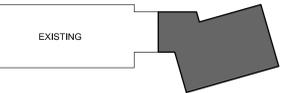


ISSUE DATE	
DATE	DESCRIPTION
APRIL 15, 2022	ISSUED FOR RIDE 60% CD SUBMISSION

REVISIONS	
DATE	DESCRIPTION

FOR ALL ABBREVIATIONS, SYMBOL LEGENDS, AND GENERAL NOTES SEE SHEET R0.01



KEY PLAN
PROJECT TRUE



85 GARFIELD AVE, CRANSTON, RI, 02920

PROJECT NO.: 21012.02 DRAWN BY:

NOTES AND LEGEND

DRAWING NO.:
C1.00

GENERAL CONSTRUCTION NOTES

- ALL CONSTRUCTION DEBRIS SHALL BE DISPOSED OF LEGALLY OFF SITE.
- CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL. DUST CONTROL SHALL INCLUDE THE WATERING OF UNPAVED ROAD SURFACES AND STREET SWEEPING OF PAVED SURFACES. STREET SWEEPING SHALL OCCUR ON THE PAVED SURFACES WITHIN THE SITE AND OFF THE SITE WHERE VEHICLE TRACKING OF SEDIMENTS HAS OCCURRED.
- DURING CONSTRUCTION, TRENCHES ARE NOT TO BE LEFT IN A CONDITION THAT WOULD DIRECT RUNOFF AROUND TREATMENT AND DETENTION FACILITIES.
- ALL SITE WORK SHALL BE SECURED AT THE END OF THE WORK DAY TO REDUCE EROSION AND SEDIMENT PROBLEMS. THIS INCLUDES AS APPLICABLE, COVERING STOCKPILES OF SOIL, INSTALLING TEMPORARY VEGETATION OR BY USING GEOTEXTILES TO COVER DISTURBED AREAS WITH STEEPER SLOPES.
- DEWATERING OPERATION SHALL COMPLY WITH THE REQUIREMENTS OF THE U.S. EPA NPDES CONSTRUCTION GENERAL PERMIT FOR CONSTRUCTION SITES THAT ARE GREATER THAN 1 ACRE.
- CONSTRUCTION FENCING SHALL BE SET TO PREVENT UNCONTROLLED ACCESS TO THE SITE AT ALL TIMES AND ADJUSTED AS NECESSARY THROUGHOUT CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER DEPENDING ON PHASING.

PLAN SYMBOLS - EXISTING CONDITIONS

100+0	SPOT ELEVATION
○	BOULDER/STONE
○	MONITORING WELL
○	BITUMINOUS CONCRETE CURB
○	DRAIN MANHOLE
○	CATCH BASIN
○	SEWER MANHOLE
○	TELEPHONE MANHOLE
○	ELECTRIC MANHOLE
○	STONE BOUND
○	FIRE HYDRANT
○	WATER GATE VALVE
○	GAS GATE VALVE
○	SIGN
○	UTILITY POLE
○	SURVEY CONTROL POINT
○	TREE

---	EXISTING MAJOR 10' CONTOUR
---	EXISTING MINOR 2' CONTOUR
---	PROPOSED CONTOUR
---	UNDERGROUND DRAIN LINE
---	UNDERGROUND SEWER LINE
---	UNDERGROUND ELECTRIC LINE
---	OVERHEAD UTILITY WIRES
---	UNDERGROUND WATER LINE
---	UNDERGROUND GAS LINE
---	FENCE
---	STONE WALL
---	PROPERTY LINE
---	TREE/SHRUB LINE
---	WETLAND RESOURCE BOUNDARY
---	FLOOD ZONE AE
---	EXISTING WOOD GAURD RAIL
---	EDGE OF PAVEMENT

SITE PREPARATION NOTES

- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES AND PROCEDURES; AND FOR THE SAFETY PRECAUTIONS AND PROGRAMS REQUIRED FOR THE WORK UNDER THIS CONTRACT. THE CONTRACT DOCUMENTS DO NOT INCLUDE THE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY AND THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PROVIDING ALL SAFETY BARRIERS, WARNING FLASHERS, AND THE LIKE AS REQUIRED FOR THE PROTECTION OF WORKERS AND THE PUBLIC. COMPLY WITH OSHA REQUIREMENTS.
- PRIOR TO THE START OF WORK, INSTALL WOVEN POLYPROPYLENE GEOTEXTILE FILTER BAGS IN CATCH BASINS AND/OR DRYWELL STRUCTURES ON AND NEAR THE SITE. WHEN INSTALLING FILTER BAGS, HOLD APPROXIMATELY SIX INCHES OUTSIDE THE FRAME AND REPLACE THE GRATE, USING THE WEIGHT OF THE GRATE TO HOLD THE FILTER BAG IN PLACE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL NECESSARY CONSTRUCTION PERMITS REQUIRED FOR THIS PROJECT.
- THE CONTRACTOR SHALL PROTECT ALL UTILITIES WITHIN THE PROJECT AREA, IN THE STREET, AND ON ADJACENT PROPERTIES FROM DAMAGE AND UNDERMINING DURING EXCAVATION.
- THE CONTRACTOR SHALL PERFORM ALL WORK IN THE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH THE CITY OF CRANSTON DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS.
- ALL EXISTING WATER AND GAS SERVICES DESIGNATED TO BE REMOVED OR ABANDONED SHALL BE CUT AND CAPPED AT THE MAIN IN THE STREET.
- ALL EXISTING SEWER AND DRAIN LINES DESIGNATED TO BE REMOVED OR ABANDONED SHALL BE CUT AND CAPPED AT THE MAIN IN THE STREET.
- ALL EXISTING UTILITY FRAMES, COVERS AND/OR GRATES WITHIN PROJECT LIMITS ARE TO BE ADJUSTED TO PROPOSED FINISHED GRADE UNLESS OTHERWISE NOTED.
- TEMPORARY CONSTRUCTION ENTRANCES SHALL BE INSTALLED AS SHOWN ON PLANS.
- REMNANTS OF PREVIOUS BUILDING FOUNDATION, UTILITY STRUCTURES AND UNDERGROUND UTILITIES MAY BE ENCOUNTERED DURING EXCAVATION AND SHALL BE REMOVED AND DISPOSED LEGALLY OFF SITE.
- PROVIDE TREE PROTECTION AT ALL TREE TRUNKS WITHIN 20' OF L.O.W. OR TEMPORARY STOCKPILES OR AS SHOWN ON PLANS.
- CONTRACTOR SHALL USE EXTREME CAUTION IN REMOVING PAVEMENT AND SUB-BASE UNDER DRIP LINE OF EXISTING TREES TO AVOID DAMAGE TO ROOTS AND OVERHEAD BRANCHES.
- CONTRACTOR SHALL NOT STORE OR STOCKPILE EQUIPMENT OR MATERIALS UNDER TREES.
- CONTRACTOR SHALL INSTALL TEMPORARY CONSTRUCTION FENCE AS NOTED ON PLANS.
- TREE PROTECTION ZONE SHALL BE MARKED BY CONSTRUCTION FENCING TO BE LEFT IN PLACE FOR THE DURATION OF THE PROJECT. NO EQUIPMENT SHALL ENTER OR MATERIALS SHALL BE STORED WITHIN THIS ZONE. STRAW WATTLES SHALL BE PLACED ALONG THE UPHILL EDGE OF THE ZONE TO ENSURE THAT RUNOFF FROM THE CONSTRUCTION SITE DOES NOT ENTER THIS AREA. ALL EXCAVATION AND CONSTRUCTION OF PAVEMENT AND UTILITIES AND BOULDER PLACEMENT SHALL BE ACCOMPLISHED FROM OUTSIDE THIS ZONE. WORKERS SHALL ENTER THE ZONE ONLY FOR THE REMOVAL OF SOIL AND PLACEMENT OF MULCH. ROOTS OVER 1" THAT ARE SEVERED BEYOND THE TREE PROTECTION ZONE SHALL BE CUT CLEANLY BY HAND.
- CONTRACTOR SHALL REMOVE AND LEGALLY DISPOSE OF ALL EXISTING SITE FEATURES AND STRUCTURES AS NECESSARY TO INSTALL PROPOSED SITE IMPROVEMENTS.

