

SITE CONSTRUCTION PLANS FOR GATEWAY NORTH MIXED USE TOWN OF SMYRNA, KENT COUNTY, DELAWARE

RECEIVED
JUN 21 2022
TOWN OF SMYRNA
Building & Inspections

TOWN OF SMYRNA GENERAL NOTES

1. Tax Parcel Number: DC-17-019.00-01-62.00-000
2. Existing Zoning: SCZ - South Corridor Zone
3. Source of Title: D 4537 0253 D 4515 0074 D 2002 0011
4. Owner/Developer Address: Khokhar, L.L.C., 129-06 18th Avenue, College Point, NY 11356

Property Address: DuPont Blvd., Smyrna, DE 19977
5. Datum: Vertical: NAVD 88
Horizontal: NAD 83
6. Project Benchmark: Concrete monument, northwest corner of site
Elev.=40.40
7. Existing Site Area: 2.890± Acs.
8. Proposed Site Area: 2.890± Acs.

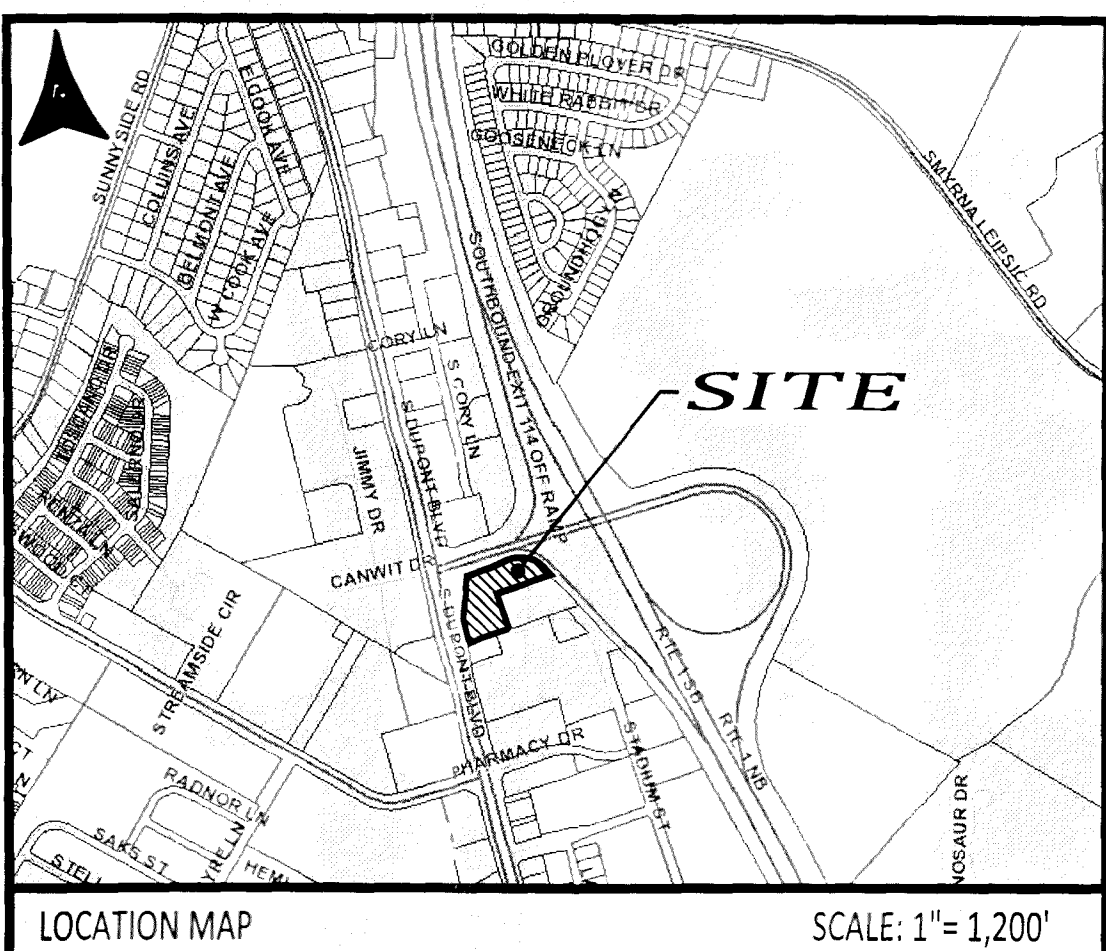
Site Cover Breakdown: Existing - Grass.....100.00% (2.8905 Acs.)
Proposed - Building.....12.71% (0.3673 Acs.)
Impervious.....62.12% (1.7955 Acs.)
Grass.....25.17% (0.7277 Acs.)
9. Area of Disturbance: 2.75± Acs.
10. Existing Use: Empty Lot
11. Proposed Land Use: 16,000 s.f. Retail and 36 Residential Apartment Units
12. Total Number of Lots: 1
13. Purpose of Plan: The purpose of these plans is to construct 16,000 s.f. of retail and 36 residential apartment units.
14. Area Regulations:

Maximum Building Height:	Required 45' (Three stories)	Proposed 40' (Three Story)
Lot Width	50' (min.)	399.73'
Lot Depth	100' (min.)	151'+
Front Yard Setback	5' (min.) 15' (max.)	14'
Side Yard Setback	0' (min.)	79'
Rear Yard Setback	0'	84'
15. Parking Requirements:

Section 6.1(A)(9)(1) Retail.....	5 spaces per 1,000 Sq. Ft. of G.F.A.
Section 6.1(A)(9)(c)(v) 1 BR Apartment.....	1.5 spaces per Unit
Section 6.1(A)(9)(c)(v) 2/3 BR Apartment.....	2 spaces per Unit
Total Parking Required.....	142 spaces (including 5 ADA spaces)

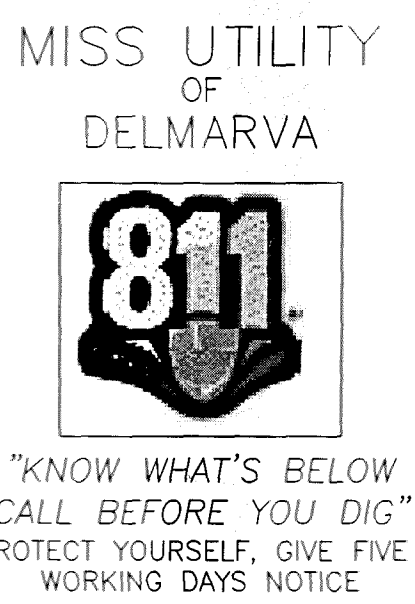
Parking Proposed: 153 spaces
- 147 standard spaces
- 6 handicap accessible (5 van accessible)
- 10 bicycle spaces (two racks)
16. Loading Area Requirements: 1 required (8,000-25,000 Sq. Ft. Retail)
Loading Areas Proposed: 1
- Monumentation: Existing: 1 CMF, 6 CP
Proposed: 2 CP
17. Common Amenity Space Requirements: Section 5.22K(2) - Each site having at least 20,000 square feet or more shall provide at least one common amenity space area with a size at least 2.5% of the parcel size.
Common Amenity Space Required: 125,888 square feet x 2.5% = 3,147 square feet
Common Amenity Space Provided: 4,600 square feet
18. Utilities:
 - A. Water Supply: Town of Smyrna. Subject to the approval of the Delaware State Department of Natural Resources and Environmental Control, the Delaware State Division of Public Health, and the Town of Smyrna.
 - B. Sanitary Sewer: Town of Smyrna. Subject to the approval of the Delaware State Department of Natural Resources and Environmental Control, the Delaware State Division of Public Health, and the Town of Smyrna.
Projected Sanitary Sewer Flow Data:
Average Daily Flow (retail/restaurant uses assumed):
Retail: 14,173 S.F. (0.05 GPD) = 709 GPD
Restaurant: 50 seats (25 GPD) = 1,250 GPD
Apartment: 32 units (200 GPD) = 6,400 GPD
Total = 8,359 GPD
Peak Flow = 33,436 GPD
 - C. Storm Drainage: All on-site drainage facilities shall be privately owned and maintained. Drainage facilities shall be in accordance with the Town of Smyrna "Standard Specifications and Details", and the Delaware Sediment and Stormwater Regulations dated 2019 or as later amended.
20. Electric: Town of Smyrna. Subject to the Town's approval.
21. Existing Fire Hydrants: 2
Proposed Fire Hydrants: 0

22. Delaware regulations prohibit the burial of construction/demolition debris, including trees and stumps on construction sites. Any solid waste found during excavation must be removed and properly discarded off-site at an approved landfill.
23. All fire lanes, fire hydrants, fire department connections, sprinklers, standpipe connections, and fire exits shall be marked and/or protected in accordance with the State Fire Protection Regulations.
24. A 20' utility easement, 10' respectively, on each side of the centerline of the pipe, shall be created, wherever possible, where a sanitary sewer, storm sewer, water, or electric, is designated for public use and is outside of the dedicated public right-of-way.
25. In addition to easements shown on this plan, a six-foot strip is hereby reserved as an easement for utilities on each lot, around the entire perimeter of each lot.
26. Developer shall preserve all trees on this site, except where necessary to construct buildings, parking, accessways, recreational facilities and utilities, and selective thinning of existing trees. Specific species of plant materials as designated on this plan or the landscape plan (if such a plan is an integral part of this plan) shall be preserved and properly protected during construction.
27. All common facilities including, but not limited to, paved areas, sidewalks, curbing, landscaping, public open space, and/or drainage facilities shall be kept in good repair and maintained in a safe sanitary condition.
28. All public utilities including, but not limited to, electric, gas, and telephone, shall be placed underground within the subdivision and land development. Such utilities shall be installed in strict accordance with the prevailing standards and practices of the utility or other company providing service, except where it is demonstrated to the satisfaction of the Town of Smyrna that underground installations are not feasible because of physical conditions of the land.
29. A landscape plan prepared by Designs, Etc. last dated 3/11/21, or as amended and approved in writing by the Town of Smyrna, is hereby considered a part of the record plan.
30. Ground control survey by Larson Engineering Group, Inc. in May 2018. Vertical controls are referenced, benchmarks as noted on plans.
31. According to the Federal Emergency Management Agency Flood Insurance Rate Map Nos. 190010062J and 100010064J, effective dates July 7, 2014, this site falls within Zone X, which has been determined to be outside the 0.2% annual chance flood plain.
32. The developer shall construct concrete sidewalks as shown on this plan.
33. Owner and/or developer will be responsible for maintenance of sediment and stormwater controls during construction and for long-term maintenance of stormwater controls until all lots have been sold. At that time, responsibility for long-term maintenance of stormwater controls shall be assumed by the homeowners/commercial lot owners association.
34. All lots and open space areas shall be provided with at least six inches of topsoil upon completion of grading and construction of individual lots and open space areas. All such areas shall be seeded, sodded, or otherwise landscaped.
35. 48-hour notice must be given to the Town of Smyrna prior to any construction activity starting.
36. All construction and materials shall be in accordance with the Town of Smyrna's "Standard Specifications and Details".
37. All site improvements, including landscaping, permanent site stabilization, and permanent stormwater management facilities shall be in place and approved, prior to issuance of a certificate of occupancy.
38. As-built plans are required to be submitted to the Town for review and approval before dedication of any improvements are accepted by the Town.
39. The Contractor is required to maintain a copy of the current Town of Smyrna Standard Specifications and Details Manual, and a set of the approved construction plans, on the site at all times during construction.
40. Site development is to be constructed per Sediment & Stormwater Management Plans approved by Kent Conservation District on January 12, 2022.
41. For maintenance declaration of open spaces, landscaping and/or stormwater management facilities, see deed restrictions, dated April 15, 2005 and of record in the Office of the Recorder of Deeds, in and for Kent County, State of Delaware, deed record book 702, page 278.
42. The following variance was granted by the Town of Smyrna Board of Adjustment, project number 21-005, on February 24, 2021
a. To install a twelve stall parking lot in front of the southern half of the proposed mixed use building along US Route 13. (Parking not permitted in front of building in SCZ zone) see Zoning: Section 5.22J - Parking Lot Design.
43. Magnetic indicator tape shall be installed 12" below grade for sanitary sewer gravity mains.
44. Miss Utility of Delmarva shall be notified three (3) consecutive working days prior to excavation, at 811 or 1-800-282-8555.



CONSTRUCTION PLANSHEET INDEX

TS-1	TITLE SHEET
SD-1	EXISTING CONDITIONS/DEMOLITION PLAN
SD-2	SITE PLAN
SD-3	GRADING PLAN
SD-4	STORM DRAIN PROFILES
SD-5	SIGNAGE AND STRIPING PLAN
SD-6	DETAIL SHEET
SD-7	DETAIL SHEET
SD-8	DETAIL SHEET
UP-1	UTILITY PLAN
UP-2	SANITARY SEWER PROFILES
UP-3	WATER MAIN PROFILE
UP-4	UTILITY DETAIL SHEET
UP-5	UTILITY DETAIL SHEET
UP-6	UTILITY DETAIL SHEET
UP-7	UTILITY DETAIL SHEET
UP-8	UTILITY DETAIL SHEET
ES-1	PRE-CONSTRUCTION SITE STORMWATER MANAGEMENT PLAN
ES-2	CONSTRUCTION SITE STORMWATER MANAGEMENT PLAN
ES-3	EROSION & SEDIMENT CONTROL NOTES AND DETAILS
ES-4	EROSION & SEDIMENT CONTROL NOTES AND DETAILS
ES-5	EROSION & SEDIMENT CONTROL NOTES AND DETAILS
FP-1	FIRE PROTECTION PLAN
LS-1	LANDSCAPE PLAN
LS-2	LANDSCAPE DETAILS
LP-1	LIGHTING PLAN



OWNER'S CERTIFICATION

I, Mahesh Khokhar, hereby certify that these improvement construction plans were prepared at our direction, and that I will construct the improvements as shown on these plans.

Signature: [Signature] Date: 3/16/2022

Khokhar, LLC
129-06 18th Avenue
College Point, NY 11356

ENGINEER'S CERTIFICATION

I, George H. Larson, Jr. PE, hereby certify that these improvement construction plans have been prepared in accordance with the current, as of the date below, zoning ordinance and subdivision and land development ordinance of the Town of Smyrna.

Date: 3-21-22 Signature: [Signature]

George H. Larson Jr. Engineer
910 S. Chapel Street, Suite 200
Newark, DE 19713

GENERAL NOTES

1. These drawings show information obtained from the best available records regarding pipes, conduits, telephone lines, and other structures and conditions which exist along the lines of the work at and below the surface of the ground. The owner and engineer disclaim any responsibilities for the accuracy or completeness of said information given. If the contractor relies on said information, he does so at his own risk. The giving of the information on the contract drawings will not relieve the contractor of his obligations to support and protect all pipes, conduit, telephone lines, and other structures/improvements.
2. The contractor shall notify the following, two (2) weeks prior to the start of construction and shall coordinate construction and erosion control with the utility companies involved:

Miss Utility.....1-800-282-8555
Town of Smyrna Planning.....1-302-653-3486
Kent County Soil Conservation District.....1-302-741-2600
Larson Engineering Group, Inc.....1-302-731-7434
3. All construction shall be marked for traffic and pedestrian safety.
4. The contractor shall provide all equipment, labor, and materials for any miscellaneous or test pit excavations required by the engineer.
5. The owner is responsible for the acquisition of all easements, both permanent and temporary.
6. The contractor assumes all responsibility for any deviations from these plans unless said deviation is approved by the engineer. Contractor shall receive written permission from the engineer if a deviation of the plans is necessary.
7. All disturbed areas shall be smoothly graded to provide positive drainage in the direction of flow arrows herein and stabilized with topsoil, seed, and mulch. If settlement occurs, topsoil seed, and mulching shall be repeated until settlement subsides (see erosion and sediment control specifications).
8. Trenches shall not remain open overnight. If it is necessary for trenches to remain open, steel plates capable of bearing traffic shall be used to completely cover the trench openings.
9. All sediment and erosion control facilities shall conform to Delaware Erosion and Sediment Control Handbook 2003, or newest edition.
10. All fire lanes, fire hydrants, and Fire Department connections shall be marked in accordance with the State Fire Protection regulations.
11. Topography was field generated by Larson Engineering Group, Inc. May 2018.
12. Boundary information was prepared by Larson Engineering Group, Inc. May 2018.
13. The Kent Conservation District reserves the right to add, modify or delete any erosion and sediment control measures as it deems necessary.
14. The owner shall be responsible for all Stormwater facility maintenance.
15. The Kent Conservation District reserves the right to enter private property for purposes of periodic site reviews.
16. All construction/demolition debris shall be removed off-site to an approved solid waste facility.
17. All construction shall be done in accordance with the Town of Smyrna Standard Specifications and Details, dated June 2017.
18. All handicap accessible features and parking spaces are to be constructed and signage placed in accordance with A.D.A. regulations.
19. A wetland delineation was performed by Back Creek Environmental Consulting, LLC, an Army Corps of Engineers and/or society of wetlands scientists certified delineator, during the month of March 2021, in accordance with the 1987 code delineation manual and associated guidance. This site is not impacted by federally regulated wetlands.
20. The site is located within an area having a zone designation "X" (Area of minimal flood hazard) by the Secretary of Housing and Urban Development, on F.I.R.M. Map Nos. 10001C0062J and 10001C0064J, with a date of July 7, 2014, for community number 100017, in Kent County, Delaware.

TOWN ENGINEER AND TOWN MANAGER CERTIFICATION

These improvement construction plans conform to the applicable Town of Smyrna ordinances and standards.

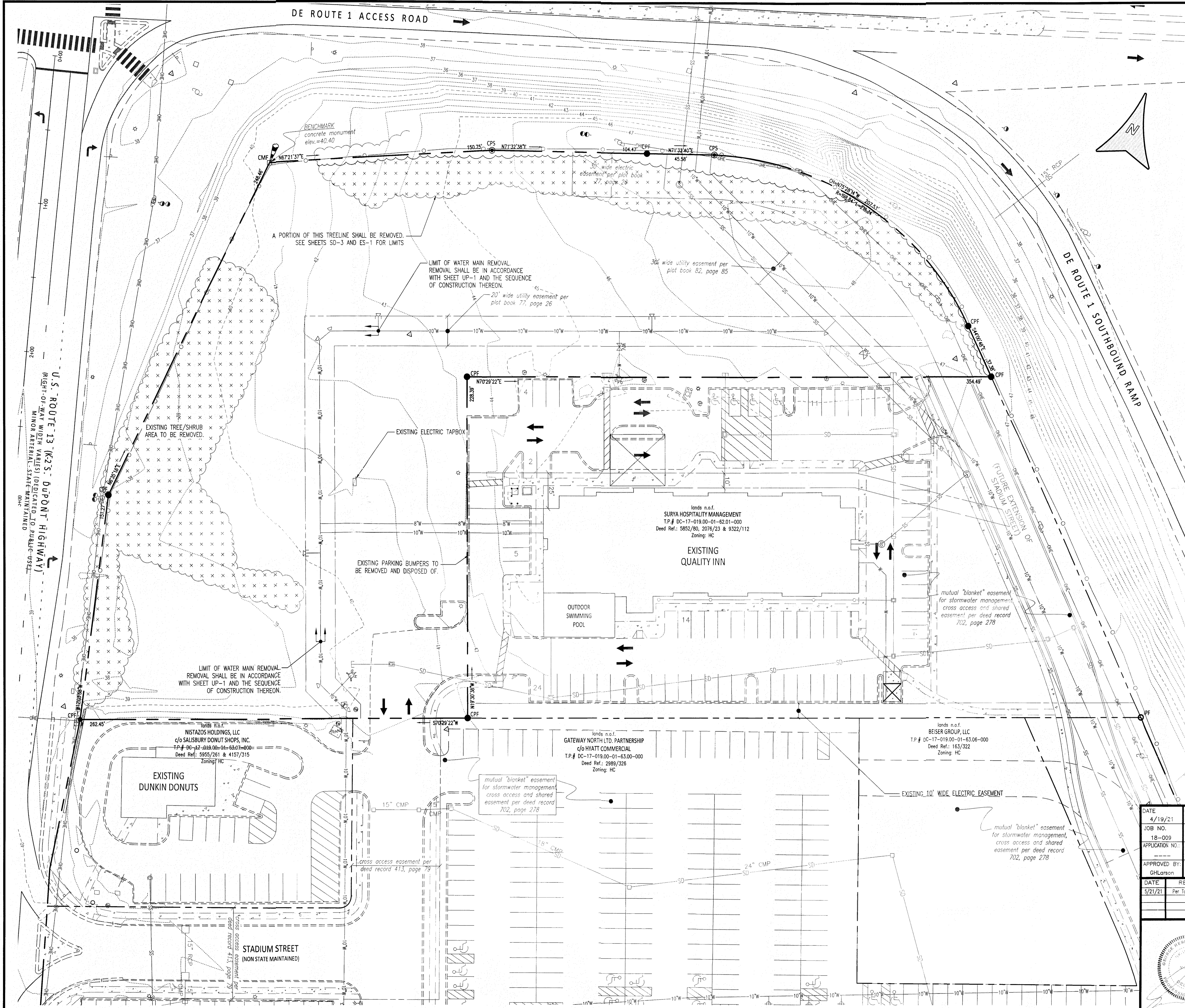
Town Manager: [Signature] Date: 6-16-2022

Town Engineer: [Signature] Date: June 16, 2022

DATE: 4/19/21	SCALE: AS NOTED	TITLE SHEET
JOB NO. 18-009	DRAWN BY: BDLenhoff	FOR
APPLICATION NO.:	DESIGNED BY: AJCollins	GATEWAY NORTH MIXED-USE
APPROVED BY: GHLarson	CHECKED BY: DJLiberman	TOWN OF SMYRNA, KENT COUNTY, DELAWARE
DATE: 5/21/21	REVISION: Per Town of Smyrna	PREPARED FOR: KHOKHAR, LLC
8/9/21	Note 41	LARSON
		ENGINEERING GROUP INC.
		CIVIL ENGINEERING & LAND PLANNING
		910 SOUTH CHAPEL STREET • SUITE 200 NEWARK, DE 19713 Phone: (302) 731-7434 Fax: (302) 731-8211
DATE: 3-21-22	SEAL	SHEET NO.: TS-1

EXCEPTIONS TABLE		
EXCEPTION	PURPOSE	REFERENCE
Declaration of Stormwater Management, Cross Access and Shared Easement	Blanket Easement	DR702, Pag 278
Cross Easement	Right of access through adjacent parcel DC-17-019.00-01-63.00-000	DR413, Page 79
Electric Easement	Electric line access	Plot Book 77, Page 26
Utility Easement	Water line access	Plot Book 77, Page 26
Utility Easement	Sanitary and water line access	Plot Book 82, Page 85

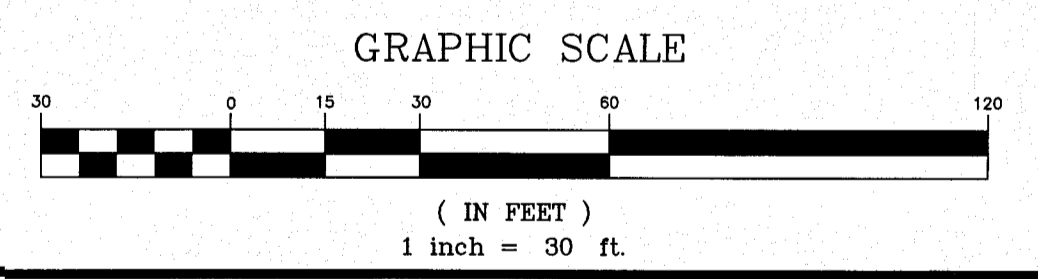
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LEGEND

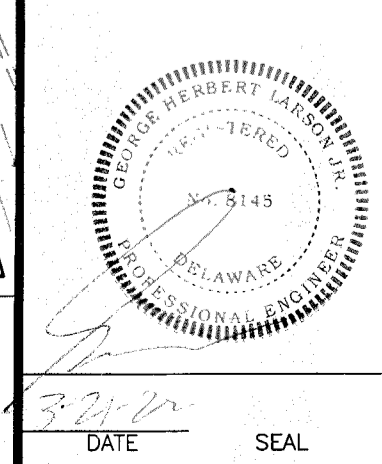
EXISTING CONTOUR	---	333
EXISTING TREE LINE	~~~~~	
EXISTING CURB	---	
EXISTING STORM DRAIN LINE	---	SD
EXISTING STORM DRAIN MANHOLE	⊙	
EXISTING INLET	⊙	
EXISTING SAN. SEWER LINE	---	SS
EXISTING SANITARY SEWER MANHOLE	⊙	
EXISTING SEWER CLEANOUT	⊙	
EXISTING WATER LINE	---	W
EXISTING FIRE HYDRANT	⊙	
EXISTING WATER VALVE	⊙	
EXISTING GAS LINE	---	GAS
EXISTING UTILITY POLE	⊙	
EXISTING GUY WIRE	---	
EXISTING OVERHEAD ELECTRIC	---	OHE
EXISTING LIGHT POLE	⊙	
EXISTING TELEPHONE MANHOLE	⊙	
EXISTING TELEPHONE PEDESTAL	⊙	
EXISTING SIGN	⊙	
IRON PIPE FOUND	⊙	IPF
CAPPED PIN FOUND	⊙	CPF
CONCRETE MONUMENT FOUND	⊙	CMF
EXISTING LIMITS OF TREE REMOVAL	⊗	

NOTE: SEE SHEET ES-3 FOR SEQUENCE OF CONSTRUCTION PRIOR TO THE START OF CONSTRUCTION.



