRIFICATION FEED
DSL	DIGESTED SLUDGE
DTS, SLP	DIGESTER SUPERNATANT
DW	DEWATERING
EFW	EFFLUENT FLUSHING WATER
FCL	FERRIC CHLORIDE
FE	FINAL EFFLUENT
FES	FINAL EFFLUENT SAMPLE
FIL	FILTRATE
FILL	CHEMICAL FILL LINE
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FSW	FOAM SPRAY WATER
FTE	FINAL SETTLING TANK EFFLUENT
GTDW	GRAVITY THICKENER DILUTION WATER
GTE, GCE	GRIT CHAMBER EFFLUENT
GTO	GRAVITY THICKENER OVERFLOW
GTSL	GRAVITY THICKENED SLUDGE
HSL	HEATED SLUDGE
HW	HOT WATER
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
IA	INSTRUMENT AIR
IS	INFLUENT SAMPLE
LS	LIME SLURRY
M	METHANOL
MCW	METHANOL CARRIER WATER
MPL.	MAPLE
MWD	MUD WELL DISCHARGE
MWO	MUD WELL OVERFLOW
OC	ODOR CONTROL
OF	OVERFLOW
PC	POINT OF CURVATURE
PD	PLANT DRAIN
PE	PLANT EFFLUENT
PES	PRIMARY EFFLUENT SAMPLE
POL	POLYMER
PSL	PRIMARY SLUDGE
PSLS	PRIMARY SLUDGE SAMPLE
PT	POINT OF TANGENT
PTE	PRIMARY TANK EFFLUENT
PTES	PRIMARY TANK EFFLUENT SAMPLE
R	RADIUS
RD	ROOF DRAIN
REC	DIGESTER RECIRCULATION
RL	ROOF LEADER
RSL	RETURN ACTIVATED SLUDGE
RWS	RAW WASTEWATER SAMPLE
SAM	SAMPLE
SAN	SANITARY SEWER/DRAIN
SBW	SPENT BACKWASH
SC	SCUM
SD	STORM DRAIN
SEW	SEWER
SFM	SEWAGE FORCE MAIN
SGS	SLUDGE GAS
SMS	SODIUM METABISULFITE SOLUTION
SPD	SUMP PUMP DISCHARGE
SW	SEAL WATER
SWS	SERVICE WATER SYSTEM
TD	TANK DRAIN
TWAS	THICKENED WASTE ACTIVATED SLUDGE
UV	ULTRAVIOLET
UVE	UV EFFLUENT
UVI	UV INFLUENT
V OR VT	VENT
VAC	VACUUM
WF	WETLAND FLAG
WSL	WASTE SLUDGE
WW	WASHWATER

RECORD DRAWING

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MARK	DATE	MADE BY	CHECKED	DESCRIPTION
1	5/5/17	BS	MF	REVISED FOR RECORD DRAWINGS

REVISIONS

AECOM

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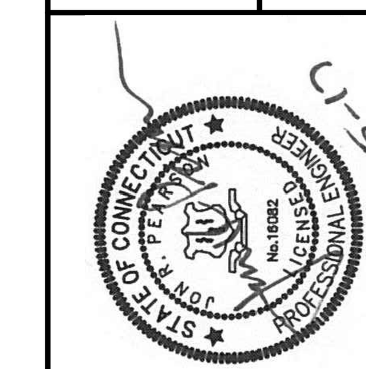
CHELMSFORD, MA 01824
PHONE (978) 905-2100



TOWN OF CHESHIRE, CONNECTICUT
CHESHIRE WPCP UPGRADE

LEGEND, ABBREVIATIONS AND GENERAL NOTES

CIVIL

PROJECT NO:	60197025
CAD DWG FILE:	00 C-001
DESIGNED BY:	J. TRAINOR
DRAWN BY:	S. NAPOLITANO
DEPT CHECK:	C. BENZIGER
PROJ CHECK:	M. FORMICA
DATE:	MAY 2013
SCALE:	AS NOTED

00 C-001

SHEET OF

PATH/FILENAME: P:\60197025 – CHESHIRE WPCP UPGRADE\SHEETS\C\00 C-001.DWG
LAST UPDATE: Friday, March 17, 2017 12:18:10 PM
PLOT DATE: Tuesday, May 09, 2017 1:53:45 PM
ANSI D – 17-Mar-17

RECORD DRAWING

NOTE: This Record Drawing has been prepared based on information provided by others. AECOM has not verified the accuracy and/or completeness of this information and shall not be responsible for errors or omissions which may be incorporated as a result.

NOTES:

1. FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES, SEE SHEET 00 C–001.
2. FOR ADDITIONAL EROSION CONTROL AT CONTRACTOR'S STORAGE AREA, SEE SHEET 00 C–104.
3. FOR DETAILS, SEE SHEETS 99 C–501 THRU 99 C–503.
4. THE CONTRACTOR SHALL COORDINATE SITE ACCESS AND WORK SCHEDULE WITH CONTRACTOR OF CELL TOWER CONSTRUCTION PROJECT. PROPOSED CELL TOWER PROJECT INCLUDES CONSTRUCTION OF TOWER, IMPROVEMENTS TO GRAVEL ACCESS ROAD AND UNDERGROUND ELECTRIC AND TELEPHONE FROM TOWER TO SNET POLE #5715.
5. THE CONTRACTOR SHALL INSTALL DEEP REQUIRED PROJECT SIGN ON EXISTING STEEL POSTS AT ENTRANCE TO PLANT ACCESS ROAD ON CHESHIRE STREET. REMOVE SIGN AND SUPPORT POSTS AND RESTORE DISTURBED AREA AT COMPLETION OF CONSTRUCTION.
6. BASED ON HISTORICAL WPCP INFORMATION, THE LIME SILO WAS ONCE FILLED AND WAS SUBSEQUENTLY EMPTIED OF ITS CONTENTS IN THE LATE 1980'S, IT IS ANTICIPATED THAT SOME RESIDUAL LIME FROM THAT TIME REMAINS IN THE SILO. THE REMOVAL AND DISPOSAL OF THE LIME SOLO AND ITS REMAINING CONTENTS ARE TO BE CONDUCTED IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

I hereby certify that the Inland Wetland and Watercourse boundary line (s) shown on the map is substantially correct.
SOIL SCIENCE AND ENVIRONMENTAL SERVICES, INC.
Kenneth C. Stevens, Jr.
Registered Professional Soil Scientist
2-20-2013
Date

ACCESS TO PROPOSED CELL TOWER CONSTRUCTION (NOT IN CONTRACT). SEE NOTE 4.
INLET PROTECTION (TYP.)
PROTECT EXISTING TREES FROM DAMAGE (TYP.)
REMOVE AND DISPOSE OF EXISTING BIT. CONC. CURBING (TYP., ALL, SITE–WIDE)
CUT, PLUG AND ABANDON REMAINING PORTION OF EXISTING 12" D
EROSION CONTROL (TYP.)
REMOVE AND DISPOSE OF EXISTING 12" D AS NECESSARY TO CONSTRUCT NEW ADMIN. BUILDING
REMOVE AND DISPOSE OF EXISTING FUEL OIL TANK AND CONCRETE PAD
CONTRACTOR TO PRUNE EXISTING TREES TO WITHIN 5 FT. OF NEW ROOF (TYP. OF 2)
CUT, PLUG AND ABANDON REMAINING PORTION OF EXISTING 12" D
REMOVE AND DISPOSE OF EXISTING LIME SILO AND CONCRETE PAD
CUT, PLUG AND ABANDON EXISTING FUEL OIL LINES
PROTECT EXISTING DMH TO REMAIN
PROTECT EXISTING 12" D TO REMAIN
REMOVE AND STOCKPILE EXISTING WPCP SIGN. RELOCATE AS SHOWN ON SHEET 00 C–103.
REMOVE AND DISPOSE OF EXISTING CHAIN LINK FENCE AND GATE
REMOVE AND DISPOSE OF EXISTING LIGHT POLE
REMOVE AND DISPOSE OF EXISTING PAVEMENT AND BIT. CONC. CURBING. STOCKPILE EXISTING PARKING BUMPERS AND REINSTALL AFTER COMPLETION OF FINAL PAVING.
REMOVE AND DISPOSE OF EXISTING FUEL OIL TANK AND CONCRETE PAD
REMOVE AND DISPOSE OF 14" PTE
CUT, PLUG AND ABANDON EXISTING 14" RICWIL W/ 4" STEAM AND 2" COND. INSIDE BUILDINGS
REMOVE AND DISPOSE OF 18" GCE
REMOVE AND DISPOSE OF EXISTING CONCRETE PAD
REMOVE AND DISPOSE OF EXISTING FUEL OIL TANK AND CONCRETE PAD
REMOVE AND DISPOSE OF EXISTING FUEL PUMP AND CONCRETE APRON
REMOVE/RELOCATE EXISTING UTILITIES IN CONFLICT WITH NEW DISC FILTER AND UV DISINFECTION BUILDING. SEE SHEET 00 C–106 AND E DRAWINGS.
PROTECT EXISTING UTILITIES TO REMAIN FROM DAMAGE (TYP.)
CUT, PLUG AND ABANDON EXISTING FUEL OIL LINE
REMOVE AND DISPOSE OF EXISTING WALKWAY
REMOVE AND DISPOSE OF EXISTING CHAIN LINK FENCE AND GATE WF WITHIN LIMITS SHOWN
CUT, PLUG AND ABANDON EXISTING FUEL OIL LINE
REMOVE AND DISPOSE OF EXISTING CONCRETE PAD AND WALKWAY
FOR DEMOLITION OF EXISTING PIPING AT CCT, SEE SHEET 60 DD–101.
REMOVE AND DISPOSE OF EXISTING 24" EFF PIPE AND 30"x24" REDUCER. PROTECT 30" EFF TO REMAIN.
REMOVE AND DISPOSE OF EXISTING PAVEMENT AND BIT. CONC. CURBING. PROTECT EXISTING UTILITIES TO REMAIN FROM DAMAGE.
PLANT ACCESS ROAD (SEE NOTE 5)
SEE NOTE 2
QUINNIPIAC RIVER
FROM CHESHIRE ST.

EROSION AND SEDIMENTATION CONTROL NOTES

THE CONTRACTOR SHALL TAKE NECESSARY MEASURES TO CONTROL SOIL EROSION AND PREVENT THE FLOW OF SEDIMENT FROM THE CONSTRUCTION SITE SO AS TO PREVENT DAMAGE TO ANY STREAM OR WETLANDS. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE SEQUENCE OF OPERATIONS FOR EROSION AND SEDIMENT CONTROL PRESENTED BELOW, SECTION 01568 OF THE SPECIFICATIONS AND EROSION CONTROL DETAILS ON THE DRAWINGS.