EROSION AND SEDIMENT CONTROLS

- A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) WILL BE REQUIRED FOR THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING THE SWPPP IN ACCORDANCE WITH THE EPA'S NPDES CONSTRUCTION GENERAL PERMIT (CGP) AND FILING A NOTICE OF INTENT TO THE EPA PURSUANT TO THE NPDES PHASE I STORMWATER PROGRAM AT LEAST 14 DAYS PRIOR TO CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING THE EROSION AND SEDIMENT DURING THE CONSTRUCTION PROCESS. SITE SPECIFIC CONDITIONS MAY REQUIRE MODIFICATIONS IN THE FIELD, BUT THE CONTRACTOR MUST ENSURE THAT THE PROJECT SPECIFICATIONS THAT ARE DEVELOPED IN THE FIELD MEET THE MINIMUM REQUIREMENTS OF THIS PLAN.
- IN ORDER TO MINIMIZE EROSION AND SEDIMENT RUNOFF FROM THE SITE, THE CONTRACTOR SHOULD MAINTAIN EXISTING VEGETATION WHERE POSSIBLE AND STABILIZE THE DISTURBED PORTIONS OF THE SITE AS QUICKLY AS POSSIBLE. THIS MAY INCLUDE PHASING THE PROJECT AS NEEDED TO MINIMIZE THE SIZE OF THE DISTURBED AREAS ON THE SITE.
- THE CONTRACTOR MUST ALSO ANTICIPATE INCREASED RUNOFF FROM STEEPER SLOPES AND DURING HIGH GROUNDWATER CONDITIONS. THIS MAY OCCUR DURING THE WET SEASON (TYPICALLY MARCH THROUGH APRIL) OR AFTER SIGNIFICANT PRECIPITATION EVENTS.
- THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF SILT FENCES, DRAINAGE SWALES, EARTH DIKES, TEMPORARY SETTling BASINS, CHECK DAMS AND TEMPORARY OR PERMANENT SEDIMENT BASINS. THESE PRACTICES DIVERT FLOWS FROM EXPOSED SOILS, LIMIT RUNOFF AND THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE TO THE DEGREE ATTAINABLE.
- ALL DISTURBED SURFACES SHALL BE STABILIZED WITHIN 14 DAYS AFTER CONSTRUCTION IN ANY PORTION OF THE SITE THAT HAS BEEN COMPLETED OR WHERE CONSTRUCTION HAS TEMPORARILY CEASED.
- THE CONTRACTOR SHALL, AT ALL TIMES, HAVE A STOCKPILE OF STRAW WATTLES AND SILT FENCE ADEQUATE TO REINFORCE/REPLACE EROSION AND SEDIMENT CONTROL AS NEEDED.
- ALL AREAS OF DISTURBANCE MUST HAVE TEMPORARY OR FINAL STABILIZATION WITHIN 14 DAYS OF THE INITIAL DISTURBANCE. AFTER THIS TIME, ANY DISTURBANCE IN THE AREA MUST BE STABILIZED AT THE END OF EACH WORK DAY. THE FOLLOWING EXCEPTIONS APPLY:
 - STABILIZATION IS NOT REQUIRED IF WORK IS TO CONTINUE IN THE AREA WITHIN THE NEXT 24 HOURS AND THERE IS NO PRECIPITATION FORECAST FOR THE NEXT 24 HOURS.
 - STABILIZATION IS NOT REQUIRED IF THE WORK IS OCCURRING IN A SELF-CONTAINED EXCAVATION WITH A DEPTH OF 2 FEET OR GREATER.

UTILITY NOTES

- UTILITY WORK WITHIN THE ZONE 10 FT OUTSIDE OF FOUNDATION WALL OF THE BUILDING SHALL CONFORM TO EFFECTIVE BUILDING CODE REQUIREMENTS, AND THE MECHANICAL, ELECTRICAL AND PLUMBING SPECIFICATIONS. UTILITIES, WITHIN THIS AREA (10 FT FROM THE FOUNDATION WALL), ARE SHOWN ON THIS DRAWING FOR COORDINATION PURPOSES. REFER TO THE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS AND SPECIFICATIONS FOR PIPE SIZES AND MATERIALS.
- PRIOR TO THE START OF ANY EXCAVATION FOR THE PROJECT BOTH ON AND OFF THE SITE, THE CONTRACTOR SHALL NOTIFY DIGSAFE AND BE PROVIDED WITH A DIGSAFE NUMBER INDICATING THAT ALL EXISTING UTILITIES HAVE BEEN LOCATED AND MARKED.
- CONTRACTOR TO ADJUST UTILITY ELEMENT MEANT TO BE FLUSH WITH GRADE (CLEAN-OUTS, UTILITY MANHOLES, CATCH BASINS, INLETS, ECT.) THAT ARE AFFECTED BY SITE WORK OR GRADE CHANGES, WHETHER SPECIFICALLY NOTED ON THE PLANS OR NOT.
- ALL WORK TO BE DONE WITHIN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OF THE CITY OF CRANSTON.
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE TAKEN FROM RECORD INFORMATION SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ALL UNDERGROUND UTILITIES.
- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
- THE CONTRACTOR SHALL ALTER THE MASONRY OF THE TOP SECTION OF ALL EXISTING DRAINAGE STRUCTURES AS NECESSARY FOR CHANGES IN GRADE, AND RESET ALL WATER AND DRAINAGE FRAMES, GRATES, AND BOXES TO THE PROPOSED FINISH SURFACE GRADE.
- AREA OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION, AT NO ADDITIONAL COST TO THE OWNER.
- REFER TO MECHANICAL, ELECTRICAL AND PLUMBING PLANS FOR PROPOSED LOCATION OF UTILITY SERVICES AT BUILDING.
- SITE LIGHT POLES ARE SHOWN ON THIS PLAN FOR COORDINATION PURPOSES ONLY. REFER TO ELECTRICAL PLANS FOR EXACT TYPE AND LOCATION.
- THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY, THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE, ELECTRICAL). FINAL DESIGN AND LOCATIONS AT THE BUILDING WILL BE PROVIDED BY THE ARCHITECT. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE UTILITY CONNECTION WITH THE RESPECTIVE COMPANIES PRIOR TO ANY UTILITY CONSTRUCTION.
- ALL WORK MUST COMPLY WITH STATE AND LOCAL PERMITS, AS WELL AS RIDOT AND LOCAL REQUIREMENTS.