DATE	SCALE
4/19/21	1"=30'
JOB NO.	DRAWN BY
18-009	BDLenhoff
APPLICATION NO.	DESIGNED BY
	AJCollins
APPROVED BY:	CHECKED BY:
GH/Larson	DJLiberman
DATE	REVISION
5/21/21	Per Town of Smyrna

EXISTING CONDITIONS/DEMOLITION PLAN
FOR
GATEWAY NORTH MIXED-USE
TOWN OF SMYRNA, KENT COUNTY, DELAWARE
PREPARED FOR: KHOKHAR, LLC

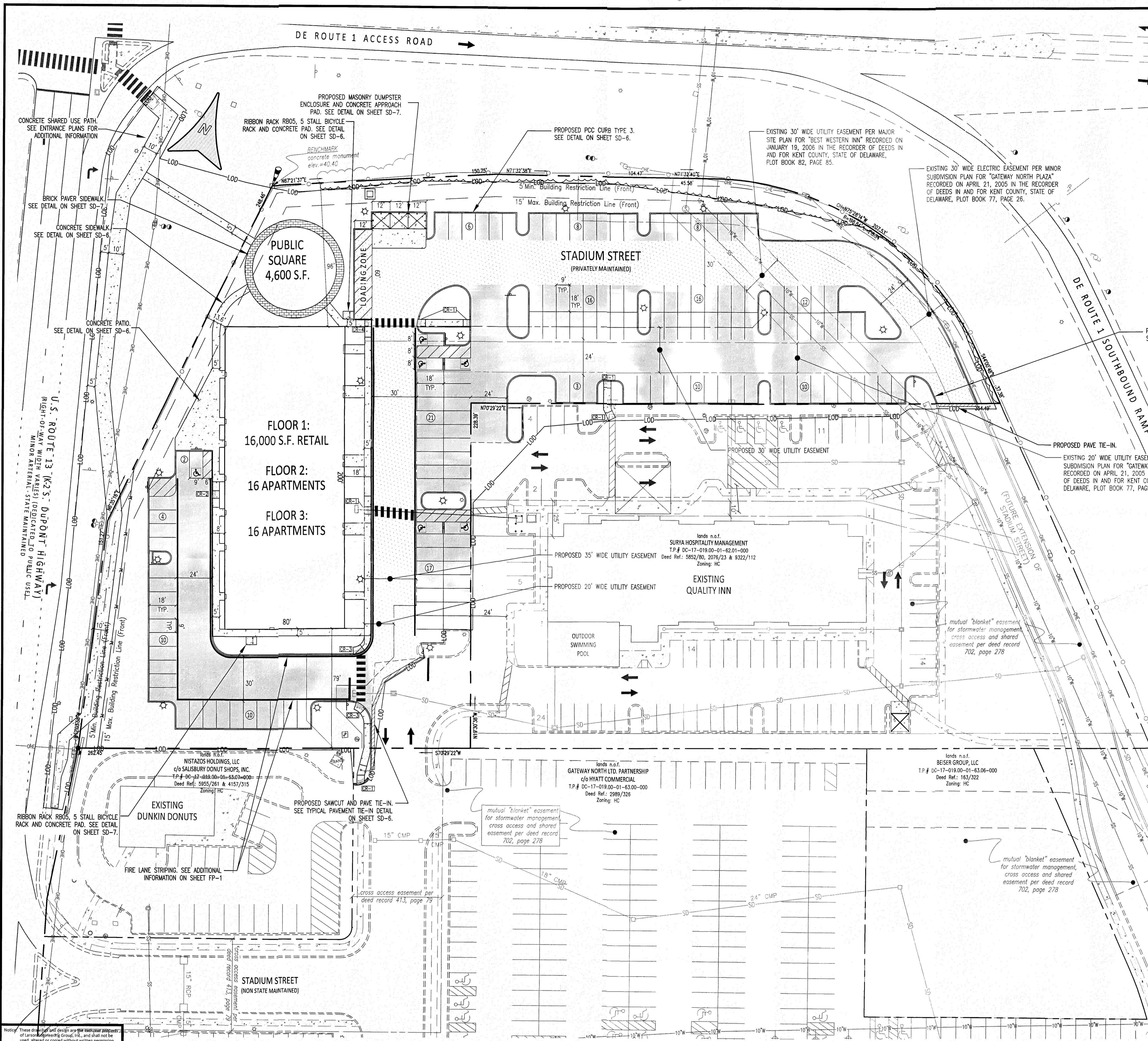


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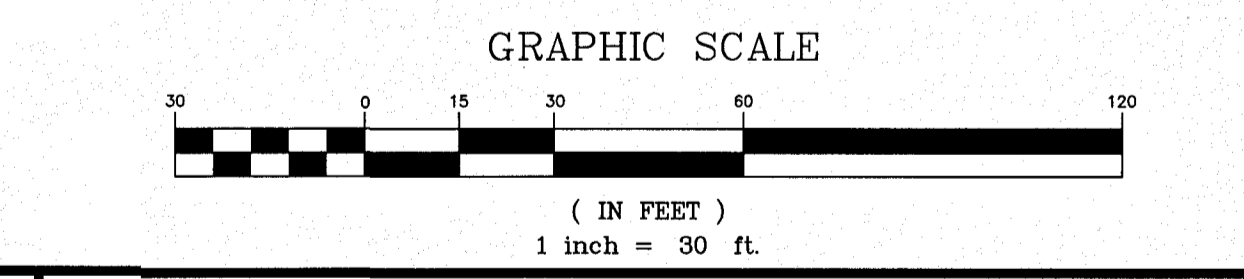
DATE: 5/21/21 SEAL

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SHEET NO.: SD-1 CADD FILE: ExistingConditions_1.dwg



LEGEND	
EXISTING	PROPOSED
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SD	CR
SS	CR-1
SS	CR-2
SS	CR-3
SS	CR-4
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W	CR-49
W	CR-50



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8/9/21	Per Town of Smyrna

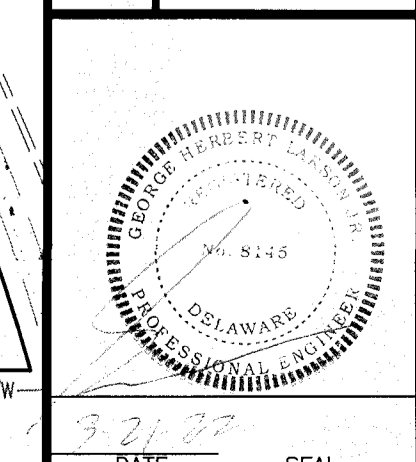
SITE PLAN

FOR

GATEWAY NORTH MIXED-USE

TOWN OF SMYRNA, KENT COUNTY, DELAWARE

PREPARED FOR: KHOKHAR, LLC



LARSON

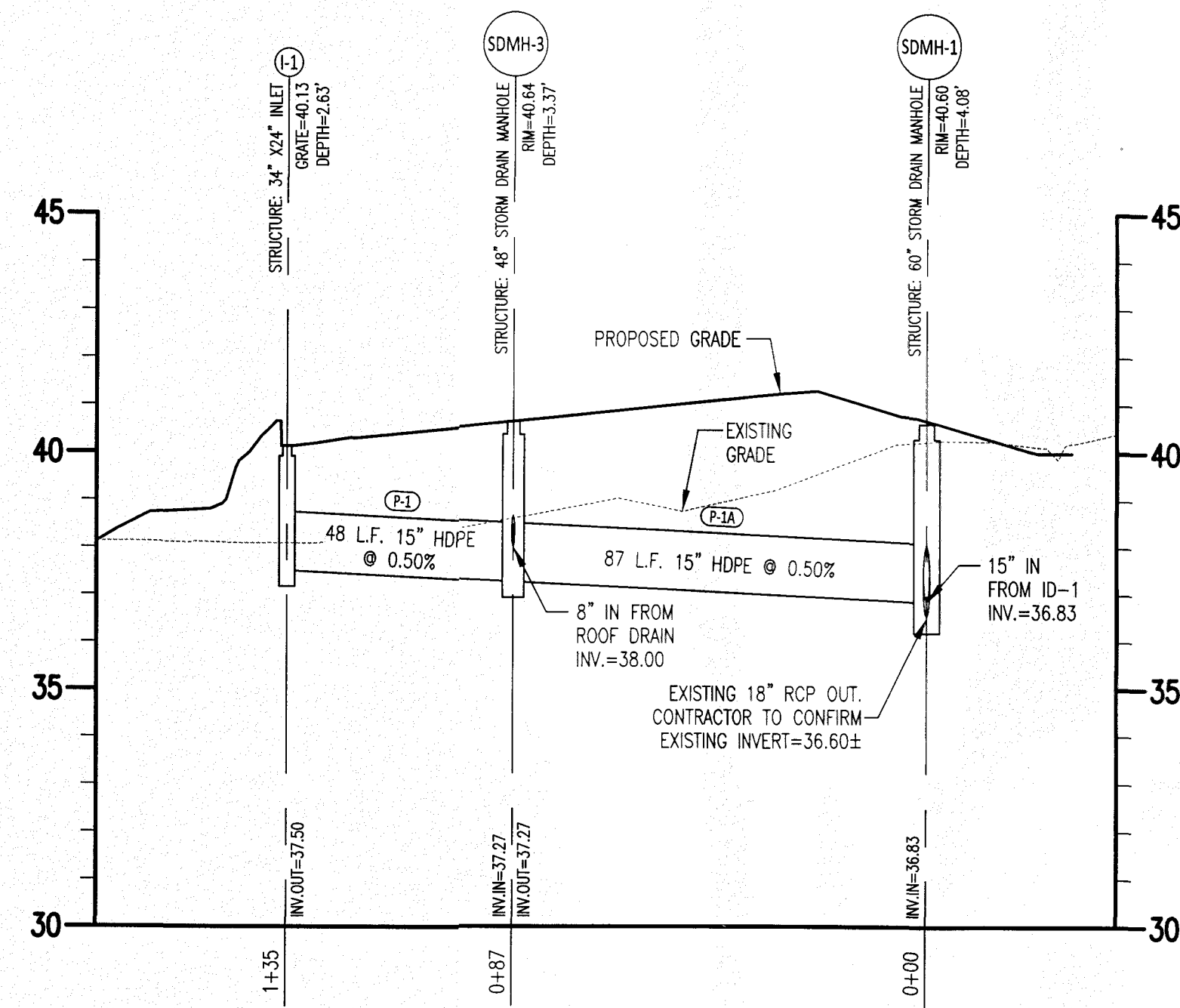
ENGINEERING GROUP INC.

CIVIL ENGINEERING & LAND PLANNING

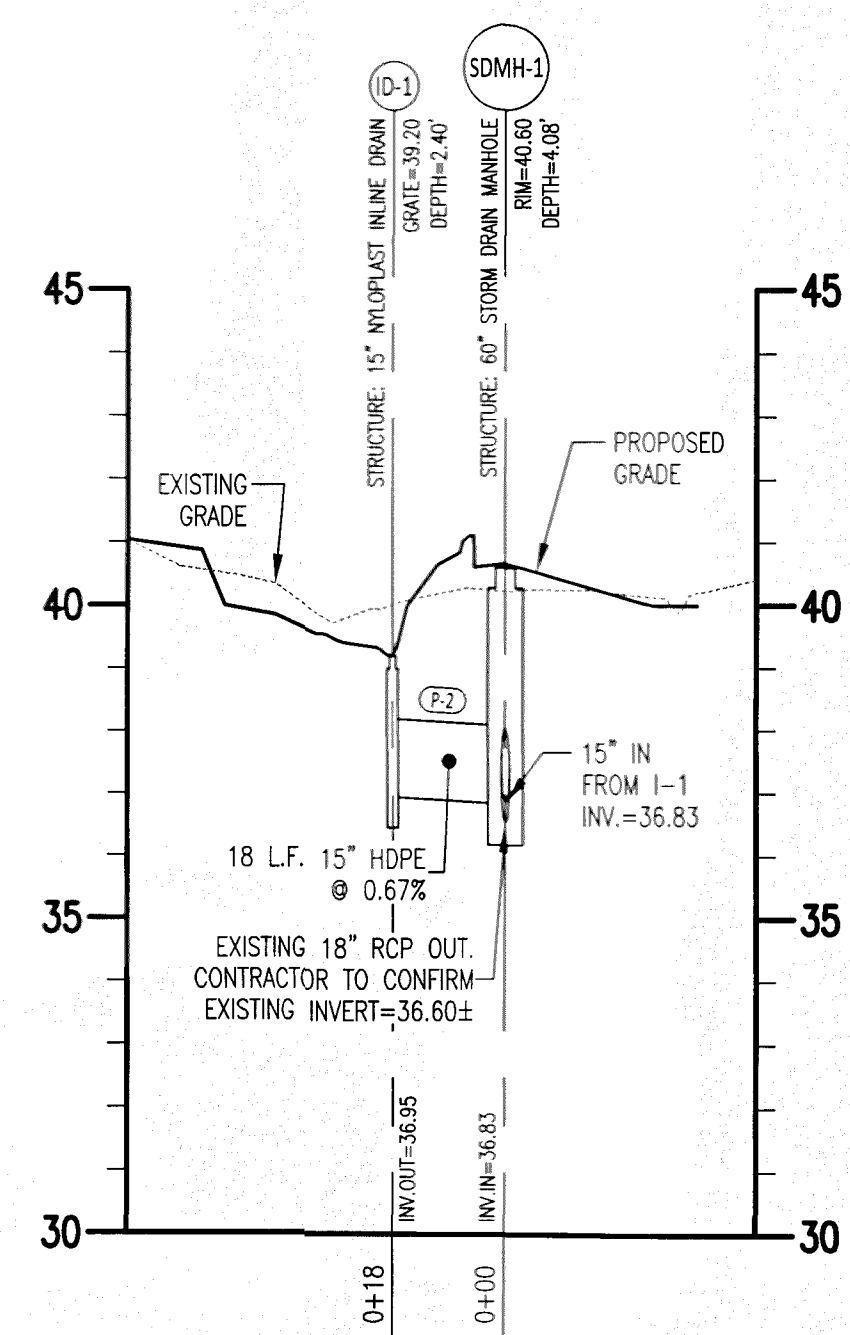
910 SOUTH CHAPEL STREET • SUITE 200
NEWARK, DE 19713
Phone: (302) 731-7434
Fax: (302) 731-8211

SHEET NO.: S D-2 CADD FILE: SitePlan_Khokhar

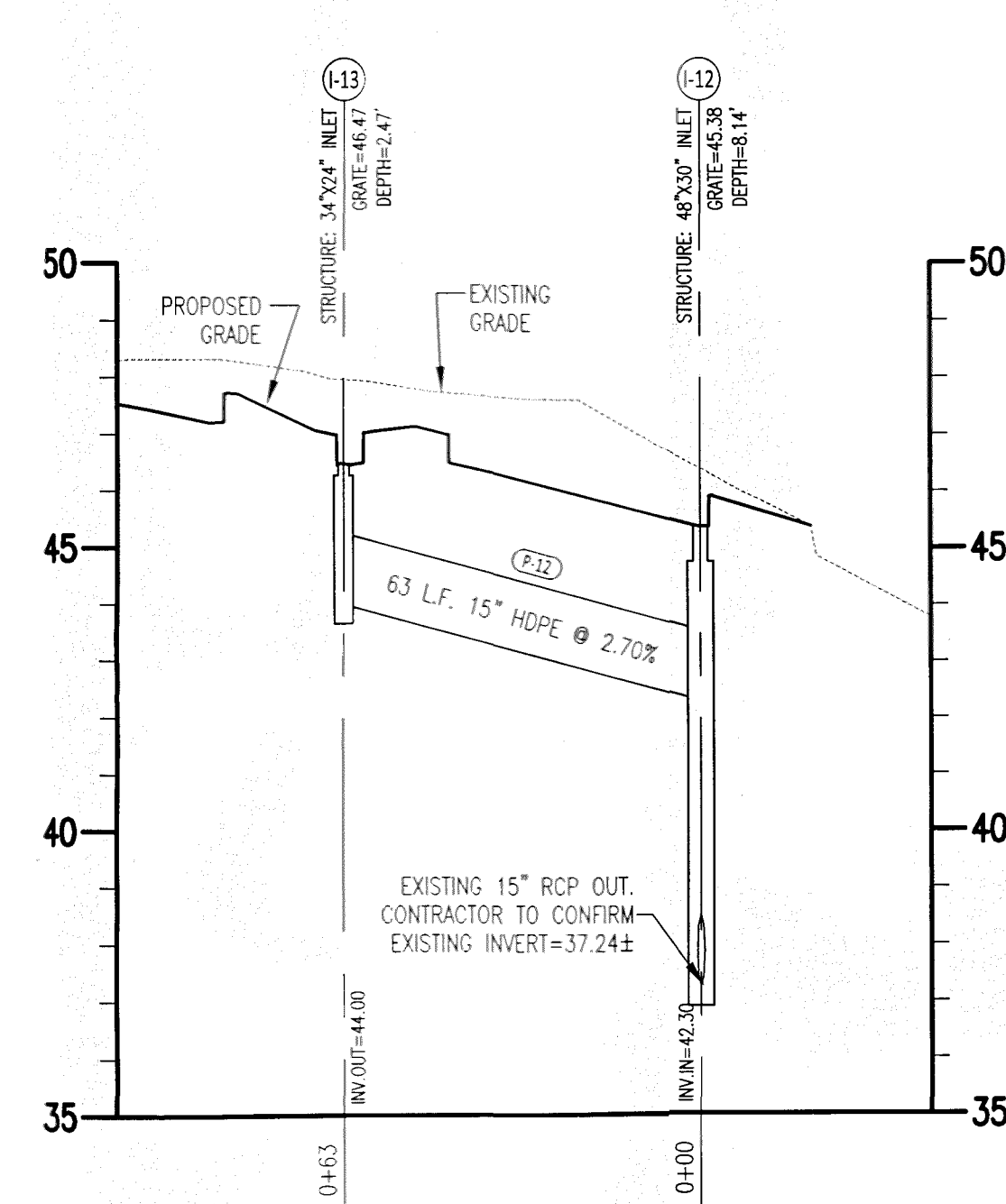
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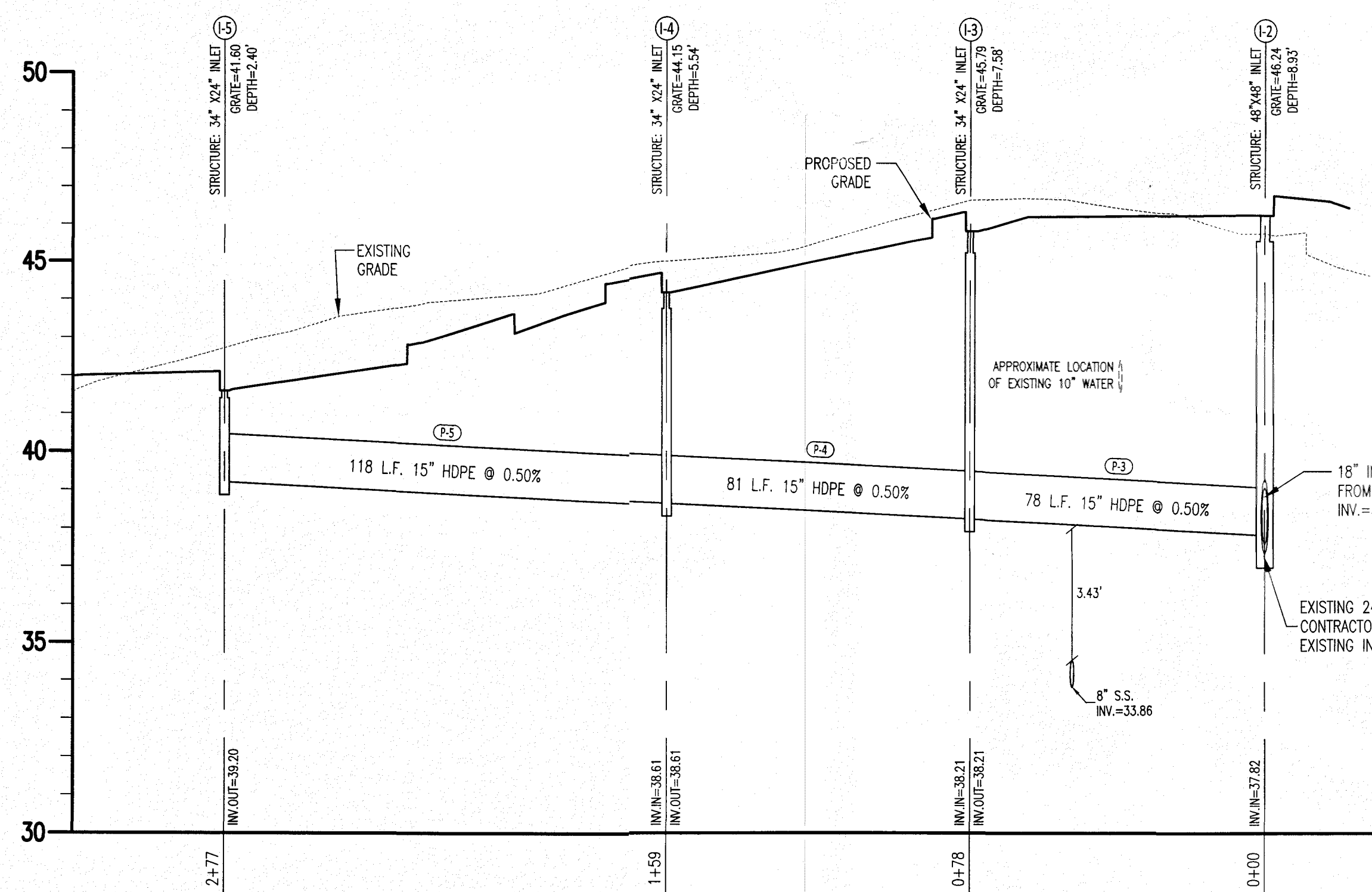
STORM DRAIN PROFILE: I-1 TO SDMH-1
SCALE: 1" = 30' HOR.
1" = 3' VERT.