1. INSTALL BALED HAY OR STRAW EROSION CHECKS WHERE SHOWN ON THE PLANS AND WHERE DIRECTED BY THE ENGINEER.
2. INSTALL EROSION AND SEDIMENTATION CONTROL MEASURES IMMEDIATELY AFTER SITE IS CLEARED AND BEFORE TRENCH EXCAVATION.
3. ALL CONTROL MEASURES SHALL BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD.
4. LAND DISTURBANCES SHALL BE KEPT TO A MINIMUM; RESTABILIZATION WILL BE SCHEDULED AS SOON AS PRACTICAL.
5. UPON COMPLETION OF CONSTRUCTION AND WHEN A PERMANENT VEGETATION COVER HAS BEEN ESTABLISHED, EROSION CONTROL STRUCTURES SHALL BE REMOVED.
6. SEDIMENT REMOVED FROM EROSION CONTROL STRUCTURES SHALL BE DISPOSED OF IN A MANNER WHICH IS CONSISTENT WITH THE INTENT OF THE PLAN.

PLAN
SCALE: 1"=30'

SCALE: 1" = 30'

MARK	DATE	MADE BY	CHECKED	DESCRIPTION
1	5/5/17	BS	MF	REVISED FOR RECORD DRAWINGS

REVISIONS

AECOM TECHNICAL SERVICES, INC.
250 APOLLO DRIVE
CHELMSFORD, MA 01824
PHONE (978) 905-2100

AECOM

STATE OF CONNECTICUT — CHRISTOPHER J. FERRUCCI — No. 19262 — REGISTERED PROFESSIONAL ENGINEER

TOWN OF CHESHIRE, CONNECTICUT
CHESHIRE WPCP UPGRADE
CIVIL

EXISTING CONDITIONS, DEMOLITION AND EROSION CONTROL PLAN

PROJECT NO:	60197025
CAD DWG FILE:	00 C–101
DESIGNED BY:	J. TRAINOR
DRAWN BY:	S. NAPOLITANO
DEPT CHECK:	C. BENZIGER
PROJ CHECK:	M. FORMICA
DATE:	MAY 2013
SCALE:	AS NOTED

00 C-101
SHEET OF

PATH/FILENAME: P:\60197025 – CHESHIRE WPCP UPGRADE\SHEETS\C\00 C–101.DWG
LAST UPDATE: Friday, March 17, 2017 12:20:04 PM
PLOT DATE: Tuesday, May 09, 2017 1:53:50 PM
ANSI D – 17–Mar–17

NOTES:

1. FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES, SEE SHEET 00 C-001.
2. FOR CONTINUATION OF YARD PIPING INSIDE STRUCTURES, SEE D, M AND P DRAWINGS.
3. FOR DETAILS, SEE SHEETS 99 C-501 THRU 99 C-503.
4. THE CONTRACTOR SHALL PROTECT AND REUSE THE EXISTING 6" LS CONTAINMENT PIPING AND HANDHOLES FROM THE OPERATIONS BUILDING TO THE AERATION TANKS DISTRIBUTION BOX. THE EXISTING LS HOSE SHALL BE REMOVED FROM THE CONTAINMENT PIPING AND HANDHOLES AND REPLACED WITH 1" LS HOSE ROUTED FROM THE OPERATIONS BUILDING TO THE AERATION TANKS DISTRIBUTION BOX. SEE THE M DRAWINGS FOR ADDITIONAL DETAILS.
5. SD PIPING SHALL BE REINFORCED CONCRETE PIPE (RCP). SEE SPEC. SECTION 02609.
6. CWS PIPING 3 INCHES DIAMETER AND LARGER SHALL BE DUCTILE IRON. SEE SPEC. SECTION 02615. CWS PIPING 2 INCHES DIAMETER OR LESS SHALL BE COPPER. SEE SPECIFICATION SECTION 15400.
7. HWS AND HWR PIPING SHALL BE SCHED. 40 STEEL. SEE SPECIFICATION SECTION 15600.
8. BURIED HWS AND HWR SHALL BE INSULATED WITH CELLULAR GLASS INSULATION, FLEXIBLE ELASTOMERIC INSULATION OR CALCIUM SILICATE INSULATION, 3" THICK WITH AN UNDERGROUND DIRECT BURY JACKET CONSISTING OF 125-MIL THICK VAPOR BARRIER AND WATERPROOFING MEMBRANE OF A RUBBERIZED BITUMINOUS RESIN REINFORCED WITH WOVEN-GLASS FIBER OR POLYESTER SCRIM AND LAMINATED ALUMINUM FOIL.

PLAN

SCALE: 1"=30'

RECORD DRAWING

NOTE: This Record Drawing has been prepared based on information provided by others. AECOM has not verified the accuracy and/or completeness of this information and shall not be responsible for errors or omissions which may be incorporated as a result.

I hereby certify that the Inland Wetland and Watercourse boundary line (s) shown on the map is substantially correct.

SOIL SCIENCE AND ENVIRONMENTAL SERVICES, INC.

Kenneth C. Stevens, Jr. — Registered Professional Soil Scientist — 2-20-2013 Date

NOTES (CONTINUED) :

9. FOR ADDITIONAL MODIFICATIONS TO THE YARD PIPING AROUND THE ADMINISTRATION BUILDING AND CHLORINE CONTACT SEE DRAWING 00 C-104 AND DRAWING 00 C-106.

SCALE: 1" = 30'

MARK	DATE	MADE BY	CHECKED	DESCRIPTION
1	11/5/13	CB	GS	GENERAL SITE REVISIONS
2	3/5/14	CB	GS	EFW PIPING REVISIONS
3	5/5/17	BS	MF	REVISED FOR RECORD DRAWINGS

REVISIONS

AECOM TECHNICAL SERVICES, INC.
250 APOLLO DRIVE
CHELMSFORD, MA 01824
PHONE (978) 905-2100

STATE OF CONNECTICUT — DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION — No. 15008 — REGISTERED PROFESSIONAL ENGINEER

C1-5-5

TOWN OF CHESHIRE, CONNECTICUT
CHESHIRE WPCP UPGRADE

SITE-WIDE YARD PIPING PLAN

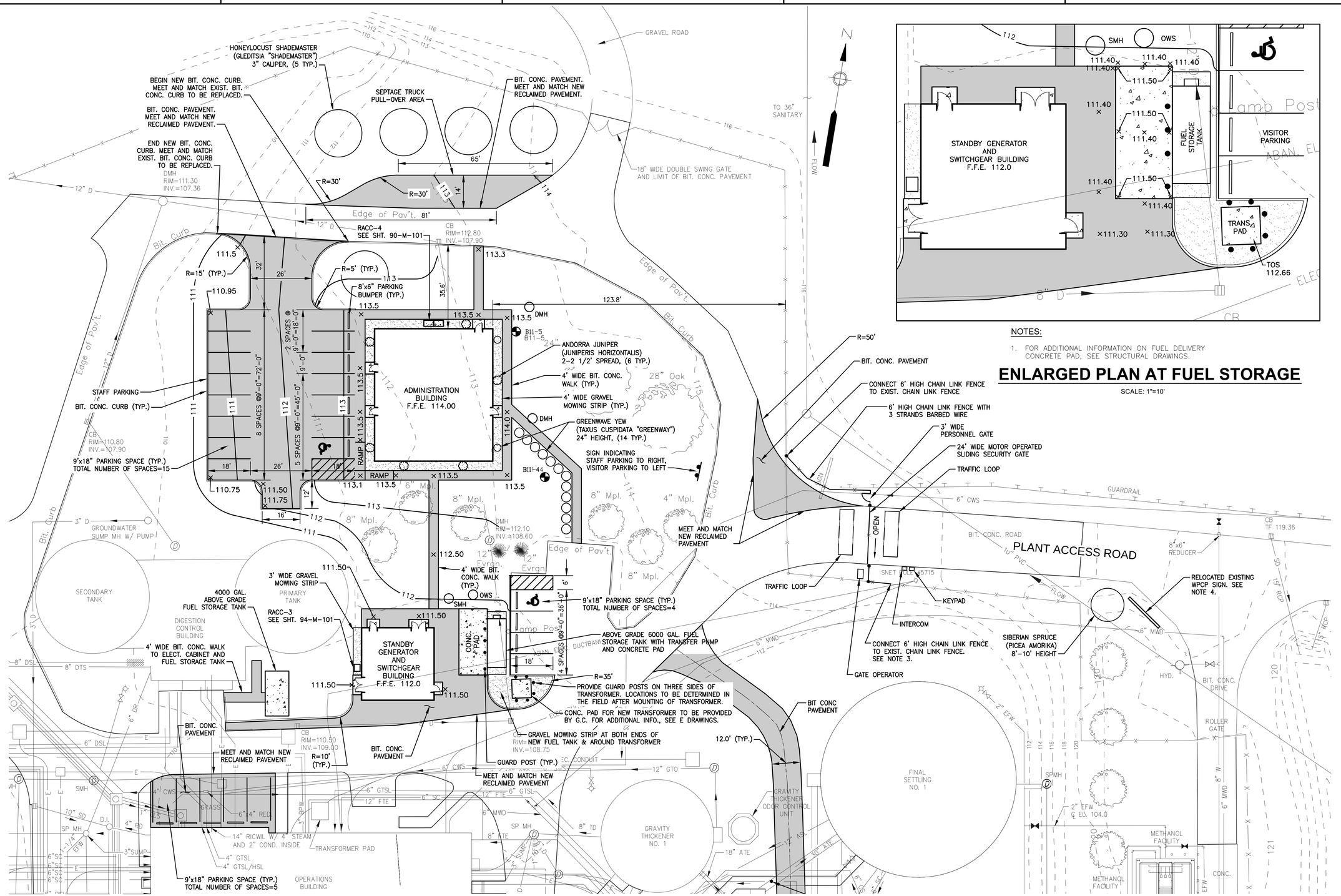
CIVIL

PROJECT NO:	60197025
CAD DWG FILE:	00 C-102
DESIGNED BY:	J. TRAINOR
DRAWN BY:	S. NAPOLITANO
DEPT CHECK:	C. BENZIGER
PROJ CHECK:	M. FORMICA
DATE:	MAY 2013
SCALE:	AS NOTED

00 C-102

SHEET OF

PATH/FILENAME: P:\60197025 - CHESHIRE WPCP UPGRADE\SHEETS\C\00 C-102.DWG
LAST UPDATE: Wednesday, May 03, 2017 7:58:18 AM
PLOT DATE: Tuesday, May 09, 2017 1:53:56 PM
ANSI D - 3-May-17



NOTES:

1. FOR ADDITIONAL INFORMATION ON FUEL DELIVERY CONCRETE PAD, SEE STRUCTURAL DRAWINGS.

ENLARGED PLAN AT FUEL STORAGE

SCALE: 1"=10'

RECORD DRAWING PLAN

SCALE: 1"=20'

NOTE: This Record Drawing has been prepared based on information provided by others. AECOM has not verified the accuracy and/or completeness of this information and shall not be responsible for errors or omissions which may be incorporated as a result.