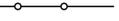
SITE GRADING NOTES

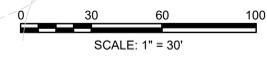
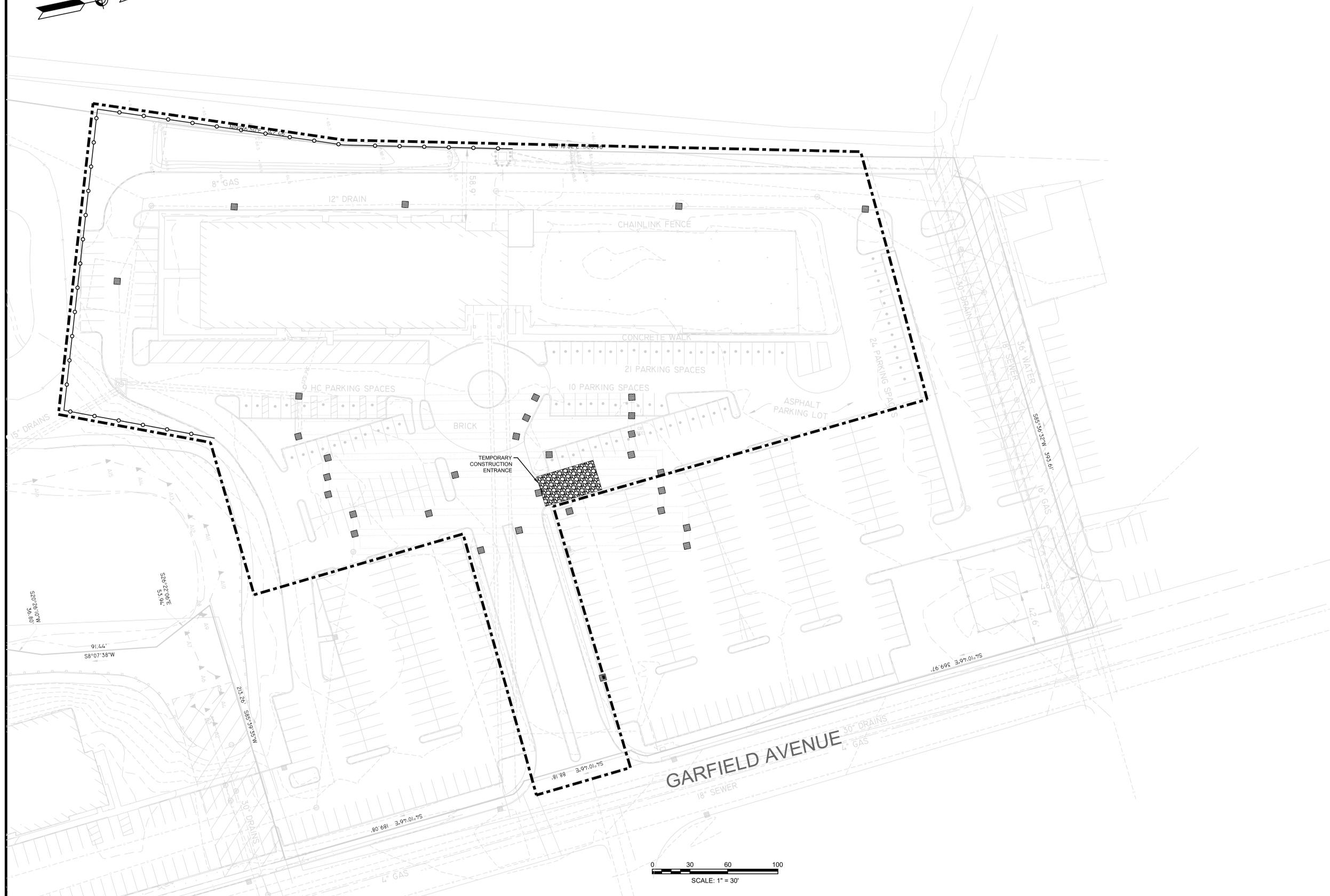
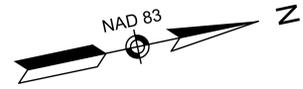
- PROPOSED GRADING SHALL MATCH EXISTING GRADES AT THE LIMIT OF WORK. WHERE PROPOSED GRADES MEET EXISTING GRADES, CONTRACTOR SHALL BLEND GRADES TO PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING AND NEW WORK AND ENSURE NO PONDING AREAS ARE CREATED.
- GRADE ALL AREAS TO DRAIN.
- PROPOSED WALKWAYS SHALL BE CONSTRUCTED WITH A CROSS SLOPE OF NO MORE THAN 1.5% AND A LONGITUDINAL SLOPE OF NO MORE THAN 4.5%.
- LANDINGS AT BUILDING ENTRANCES SHALL BE CONSTRUCTED WITH SLOPES NO MORE THAN 1.5% IN ANY DIRECTION.
- HANDICAP PARKING SPACES SHALL BE CONSTRUCTED WITH SLOPES NO MORE THAN 1.5% IN ANY DIRECTION.
- CONTRACTORS SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL BUILDING FOUNDATIONS AND STRUCTURES.
- CONTRACTOR SHALL ADJUST UTILITY ELEMENTS MEANT TO BE FLUSH WITH GRADE (I.E. UTILITY MANHOLES, CATCH BASINS, ETC.) THAT ARE AFFECTED BY SITE WORK OR GRADE CHANGES, WHETHER SPECIFICALLY NOTED ON PLANS OR NOT.

NOTES

1. REFER TO NOTES ON SHEET C1.00 FOR ADDITIONAL REQUIREMENTS.
2. REFER TO LANDSCAPE DEMOLITION PLAN FOR REMOVAL OR PROTECTION OF TREES AND SURFACE ELEMENTS.
3. DRAINAGE INLET STRUCTURE SHALL BE REMOVED TO A MINIMUM DEPTH OF 1' BELOW FINISHED GRADE AND MODIFIED WITH A MAN-HOLE FRAME AND COVER TO BE LEFT BURIED.
4. ALL EXISTING UTILITY FRAMES, COVERS AND/OR GRATES WITHIN PROJECT LIMITS ARE TO BE ADJUSTED TO PROPOSED FINISHED GRADE UNLESS OTHERWISE NOTED.