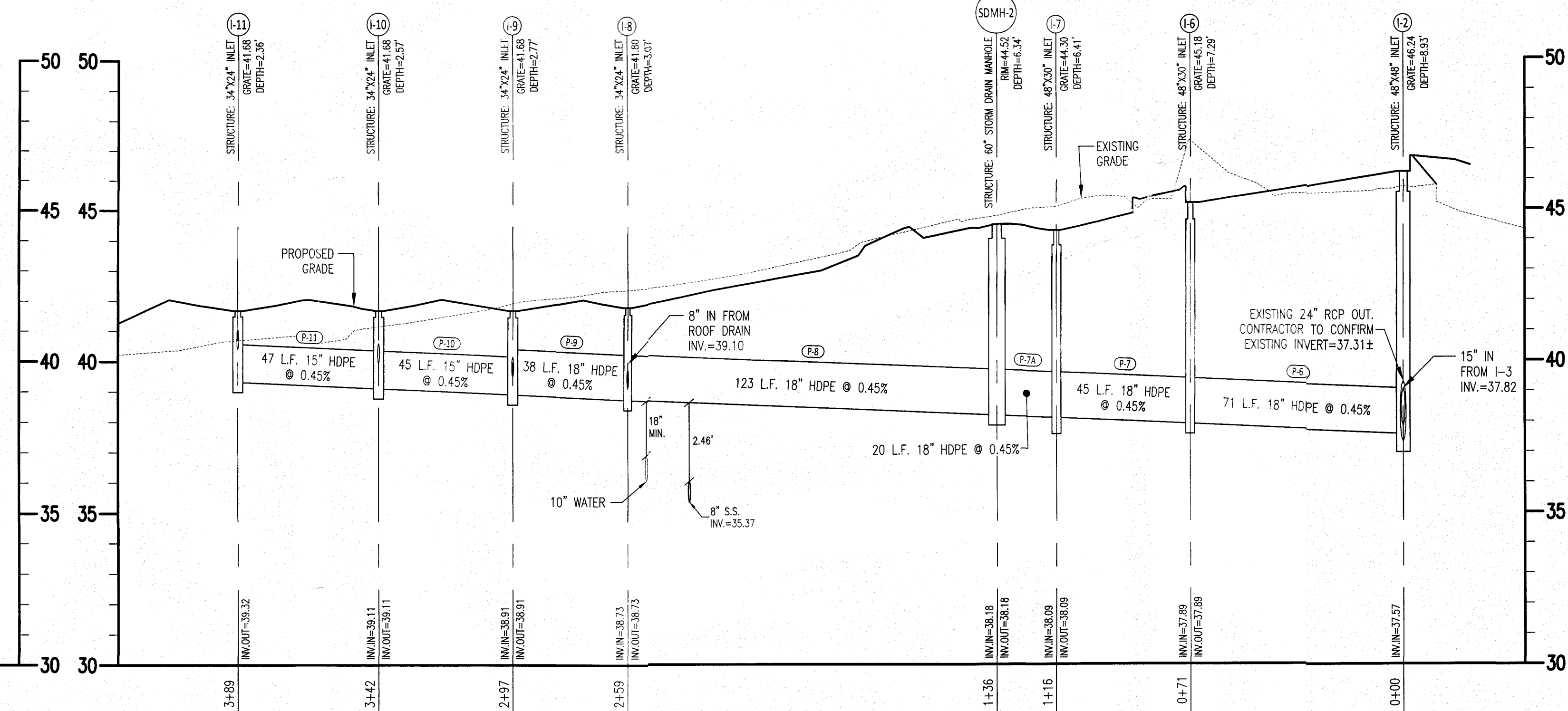
STORM DRAIN PROFILE: ID-1 TO SDMH-1
SCALE: 1" = 30' HOR.
1" = 3' VERT.



STORM DRAIN PROFILE: I-13 TO I-12
SCALE: 1" = 30' HOR.
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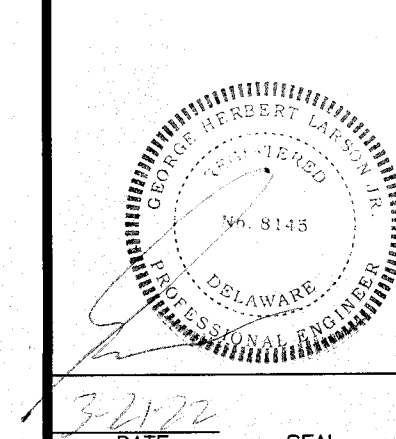
STORM DRAIN PROFILE: I-5 TO I-2
SCALE: 1" = 30' HOR.
1" = 3' VERT.



STORM DRAIN PROFILE: I-11 TO I-2
SCALE: 1" = 30' HOR.
1" = 3' VERT.

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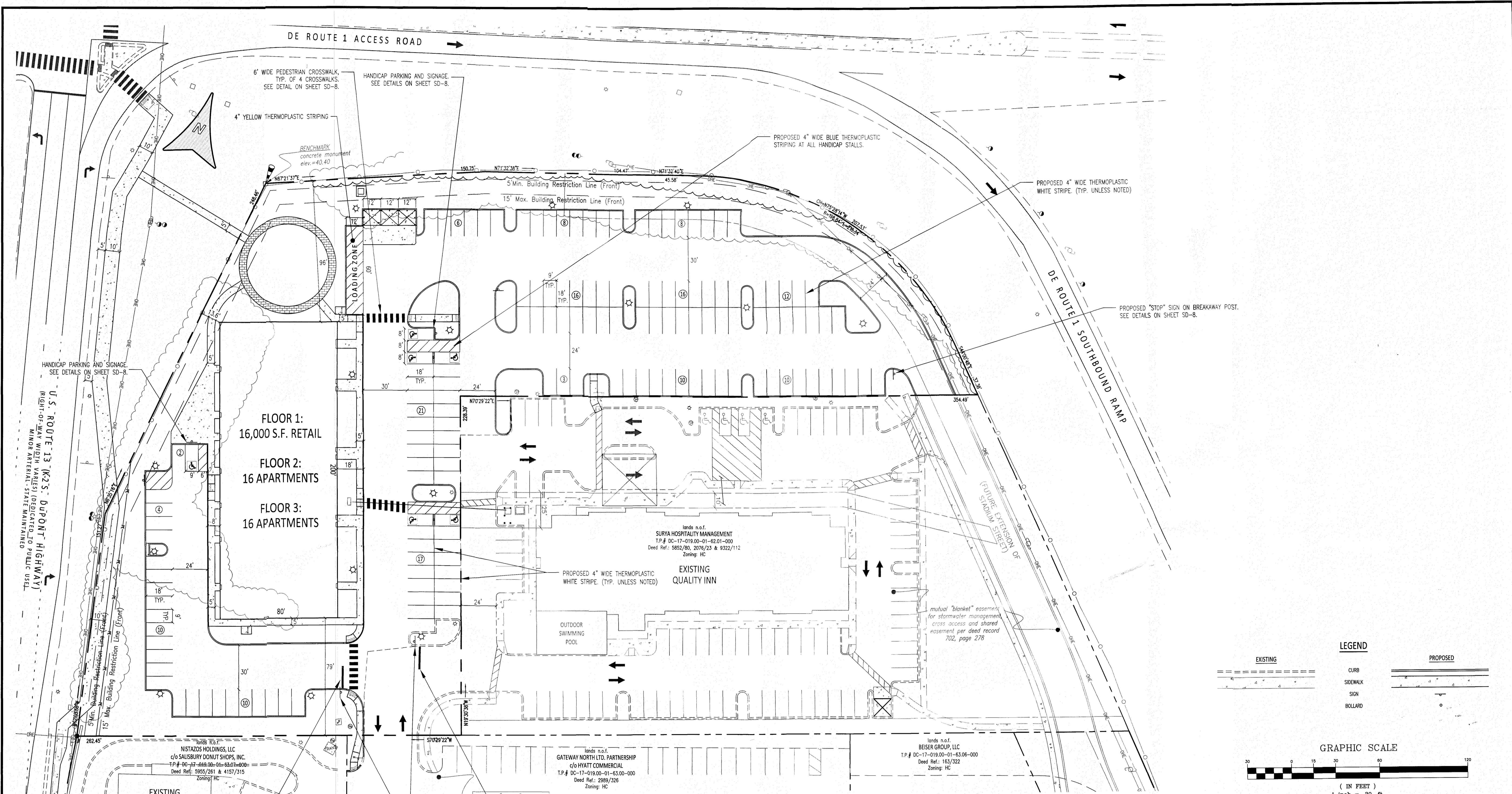
STORM DRAIN PROFILES
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NOTE: SEE ENTRANCE PLANS FOR STORM DRAIN WITHIN THE STATE RIGHT-OF-WAY.

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FLOOR 1:
16,000 S.F. RETAIL

FLOOR 2:
16 APARTMENTS

FLOOR 3:
16 APARTMENTS

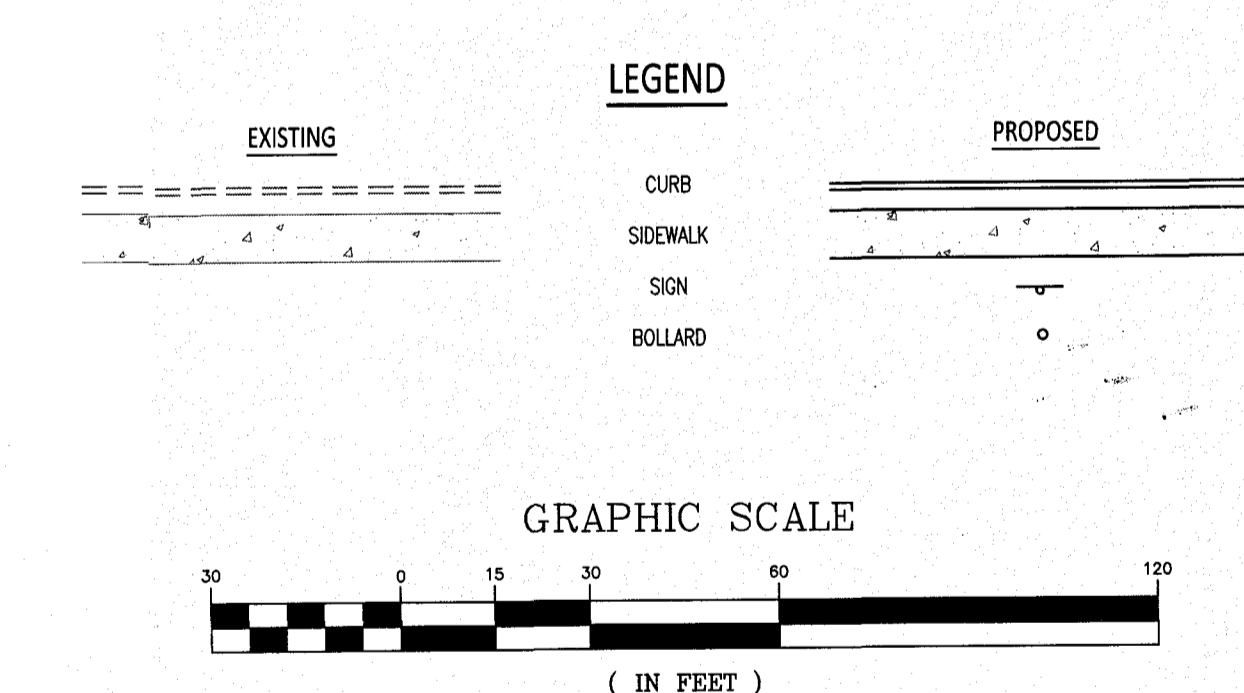
lands n.o.f.
SURYA HOSPITALITY MANAGEMENT
T.P.# DC-17-019.00-01-62.01-000
Deed Ref.: 5852/80, 2076/23 & 9322/112
Zoning: HC

EXISTING
QUALITY INN

lands n.o.f.
BEISER GROUP, LLC
T.P.# DC-17-019.00-01-63.06-000
Deed Ref.: 1653/322
Zoning: HC

lands n.o.f.
GATEWAY NORTH LTD. PARTNERSHIP
c/o HYATT COMMERCIAL
T.P.# DC-17-019.00-01-63.00-000
Deed Ref.: 2988/326
Zoning: HC

lands n.o.f.
NISTAZOS HOLDINGS, LLC
c/o SALISBURY DONUT SHOPS, INC.
T.P.# DC-17-019.00-01-63.07-000
Deed Ref.: 5955/261 & 4157/315
Zoning: HC



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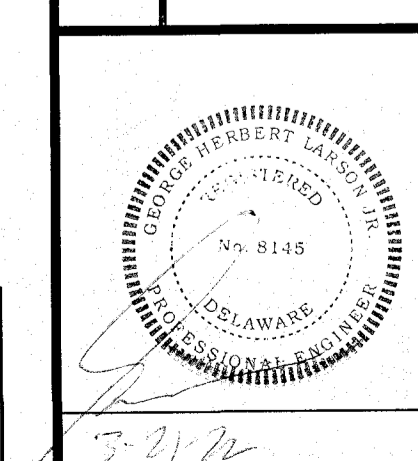
SIGNAGE AND STRIPING PLAN

FOR

GATEWAY NORTH MIXED-USE

TOWN OF SMYRNA, KENT COUNTY, DELAWARE

PREPARED FOR: KHOKHAR, LLC



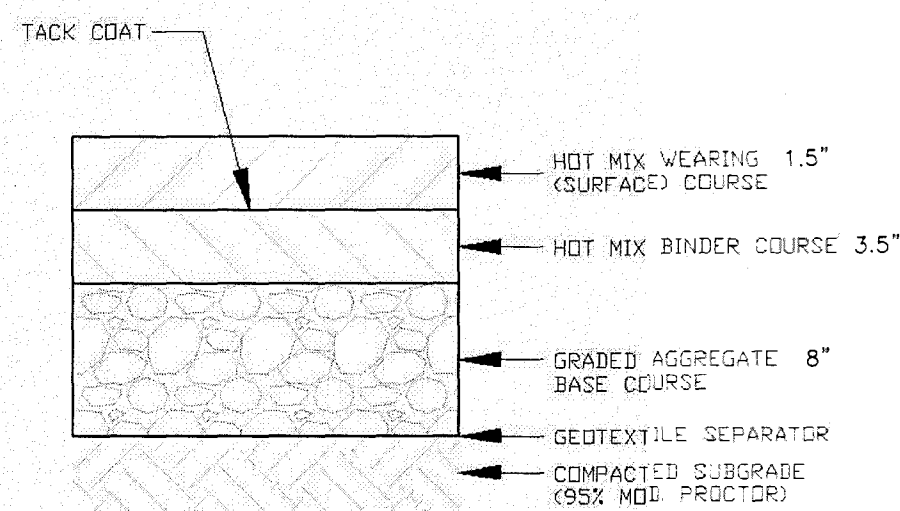
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NOTE
SEE SHEET FP-1 FOR FIRE LANE STRIPING AND SIGNAGE INFORMATION.

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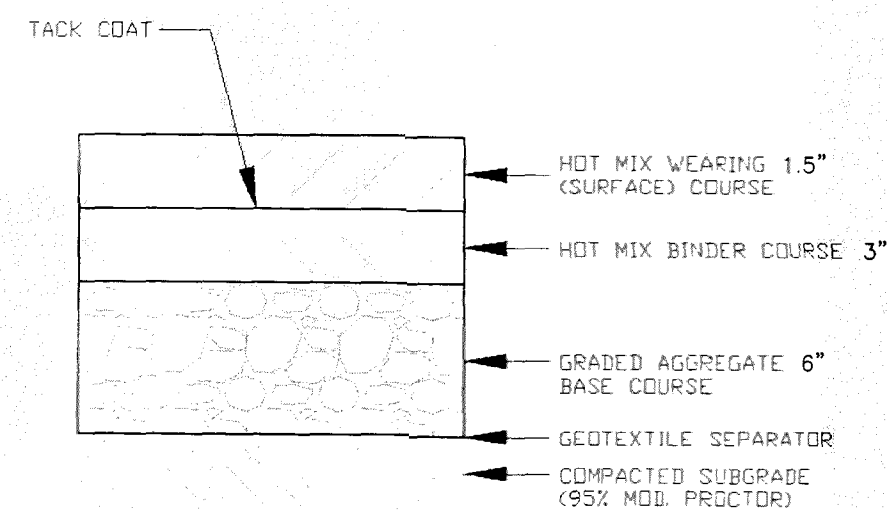
SHEET NO.: SD-5



- NOTES:
1. PAVEMENT SECTION SHALL BE PER SECTION S410 OF THE TOWN OF SMYRNA CONSTRUCTION SPECIFICATIONS.
 2. MINIMUM THICKNESS FOR HOT MIX SHALL BE 4 INCHES.
 3. WEARING (SURFACE) COURSE SHALL BE HOT MIX ASPHALT SUPERPAVE - 9.5 MM AND BINDER COURSE SHALL BE HOT MIX ASPHALT SUPERPAVE - 12.5 OR 19.0 MM, UNLESS SPECIFIED AND APPROVED ON THE PLANS.
 4. DEVELOPMENT MUST BE 75% COMPLETE PRIOR TO PLACEMENT OF WEARING (SURFACE) COURSE.
 5. BASE AND SUBGRADE SHALL BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY.

HEAVY DUTY ON-SITE PAVE DETAIL
(NTS)

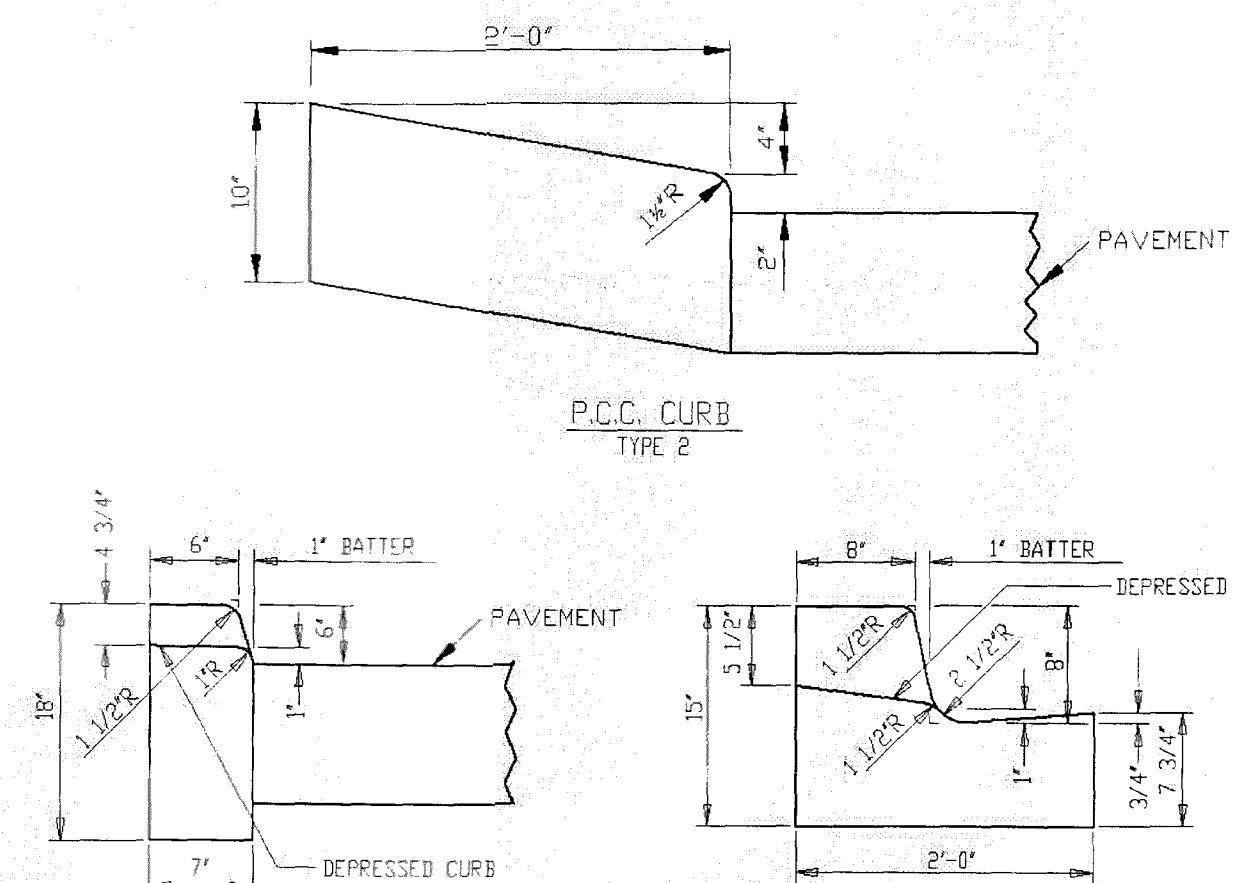
Issued	08/04		Pavement Section New Construction
Revised			
Source		Department of Public Works	Standard No. R-11



- NOTES:
1. PAVEMENT SECTION SHALL BE PER SECTION S410 OF THE TOWN OF SMYRNA CONSTRUCTION SPECIFICATIONS.
 2. MINIMUM THICKNESS FOR HOT MIX SHALL BE 4 INCHES.
 3. WEARING (SURFACE) COURSE SHALL BE HOT MIX ASPHALT SUPERPAVE - 9.5 MM AND BINDER COURSE SHALL BE HOT MIX ASPHALT SUPERPAVE - 12.5 OR 19.0 MM, UNLESS SPECIFIED AND APPROVED ON THE PLANS.
 4. DEVELOPMENT MUST BE 75% COMPLETE PRIOR TO PLACEMENT OF WEARING (SURFACE) COURSE.
 5. BASE AND SUBGRADE SHALL BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY.

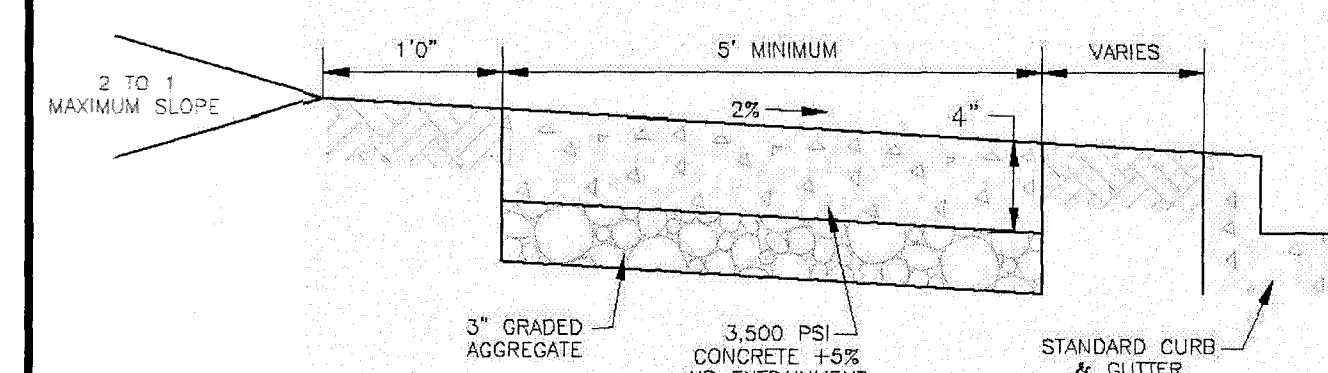
LIGHT DUTY ON-SITE PAVE DETAIL
(NTS)

Issued	08/04		Pavement Section New Construction
Revised			
Source		Department of Public Works	Standard No. R-11



- NOTES:
1. WHEN P.C.C. CURB OR INTEGRAL P.C.C. CURB AND GUTTER IS PLACED ADJACENT TO PORTLAND CEMENT CONCRETE PAVEMENT AND THERE IS A SEPARATION, USE APPROVED JOINT FILLER TO BE PAID UNDER RESPECTIVE CURB AND GUTTER ITEM.
 2. DEPRESS CURB AT DRIVEWAYS.
 3. DEPRESS CURB FLUSH WITH PAVEMENT AT CURB RAMPS.