NOTES:

1. FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES, SEE SHEET 00 C-001.
2. FOR DETAILS, SEE SHEETS 99 C-501 THRU 99 C-503.
3. CONTRACTOR TO CONFIRM LOCATION OF EXISTING AND PROPOSED UTILITIES WHEN INSTALLING NEW FENCE AND GATES.
4. CONTRACTOR TO PRESSURE WASH SIGN AND REPAINT LETTERING PRIOR TO FINAL ACCEPTANCE.

SCALE: 1" = 10'

SCALE: 1" = 20'

MARK	DATE	MADE BY	CHECKED	DESCRIPTION
1	11/1/13	CB	GS	REVISED FOR RFI 009 AND RFI 012.
2	12/9/13	CB	GS	REVISED FOR GEN./SWITCHGR. BLDG. ROTATED
3	5/5/17	BS	MF	REVISED FOR RECORD DRAWINGS

REVISIONS

AECOM TECHNICAL SERVICES, INC.
250 APOLLO DRIVE
CHELMSFORD, MA 01824
PHONE (978) 905-2100

AECOM

TOWN OF CHESHIRE, CONNECTICUT
CHESHIRE WPCP UPGRADE

ENLARGED PLAN I - ADMINISTRATION BUILDING - SITE LAYOUT PLAN

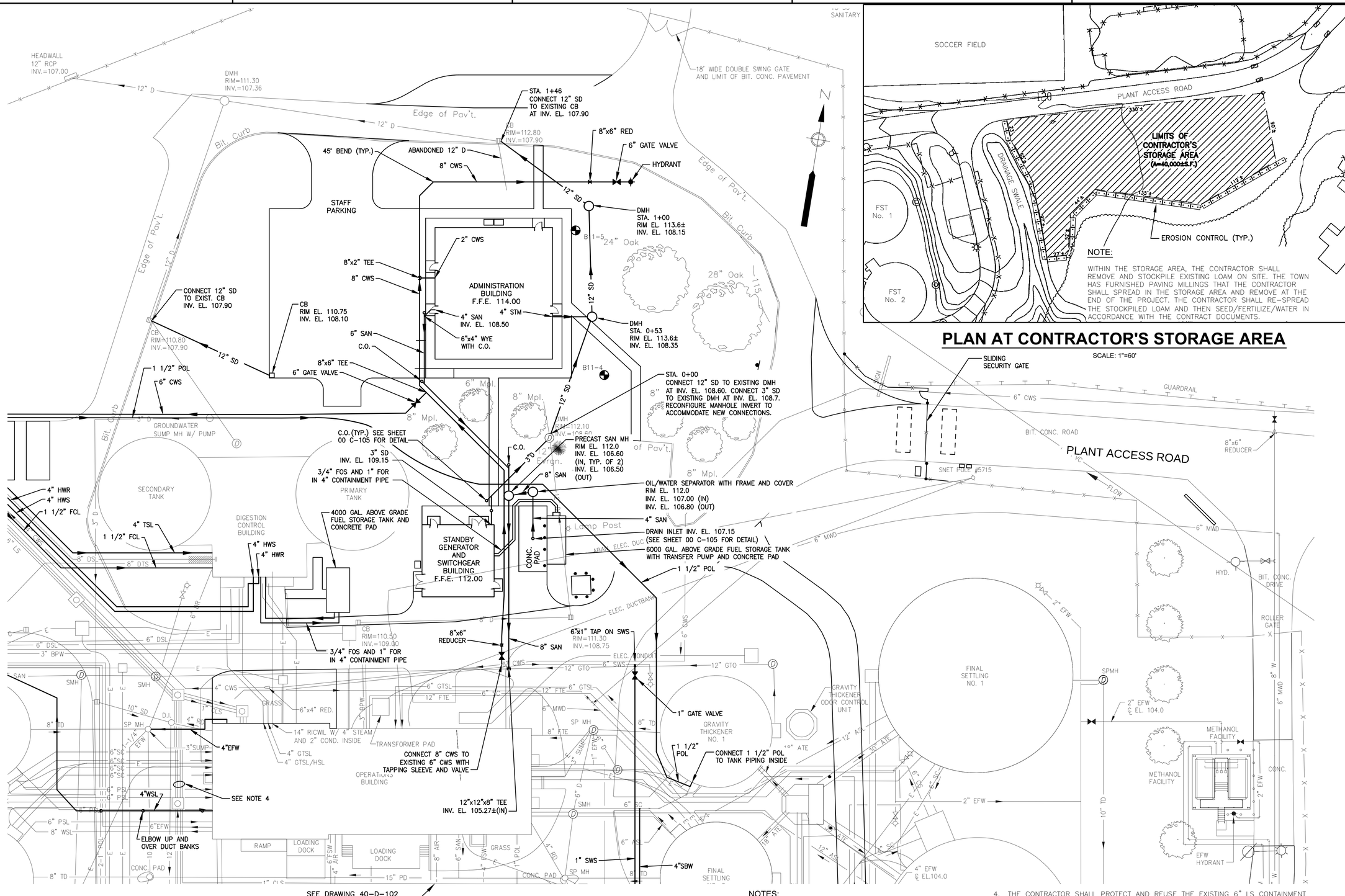
CIVIL

PROJECT NO:	60197025
CAD DWG FILE:	00 C-103
DESIGNED BY:	J. TRAINOR
DRAWN BY:	S. NAPOLITANO
DEPT CHECK:	C. BENZIGER
PROJ CHECK:	M. FORMICA
DATE:	MAY 2013
SCALE:	AS NOTED

00 C-103

SHEET OF

PATH/FILENAME: P:\60197025 - CHESHIRE WPCP UPGRADE\SHEETS\C\00 C-103.DWG
LAST UPDATE: Wednesday, May 03, 2017 8:02:20 AM
PLOT DATE: Tuesday, May 09, 2017 1:54:01 PM
ANSI D - 3-May-17



PLAN AT CONTRACTOR'S STORAGE AREA

SCALE: 1"=60'

NOTE:

WITHIN THE STORAGE AREA, THE CONTRACTOR SHALL REMOVE AND STOCKPILE EXISTING LOAM ON SITE. THE TOWN HAS FURNISHED PAVING MILLINGS THAT THE CONTRACTOR SHALL SPREAD IN THE STORAGE AREA AND REMOVE AT THE END OF THE PROJECT. THE CONTRACTOR SHALL RE-SPREAD THE STOCKPILED LOAM AND THEN SEED/FERTILIZE/WATER IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

RECORD DRAWING

NOTE: This Record Drawing has been prepared based on information provided by others. AECOM has not verified the accuracy and/or completeness of this information and shall not be responsible for errors or omissions which may be incorporated as a result.

PLAN

SCALE: 1"=20'

NOTES:

1. FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES, SEE SHEET 00 C-001.
2. FOR CONTINUATION OF YARD PIPING WITHIN STRUCTURES, SEE D, M AND P DRAWINGS.
3. FOR DETAILS, SEE SHEETS 99 C-501 THRU 99 C-503.
4. THE CONTRACTOR SHALL PROTECT AND REUSE THE EXISTING 6" LS CONTAINMENT PIPING AND HANDHOLES FROM THE OPERATIONS BUILDING TO THE AERATION TANKS DISTRIBUTION BOX. THE EXISTING LS HOSE SHALL BE REMOVED FROM THE CONTAINMENT PIPING AND HANDHOLES AND REPLACED WITH 1" LS TUBING ROUTED FROM THE OPERATIONS BUILDING TO THE AERATION TANKS DISTRIBUTION BOX. SEE THE M DRAWINGS FOR ADDITIONAL DETAILS.

60 0 60 120 SCALE: 1" = 60'

20 0 20 40 SCALE: 1" = 20'

MARK	DATE	MADE BY	CHECKED	DESCRIPTION
1	12/9/13	CB	GS	REVISED FOR GEN./SWTCHGR. BLDG. ROTATED
2	12/23/13	CB	GS	REVISED SANITARY SEWER INVERT ELEVATIONS
3	5/5/17	BS	MF	REVISED FOR RECORD DRAWINGS