LEGEND

-  PROPERTY LINE
-  SETBACK LINE
-  SILT FENCE AND COMPOST FILTER TUBE
-  REMOVE AND DISPOSE FRAME, GRATE AND CONCRETE COLLAR. SEE NOTE 3.
-  DRAINAGE INLET PROTECTION

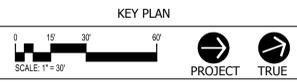
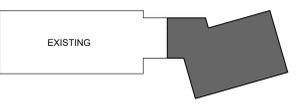


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DATE: **3/9/2022 6:20 PM**
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DATE	DESCRIPTION
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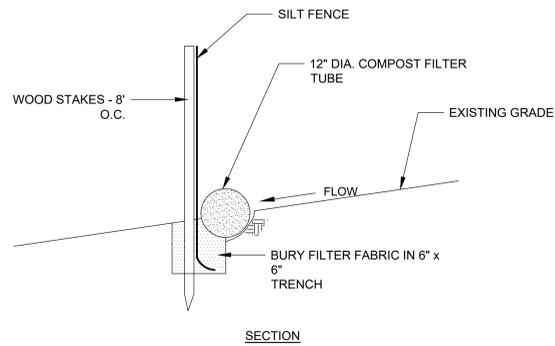

**ACHIEVEMENT
FIRST ILLUMINAR
SCHOOL ADDITION**

**85 GARFIELD AVE, CRANSTON,
RI, 02920**

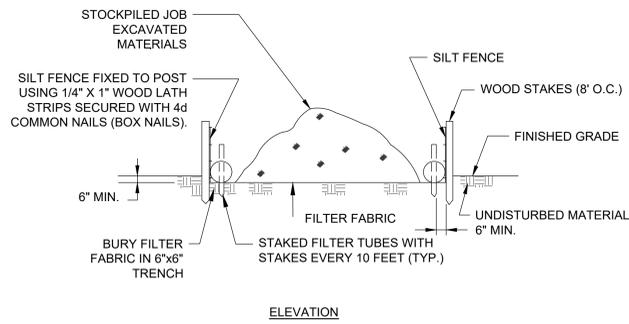
PROJECT NO.: 21012.02 DRAWN BY: ED

**SITE
PREPARATION
AND EROSION
CONTROL**

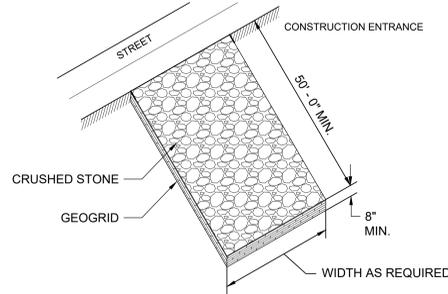
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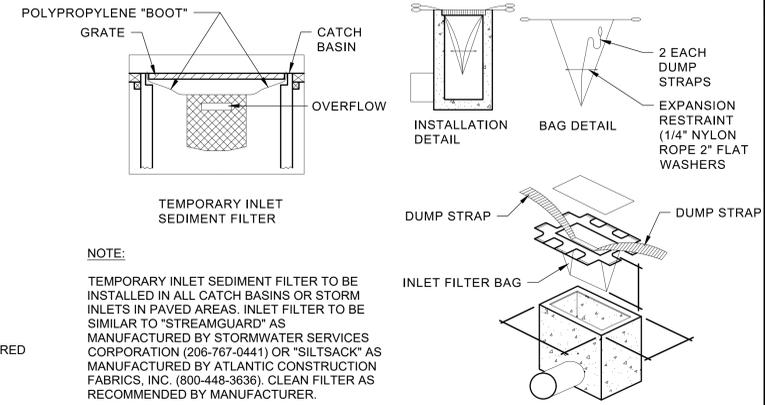
1 COMPOST FILTER TUBE / SILT FENCE
NOT TO SCALE



2 STOCKPILED MATERIAL
NOT TO SCALE

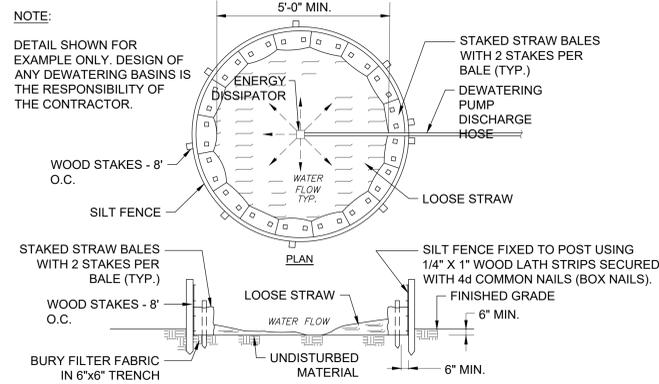


3 TEMPORARY CONSTRUCTION ENTRANCE
NOT TO SCALE

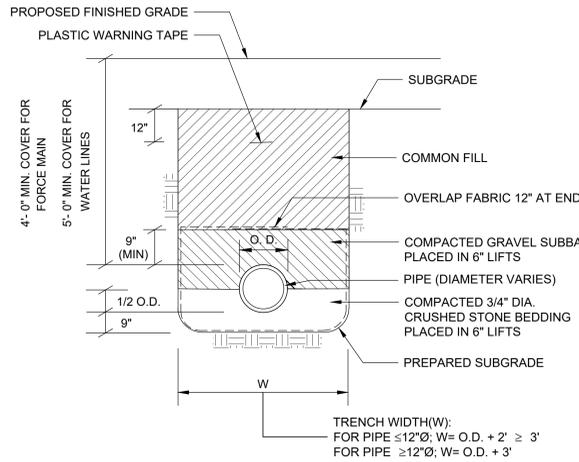


NOTE:
TEMPORARY INLET SEDIMENT FILTER TO BE INSTALLED IN ALL CATCH BASINS OR STORM INLETS IN PAVED AREAS. INLET FILTER TO BE SIMILAR TO \"STREAMGUARD\" AS MANUFACTURED BY STORMWATER SERVICES CORPORATION (206-767-0441) OR \"SILTSACK\" AS MANUFACTURED BY ATLANTIC CONSTRUCTION FABRICS, INC. (800-448-3636). CLEAN FILTER AS RECOMMENDED BY MANUFACTURER.