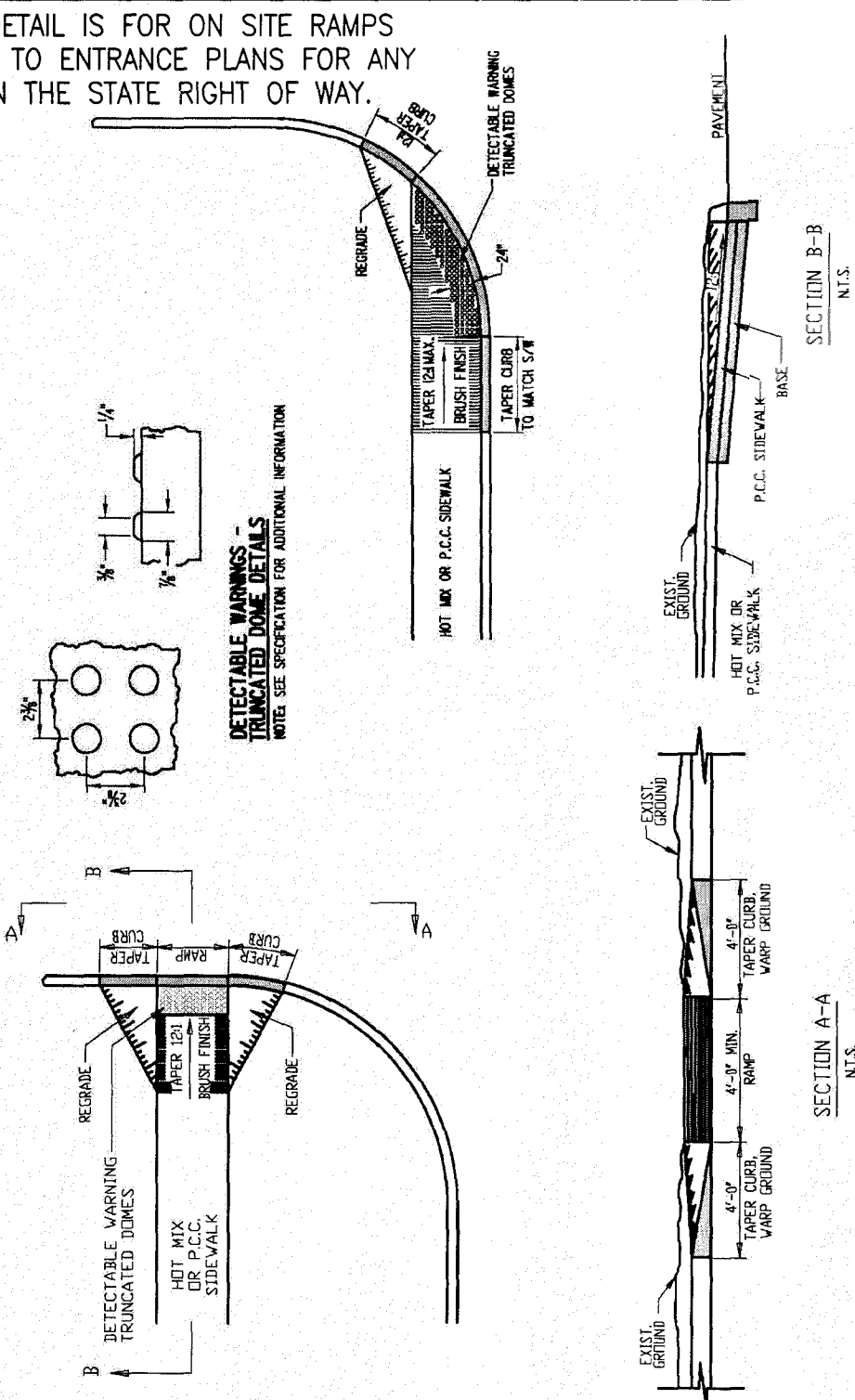
Issued	08/04		CURB DETAIL
Revised			
Source	DELDOT	Department of Public Works	Standard No. R-13



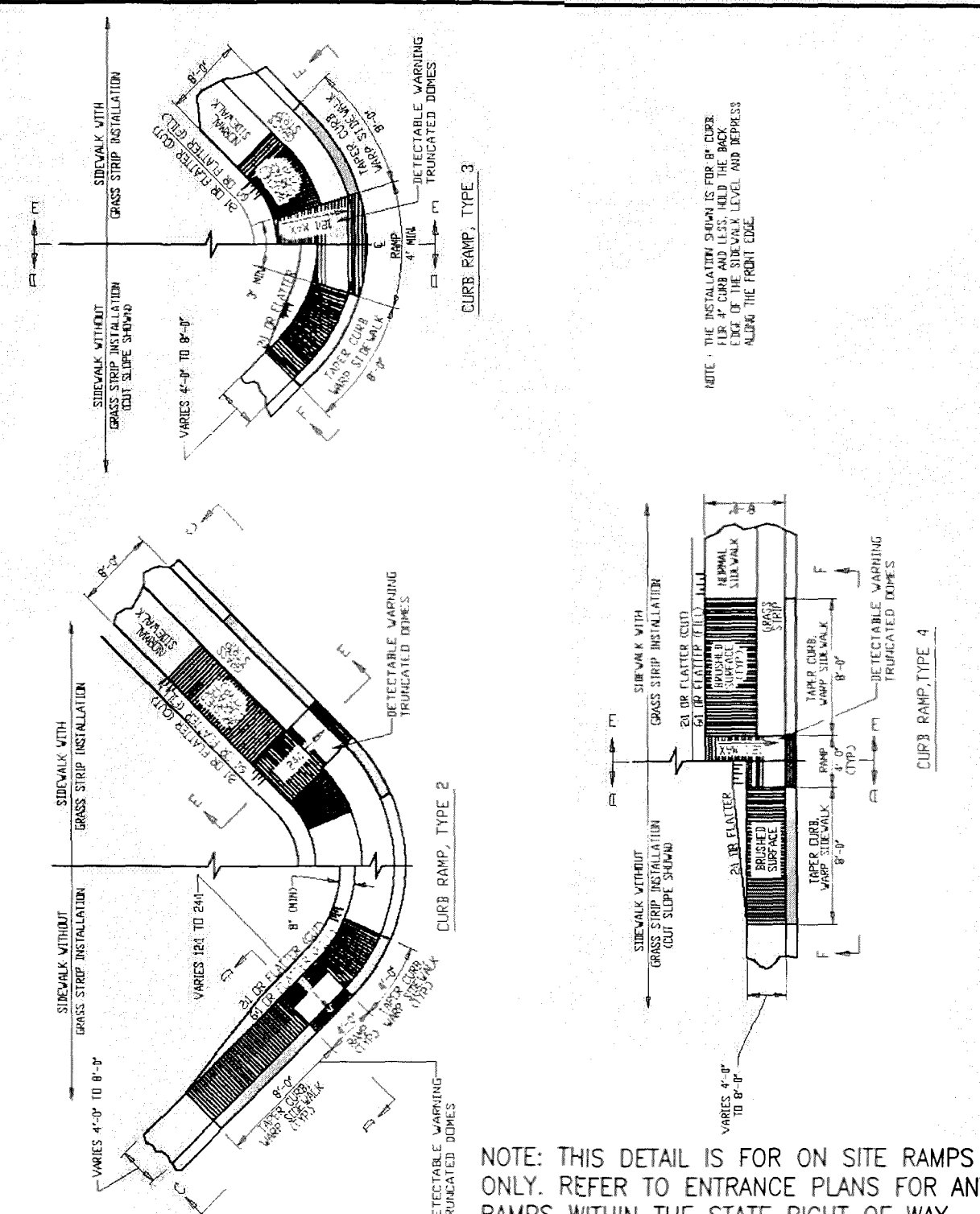
- NOTES:
1. TWENTY-EIGHT (28) DAY SPECIFIED COMPRESSIVE STRENGTH FOR CONCRETE MIX @ 3,500 PSI.
 2. ALL SIDEWALK SHALL BE FOUR INCHES (4") MINIMUM THICKNESS, UNLESS OTHERWISE NOTED.
 3. SIDEWALK ACROSS DRIVEWAYS AND DRIVEWAY APRONS SHALL BE SIX INCHES (6") MINIMUM THICKNESS OVER 6" GRADED AGGREGATE, UNLESS OTHERWISE NOTED.
 4. SIDEWALKS SHALL HAVE DUMMY JOINTS EVERY FOUR FEET (4') AND SHALL HAVE EXPANSION JOINTS INSTALLED EVERY SIXTEEN FEET (16').
 5. A PVC SLEEVE OF FOUR INCHES (4") IN DIAMETER, INSTALLED TO A DEPTH OF AT LEAST TWELVE INCHES (12") BELOW FINISHED GRADE AND INTO SOIL, SHALL BE PROVIDED FOR EACH SIGN POST LOCATED WITHIN THE SIDEWALK PRIOR TO INSTALLATION OF CONCRETE MIX.
 6. ALL UNPAVED AREAS WITHIN RIGHT-OF-WAY SHALL BE SEEDED AND MULCHED WITH A MINIMUM OF SIX INCHES (6") OF TOP SOIL OR SODDED TO OBTAIN A THICK STAND OF GRASS.
 7. SIDEWALKS ALONG ARTERIAL, COLLECTOR AND BOULEVARD ROADWAYS SHALL BE A MINIMUM OF FIVE (5) FEET WIDE.

Issued	08/04		SIDEWALK
Revised	10/12		
Source		Department of Public Works	Standard No. R-14

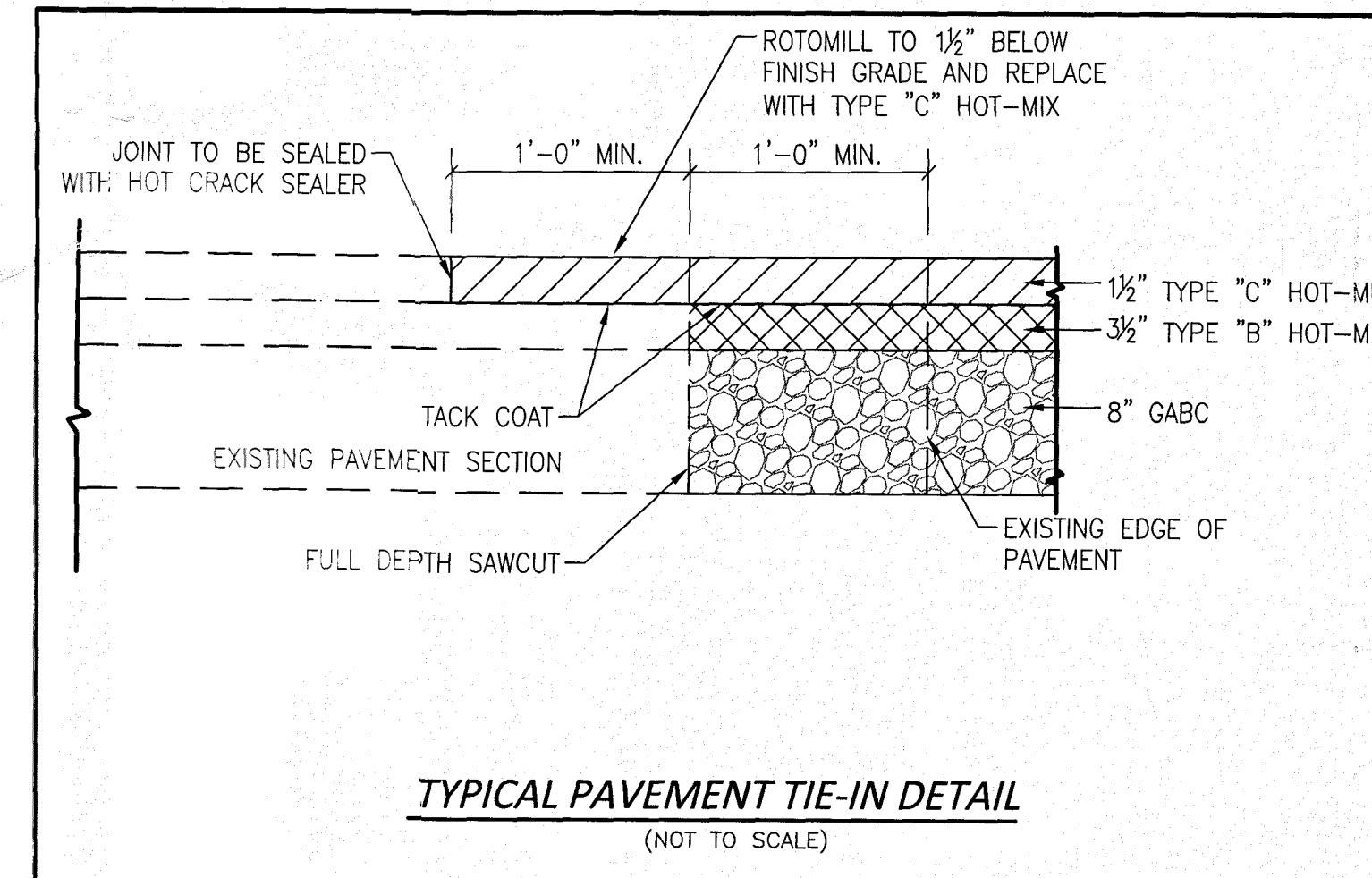
NOTE: THIS DETAIL IS FOR ON SITE RAMPS ONLY. REFER TO ENTRANCE PLANS FOR ANY RAMPS WITHIN THE STATE RIGHT OF WAY.



Issued	08/04		Curb Ramp - (Type 1)
Revised			
Source	DELDOT	Department of Public Works	Standard No. R-22



Issued	08/04		Curb Ramp - (Types 2, 3 and 4)
Revised			
Source	DELDOT	Department of Public Works	Standard No. R-23

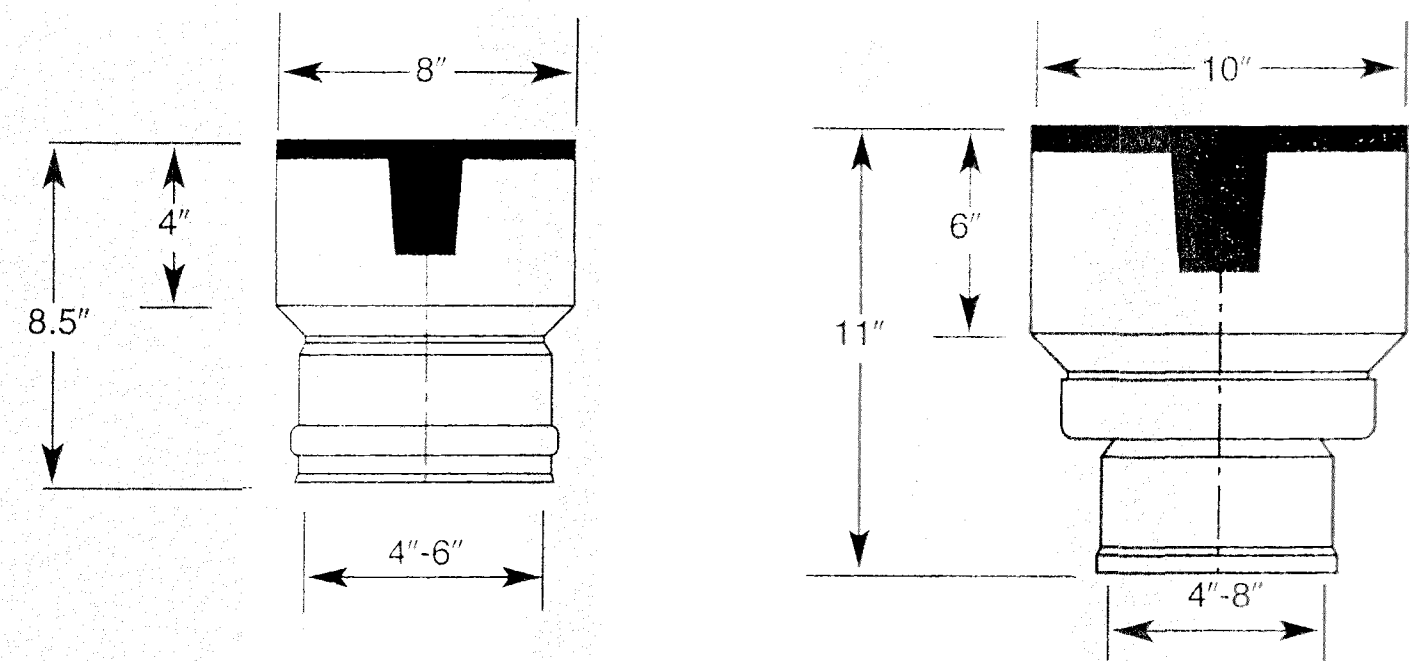
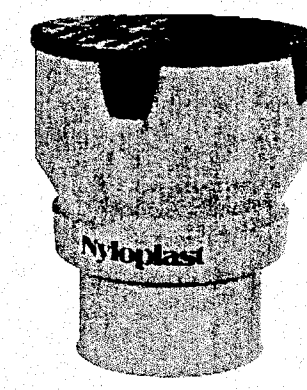


TYPICAL PAVEMENT TIE-IN DETAIL
(NOT TO SCALE)

DATE	4/19/21	SCALE	AS NOTED	DETAIL SHEET
JOB NO.	18-009	DRAWN BY	BDLenhoff	
APPLICATION NO.		DESIGNED BY	AJCollins	FOR GATEWAY NORTH MIXED-USE
APPROVED BY:	GHLarson	CHECKED BY:	DJLiberman	
DATE		REVISION		TOWN OF SMYRNA, KENT COUNTY, DELAWARE PREPARED FOR: KHOKHAR, LLC
				<p>LARSON ENGINEERING GROUP INC. CIVIL ENGINEERING & LAND PLANNING</p> <p>910 SOUTH CHAPEL STREET • SUITE 200 NEWARK, DE 19715 Phone: (302) 731-7434 Fax: (302) 731-8211</p>

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8" and 10" Inline Drains



8" PRODUCT NUMBERS

2708AG4N	8" X 4" N-12 & SW
2708AG6N	8" X 6" N-12 & SW
2708AG	(Specify Adptr & Size)

Approx. Weight (Drain only): 2 lbs.
Approx. Weight (Grate only): 4 lbs.

10" PRODUCT NUMBERS

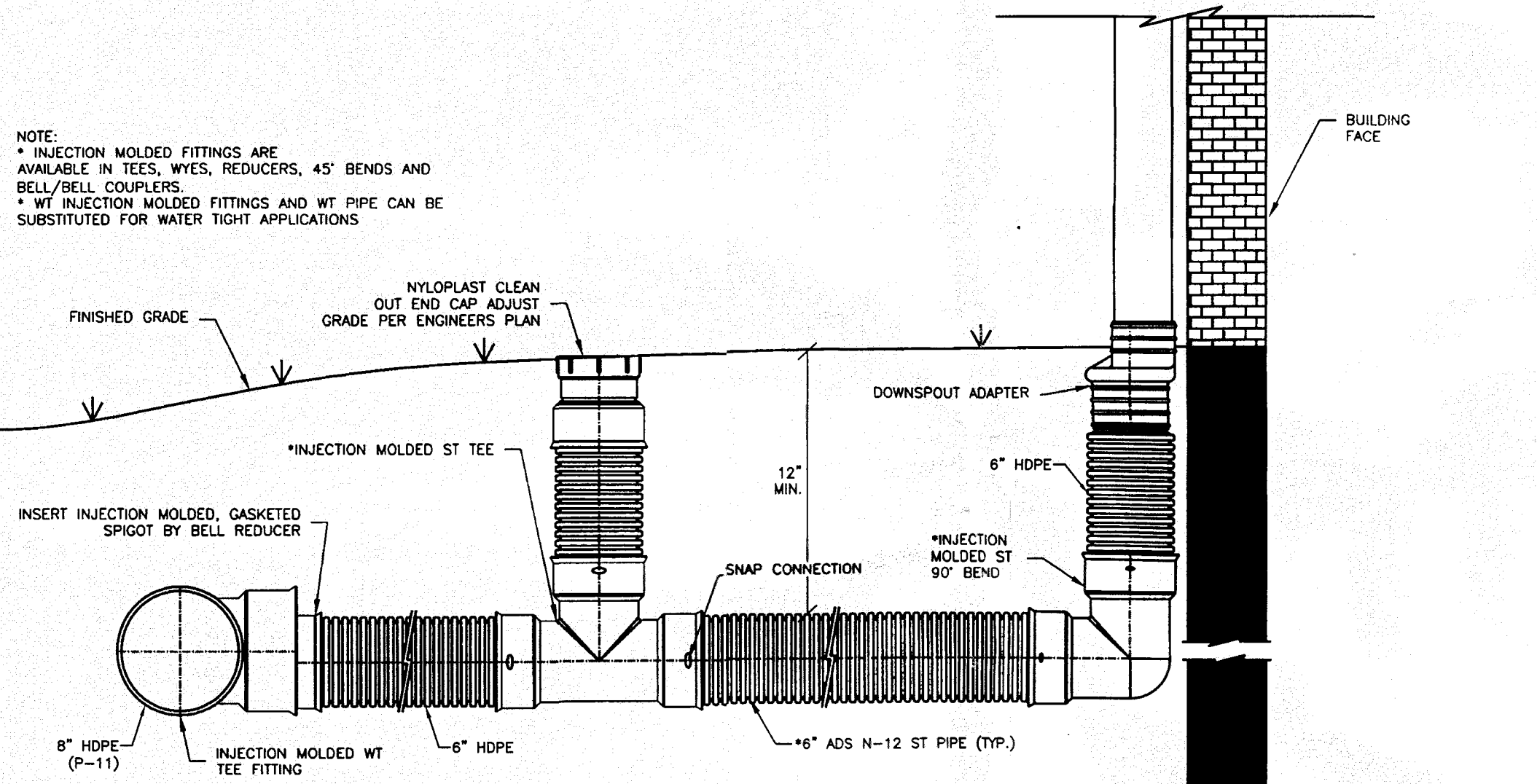
2710AG4N	10" X 4" N-12 & SW
2710AG6N	10" X 6" N-12 & SW
2710AG8N	10" X 8" N-12
2710AG	(Specify Adptr & Size)

Approx. Weight (Drain only): 4 lbs.
Approx. Weight (Grate only): 7 lbs.