REVISIONS

AECOM TECHNICAL SERVICES, INC.
250 APOLLO DRIVE
CHELMSFORD, MA 01824
PHONE (978) 905-2100

AECOM

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
SANITARY ENGINEER
No. 15008
REGISTERED PROFESSIONAL ENGINEER
C-S-S

TOWN OF CHESHIRE, CONNECTICUT
CHESHIRE WPCP UPGRADE

ENLARGED PLAN II - ADMINISTRATION BUILDING - YARD PIPING PLAN

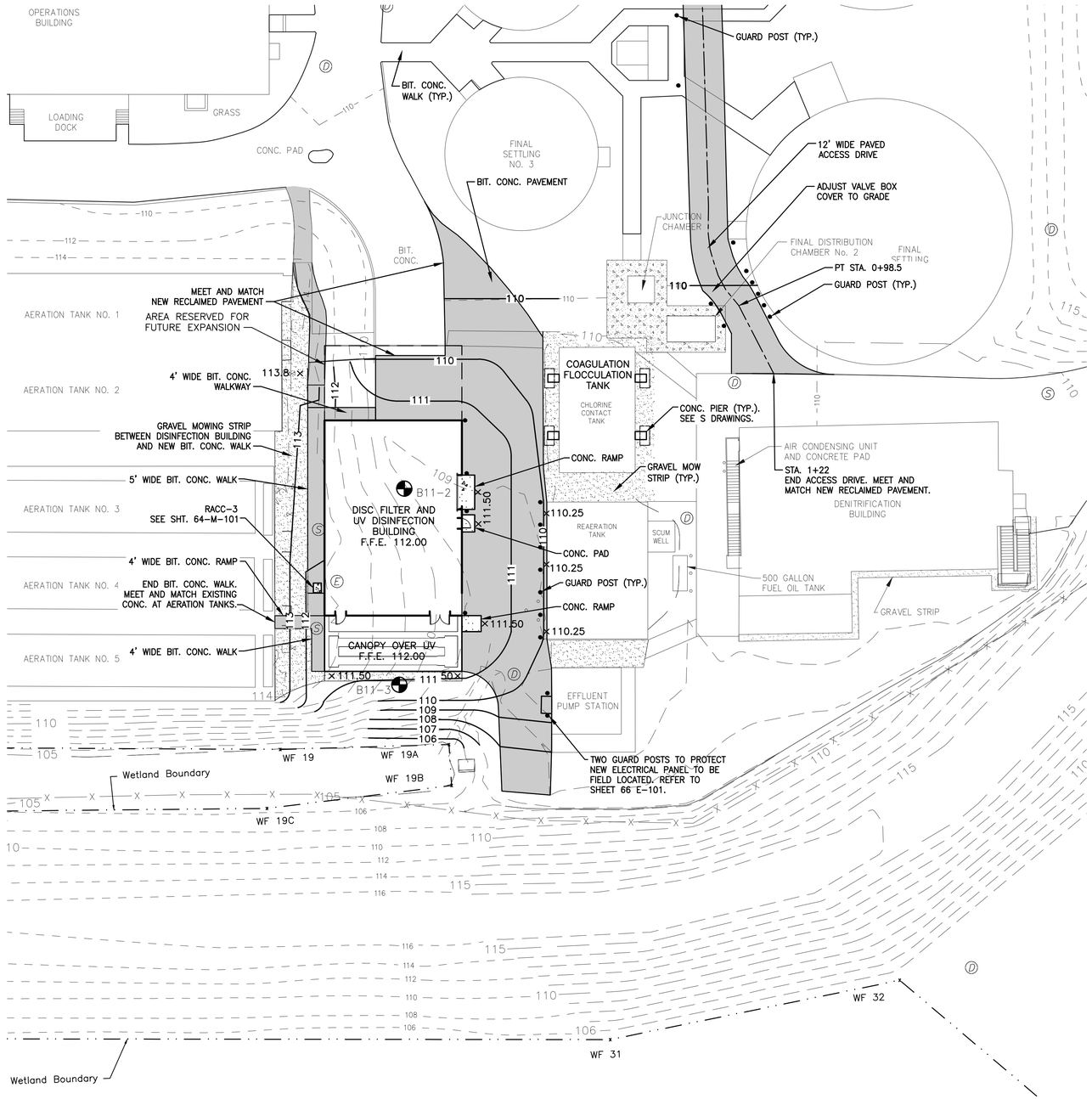
CIVIL

PROJECT NO:	60197025
CAD DWG FILE:	00 C-104
DESIGNED BY:	J. TRAINOR
DRAWN BY:	S. NAPOLITANO
DEPT CHECK:	C. BENZIGER
PROJ CHECK:	M. FORMICA
DATE:	MAY 2013
SCALE:	AS NOTED

00 C-104

SHEET OF

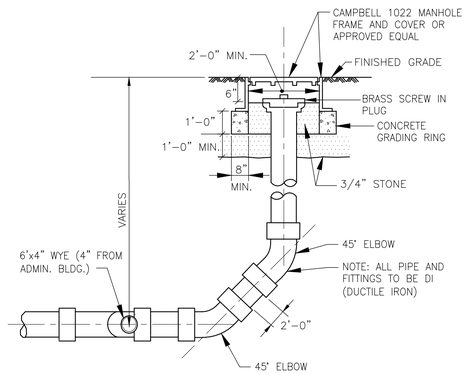
PATH/FILENAME: P:\60197025 - CHESHIRE WPCP UPGRADE\SHEETS\C\00 C-104.DWG
LAST UPDATE: Wednesday, May 03, 2017 8:03:30 AM
PLOT DATE: Tuesday, May 09, 2017 1:54:06 PM
ANSI D — 3-May-17



PLAN

SCALE: 1"=20'

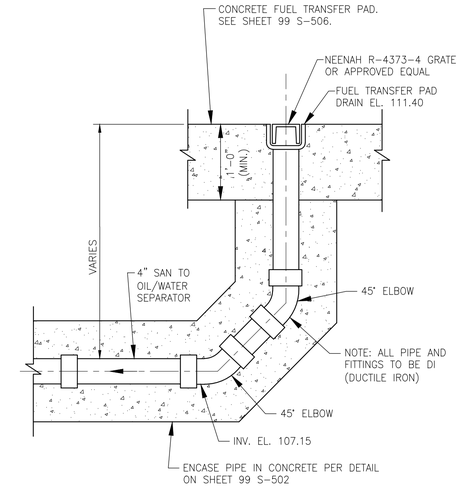
I hereby certify that the Inland Wetland and Watercourse boundary line (s) shown on the map is substantially correct.
SOIL SCIENCE AND ENVIRONMENTAL SERVICES, INC.
Kenneth C. Stevens, Jr.
Registered Professional Soil Scientist
2-20-2013
Date



CLEANOUT DETAIL

NOT TO SCALE

NOTE: FOR LOCATION OF CLEANOUT, SEE SHEET 00 C-104



DRAIN INLET AT FUEL TRANSFER PAD DETAIL

NOT TO SCALE

NOTE: FOR LOCATION OF DRAIN INLET, SEE SHEET 00 C-104

RECORD DRAWING

NOTE: This Record Drawing has been prepared based on information provided by others. AECOM has not verified the accuracy and/or completeness of this information and shall not be responsible for errors or omissions which may be incorporated as a result.

NOTES:

1. FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES, SEE SHEET 00 C-001.
2. FOR DETAILS, SEE SHEETS 99 C-501 THRU 99 C-503.

20 0 20 40
SCALE: 1" = 20'

MARK	DATE	MADE BY	CHECKED	DESCRIPTION
1	11/5/13	CB	GS	RELOCATE DISC FILTER AND UV BUILDING
2	5/5/17	BS	MF	REVISED FOR RECORD DRAWINGS

REVISIONS

AECOM TECHNICAL SERVICES, INC.
250 APOLLO DRIVE
CHELMSFORD, MA 01824
PHONE (978) 905-2100

AECOM

C-S-S

TOWN OF CHESHIRE, CONNECTICUT
CHESHIRE WPCP UPGRADE

ENLARGED PLAN III -DISC. FILT. & UV DIS. BLD. - SITE LAYOUT PLAN

CIVIL

PROJECT NO:	60197025
CAD DWG FILE:	00 C-105
DESIGNED BY:	J. TRAINOR
DRAWN BY:	S. NAPOLITANO
DEPT CHECK:	C. BENZIGER
PROJ CHECK:	M. FORMICA
DATE:	MAY 2013
SCALE:	AS NOTED

00 C-105

SHEET OF

PATH/FILENAME: P:\60197025 - CHESHIRE WPCP UPGRADE\SHEETS\C\00 C-105.DWG
LAST UPDATE: Tuesday, May 09, 2017 12:38:20 PM
PLOT DATE: Tuesday, May 09, 2017 1:54:11 PM
ANSI D - 9-May-17

RECORD DRAWING

NOTE: This Record Drawing has been prepared based on information provided by others. AECOM has not verified the accuracy and/or completeness of this information and shall not be responsible for errors or omissions which may be incorporated as a result.

N

TANK NO. 1
TANK NO. 2
TANK NO. 3
TANK NO. 4
TANK NO. 5

12" SD
8" AIR
FOR CONTINUATION OF 1" SWS AND 4" SBW, SEE SHEET 00 C-102
CONNECT 4" EFW TO EXIST. 4" EFW WITH 4" TEE
1" SWS
4" SBW
4" EFW
10" TD
BIT. CONC.
E 1" CLS
16" TD
24" ATE
36" ATE
1-1/4" FSW
1" AL
2" POL
EXIST. SMH STA. 0+00 R=113.0 INV. EL. 95.7
CONNECT 10" TD TO EXISTING 10" TD WITH 22 1/2" BEND
SMH (TD) STA. 0+16 R=113.0
AREA RESERVED FOR FUTURE EXPANSION
8" TD
2" FEC
4" FSW
8" AIR
1" SWS
(3) 2" POL
(2) 1" AL
6" LS
4" HCL
30" ATE
3" SEW
(2) 2" POL
30" DNE
22.5° BEND (TYP OF 2)
1" SWS
REMOVE/RELOCATE EXIST. UTILITIES IN CONFLICT WITH NEW DISC FILTER AND UV DISINFECTION BUILDING. SEE THIS SHEET AND E DRAWINGS.
30" UVI
CONNECT 3" EFW TO EXISTING YARD HYDRANT (TYP. OF 3 HYDRANTS)
3" EFW
2" DRAIN
10"
3"
10"
6" SBW
10" TD SEE NOTE 4
3"
10"
CONNECT 3" AND 10" TD TO EXISTING TANK DRAIN PIPING (TYP. OF 5 LOCATIONS)
B11-2
3" EFW
DISC FILTER AND UV DISINFECTION BUILDING F.F.E. 112.0
4" SEW
4" EFW
30" UVE
4" SBW
CANOPY OVER UV
B11-3
EHH
ELEC
SMH (TD) STA 1+16 R=113.0
20" ATE
3" EFW
CONNECT 8" DW TO EXIST. 8" DW
3/4" SAM
1 1/4" SAM
4" EFW INV 104.48
8" TD
1" AL
4" EFW
30" DNE (REPLACES 20" FTE) CONNECT 30" DNE TO EXISTING 30" FTE. SEE D DWGS.
8" TD
(2) 2" POL TO NEW COAG/FLOC TANK
CHLORINE CONTACT TANK
14" SC
18" EFF
18" EFF
NEW COAGULATION-FLOCCULATION TANK
FOR DEMOLITION OF EXISTING PIPING AT CCT, SEE SHEET 60 DD-101.
REAERATION TANK
SCUM WELL
4" EFW
4" SBW
3/4" SAM
1 1/4" SAM
CONNECT 12" SC TO EXIST. 12" SC
12" SC
14"x12" RED. (TYP.)
14" SC
12" SC
14" SC
30" EFF
EL 105.1
24" EFF EFFLUENT PUMP STATION
4" FSW
30" EFF (REPLACES EXISTING 24" EFF). CONNECT 30" EFF TO EXISTING 30" EFF.
1" PVC SAMPLE LINE
24" PE (DI)
JUNCTION CHAMBER
20" FTE
24" FTE
36" FTE
14" FTE
30" FTE
1" CLS (ABA
4"SC
FINAL DISTRIBUTION CHAMBER No. 2
FINAL SETTLING NO. 2
24" DNE
1 1/4" SAM
3/4" SAM
FLOW METER VAULT
CONNECT 3/4" SAM TO FLOW METER VAULT
24" DNE
10" TD
SMH
CONNECT 1 1/2" SAM TO FINAL DIST. CHAMBER No. 2
4" EFW
6" MWD
CONNECT 1" AL TO FINAL DIST. CHAMBER No. 2
AIR CONDENSING UNIT AND CONCRETE PAD
6" MWD
6" MWD
10" MWO
DENITRIFICATION BUILDING
1/2" M INV. EL.
1/2" FOS/FOR INV. EL. 104.0
500 GALLON FUEL OIL TANK
℄ EL 106.0
GRAVEL STRIP
24" DNF
WF 19
WF 19A
WF 19B
WF 19C
Wetland Boundary
12" SD
12" SD
6" MWD

I hereby certify that the Inland Wetland and Watercourse boundary line (s) shown on the map is substantially correct.
SOIL SCIENCE AND ENVIRONMENTAL SERVICES. INC.
Kenneth C. Stevens, Jr.
Registered Professional Soil Scientist
2-20-2013
Date

NOTES:

1. FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES, SEE SHEET 00 C-001.
2. FOR CONTINUATION OF YARD PIPING WITHIN STRUCTURES, SEE D, M AND P DRAWINGS.
3. FOR DETAILS, SEE SHEET 99 C-501 THRU 99 C-503.
4. FOR PROFILE OF 10" TD, SEE SHEET 00 C-111.