4 TEMPORARY INLET SEDIMENT FILTER
NOT TO SCALE

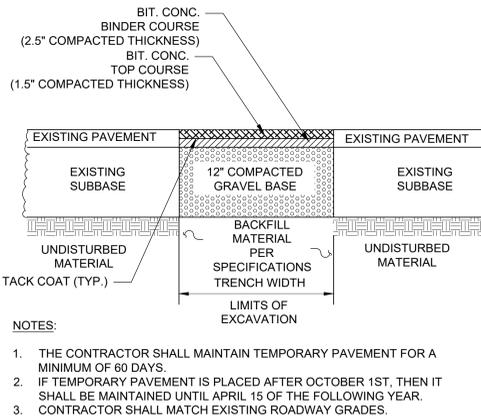


5 DEWATERING BASIN
NOT TO SCALE



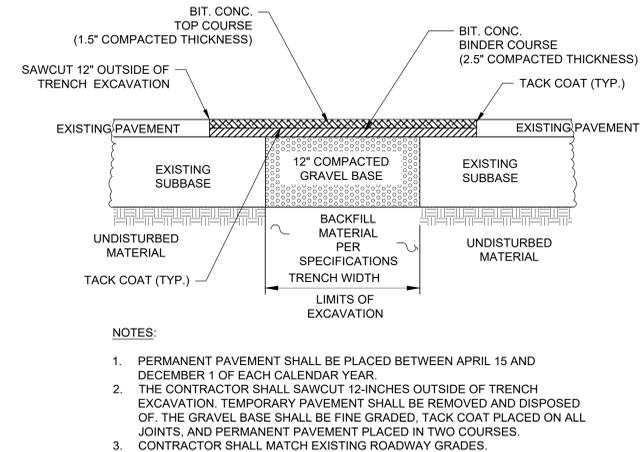
TRENCH EXCAVATION AND BACKFILLING:
1. EXCAVATE TRENCH BOTTOMS AS INDICATED. REMOVE STONES AND SHARP OBJECTS TO AVOID POINT LOADING. PLACE CRUSHED STONE PIPE BEDDING AS INDICATED.
2. PLACE AND COMPACT INITIAL BACKFILL OF SAND-GRAVEL MATERIAL, FREE OF PARTICLES GREATER THAN 1 INCH, TO A HEIGHT OF 12\"/>

6 TYPICAL PIPE TRENCH
NOT TO SCALE



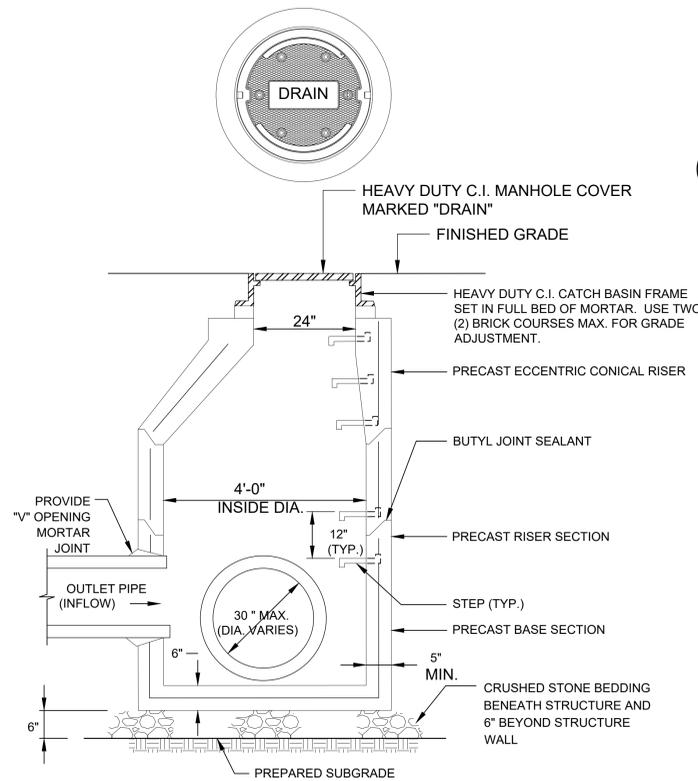
NOTES:
1. THE CONTRACTOR SHALL MAINTAIN TEMPORARY PAVEMENT FOR A MINIMUM OF 60 DAYS.
2. IF TEMPORARY PAVEMENT IS PLACED AFTER OCTOBER 1ST, THEN IT SHALL BE MAINTAINED UNTIL APRIL 15 OF THE FOLLOWING YEAR.
3. CONTRACTOR SHALL MATCH EXISTING ROADWAY GRADES.

7 TEMPORARY TRENCH PAVEMENT
NOT TO SCALE



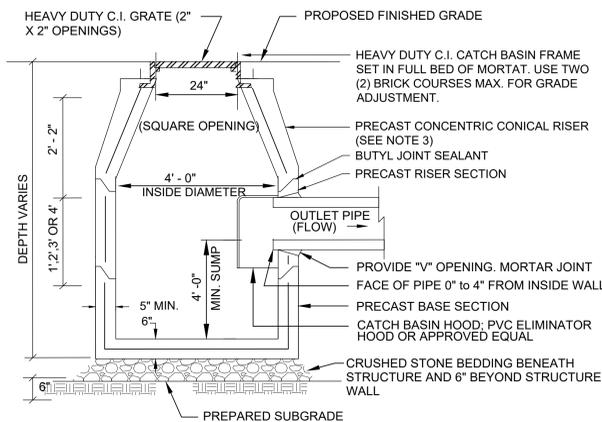
NOTES:
1. PERMANENT PAVEMENT SHALL BE PLACED BETWEEN APRIL 15 AND DECEMBER 1 OF EACH CALENDAR YEAR.
2. THE CONTRACTOR SHALL SAWCUT 12-INCHES OUTSIDE OF TRENCH EXCAVATION. TEMPORARY PAVEMENT SHALL BE REMOVED AND DISPOSED OF. THE GRAVEL BASE SHALL BE FINE GRADED. TACK COAT PLACED ON ALL JOINTS, AND PERMANENT PAVEMENT PLACED IN TWO COURSES.
3. CONTRACTOR SHALL MATCH EXISTING ROADWAY GRADES.