Cast iron grates available: Perforated • Solid • Locking • Domed

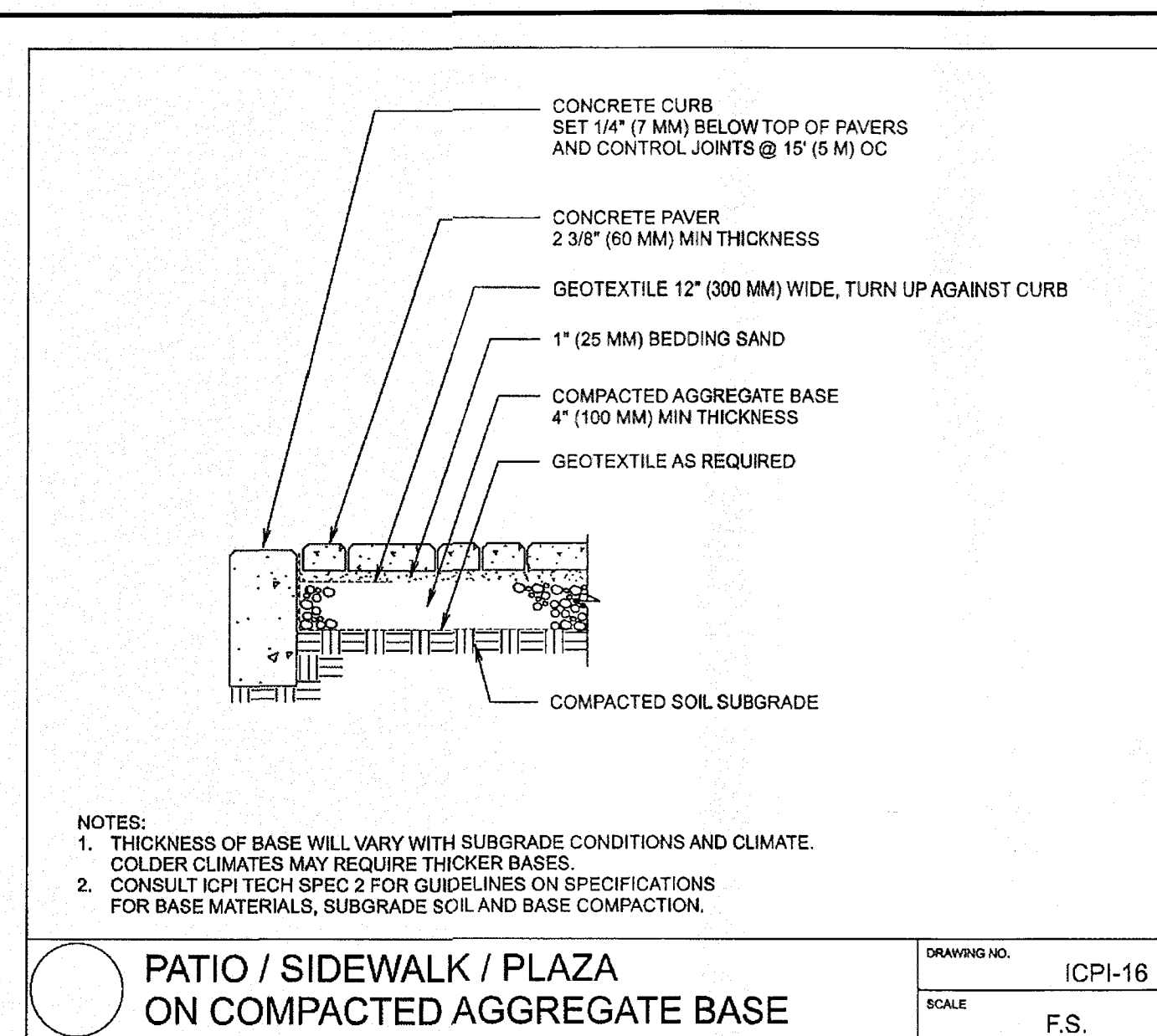
ROOF DRAIN DETAIL WITH CLEANOUT

NOTE:
* INJECTION MOLDED FITTINGS ARE AVAILABLE IN TEES, WYES, REDUCERS, 45° BENDS AND BELL/BELL COUPLERS.
* WT INJECTION MOLDED FITTINGS AND WT PIPE CAN BE SUBSTITUTED FOR WATER TIGHT APPLICATIONS.



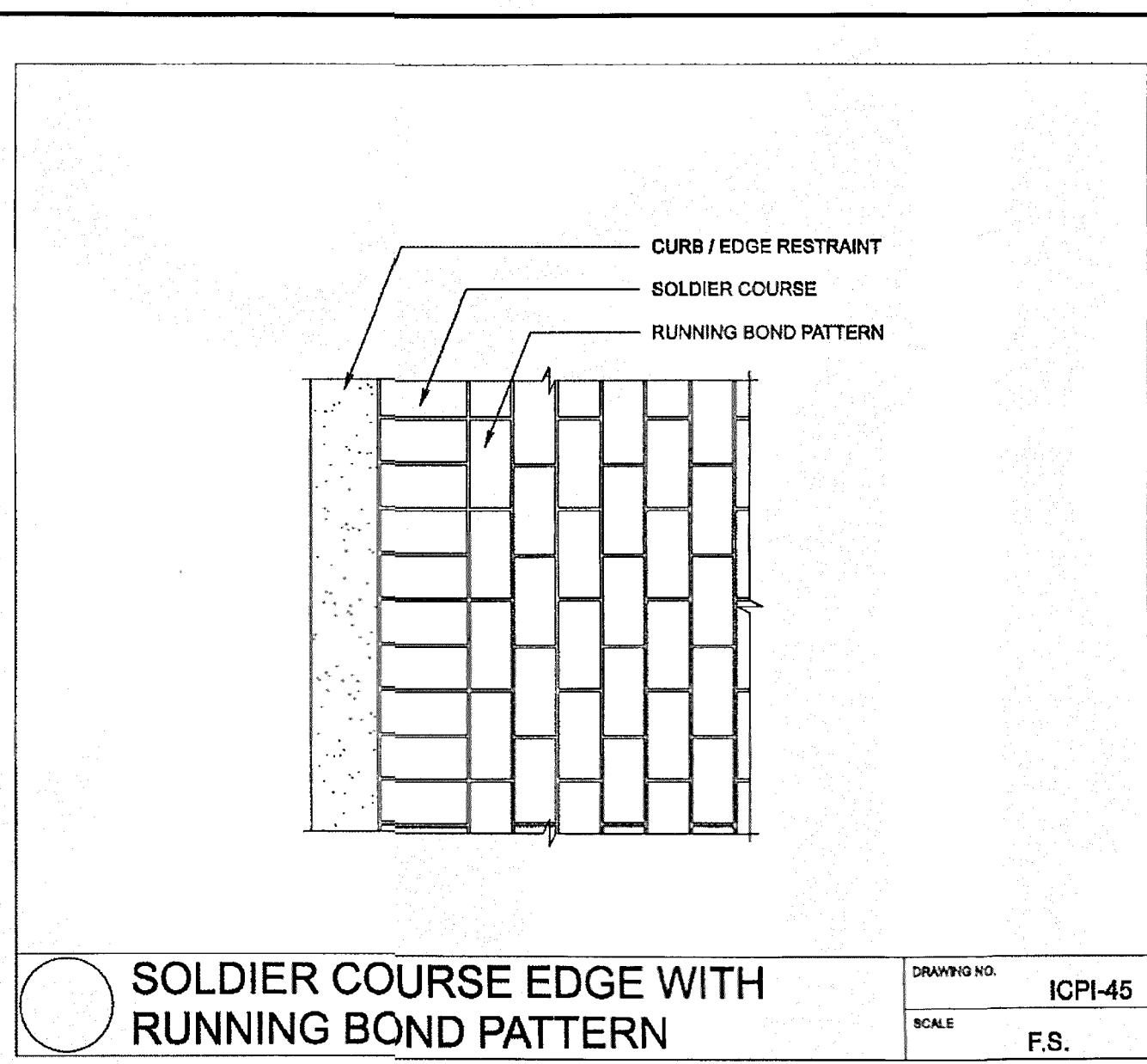
ADS STANDARD DETAILS DISCLAIMER: "ADVANCED DRAINAGE SYSTEMS, INC. (ADS)" HAS PREPARED THIS STANDARD DETAIL TO COORDINATE ADS' RECOMMENDED INSTALLATION OF ITS PRODUCTS FOR THE DESCRIBED APPLICATION. IN ADDITION TO ADS' RECOMMENDATIONS, THERE MAY BE OTHER NATIONAL, STATE OR LOCAL SPECIFICATIONS THAT ARE PERTINENT TO THE APPLICATION. ADS' STANDARD DETAIL IS NOT INTENDED TO SUPERSEDE ANY NATIONAL, STATE OR LOCAL SPECIFICATIONS, AND ADS RECOMMENDS THAT THOSE REQUIREMENTS BE REVIEWED AND CONSIDERED PRIOR TO THE INSTALLATION OF ADS' PRODUCTS. ADS HAS NOT SUBMITTED, AND IT BEARS NO RESPONSIBILITY FOR, ANY REVISIONS OR DEVIATIONS FROM THIS STANDARD DETAIL.

REVISIONS	
BY	DATE
KSX	03.19.04
KXM	03.19.04
STD-1002	



NOTES:
1. THICKNESS OF BASE WILL VARY WITH SUBGRADE CONDITIONS AND CLIMATE. COLDER CLIMATES MAY REQUIRE THICKER BASES.
2. CONSULT ICPI TECH SPEC 2 FOR GUIDELINES ON SPECIFICATIONS FOR BASE MATERIALS, SUBGRADE SOIL AND BASE COMPACTION.

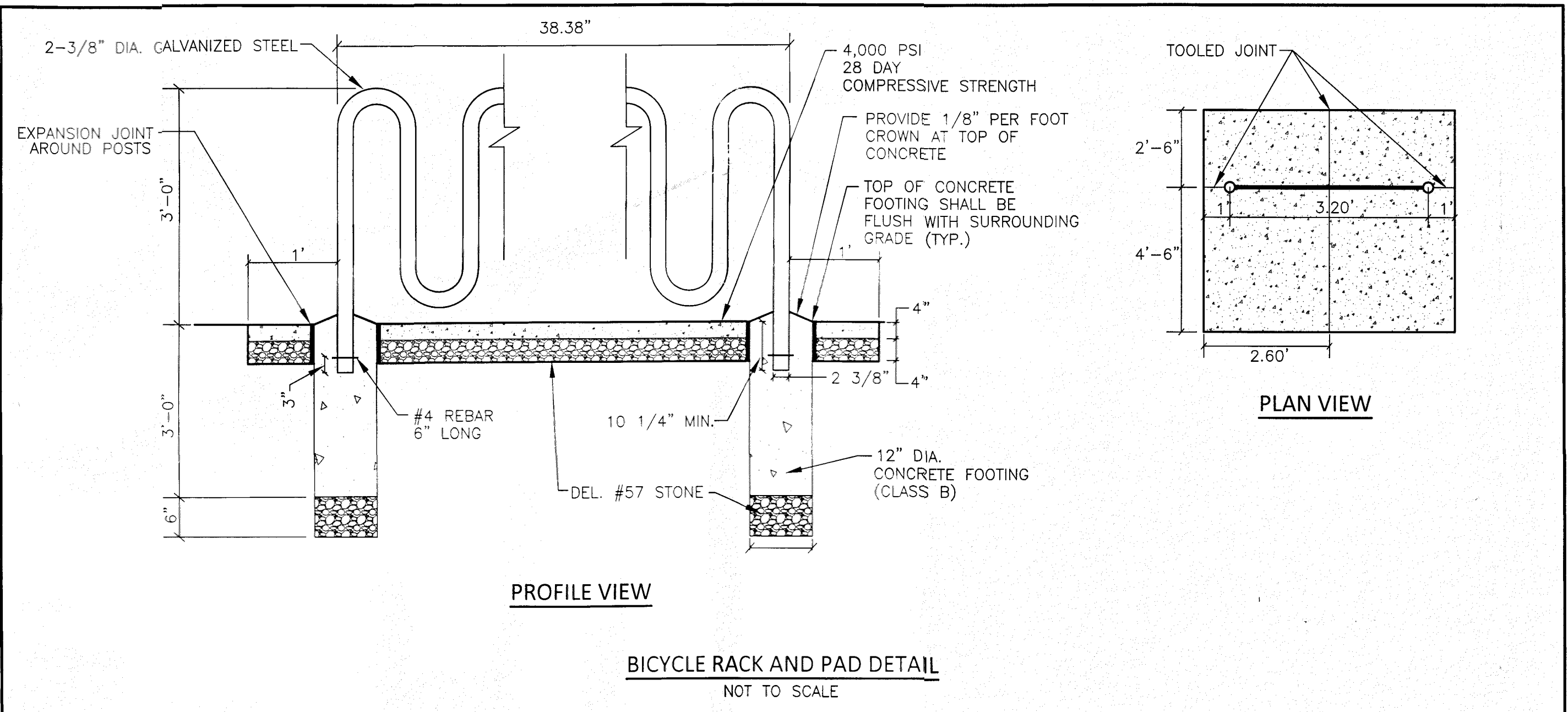
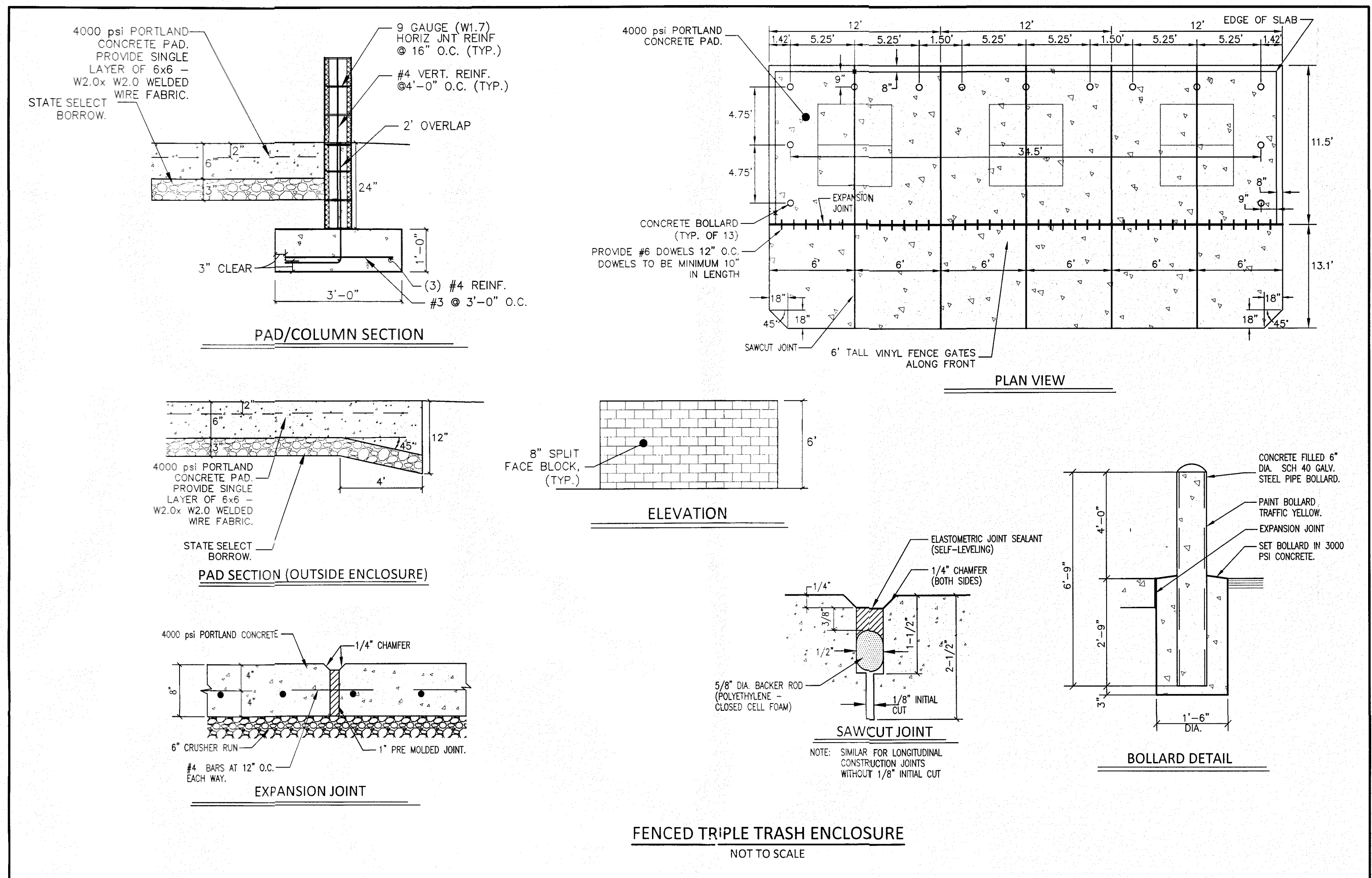
DRAWING NO.	ICPI-16
SCALE	F.S.



DRAWING NO.	ICPI-45
SCALE	F.S.

BRICK PAVER WALKWAY DETAIL

NOT TO SCALE



DATE	4/19/21	SCALE	AS NOTED	DETAIL SHEET
JOB NO.	18-009	DRAWN BY	BDLenhoff	
APPLICATION NO.		DESIGNED BY	ALCollins	
APPROVED BY	GHLarson	CHECKED BY	DJLberman	
DATE		REVISION		