PLAN
SCALE: 1"=10'

SCALE: 1" = 10'

MARK	DATE	MADE BY	CHECKED	DESCRIPTION
1	11/5/13	CB	GS	RELOCATE DISC FILTER AND UV BUILDING
2	2/19/14	CB	GS	PIPING REVISIONS
3	5/5/17	BS	MF	REVISED FOR RECORD DRAWINGS

REVISIONS

AECOM TECHNICAL SERVICES, INC.
250 APOLLO DRIVE
CHELMSFORD, MA 01824
PHONE (978) 905-2100

AECOM

C-S-S

TOWN OF CHESHIRE, CONNECTICUT
CHESHIRE WPCP UPGRADE

ENLARGED PLAN IV - DISC FILT. & UV DIS. BLD. - YARD PIPING PLAN

CIVIL

PROJECT NO:	60197025
CAD DWG FILE:	00 C-106
DESIGNED BY:	J. TRAINOR
DRAWN BY:	S. NAPOLITANO
DEPT CHECK:	C. BENZIGER
PROJ CHECK:	M. FORMICA
DATE:	MAY 2013
SCALE:	AS NOTED

00 C-106

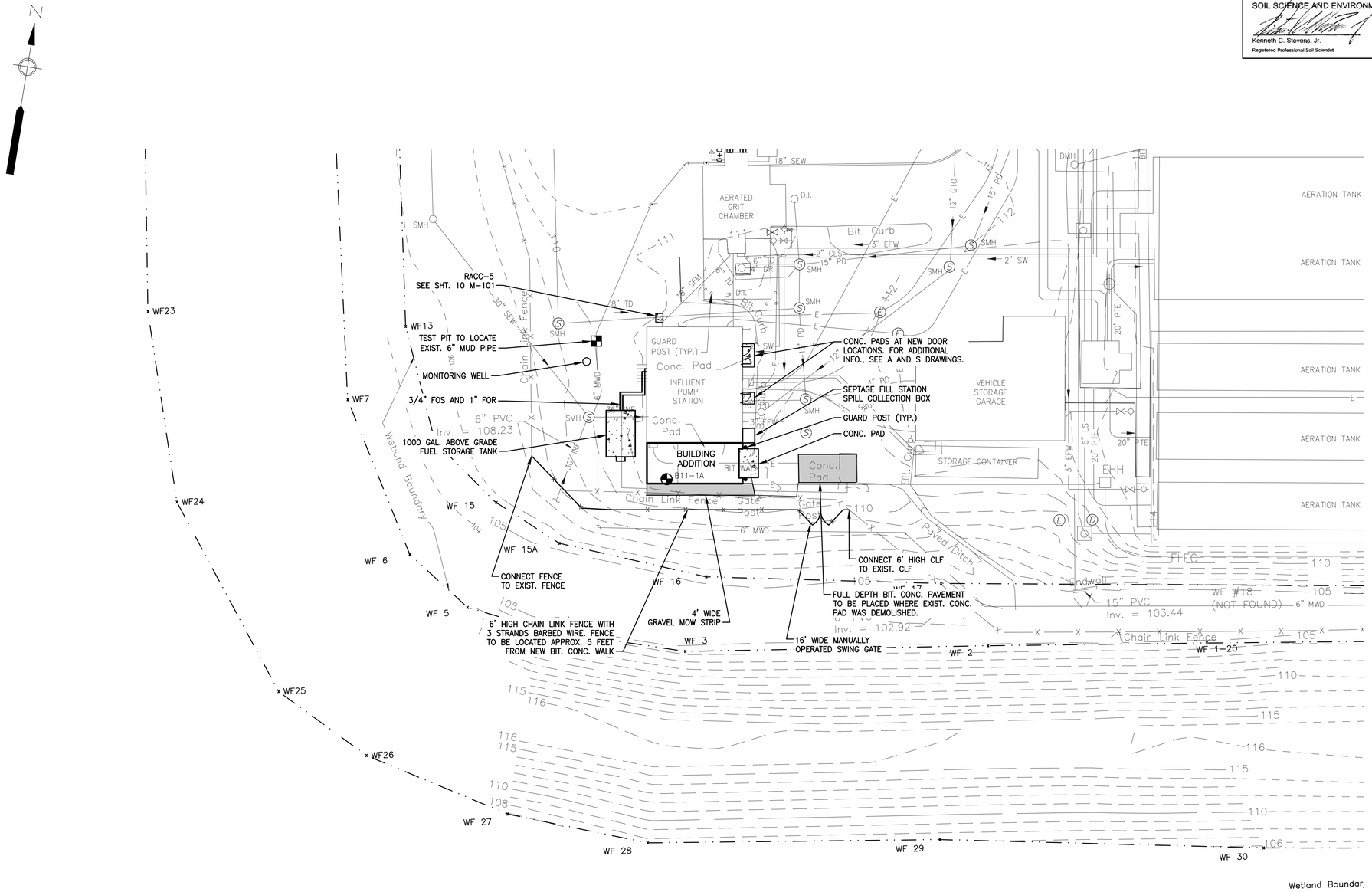
SHEET OF

PATH/FILENAME: P:\60197025 - CHESHIRE WPCP UPGRADE\SHEETS\C\00 C-106.DWG
LAST UPDATE: Wednesday, May 03, 2017 8:05:53 AM
PLOT DATE: Tuesday, May 09, 2017 1:54:15 PM
ANSI D - 3-May-17

I hereby certify that the Inland Wetland and Watercourse boundary line (s) shown on the map is substantially correct.
SOIL SCIENCE AND ENVIRONMENTAL SERVICES, INC.

Kenneth C. Stevens, Jr.
Registered Professional Soil Scientist

2-20-2013
Date



PLAN

SCALE: 1"=20'

NOTES:

1. FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES, SEE SHEET 00 C-001.
2. FOR DETAILS, SEE SHEETS 99 C-501 THRU 99 C-503.

RECORD DRAWING

NOTE: This Record Drawing has been prepared based on information provided by others. AECOM has not verified the accuracy and/or completeness of this information and shall not be responsible for errors or omissions which may be incorporated as a result.

20 0 20 40
SCALE: 1" = 20'

MARK	DATE	MADE BY	CHECKED	DESCRIPTION
1	5/5/17	BS	MF	REVISED FOR RECORD DRAWINGS

REVISIONS

AECOM TECHNICAL SERVICES, INC.
250 APOLLO DRIVE
CHELMSFORD, MA 01824
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AECOM

STATE OF CONNECTICUT · JEFFREY M. FORMICA · No. 19062 · REGISTERED PROFESSIONAL ENGINEER

C-1-5-5

TOWN OF CHESHIRE, CONNECTICUT
CHESHIRE WPCP UPGRADE

ENLARGED PLAN V - INFLUENT PUMP STATION - SITE LAYOUT PLAN

CIVIL

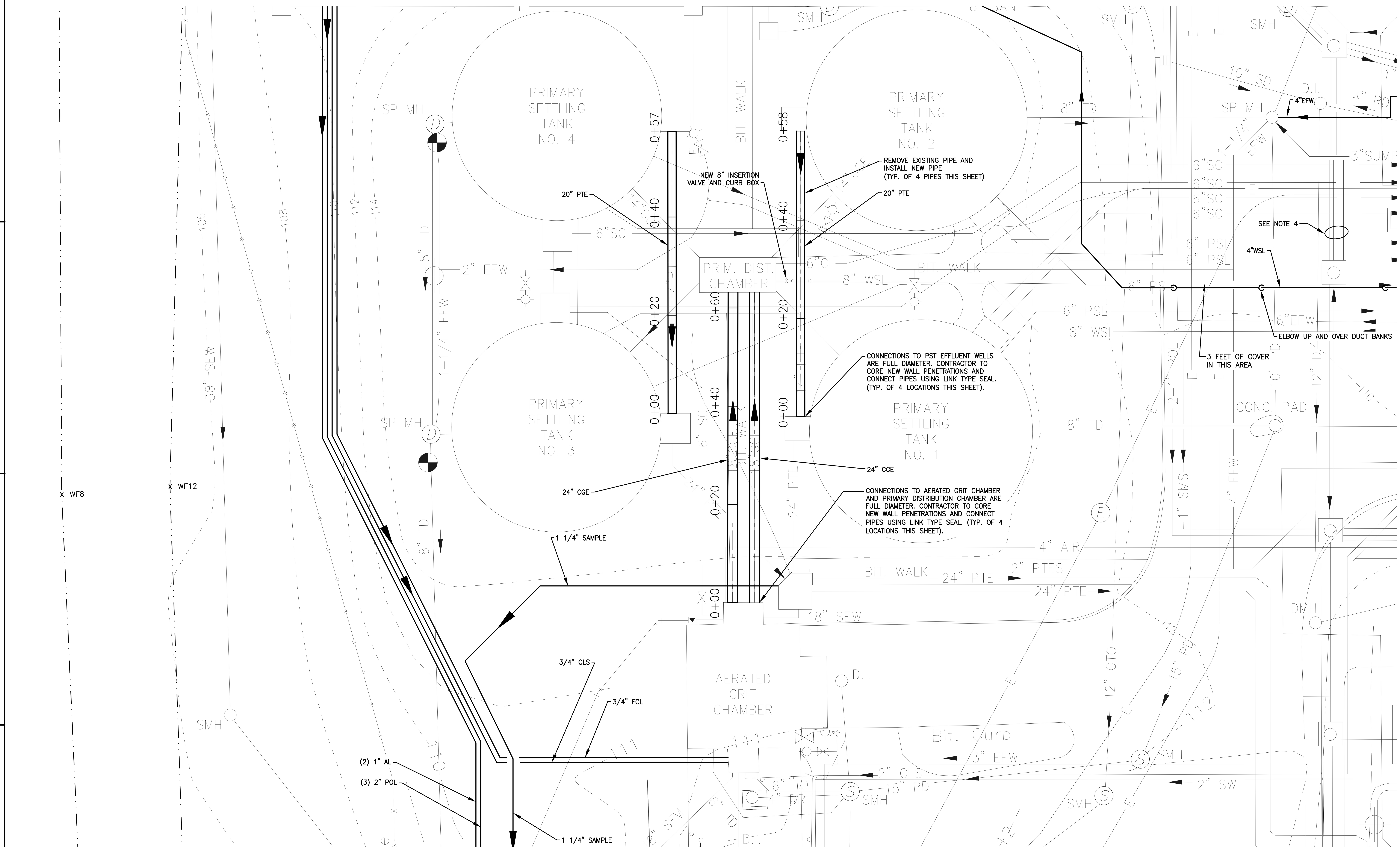
PROJECT NO:	60197025
CAD DWG FILE:	00 C-107
DESIGNED BY:	J. TRAINOR
DRAWN BY:	S. NAPOLITANO
DEPT CHECK:	C. BENZIGER
PROJ CHECK:	M. FORMICA
DATE:	MAY 2013
SCALE:	AS NOTED