8 PERMANENT TRENCH PAVEMENT
NOT TO SCALE



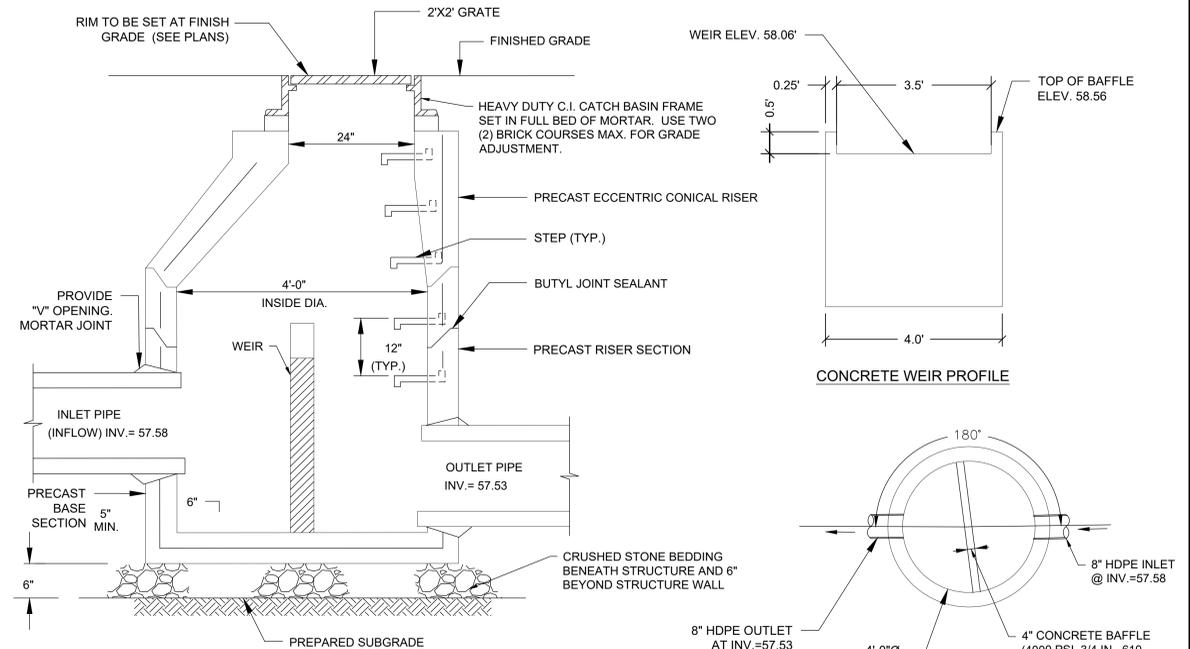
NOTES:
1. PRECAST CONCRETE SECTIONS SHALL CONFORM TO ASTM C-478
2. STEEL REINFORCING SHALL CONFORM TO ASTM A185
3. MANHOLE STEPS SHALL BE 14\"/>

9 TYPICAL PRECAST CONCRETE DRAIN MANHOLE
NOT TO SCALE



NOTES:
1. PRECAST CONCRETE SECTIONS SHALL CONFORM TO ASTM C-478
2. STEEL REINFORCING SHALL CONFORM TO ASTM A185
3. USE FLAT TOP SLAB WHEN PIPE(S) COVER IS LESS THAN 2 FT.

10 TYPICAL PRECAST CATCH BASIN
NOT TO SCALE



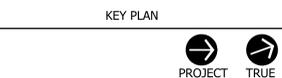
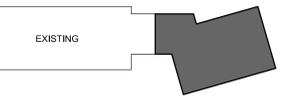
NOTES:
1. PRECAST CONCRETE SECTIONS SHALL CONFORM TO ASTM C-478
2. STEEL REINFORCING SHALL CONFORM TO ASTM A185
3. MANHOLE STEPS SHALL BE 14\"/>

11 TYPICAL OUTLET CONTROL STRUCTURE (OCS-1)
NOT TO SCALE

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APRIL 15, 2022	ISSUED FOR RIDE 60% CD SUBMISSION	

DATE	REVISIONS	DESCRIPTION
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ACHIEVEMENT FIRST ILLUMINAR SCHOOL ADDITION

85 GARFIELD AVE, CRANSTON, RI, 02920

PROJECT NO.: 21012.02 DRAWN BY: BV

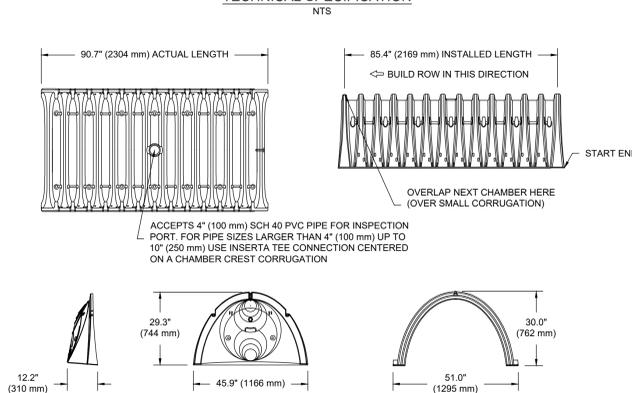
SITE DETAILS I

ACCEPTABLE FILL MATERIALS: CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145 ¹ A-1, A-2-4, A-3 OR AASHTO M43 ² 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 ³ 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 ³ 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ^{2,3}

- PLEASE NOTE:
- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE"
 - COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
 - WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT MANUFACTURER FOR COMPACTION REQUIREMENTS.

TECHNICAL SPECIFICATION



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4"	(1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	45.9 CUBIC FEET	(1.30 m ³)
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET	(2.12 m ³)
WEIGHT	75.0 lbs.	(33.6 kg)

*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS

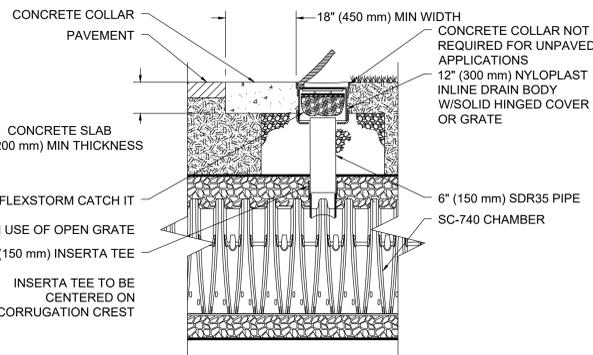
PRE-FAB STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
PRE-FAB STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
PRE-CORED END CAPS END WITH "PC"

PART #	STUB	A	B	C
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	---
SC740EPE06B / SC740EPE06BPC	---	---	---	0.5" (13 mm)
SC740EPE08T / SC740EPE08TPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	---
SC740EPE08B / SC740EPE08BPC	---	---	---	0.6" (15 mm)
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	---
SC740EPE10B / SC740EPE10BPC	---	---	---	0.7" (18 mm)
SC740EPE12T / SC740EPE12TPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	---
SC740EPE12B / SC740EPE12BPC	---	---	---	1.2" (30 mm)
SC740EPE15T / SC740EPE15TPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	---
SC740EPE15B / SC740EPE15BPC	---	---	---	1.3" (33 mm)
SC740EPE18T / SC740EPE18TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	---
SC740EPE18B / SC740EPE18BPC	---	---	---	1.6" (41 mm)
SC740EPE24B*	24" (600 mm)	18.5" (470 mm)	---	0.1" (3 mm)

ALL STUBS, EXCEPT FOR THE SC740EPE24B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP.