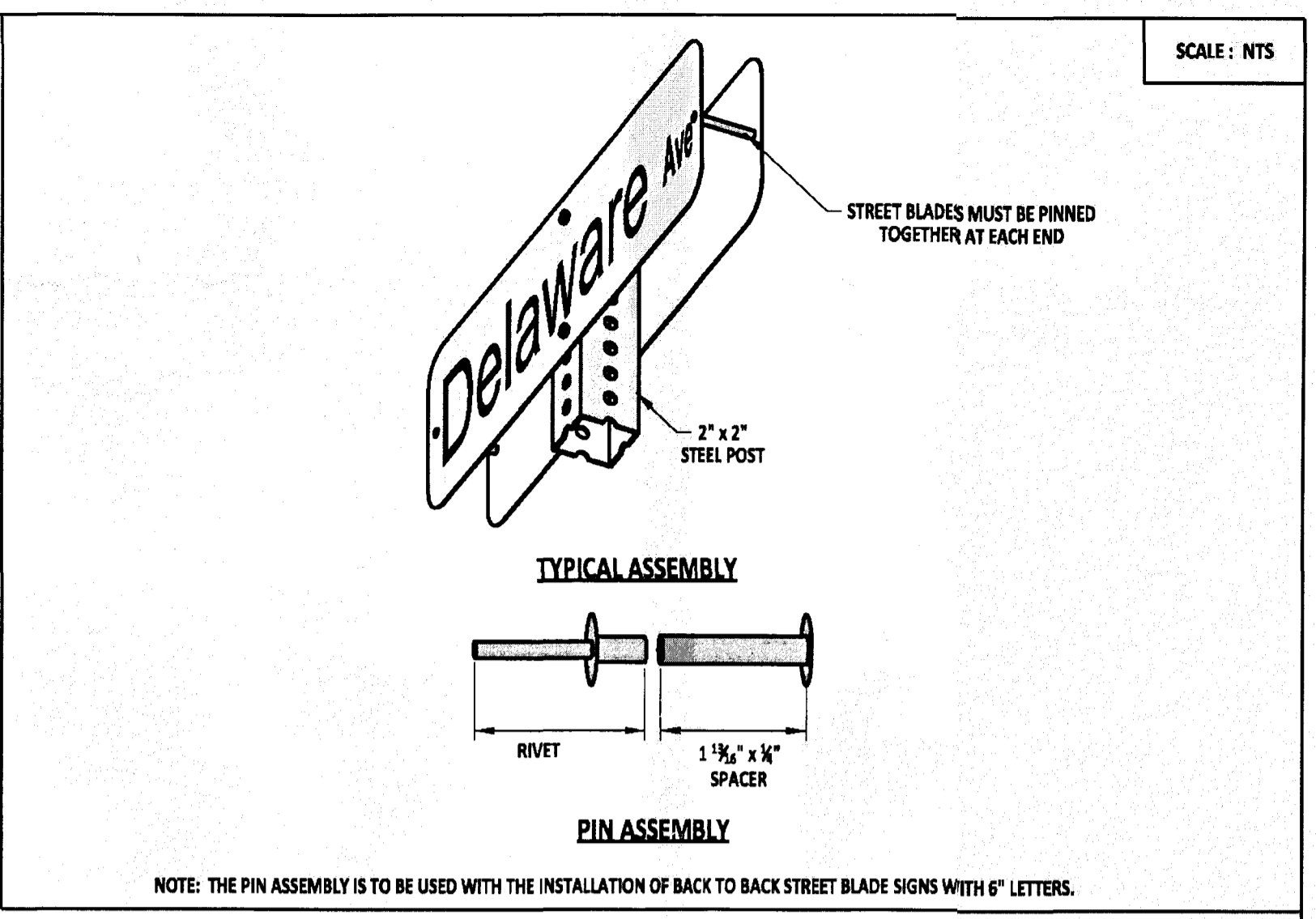
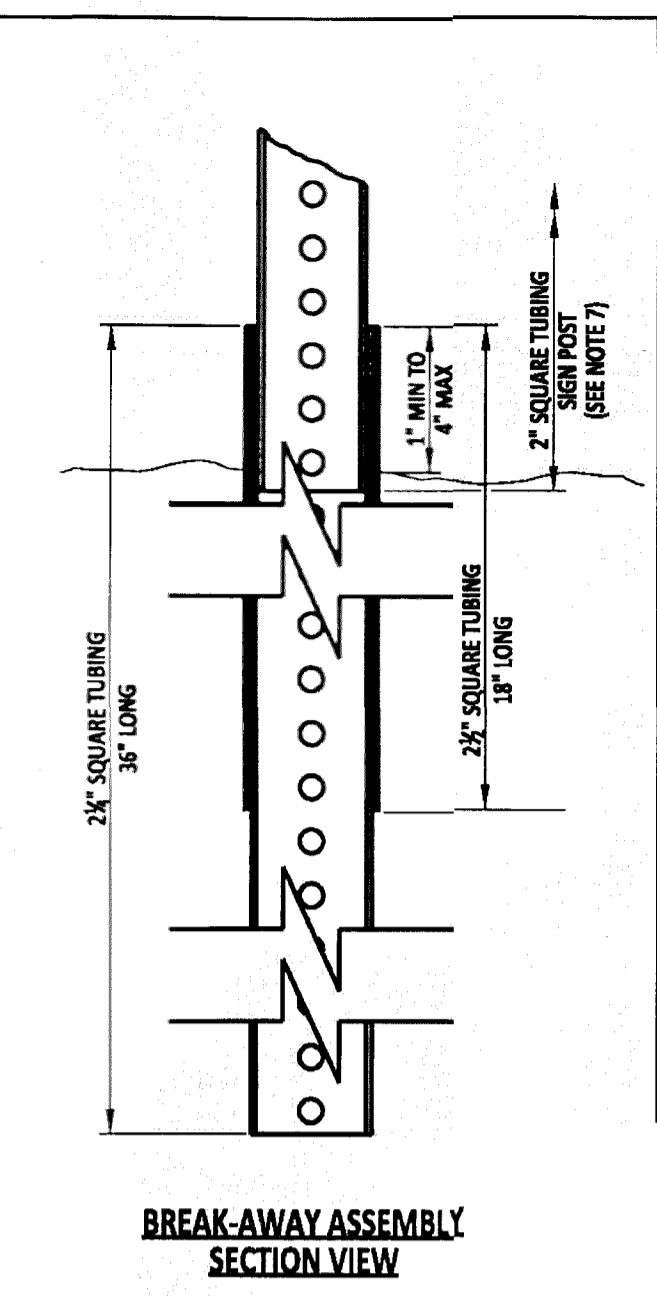
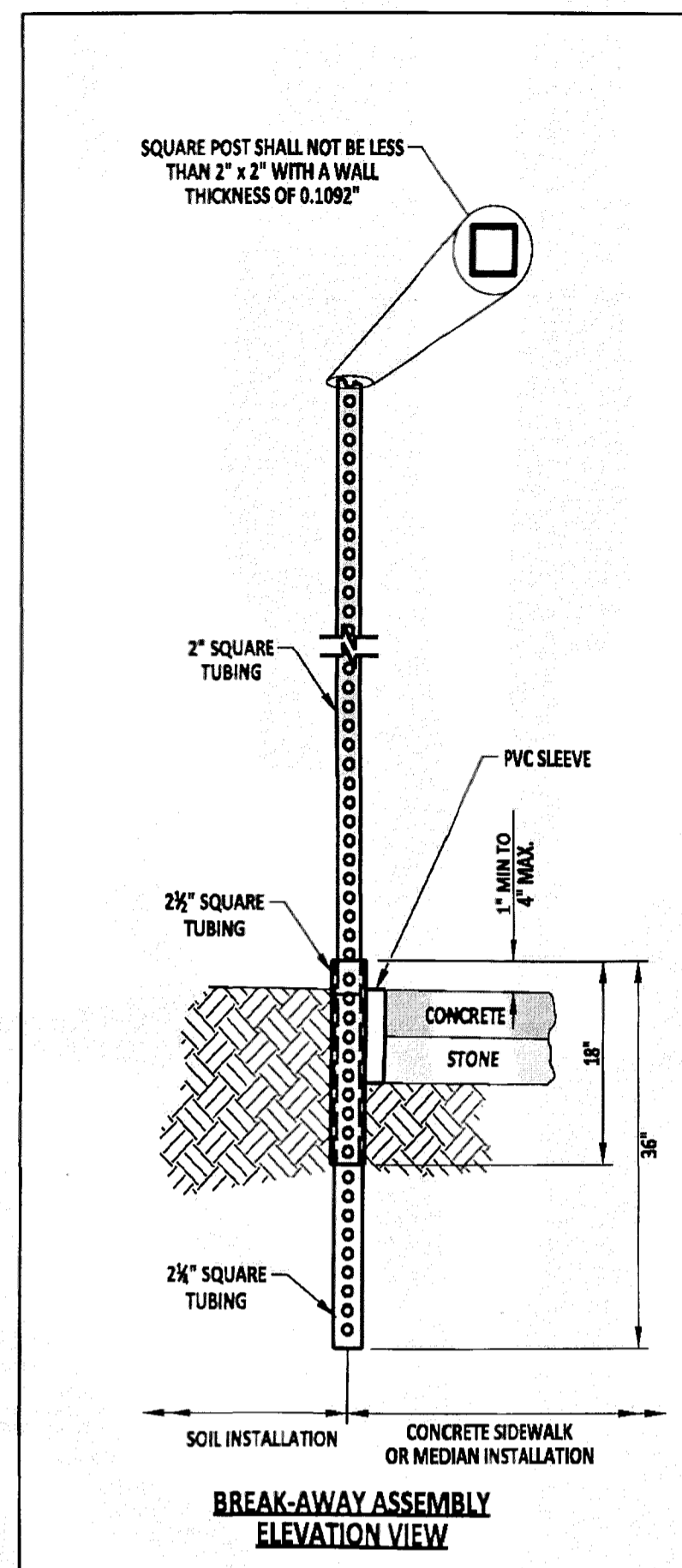
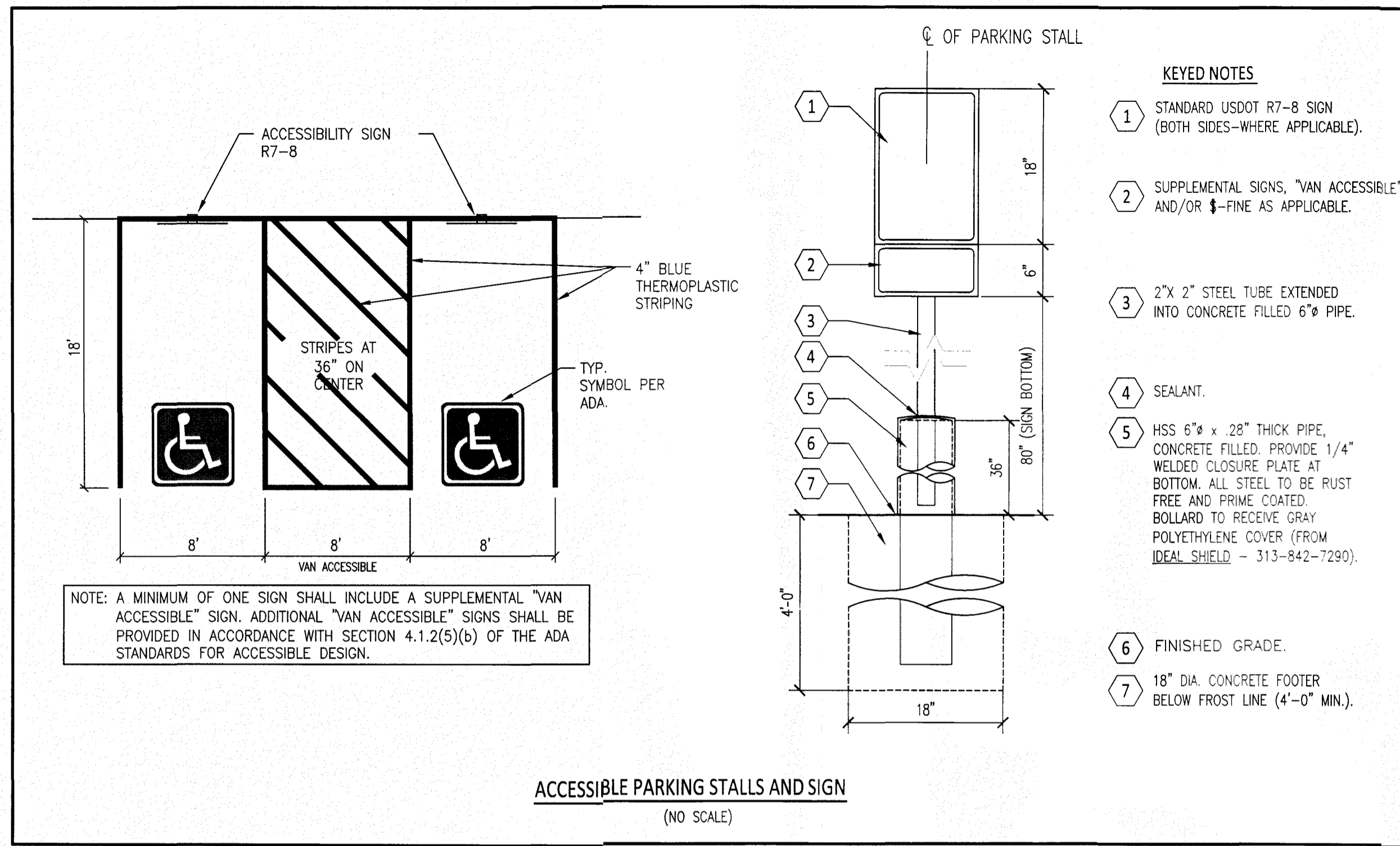
FOR
GATEWAY NORTH MIXED-USE
TOWN OF SMYRNA, KENT COUNTY, DELAWARE
PREPARED FOR: KHOKHAR, LLC

LARSON
ENGINEERING GROUP INC.
CIVIL ENGINEERING & LAND PLANNING
910 SOUTH CHAPEL STREET • SUITE 200
NEWARK, DE 19713
Phone: (302) 731-7434
Fax: (302) 731-8211

DATE: 4/19/21 SEAL

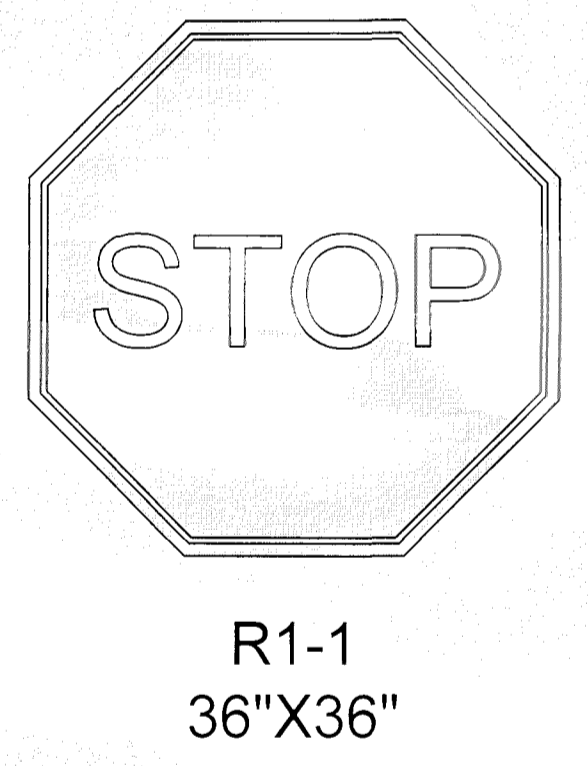
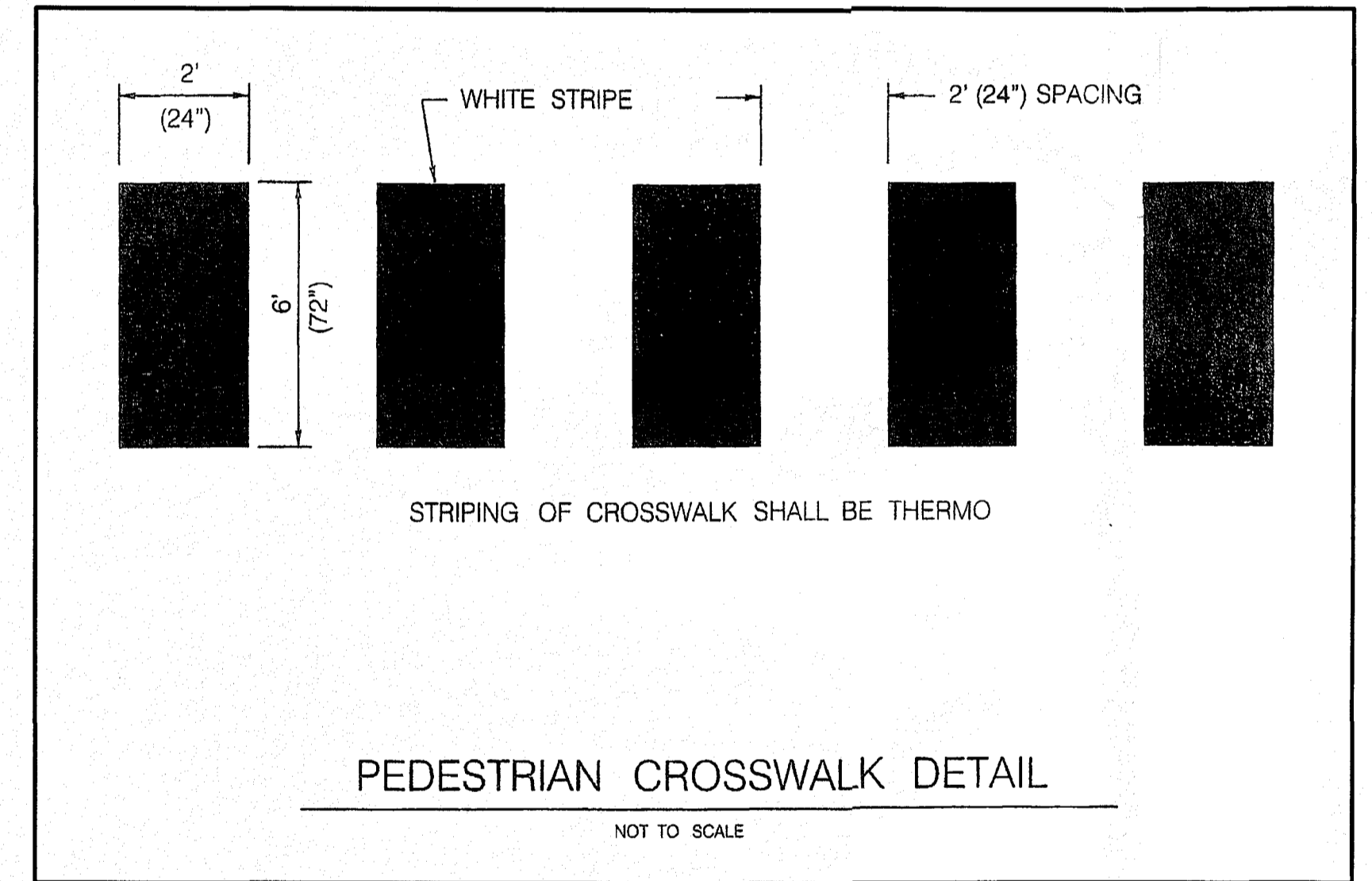
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SHEET NO.: SD-7 CADD FILE: DetailSheet_Khokhar



- NOTES:**
- SQUARE TUBES ARE TO BE FORMED FROM GALVANIZED SHEET STRUCTURAL (PHYSICAL) QUALITY, ASTM A 446, GRADE A, COATING DESIGNATION G 90, REGULAR SPANGLE, OR HOT ROLLED CARBON SHEET STEEL STRUCTURAL (PHYSICAL) QUALITY, ASTM A 57, GRADE 33.
 - NOMINAL OUTSIDE DIMENSIONS ARE AS FOLLOWS:
 A) 2" x 2" +/- 0.008
 B) 2 1/2" x 2 1/2" +/- 0.010
 C) 2 1/2" x 2 1/2" +/- 0.010
 - ALL FOUR SIDES ARE TO HAVE EVENLY SPACED 3/16" DIAMETER HOLES ON 1" CENTERS THE ENTIRE LENGTH OF THE TUBE.
 - STANDARD CORNER RADIUS SHALL BE 1/2".
 - THE FASTENERS TO BE SUPPLIED UNDER THIS SPECIFICATION SHALL BE 5/16", GRADE 5 UNC CORNER BOLTS WITH CADMIUM OR ZINC PLATING. INSTALLATION OF SIGNS SHALL BE WITH 3/4" x 2 1/2" BOLT WITH LOCKWASHER AND WASHER.
 - THE CONTRACTOR SHALL PROVIDE AND INSTALL PVC SLEEVES (4" INSIDE DIAMETER MINIMUM, 6" INSIDE DIAMETER MAXIMUM) IN PROPOSED CONCRETE SIDEWALKS, ISLANDS, AND MEDIANS FOR FUTURE TRAFFIC SIGN POSTS AS DIRECTED BY THE ENGINEER. THE LOWER END OF THE SLEEVE SHALL BE SET ON TOP OF THE SOIL.
 - THE SIGN POST SHALL EXTEND A MINIMUM OF 4" INTO THE 2 1/2" SQUARE TUBING.

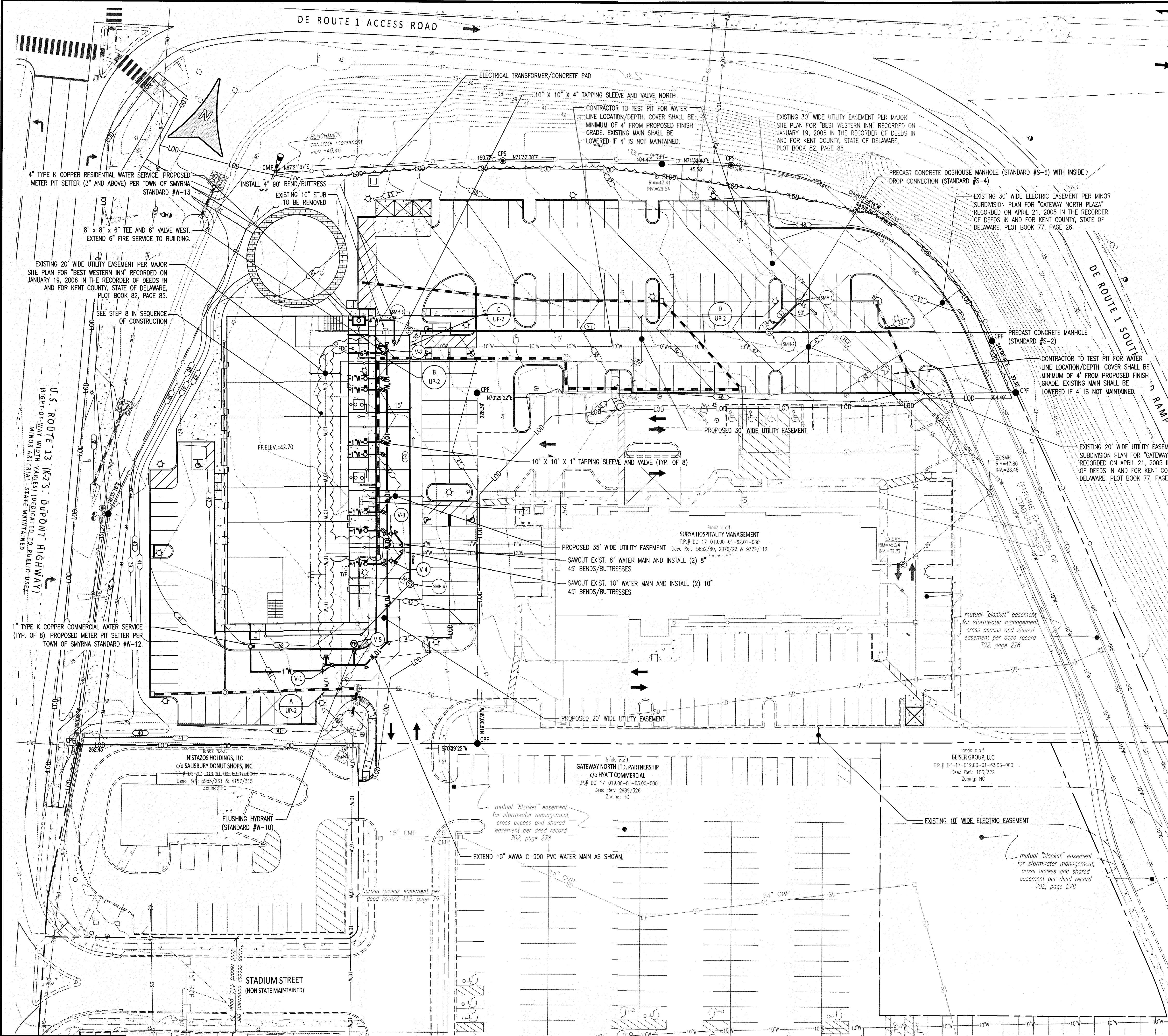
DELAWARE DEPARTMENT OF TRANSPORTATION	BREAKWAY SIGN POST AND PIN ASSEMBLY DETAILS			APPROVED	SIGNATURE ON FILE <small>DATE</small>	02/14/2014 <small>DATE</small>
	STANDARD NO.	T-15 (2013)	SHT. 1 OF 1	RECOMMENDED	SIGNATURE ON FILE <small>DATE</small>	01/14/2014 <small>DATE</small>



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DATE 4/19/21	SCALE AS NOTED	DETAIL SHEET	
JOB NO. 18-009	DRAWN BY BDLenhoff	FOR	
APPLICATION NO. ----	DESIGNED BY A/Collins	GATEWAY NORTH MIXED-USE	
APPROVED BY GHLarson	CHECKED BY DJLiberman	TOWN OF SMYRNA, KENT COUNTY, DELAWARE	
DATE	REVISION	PREPARED FOR: KHOKHAR, LLC	
DATE: 7-21-22 SEAL:		LARSON ENGINEERING GROUP INC. CIVIL ENGINEERING & LAND PLANNING 910 SOUTH CHAPEL STREET • SUITE 200 NEWARK, DE 19713 Phone: (302) 731-7434 Fax: (302) 731-8211	

CADD FILE: DetailSheet_Khokhar
SHEET NO.: S D - 8



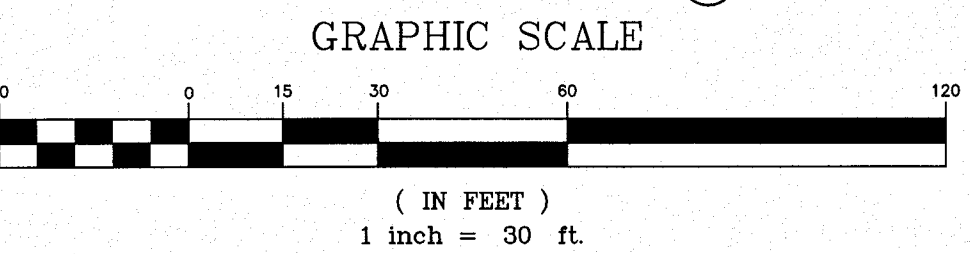
SANITARY SEWER STRUCTURE SCHEDULE		
STRUCTURE	DETAILS	NORTHING/EASTING
SMH-1	RM=47.22 INV.=33.19 (SW)	N=5531.7079 E=5337.2048
SMH-2	RM=47.34 INV.=33.49 (N) INV.OUT=33.39 (NE)	N=5506.1867 E=5324.8338
SMH-3	RM=42.41 INV.=35.24 (S) INV.OUT=35.14 (E)	N=5427.1939 E=5101.8954
SMH-4	RM=42.31 INV.=36.40 (N)	N=5271.4980 E=5157.1303

SANITARY SEWER PIPE SCHEDULE				
PIPE	SIZE	MATERIAL	LENGTH	SLOPE
S-1	8"	SDR26 PVC	28 L.F.	0.700%
S-2	8"	SDR26 PVC	237 L.F.	0.700%
S-3	8"	SDR26 PVC	165 L.F.	0.700%

- WATER MAIN SEQUENCE OF CONSTRUCTION**
- CONTACT HOTEL ON PARCEL DC-17-019.00-01-62.01-000 TO COORDINATE TIMING OF STEP 6 BELOW.
 - INSTALL 10"x10"x10" SADDLE TAP ON EXISTING MAIN AT V-1.
 - EXTEND 10" WATER LINE TO V-2. INSTALL ALL VALVES AND FLUSHING HYDRANT AS SHOWN. MAINTAIN 1' CLEARANCE UNDER EXISTING QUALITY INN WATER SERVICES.
 - INSTALL 10"x10"x10" SADDLE TAP ON EXISTING MAIN AT V-2.
 - STERILIZE NEWLY INSTALLED WATER LINE AND BLOW OFF PER TOWN OF SMYRNA SPECIFICATIONS (JUNE 2017).
 - SHUT OFF EXISTING QUALITY INN VALVES AT MAIN.
 - SAW CUT EXISTING SERVICES AND CONNECT TO VALVES V-3 & V-4.
 - OPEN VALVE V-1 & V-2.
 - REMOVE EXISTING WATER MAIN, VALVES AND APPURTENANCES (CLOUDED ON THIS SHEET). PLACE MU CAP AND BUTTRESSES ON CUT ENDS OF EXISTING MAIN.
 - INSTALL INDIVIDUAL WATER SERVICES AND WATER METERS TO FUTURE BUILDING.