00 C-107

SHEET OF

PATH/FILENAME: P:\60197025 - CHESHIRE WPCP UPGRADE\SHEETS\C\00 C-107.DWG
LAST UPDATE: Tuesday, May 09, 2017 12:40:29 PM
PLOT DATE: Tuesday, May 09, 2017 1:54:20 PM

ANSI D - 9-May-17



PLAN

SCALE: 1"=10'

NOTES:

1. FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES, SEE SHEET 00 C-001.
2. FOR CONTINUATION OF YARD PIPING WITHIN STRUCTURES, SEE D, M AND P DRAWINGS.
3. FOR DETAILS, SEE SHEET 99 C-501 THRU 99 C-503.
4. FOR PROFILES, SEE SHEETS 00 C-110 AND 00 C-111.

RECORD DRAWING

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SCALE: 1" = 10'

MARK	DATE	MADE BY	CHECKED	DESCRIPTION
1	5/5/17	BS	MF	REVISED FOR RECORD DRAWINGS

REVISIONS

AECOM

AECOM TECHNICAL SERVICES, INC.
250 APOLLO DRIVE
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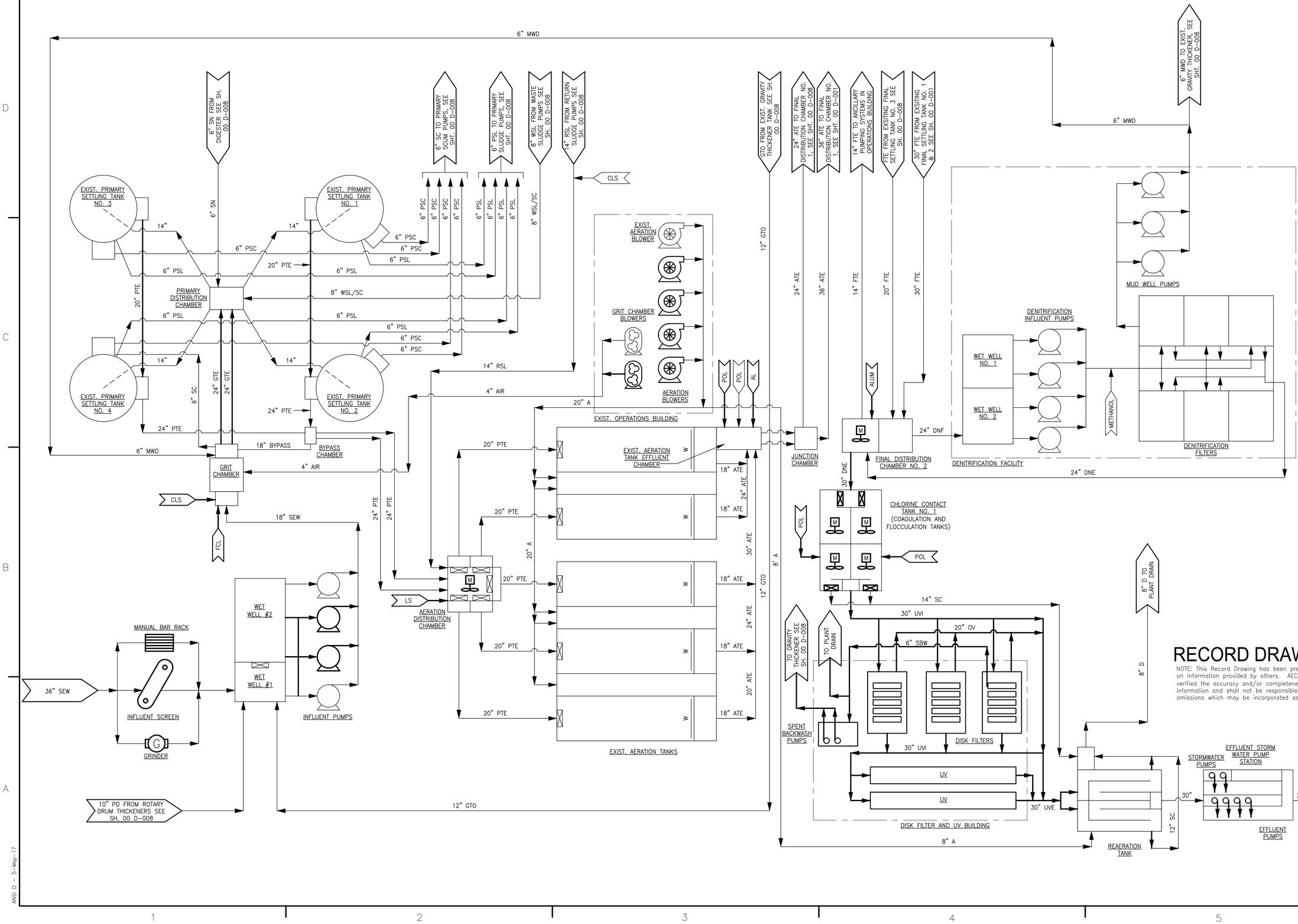
TOWN OF CHESHIRE, CONNECTICUT
CHESHIRE WPCP UPGRADE
ENLARGED PLAN VI - PRIMARY SETTLING TANK AREA - YARD PIPING PLAN
CIVIL

PROJECT NO:	60197025
CAD DWG FILE:	00 C-108
DESIGNED BY:	J. TRAINOR
DRAWN BY:	S. NAPOLITANO
DEPT CHECK:	C. BENZIGER
PROJ CHECK:	M. FORMICA
DATE:	MAY 2013
SCALE:	AS NOTED

00 C-108

SHEET OF

PATH/FILENAME: P:\60197025 - CHESHIRE WPCP UPGRADE\SHEETS\C\00 C-108.DWG
LAST UPDATE: Friday, April 21, 2017 3:56:13 PM
PLOT DATE: Tuesday, May 09, 2017 1:54:24 PM
ANSI D – 21-Apr-17



MARK	DATE	MADE BY	CHECKED	DESCRIPTION
1	5/5/17	BS	MF	REVISED FOR RECORD DRAWINGS

REVISIONS

AECOM TECHNICAL SERVICES, INC.
250 APOLLO DRIVE
CHELMSFORD, MA 01824
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TOWN OF CHESHIRE, CONNECTICUT
CHESHIRE WPCP UPGRADE

PROCESS FLOW DIAGRAM I

MECHANICAL PROCESS

PROJECT NO:	60197025
CAD DWG FILE:	00 D-007
DESIGNED BY:	K. RACAN
DRAWN BY:	S.A. COTE
DEPT CHECK:	C. GALLIGAN
PROJ CHECK:	M. FORMICA
DATE:	MAY 2013
SCALE:	N.T.S.

00 D-007

SHEET OF

PATH/FILENAME: P:\60197025 - CHESHIRE WPCP UPGRADE\SHEETS\D\00 D-007.DWG
LAST UPDATE: Friday, May 05, 2017 11:16:24 AM
PLOT DATE: Friday, May 05, 2017 12:48:32 PM
ANSI D - 5-May-17

DIGESTER MIXING PUMPS
EXISTING PRIMARY DIGESTER
8" DSL
8" OV
6" SN
6" SN
6" SN
6" SN
6" SC/PSL/GTSL
PRIMARY OVERFLOW BOX
8" DSL
DSL
FCL
G
DSL
BFP FEED PUMPS
6" DSL
6" DSL
HSL
SN
SECONDARY OVERFLOW BOX
FE
6" SN
6" SN
6" SN
DSL
8" OV
6" DSL
EXISTING SECONDARY DIGESTER
8" SN TO PRIMARY DISTRIBUTION CHAMBER SEE SH. 00 D-007
6" SC/PSL/GTSL
POL
POL
TWAS TRANSFER PUMPS
ROTARY DRUM THICKENERS
WAS TRANSFER PUMPS
WAS STORAGE TANK
WAS
WW
TWAS
FILTRATE TO 10" PD SEE SH. 00 D-007
DSL
FCL
FILTRATE TO 10" PD SEE SH. 00 D-007
TO OFFSITE DISPOSAL
BELT FILTER PRESS WASHWATER PUMPS
EXIST. SLUDGE HOPPER
POL
POL
DSL
DSL
DSL
EXIST. BELT FILTER PRESSES
SLUDGE DEWATERING AND CHEMICAL BUILDING
GTSL
GTSL
GTSL
THICKENED SLUDGE PUMPS
6" DSL
6" DSL
HSL
6"
6"
4"
4"
BOILER & HEAT EXCHANGER
RECIRC. PUMPS
GTSL
GTSL
HSL/GTSL/SC
6" SC/PSL/GTSL
SC
EXIST. GRAVITY THICKENER
POL
PSL/SC/GTDW
8" FTE
EXIST. BFP WASHWATER PUMPS
EFW
EFFLUENT FLUSHING WATER PUMP
EXIST. EFFLUENT FLUSHING WATER PUMPS
12" FTE
CLS
CLS
EXIST. DILUTION WATER PUMPS
FSW
EXIST. FOAM SPRAY WATER PUMPS
6" MWD
WAS FROM MUD WELL PUMPS SEE SH. 00 D-007
4" WSL
14" FTE
EXIST. FINAL SETTLING TANK NO. 1
12" ASL
RETURN SLUDGE PUMP
WSL/SC
POL
CLS
LS
30" ATE
14" FTE
24" FTE
6" SC
EXIST. FINAL DISTRIBUTION CHAMBER NO .1
12" GTO
6" SC
6" SC
6" SC
WASTE SLUDGE PUMPS
30" ATE
18" ATE
EXIST. FINAL SETTLING TANK NO. 3
24" ATE
36" ATE
EXIST. FINAL SETTLING TANK NO. 2
12" ASL
6" ASL
RETURN SLUDGE PUMPS
8" WSL/SC
30" FTE
20" FTE
6" ASL
14" RSL
WSL/SC
RSL
6" HSL/SC/PSL
LS
6" PSC FROM PRIMARY SETTLING TANKS, SEE SHT. 00 D-007
PSC
PSC
PSC
PSC
PSC
PSC
PRIMARY SCUM PUMPS
6" PSL FROM PRIMARY SETTLING TANKS, SEE SHT. 00 D-007
PSL
PSL
PSL
PSL
PSL
PSL
PRIMARY SLUDGE PUMPS
WSL/SC TO EXIST. PRIMARY DISTRIBUTION CHAMBER SEE SH. 00 D-007
RSL TO AERATION DISTRIBUTION CHAMBER SEE SH. 00 D-007
FROM SPENT BACKWASH WATER PUMPS SH. 00 D-007
6" SBW
GTO TO EXIST. INFLUENT PUMP STATION SEE SH. 00 D-007
12" GTO
24" ATE FROM EXIST. JUNCTION CHAMBER SEE SH. 00 D-007
36" ATE FROM EXIST. JUNCTION CHAMBER SEE SH. 00 D-007
14" FTE FROM FINAL DISTRIBUTION CHAMBER NO. 2 SEE SH. 00 D-007
20" FTE TO EXIST. FINAL DISTRIBUTION CHAMBER NO. 2 SEE SH. 00 D-007
30" FTE TO EXIST. FINAL DISTRIBUTION CHAMBER NO. 2 SEE SH. 00 D-007