* FOR THE SC740EPE24B THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL



STORAGE CHAMBER 6" INSPECTION PORT DETAIL

NOTES:

- STORAGE CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2922 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- STORAGE CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

PROPOSED LAYOUT

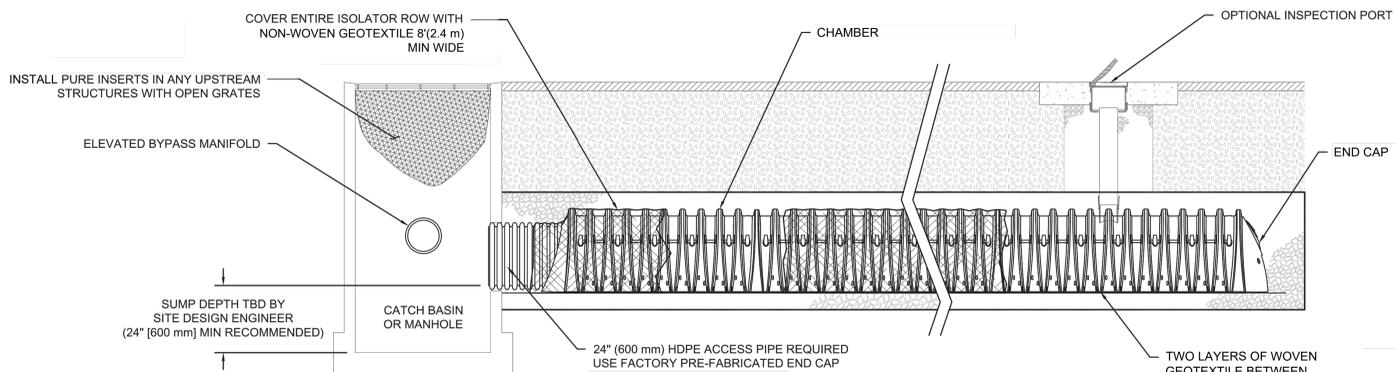
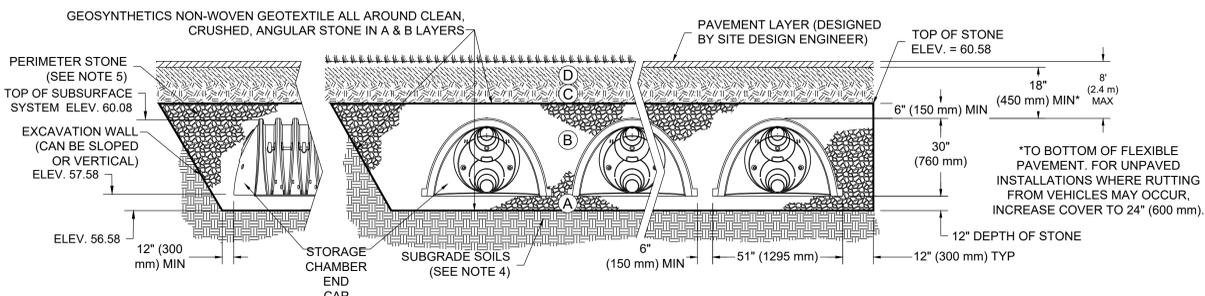
169	CHAMBERS
13	END CAPS
6	STONE ABOVE (in)
12	STONE BELOW (in)
30	% STONE VOID
16,569	INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED)
6083	SYSTEM AREA (ft ²)
319	SYSTEM PERIMETER (ft)

PROPOSED ELEVATIONS

68.08	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
62.08	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
61.58	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
61.58	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
61.58	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
60.58	TOP OF STONE
60.08	TOP OF CHAMBERS
58.00	18" TOP MANIFOLD / CONNECTION INVERT
57.68	12" BOTTOM MANIFOLD INVERT
57.59	24" ISOLATOR ROW CONNECTION INVERT
57.58	BOTTOM OF CHAMBERS
56.58	BOTTOM OF STONE

- NOTES:**
- SUBSURFACE STORAGE CHAMBERS SHALL BE OF ONE LISTED BELOW, OR APPROVED EQUAL:
- ADS STORMTECH SC-740
 - CULTEC R-330XL HD
 - MANUFACTURER CHAMBER MAX 2016

- NOTES:**
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.



ISOLATOR ROW DETAIL

NTS

INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT
- INSPECTION PORTS (IF PRESENT)
 - REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
 - REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
 - USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
 - LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
 - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
 - ALL ISOLATOR ROWS
 - REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW
 - USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE
 - MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
 - FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
 - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS
- A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
 - APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
 - VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE SYSTEM.

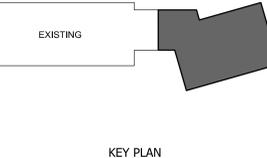
NOTES

- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

DATE	DESCRIPTION
APRIL 15, 2022	ISSUED FOR RIDE 60% CD SUBMISSION

DATE	REVISIONS	DESCRIPTION
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FOR ALL ABBREVIATIONS, SYMBOL LEGENDS, AND GENERAL NOTES SEE SHEET R0.01



KEY PLAN
PROJECT TRUE



ACHIEVEMENT FIRST ILLUMINAR SCHOOL ADDITION

85 GARFIELD AVE, CRANSTON, RI, 02920

PROJECT NO.: 21012.02 DRAWN BY: ED

SITE DETAILS II

DRAWING NO.:

C2.02

Project Consultant

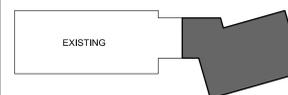
GREEN INTERNATIONAL AFFILIATES, INC.
Civil and Structural Engineers
100 Ames Pond Drive,
Tewksbury, MA 01876
GreenInt.com
(978) 923-0400

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ISSUE DATE	
DATE	DESCRIPTION
APRIL 15, 2022	ISSUED FOR RIDE 60% CD SUBMISSION

REVISIONS	
DATE	DESCRIPTION

FOR ALL ABBREVIATIONS, SYMBOL LEGENDS, AND GENERAL NOTES SEE SHEET R0.01



KEY PLAN



ACHIEVEMENT FIRST ILLUMINAR SCHOOL ADDITION

85 GARFIELD AVE, CRANSTON, RI, 02920

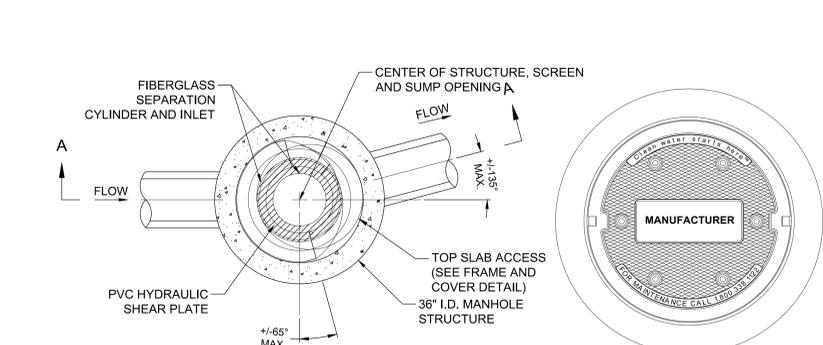
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SITE DETAILS III

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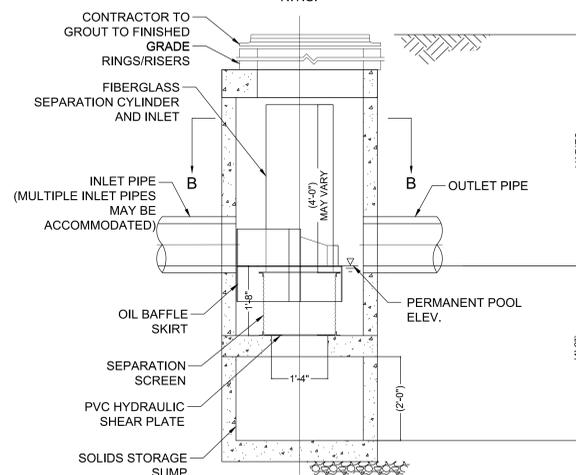
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PLAN VIEW B-B
N.T.S.