LEGEND

- EXISTING STORM DRAIN LINE
- PROPOSED STORM DRAIN LINE
- STORM DRAIN MANHOLE
- EXISTING SAN. SEWER LINE
- PROPOSED SAN. SEWER LINE
- PROPOSED LIMITS OF DISTURBANCE
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- EXISTING SEWER CLEANOUT
- PROPOSED SEWER CLEANOUT
- PROPOSED GREASE TRAP
- EXISTING WATER LINE
- PROPOSED WATER LINE
- EXISTING FIRE HYDRANT
- PROPOSED FLUSHING HYDRANT
- EXISTING WATER VALVE
- PROPOSED WATER VALVE
- PROPOSED BUTTRISS
- PROPOSED WATER METER
- PROPOSED FIRE DEPARTMENT CONNECTION
- PIPE FLOW DIRECTION
- EXISTING UTILITY POLE
- LIGHT POLE
- SIGN
- WATER VALVE DESIGNATION



DATE	SCALE
4/19/21	1"=30'
JOB NO.	DRAWN BY
18-009	BDLenhoff
APPLICATION NO.	DESIGNED BY:
	AJCollins
APPROVED BY:	CHECKED BY:
GH Larson	DJLiberman
DATE	REVISION
5/21/21	Per Town of Smyrna
9/21/21	Transformer/pod, SOC #1

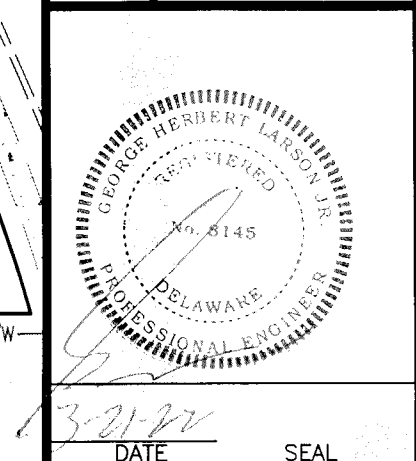
UTILITY PLAN

FOR

GATEWAY NORTH MIXED-USE

TOWN OF SMYRNA, KENT COUNTY, DELAWARE

PREPARED FOR: KHOKHAR, LLC



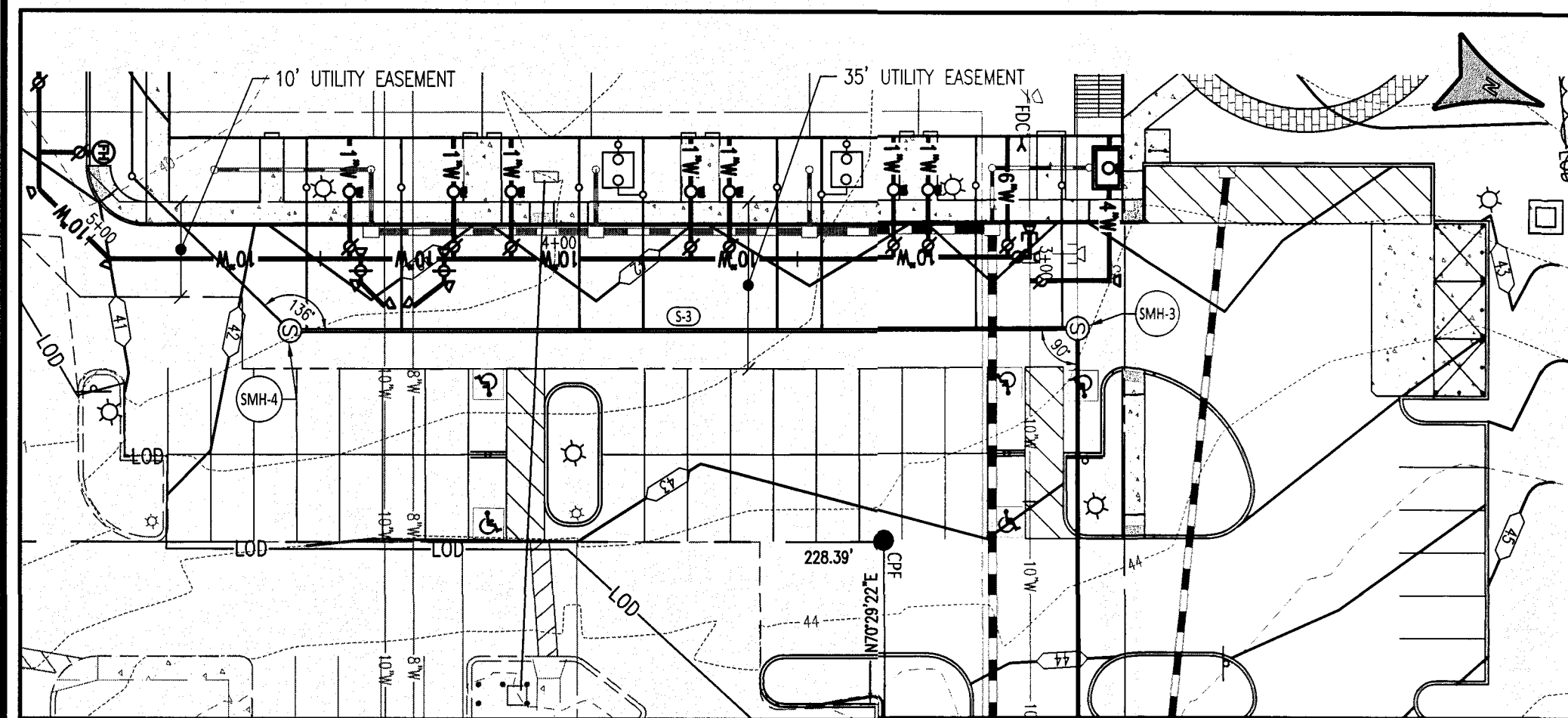
LARSON ENGINEERING GROUP INC.

CIVIL ENGINEERING & LAND PLANNING

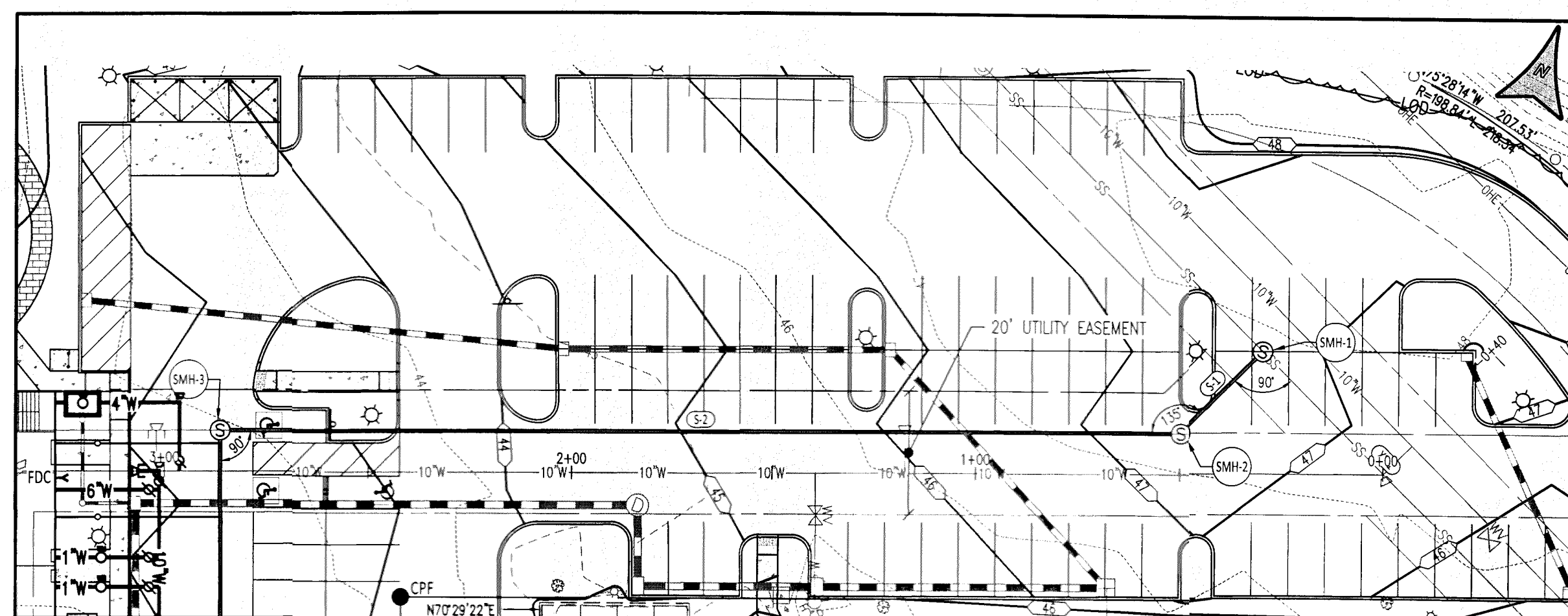
910 SOUTH CHAPEL STREET • SUITE 200
NEWARK, DE 19713
Phone: (302) 731-7434
Fax: (302) 731-8211

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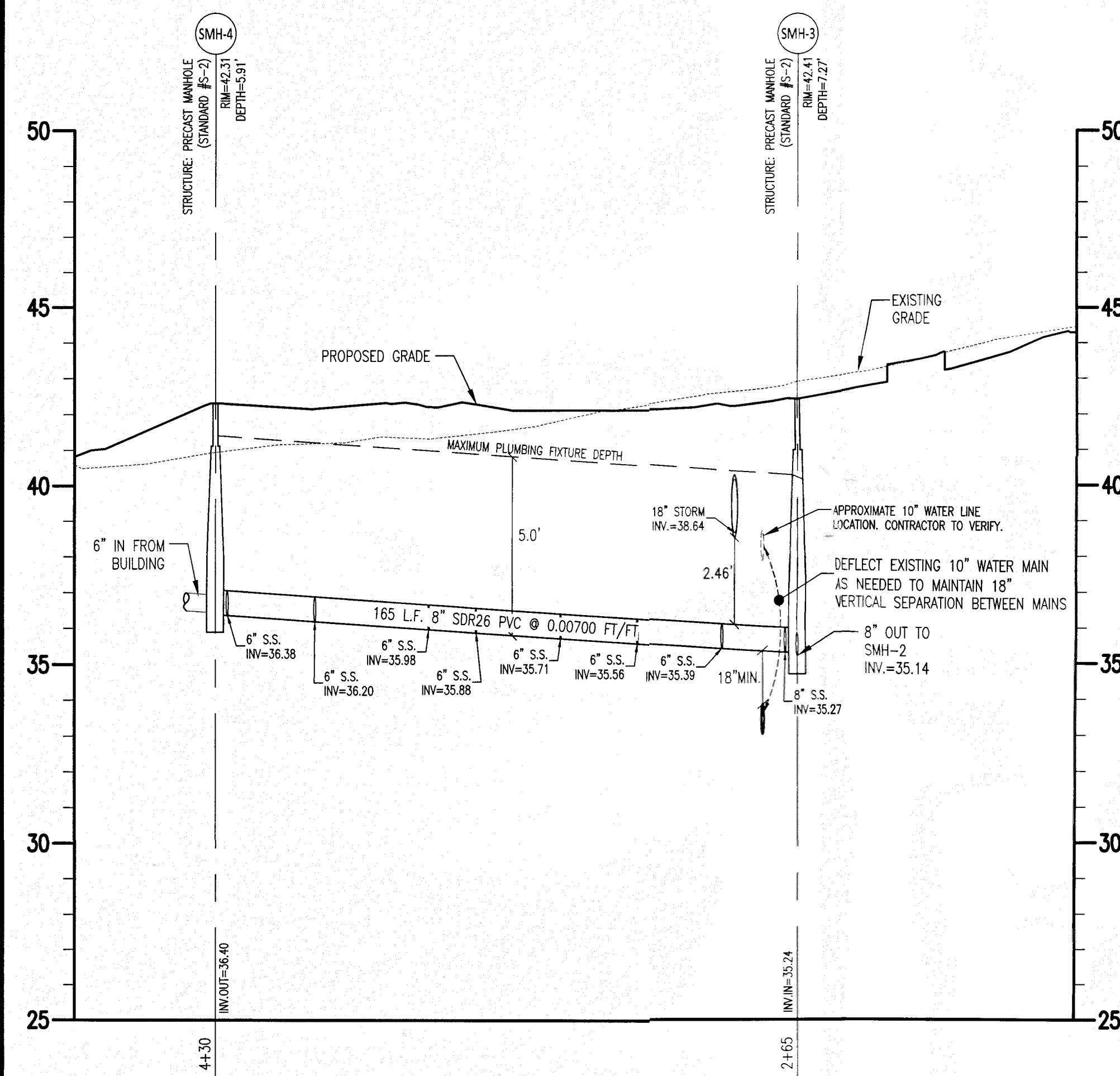
SHEET NO.: UP-1
CADD FILE: UtilityPlan_Khokhar



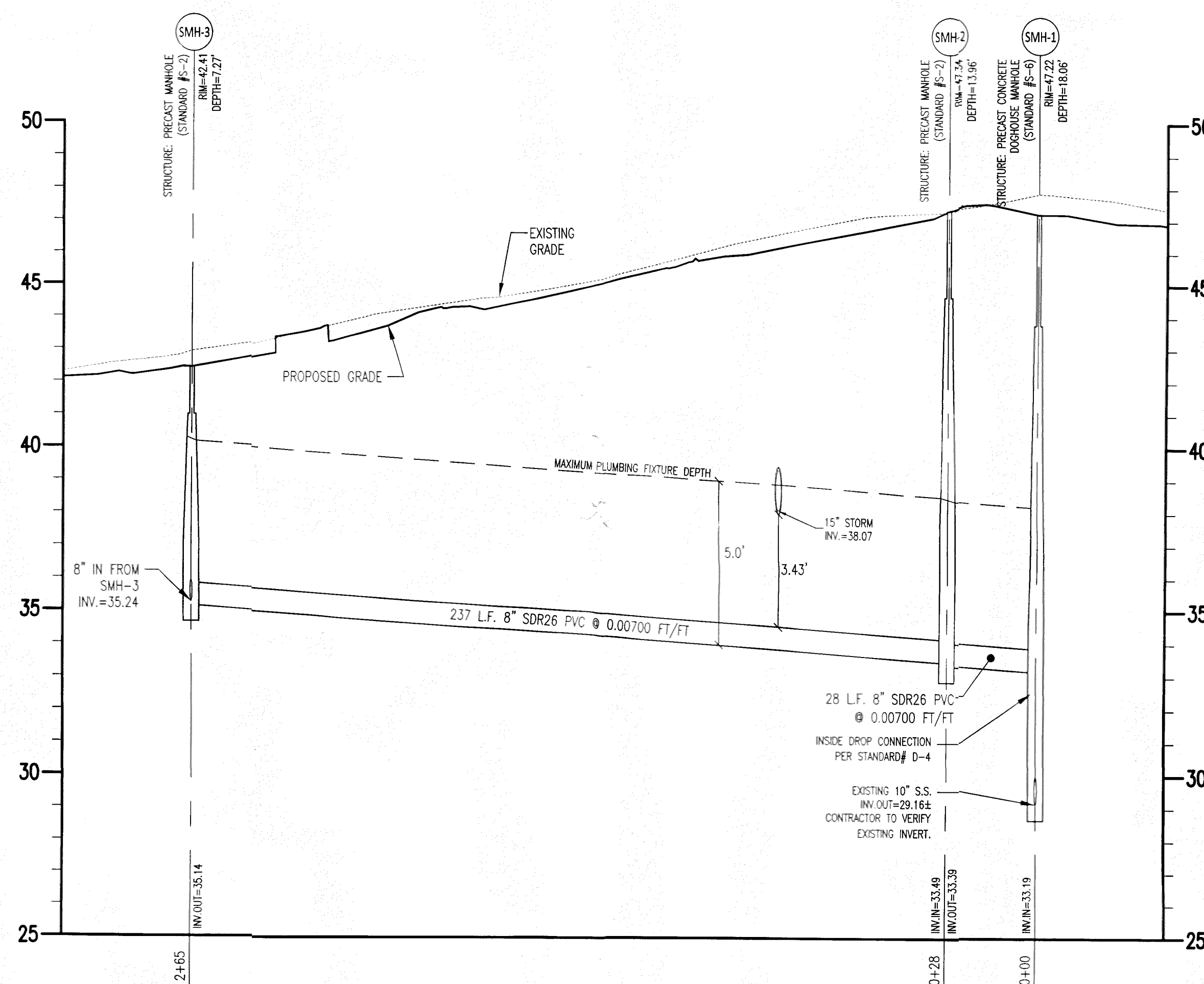
PLAN VIEW
SCALE: 1"=30'



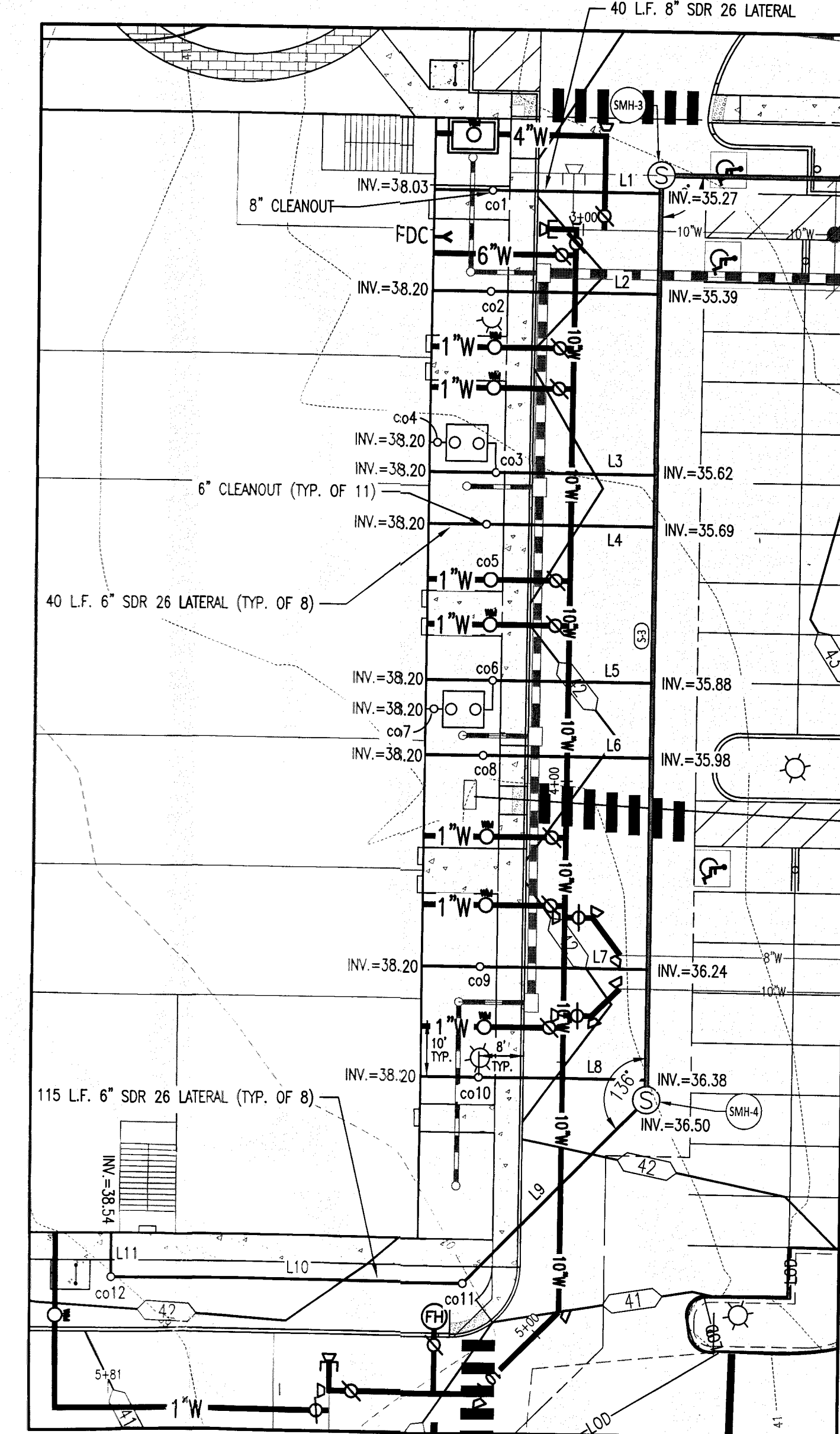
PLAN VIEW
SCALE: 1"=30'



SANITARY SEWER PROFILE: BUILDING TO SMH-1
SCALE: 1"= 30' HOR.
1"= 3' VERT.



SANITARY SEWER PROFILE: BUILDING TO SMH-1
SCALE: 1"= 30' HOR.
1"= 3' VERT.



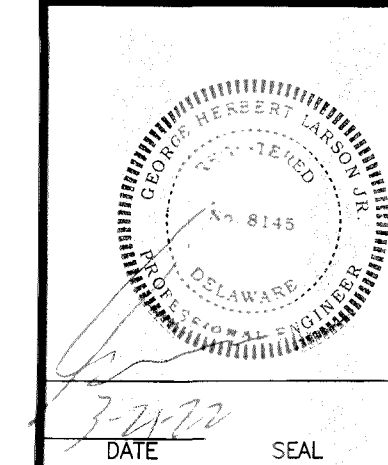
SANITARY SEWER LATERAL DETAIL
SCALE: 1"=20'

C.O.	INV.	CAP. ELEV.
1	37.32	42.60
2	37.48	42.40
3	37.42	42.40
4	38.14	42.50
5	37.56	42.40
6	37.52	42.35
7	38.15	42.50
8	37.63	42.56
9	37.69	42.40
10	37.73	42.50
11	37.31	41.40
12	38.40	42.40

LATERAL	SIZE	MATERIAL	LENGTH
L1	8"	SDR26 PVC	40'
L2	6"	SDR26 PVC	40'
L3	6"	SDR26 PVC	40'
L4	6"	SDR26 PVC	40'
L5	6"	SDR26 PVC	40'
L6	6"	SDR26 PVC	40'
L7	6"	SDR26 PVC	40'
L8	6"	SDR26 PVC	40'
L9	6"	SDR26 PVC	46'
L10	6"	SDR26 PVC	63'
L11	6"	SDR26 PVC	8'

DATE	SCALE
4/19/21	AS NOTED
JOB NO.	DRAWN BY
18-009	BDLerhoff
APPLICATION NO.:	DESIGNED BY:
	AJCollins
APPROVED BY:	CHECKED BY:
GHLarson	DJLiberman
DATE	REVISION
5/21/21	Per Town of Smyrna
8/9/21	Profile labels

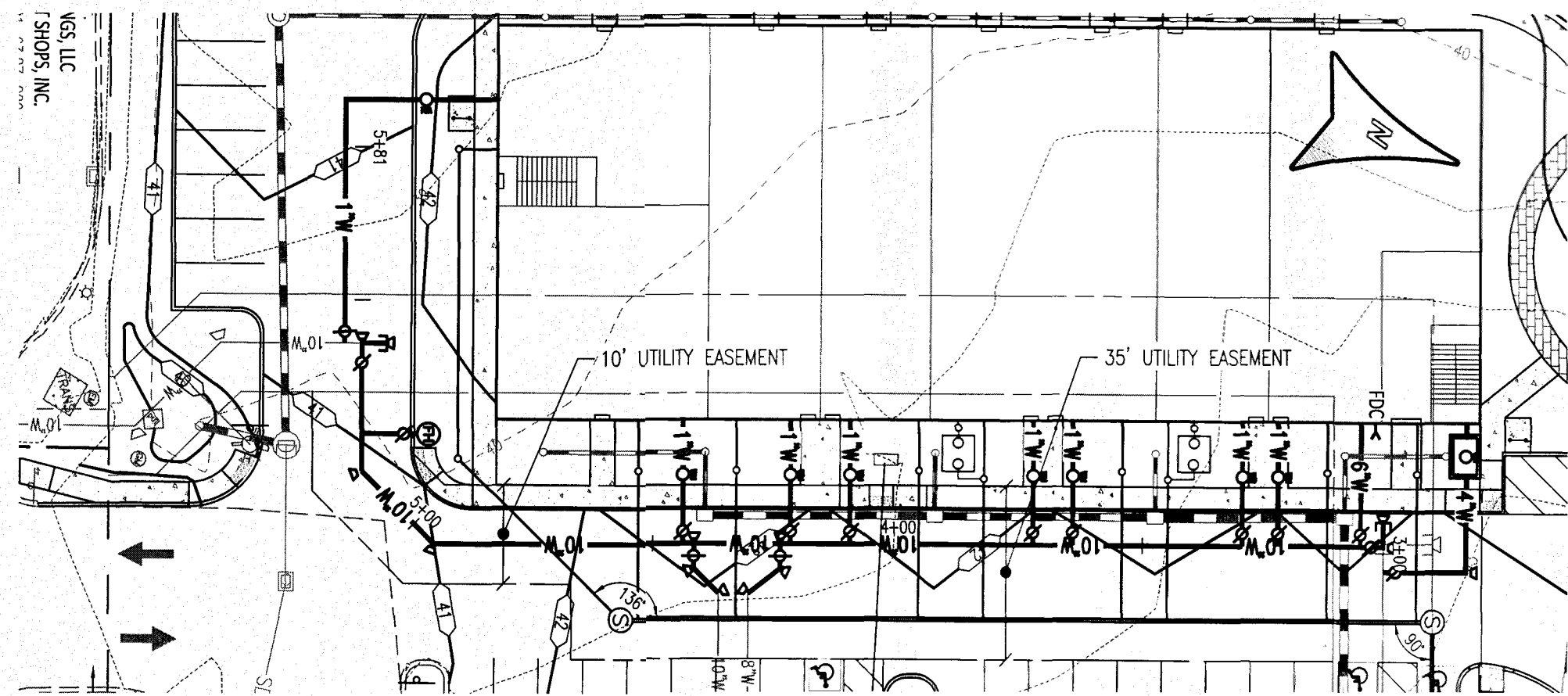
SANITARY SEWER PROFILES
FOR
GATEWAY NORTH MIXED-USE
TOWN OF SMYRNA, KENT COUNTY, DELAWARE
PREPARED FOR: KHOKHAR, LLC