RECORD DRAWING

NOTE: This Record Drawing has been prepared based on information provided by others. AECOM has not verified the accuracy and/or completeness of this information and shall not be responsible for errors or omissions which may be incorporated as a result.

REVISIONS				
MARK	DATE	MADE BY	CHECKED	DESCRIPTION
1	5/5/17	BS	MF	REVISED FOR RECORD DRAWINGS

AECOM TECHNICAL SERVICES, INC.
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AECOM

STATE OF CONNECTICUT * CHRISTOPHER J. CALLIGAN * 25321 * REGISTERED PROFESSIONAL ENGINEER

TOWN OF CHESHIRE, CONNECTICUT
CHESHIRE WPCP UPGRADE

PROCESS FLOW DIAGRAM II

MECHANICAL PROCESS

PROJECT NO:	60197025
CAD DWG FILE:	00 D-008
DESIGNED BY:	K. RACAN
DRAWN BY:	S.A. COTE
DEPT CHECK:	C. CALLIGAN
PROJ CHECK:	M. FORMICA
DATE:	MAY 2013
SCALE:	N.T.S.

00 D-008

SHEET OF

PATH/FILENAME: P:\60197025 - CHESHIRE WPCP UPGRADE\SHEETS\00 D-008.DWG
LAST UPDATE: Thursday, March 02, 2017 5:21:46 PM
PLOT DATE: Friday, May 05, 2017 12:48:14 PM
ANSI D - 2-Mar-17

TABLE 1-3. DETAILED DESIGN DATA
CHESHIRE WPCP

	Design Data
PRETREATMENT	
Mechanically Cleaned Mechanical Screen	
Number of Units	1
Type	Mechanically Cleaned
Number on line	1
Screen Opening Size, in	0.5
Hydraulic Capacity, mgd	11 mgd
Influent Channel Grinder (screen back up)	
Number of Units	1
Number on line	1
Size, Total HP	7
Hydraulic Capacity, mgd	7.75 mgd
Bypass Bar Rack	
Number of Units	1
Width, in	1-3/8
Channel Flow Meter	
Type	Parshall Flume
Throat Size, in.	12
Range, mgd	0.1 – 8
Raw Wastewater Pumps	
Large Pumps	2
Number of Pumps	
Type: pump	Solids Handling Dry Pit Submersible
drive	Close Coupled
speed	Variable
Unit Capacity, gpm @ TDH	2 @ 4,167 gpm @ 52 ft.
Small Pumps	
Number of Pumps	2
Type: pump	Solids Handling Dry Pit Submersible
drive	Close Coupled
speed	Variable
Unit Capacity, gpm @ TDH	2 @ 2,000 gpm @ 52 ft.

TABLE 1-3. Continued

	Design Data
Force Main Flow Meter	
Type	Magnetic
Diameter, in.	18
Range, mgd	0.8 – 14
Aerated Grit Chambers	
Number of Tanks	2
Tank Dimensions	
Length, ft	20
Width, ft	10
Average Water Depth, ft	7.6
Unit Area, sf	200
Total Area, sf	400
Unit Volume	
Cf	1,520
gal.	11,370
Total Volume	
Cf	3,040
gal.	22,740
Detention Time, min	
At Average Design Flow	7.6
At Peak Flow	2.9
Air Supply Range, cfm/ft.	1.5-4.5
Total Supply Range, cfm/ft.	60-180
Aerated Grit Chamber Blowers	
Number of Units	2
Type	Rotary, positive displacement
Capacity	180 SCFM @ 4psi
Drive	1- V-belt, 1- VFD
Horsepower	10
CHEMICAL PHSOPHORUS REMOVAL	
(First Dosing Location)	
2nd dosing location after Denitrification Facilities	
Ferric Chloride Storage	
Number of Tanks	2
Unit Capacity, gallons	5,375

TABLE 1-3. Continued

	Design Data
Ferric Chloride Feed Pumps	
Dosing Location	Aerated Grit Chamber
Number of Pumps	2
Type: Pump	Peristaltic
Drive	Direct Variable Speed
Unit Capacity, gph @ 125 psi	15
Dosing Location	Belt Filter Press Filtrate
Number of Pumps	1
Type: Pump	Peristaltic
Drive	Direct Variable Speed
Unit Capacity, gph @ 125 psi	33
Dosing Location	Digester Supernatant
Number of Pumps	1
Type: Pump	Hose
Drive	Direct Variable Speed
Unit Capacity, gph @ 30 psi	527
PRIMARY TREATMENT	
Primary Settling Tanks	
Number of tanks	4
Diameter, ft.	40
Sidewater Depth, ft.	10
Volume Each, gal.	93,949
Volume Total, gal.	375,795
Surface Area each, sf.	1,256
Surface Area total, sf.	5,024
Surface Overflow rate	
Avg. Flow, gpd/sf	862
Max Day Flow, gpd/sf	2,275
Solids Loading Rate	
Avg. Flow, lb/d/sf	1.25
Max Day Flow, lb/d/sf	2.28
Detention Time	
Avg. Flow, hours	2.08
Max Day Flow, hours	0.79
Sludge Removal	
Avg. Daily, lbs/d	6,684
Concentration, Percent	4.5
Avg. Daily, gal/d	17,800

TABLE 1-3. Continued

	Design Data
Primary Sludge Pumps	
Number of Pumps	3
Type: Pump	Simplex Plunger
Drive	Variable Speed
Unit Capacity, gpm @ TDH	95 @ 33
Primary Scum Pumps	
Number of Pumps	2
Type: Pump	Simplex Plunger
Drive	Variable Speed
Unit Capacity, gpm @ TDH	75 @ 120
SECONDARY TREATMENT	
Activated Sludge Tanks	
Number of Tanks	5
Sidewater Depth, ft	15
Length Each Tank, ft	121
Width Each Tank, ft	21
Unit Volume	
Cf	38,115
Gal.	285,100
Aeration Blowers	
Number of Units	4 High Speed Turbocompressor 1 Multistage Centrifugal
Max System Requirements, scfm	13,324
HST (High Speed Turbocompressor)	
Motor HP	2 @ 268 and 2 @ 120
Drive	VFD
Unit Capacity, scfm	2 @ 5,420; 2 @ 2,300
Max System Requirements, scfm	13,234
HST (High Speed Turbocompressor)	
Motor HP	1 @ 200
Drive	Direct
Unit Capacity, scfm	3,300
Summer Conditions	
Max Month	
Number of Small Blowers in Service	0
Number of Large Blowers in Service	2
Air Required for Tanks, scfm	7,260

TABLE 1-3. Continued

	Design Data
Peak Conditions	
Number of Small Blowers in Service	
Number of Small Blowers in Service	2
Number of Large Blowers in Service	2
Air Required for Tanks, scfm	13,234
Winter Conditions	
Max Month	
Number of Small Blowers in Service	0
Number of Large Blowers in Service	2
Air Required for Tanks, scfm	7,364
Peak Conditions	
Number of Small Blowers in Service	0
Number of Large Blowers in Service	2
Air Required for Tanks, scfm	10,143
Final Settling Tanks	
Number of Units	3
Diameter, feet	1 @ 40 and 2 @ 80
Sidewater depth, feet	12
Volume Each, gal.	1 @ 112,739 and 2 @ 450,954 ea.
Volume Total, gal.	1.014,647
Surface Area each, sf.	1 @ 1,256 and 2 @ 5,024 ea.
Surface Area total, sf.	11,304
Number of units in service	2 @ 80 ft
Total Surface area in service, sf	10,053
Surface Overflow rate	
Avg. Flow, gpd/sf	431
Max Day Flow, gpd/sf	1,137
Solids loading rate	
Avg. MLSS Applied, lb/day	108,300
Solids Loading Rate, lb/d/sf	10.8
Drive motor HP	¾
Return Sludge Pumps	
Number of pumps	3
Type: Pump	Vertical Solids Handling
Drive	Variable Frequency
Capacity, gpm @ 47 ft TDH	1,800
Total capacity, 2 pumps, gpm	3,600

TABLE 1-3. Continued

	Design Data
Maximum Return Sludge Capacity, percent of maximum month flow	100%
Waste Sludge Pumps	
Number of pumps	2
Type: Pump	Dry Pit Submersible
Drive	Variable Frequency
Capacity, gpm @ 53 ft TDH	200
DENITRIFICATION FILTER SYSTEM	
Influent Well Screens	
Number of Units	2
Type and Screen Opening	¼-inch opening bar rack
Screenings Handling Method	Hand raked
Hydraulic Capacity: Design Avg. Flow	1,250 gpm (1.8 mgd)/screen
Hydraulic Capacity: Design Peak Flow	2,708 gpm (3.9 mgd)/screen
Influent Wetwells	
Design Flows	
Flow, mgd	
Average daily	3.5
Hourly peak	7.75
Design Data	
Number of Wells	2
Number of Wells in Service	2
Main Denitrification Influent Pumps	
Number of Pumps	3
Type	Dry pit, Submersible, Centrifugal
Drive	variable frequency drive
Horsepower	40
Speed-max., rpm	850
Capacity per Pump, mgd	3.4
Jockey Denitrification Influent Pump	
Number of Pumps	1
Type.	Dry pit, Submersible, Centrifugal
Drive	variable frequency drive
Horsepower.	15
Speed-max, rpm	1,140
Capacity per Pump, mgd	1.0