FRAME AND COVER
(DIAMETER VARIES)
N.T.S.



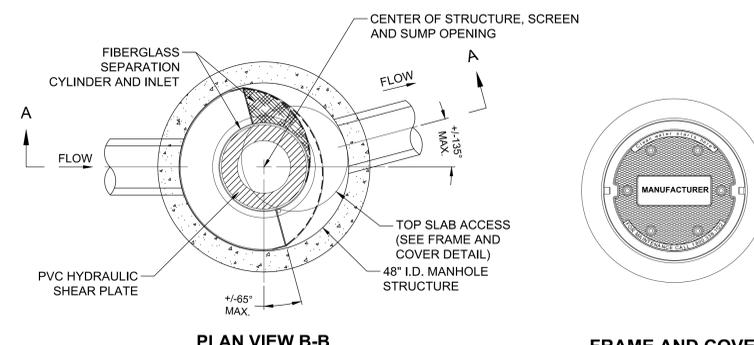
ELEVATION A-A
N.T.S.

- GENERAL NOTES**
1. MANUFACTURER TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
 2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR MANUFACTURER REPRESENTATIVE.
 3. WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
 4. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2' AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE MANUFACTURER LOGO.
 5. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
 6. STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.
 7. WATER QUALITY FLOW RATE SHALL BE EQUAL TO X CFS.

- INSTALLATION NOTES**
- A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
 - B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
 - C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
 - D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
 - E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

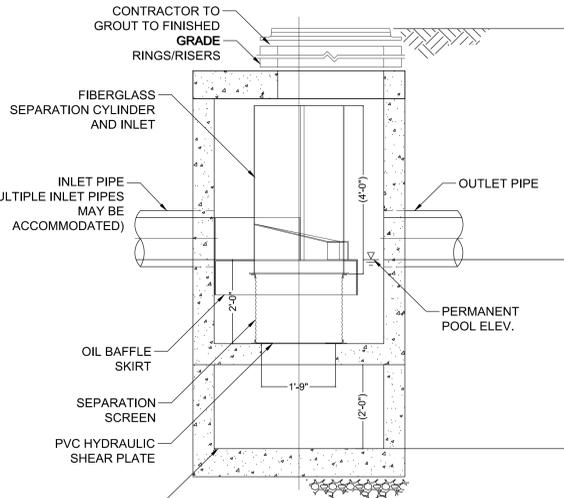
NOTES:
WATER QUALITY STRUCTURE SHALL BE OF ONE LISTED BELOW, OR APPROVED EQUAL:

1. CONTINUOUS DEFLECTIVE SEPARATOR CDS-1515-3-C BY CONTECH



PLAN VIEW B-B
N.T.S.

FRAME AND COVER
(DIAMETER VARIES)
N.T.S.



ELEVATION A-A
N.T.S.

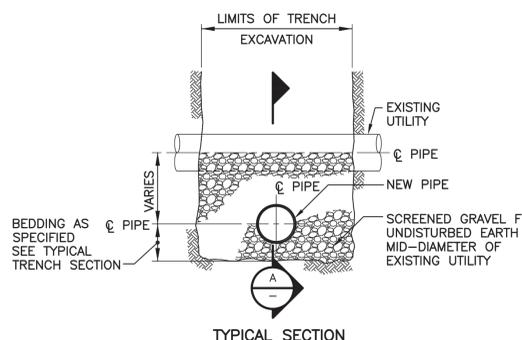
- GENERAL NOTES**
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 2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR MANUFACTURER REPRESENTATIVE.
 3. WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
 4. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2' AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE MANUFACTURER LOGO.
 5. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
 6. STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.
 7. WATER QUALITY FLOW RATE SHALL BE EQUAL TO X CFS.

- INSTALLATION NOTES**
- A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
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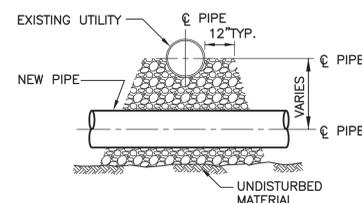
NOTES:
WATER QUALITY STRUCTURE SHALL BE OF ONE LISTED BELOW, OR APPROVED EQUAL:

1. CONTINUOUS DEFLECTIVE SEPARATOR CDS-2015-4-C BY CONTECH

1 WATER QUALITY STRUCTURE (WQS-01)
NOT TO SCALE

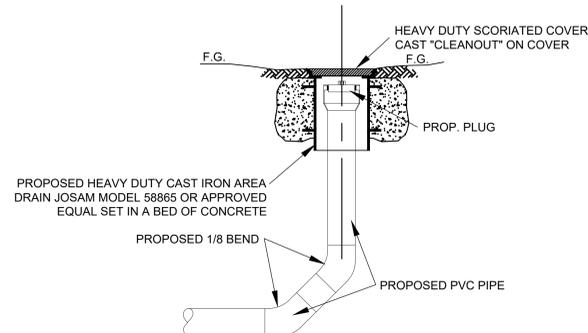


TYPICAL SECTION

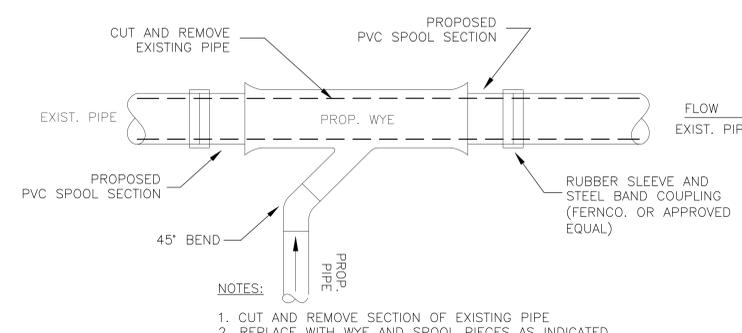


SECTION A-A

3 TYPICAL UTILITY CROSSING DETAIL
NOT TO SCALE



4 TYPICAL CLEANOUT DETAIL
NOT TO SCALE



NOTES:

1. CUT AND REMOVE SECTION OF EXISTING PIPE
2. REPLACE WITH WYE AND SPOOL PIECES AS INDICATED
3. PROVIDE TEMPORARY BULKHEAD AND BYPASS PUMP SYSTEM UPSTREAM OF CONNECTION DURING CONSTRUCTION IF REQUIRED.

5 TYPICAL CUT-IN WYE CONNECTION TO EXISTING PIPE
NOT TO SCALE