TABLE 1-3. Continued

	Design Data
Denitrification Cells	
Number of Cells	5
Type	Upflow, suspended media
Unit Surface Area, ft^2	151
Number of tanks in service	4
Total Surface Area in Service, ft^2	604
Mudwell Pumps	
Number of Pumps	3
Type	Submersible, centrifugal
Drive	Close coupled
Unit Capacity, gpm @ 25 ft. TDH	150.
Effluent Channel/Clear Well	
Number of Channels	1
Average Water Depth, ft	4
Available for Backwash Water Depth, ft	2.3
Overall Channel Dimensions	
Length, ft	42
Width, ft	15
Unit Volume Available for Backwash	
Cf	3,523
Gal.	26,423
Backwash Volume, per Cycle	
Cf	3,460
Gal.	26,000
Mud Well	
Number of Tanks	1
Effective Water Depth, ft	9
Overall Tank Dimensions	
Length, ft	29
Width, ft	31
Unit Volume	
Cf	8091
Gal.	60,682
Backwash Blowers	
Number of Units	2
Type	Rotary, positive displacement
Capacity	100 SCFM
Drive	Adjustable V-belt
Horsepower	10
Pressure (PSIG)	10

TABLE 1-3. Continued

	Design Data
Air Compressor	
Number of Units	1 (Duplex)
Type	Screw
Drive	Adjustable V-belt
Capacity	10 SCFM
Horsepower	3 each
Pressure (PSIG)	125
Denitrification Chemical Systems	
Methanol Storage Tanks	
Number of Tanks	2
Unit Volume, gal.	6,000
Methanol Pumps	
Number of Pumps	3
Type	Diaphragm
Drive	Direct
Unit Capacity, gph @ psi	18 @ 50
Foam Spray Water Pump	
Number of Pumps	1
Type	Submersible, centrifugal
Drive	Close coupled
Capacity, gpm @ 30 ft. TDH	200
CHEMICAL PHOSPHORUS REMOVAL (Second Dosing Point)	
Coagulant Flash Mix Tank	
Number of Trains	1
Flash Mix Tank Dimensions	
Length, ft	6
Width, ft	6
Sidewater depth, feet	9
Volume Total, gal.	2,400
Mixer,	
Type	Top mounted
HP	10

TABLE 1-3. Continued

	Design Data
Aluminum Sulfate (Alum) Storage	
Number of Tanks	2
Unit Capacity, gallons	2,660
Aluminum Sulfate (Alum) Feed Pumps	
Dosing Location	Coagulant Flash Mix Tank
Number of Pumps	2
Type: Pump	Peristaltic
Drive	Direct Variable Speed
Unit Capacity, gph @ 125 psi	33.3
Coagulation and Flocculation Tanks	
Number of Trains	2
Coagulation Tank Dimensions	
Length, ft	13.33
Width, ft	10
Sidewater depth, feet	10.5
Volume Each, gal.	10,500
Volume Total, gal.	21,000
Mixer, per tank	
Type	Top mounted
HP	5
Mixer, HP	
Flocculation Tank Dimensions	
Length, ft	12.5
Width, ft	10
Sidewater depth, feet	10.5
Volume Each, gal.	10,000
Volume Total, gal.	20,000
Mixer, per tank	
Type	Top mounted
HP	2
Disc Filter Polymer Storage and Feed System	
Dosing Location	Flocculation Tank
Type	Automatic in-line with dry preparation
Number of dry preparation units	1
Number of metering pumps	3 (one for each flocculation tank one standby)
Type: pump	Hose pump
drive	variable speed gear
Capacity, gph neat polymer	97

TABLE 1-3. Continued

	Design Data
Liquid polymer storage	55 gallon drums
Number of transfer pumps	1
Type: pump	Horizontal progressive cavity
drive	constant speed gear
Unit capacity, gph	20
Disc Filters	
Number or Filters	3
Number Operating	2
Max. flow/filter; MGD	5.5
Avg. Flow/filter; MGD	2.0
Media Size; microns	10
DISINFECTOIN/REAERATION	
UV Disinfection	
Number of channels	2
Banks/channel	2
Design avg. flow, MGD	4.0
Peak design flow, MGD	11.0
Design dose, mJ/cm^2	30
Disinfection Limit/Coliform/100ml	400
Rearation Tanks	
Number of Tanks	2
Volume on Line, gal	21,000
Summer Conditions	
Max Month	
Air Required for Tanks, scfm	916
Peak Conditions	
Air Required for Tanks, scfm	1,975
Winter Conditions	
Max Month	
Air Required for Tanks, scfm	365
Peak Conditions	
Air Required for Tanks, scfm	786

TABLE 1-3. Continued

	Design Data
EFFLUENT AND STORMWATER PUMP STATION	
Effluent Pumps	
Number of pumps	4
Type: Pump	Submersible, Solids Handling
Drive	Variable Frequency
Capacity, gpm @ 20 ft TDH	2,550
Total capacity, 3 pumps, gpm	7,650
Stormwater Pumps	
Number of pumps	2
Type: Pump	Submersible, Solids Handling
Drive	Constant Speed
Capacity, gpm @ 15 ft TDH	335
Total capacity, 2 pumps, gpm	670
SOLIDS HANDLING	
WAS Thickening	
WAS Sludge Equalization Tank	
Volume, gallons	2,300
Mixer,	
Type	Top mounted
HP	1.5
WAS Transfer Pumps	
Number of pumps	2
Number of pumps in service	1
Type: Pump	Rotary Lobe
Drive	Variable Frequency
Capacity, gpm @ 70 ft TDH	65
Rotary Drum Thickener (RDT)	
Number of units	2
Number in service	1
Unit Capacity	
Solids Loading, lbs/hr	440
Volume, gpm	80

TABLE 1-3. Continued

	Design Data
RDT Polymer Storage and Feed System	
Type	Automatic in-line with dry preparation
Number of dry preparation units	1
Number of metering pumps	2
Type: pump	Hose pump
drive	variable speed gear
Capacity, gph neat polymer	80
Liquid polymer storage	(see belt filter press polymer system)
Thickened WAS Transfer Pumps	
Number of pumps	2
Number of pumps in service	1
Type: Pump	Progressive Cavity
Drive	Variable Frequency
Capacity, gpm @ 70 ft TDH	5
Gravity Thickening	
Gravity Thickener	
Number of Units	1
Diameter, feet	40
Unit area ft^2	1,258
Depth, feet	10
Unit volume, ft^3	12,576
Total volume, gal	99,993
Solids loading rate, lbs./ft^2/day	
with DN Filter and Disc Filter Recycles	0.7
Gravity Thickened Dilution Water Pumps	
Number of pumps	2
Number of pumps in service	1
Type: Pump	Horizontal Centrifugal
Drive	Variable Frequency
Capacity, gpm @ 20 ft TDH	330
Gravity Thickened Sludge Pumps	
Number of pumps	2
Number of pumps in service	1
Type: Pump	Simplex Plunger
Drive	Constant Speed
No of pin positions	5
Capacity, gpm @ 240 ft TDH	60

TABLE 1-3. Continued

	Design Data
Anaerobic Digestion	
Anaerobic Digesters	
Number of units	
Primary	1
Secondary	1
Type of cover	
Primary tank	Fixed dome
Secondary	Floating gas holder
Diameter, feet	
Primary	45
Secondary	45
Side water depth, feet	
Primary	30.5
Secondary	27.5
Total volume, ft^3	
Primary	48,545
Secondary	43,770
Sludge volume applied, gpd (ave)	29,500
Detention time, days	
Primary	12.3
Secondary	11.1
Type of mixing	Pumped (see below)
Digester Sludge Mixing Pumps	
Number of pumps	2
Number of pumps in service	1
Type: Pump	Horizontal End Suction Chopper
Drive	Variable Frequency
Capacity, gpm @ 33 ft TDH	1,700
Digester Sludge Recirculation (Heating) Pumps	
Number of pumps	2
Number of pumps in service	1
Type: Pump	Recessed Impeller
Drive	Constant Speed
Capacity, gpm @ 25 ft TDH	150
Sludge Recirculation (heating) Pump Grinder	
Number of units	1
Number in service	1
Unit motor size, hp	3

TABLE 1-3. Continued

	Design Data
Belt Filter Press (BFP)	
Belt Filter Press Feed Sludge Grinder	
Number of units	1
Number in service	1
Unit motor size, hp	3
Belt Filter Press Feed Pumps	
Number of pumps	2
Number of pumps in service	1
Type: Pump	Progressive Cavity
Drive	Variable Frequency
Capacity, gpm @ 140 ft TDH	200
BFP Polymer Storage and Feed System	
Type	Automatic in-line with dry preparation
Number of dry preparation units	2
Number of metering pumps	2
Type: pump	Hose pump
drive	variable speed gear
Capacity, gph neat polymer	353
Liquid polymer storage	55 gallon drums
Number of transfer pumps	2
Type: pump	Horizontal progressive cavity
drive	constant speed gear
Unit capacity, gph	40
Belt Filter Presses	
Number of units	2
Unit width, meters	2
Sludge dry solids applied	
Average, lbs/week	40,660
Max month, lbs/week	51,550
Unit solids loading rate, lb/m/hr	600
Units in operations	1
Operating hours	
Average day	6.8
Maximum day	8.6
Belt Filter Washwater Pumps	
Number of pumps	2
Number of pumps in service	1
Type: Pump	Horizontal Centrifugal
Drive	Direct

TABLE 1-3. Continued

	Design Data
Capacity, gpm @ 90 ft TDH	90
Washwater Booster Pumps	
Number of pumps	2
Number of pumps in service	1
Type: Pump	Vertical Inline Centrifugal
Drive	Direct
Capacity, gpm @ 105 ft TDH	90
Effluent Flushing Water Pumps	
Number of pumps	3
Number of pumps in service	1
Type: Pump	Horizontal Centrifugal
Drive	Variable Frequency
Capacity, gpm @ 160 ft TDH	260
Foam Spray Water Pumps	
Number of pumps	3
Number of pumps in service	1
Type: Pump	Horizontal Centrifugal
Drive	Direct
Capacity, gpm @ 42 ft TDH	300