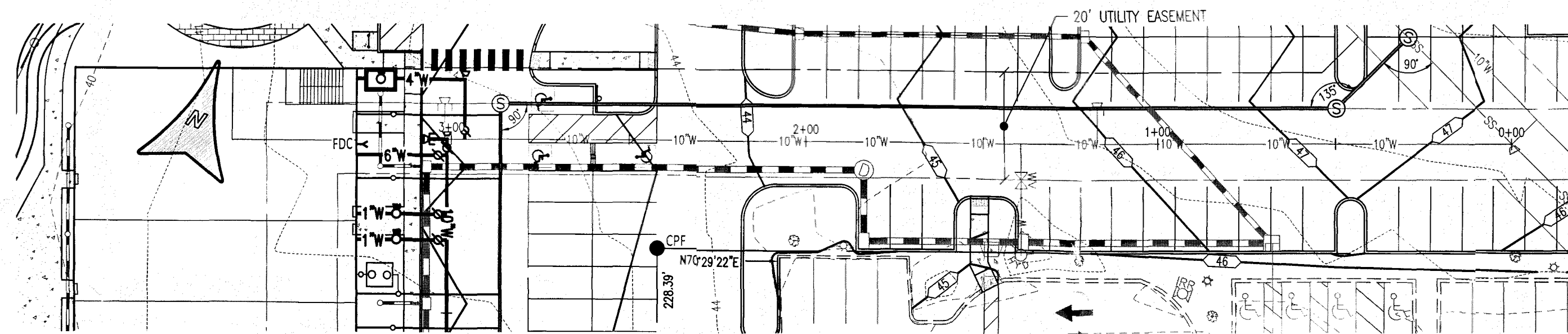
LARSON
ENGINEERING GROUP INC.
CIVIL ENGINEERING & LAND PLANNING
910 SOUTH CHAPEL STREET • SUITE 200
NEWARK, DE 19713
Phone: (302) 731-7434
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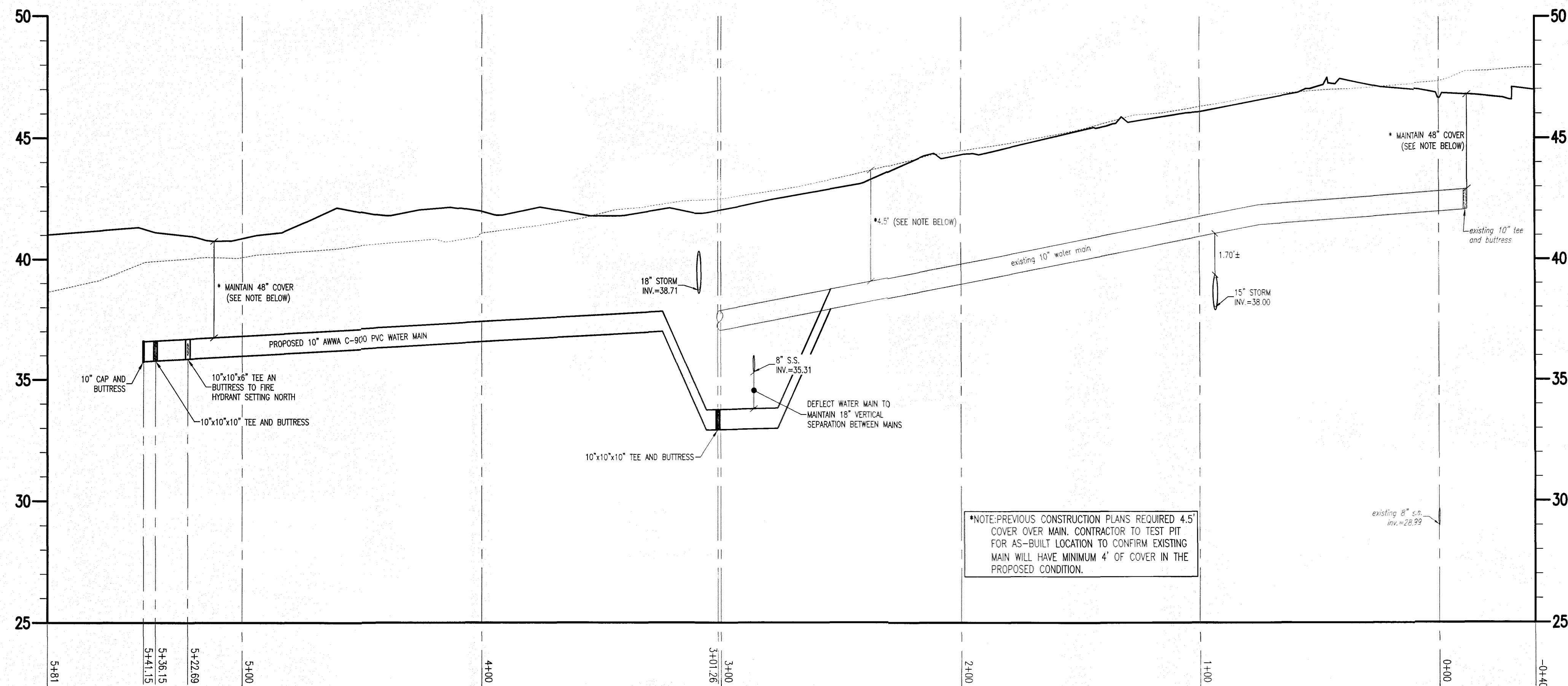
CADD FILE: UtilityPlan_Khokhar
SHEET NO.: UP-2



PLAN VIEW
SCALE: 1"=30'



PLAN VIEW
SCALE: 1"=30'



WATER MAIN PROFILE
SCALE: 1"= 30' HOR.
1"= 3' VERT.

*NOTE- PREVIOUS CONSTRUCTION PLANS REQUIRED 4.5' COVER OVER MAIN. CONTRACTOR TO TEST PIT FOR AS-BUILT LOCATION TO CONFIRM EXISTING MAIN WILL HAVE MINIMUM 4' OF COVER IN THE PROPOSED CONDITION.

DATE	SCALE
4/19/21	AS NOTED
JOB NO.	DRAWN BY
18-009	BDLenhoff
APPLICATION NO.:	DESIGNED BY:
---	AJCollins
APPROVED BY:	CHECKED BY:
GH Larson	DJLiberman
DATE	REVISION
5/21/21	Per Town of Smyrna

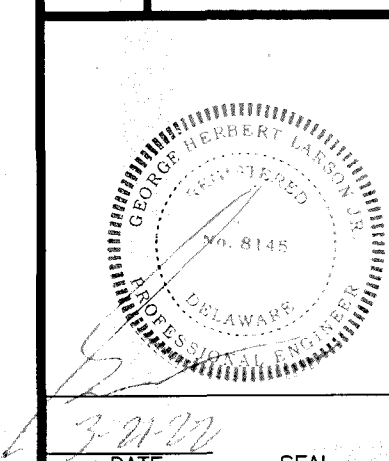
WATER MAIN PROFILE

FOR

GATEWAY NORTH MIXED-USE

TOWN OF SMYRNA, KENT COUNTY, DELAWARE

PREPARED FOR: KHOKHAR, LLC

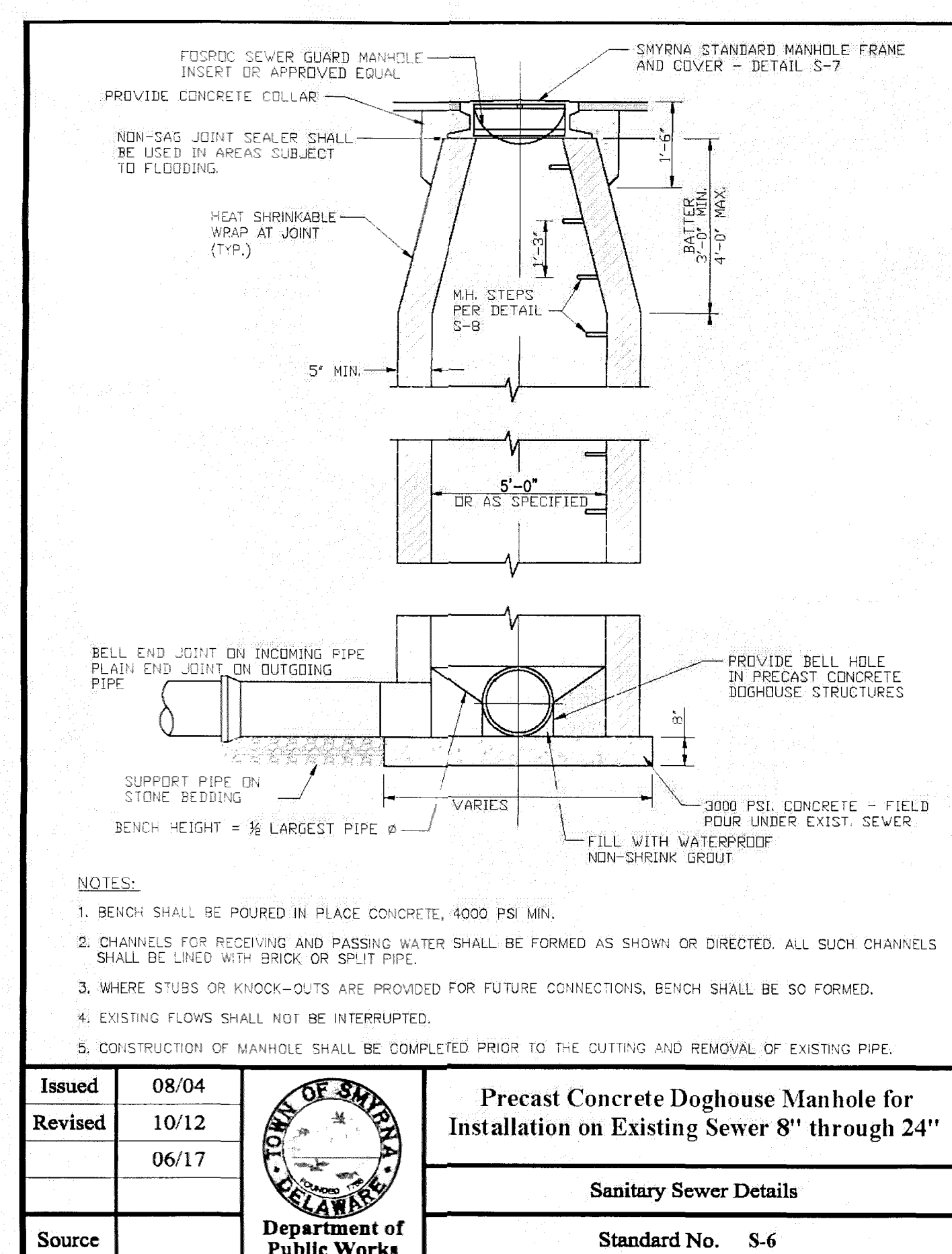
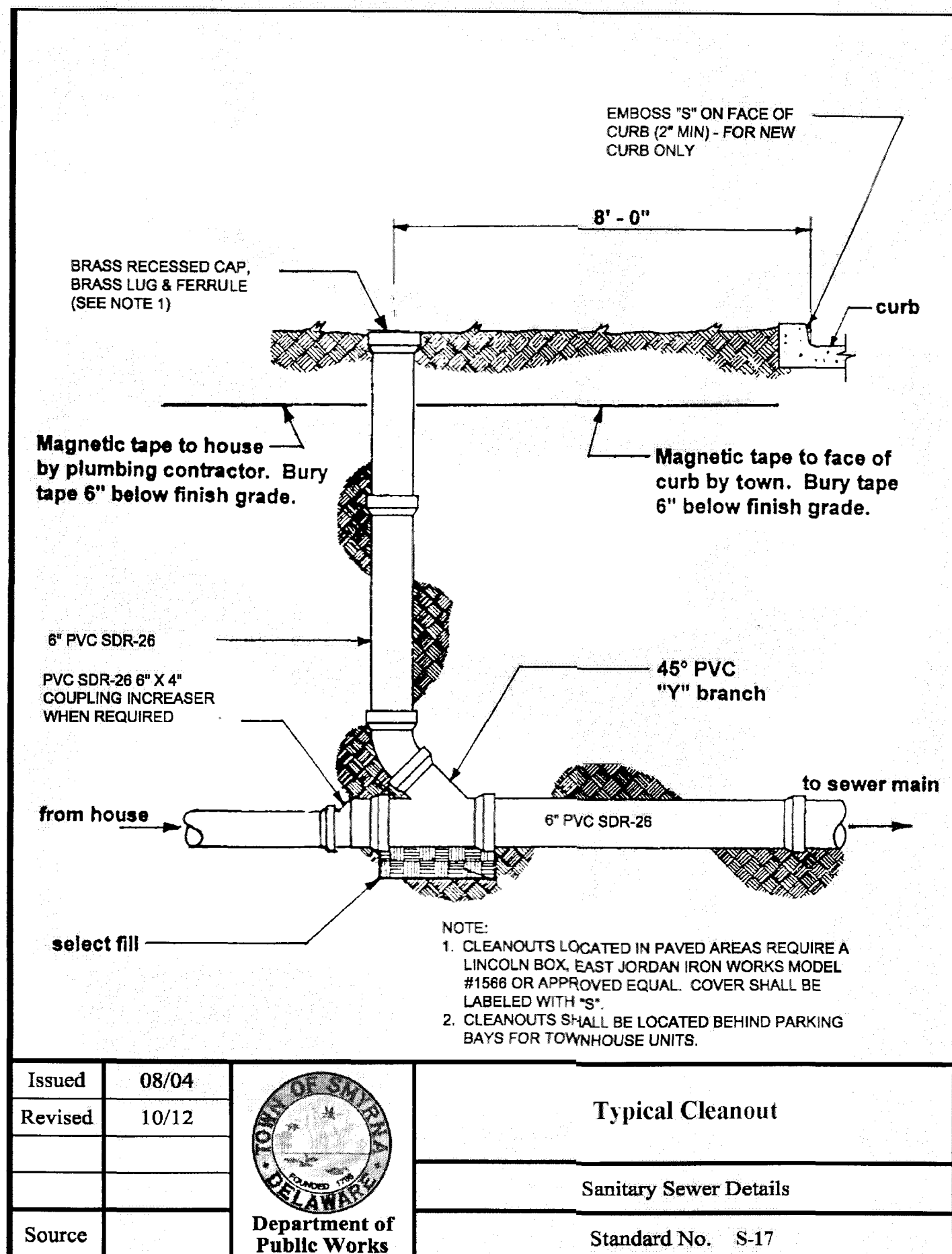
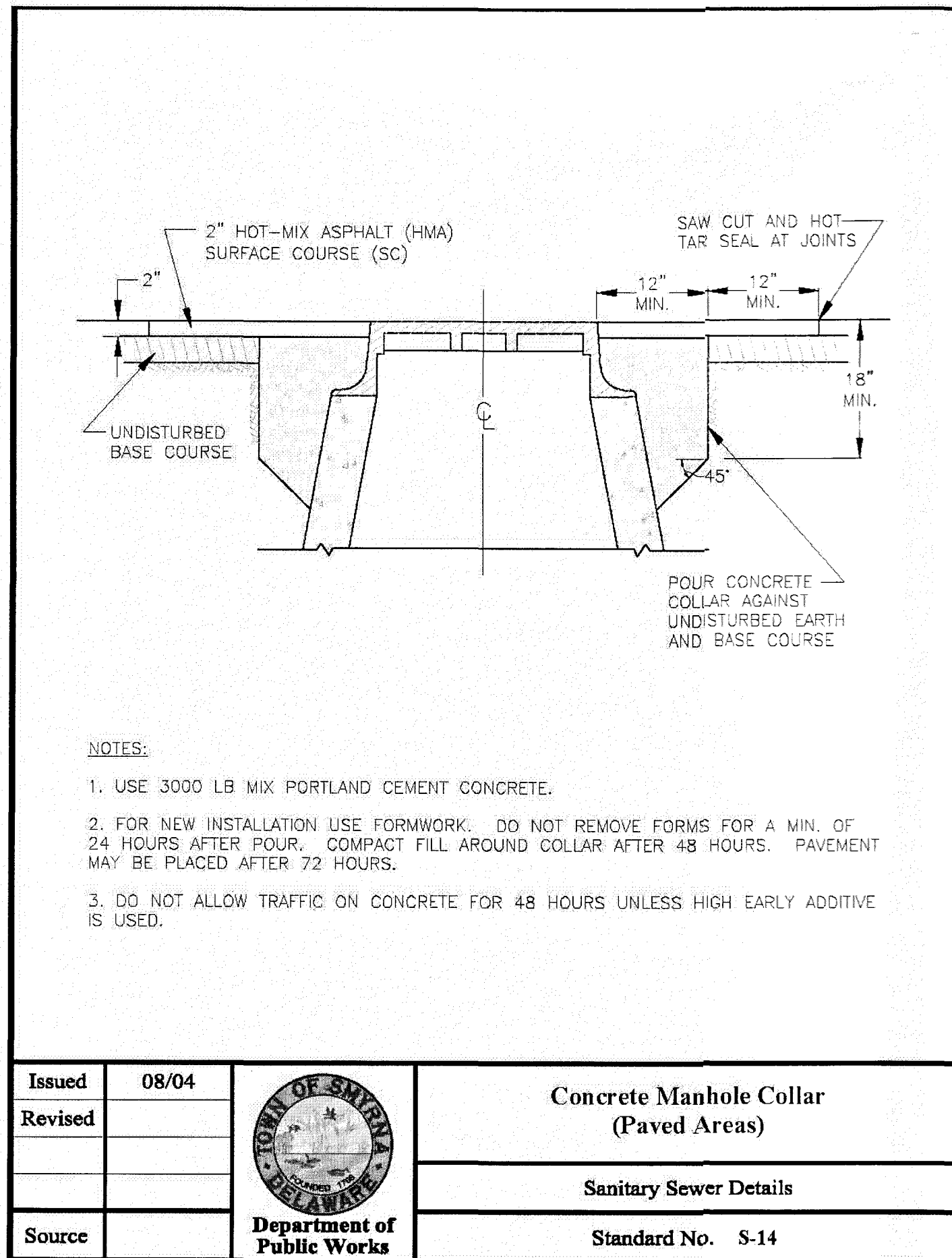
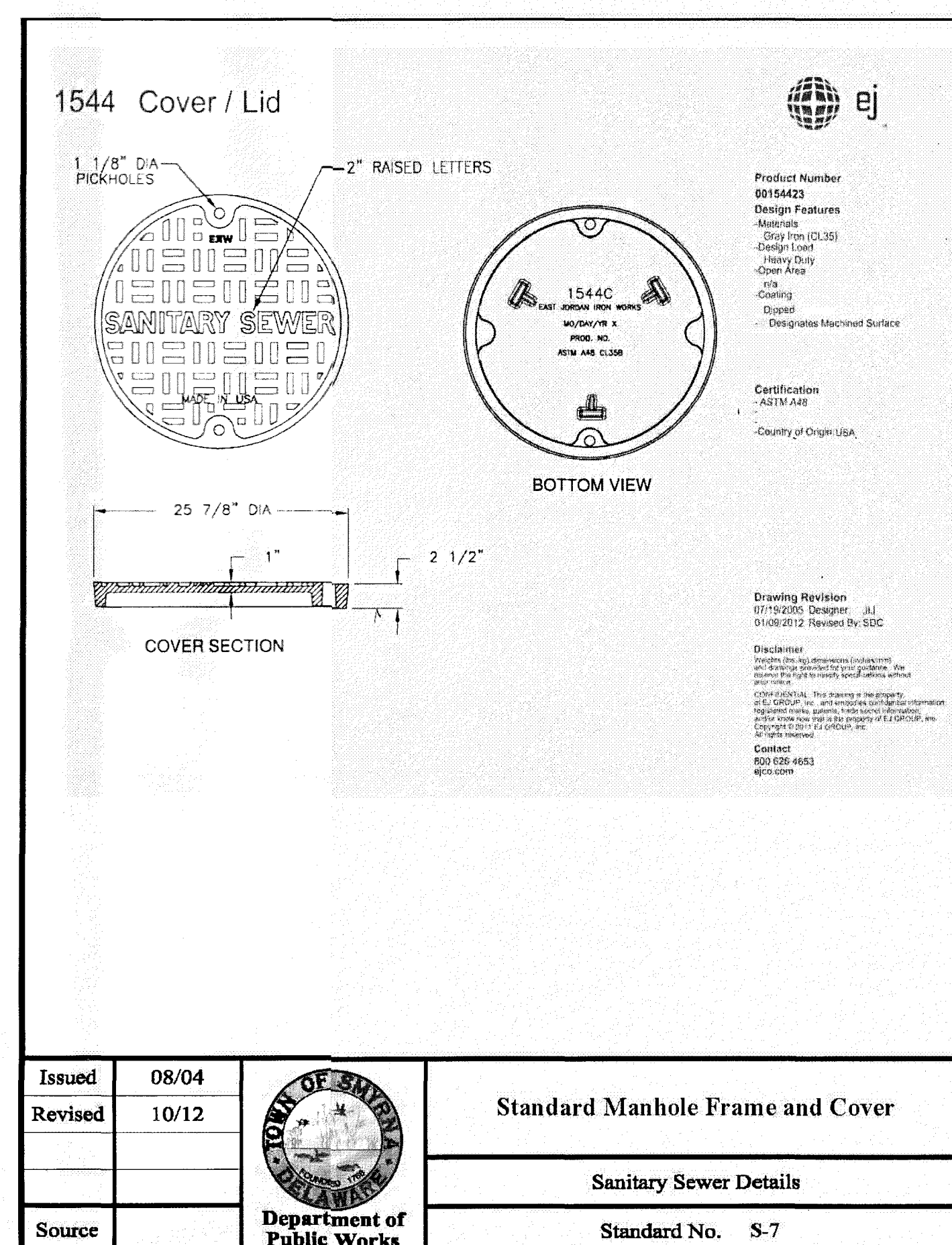
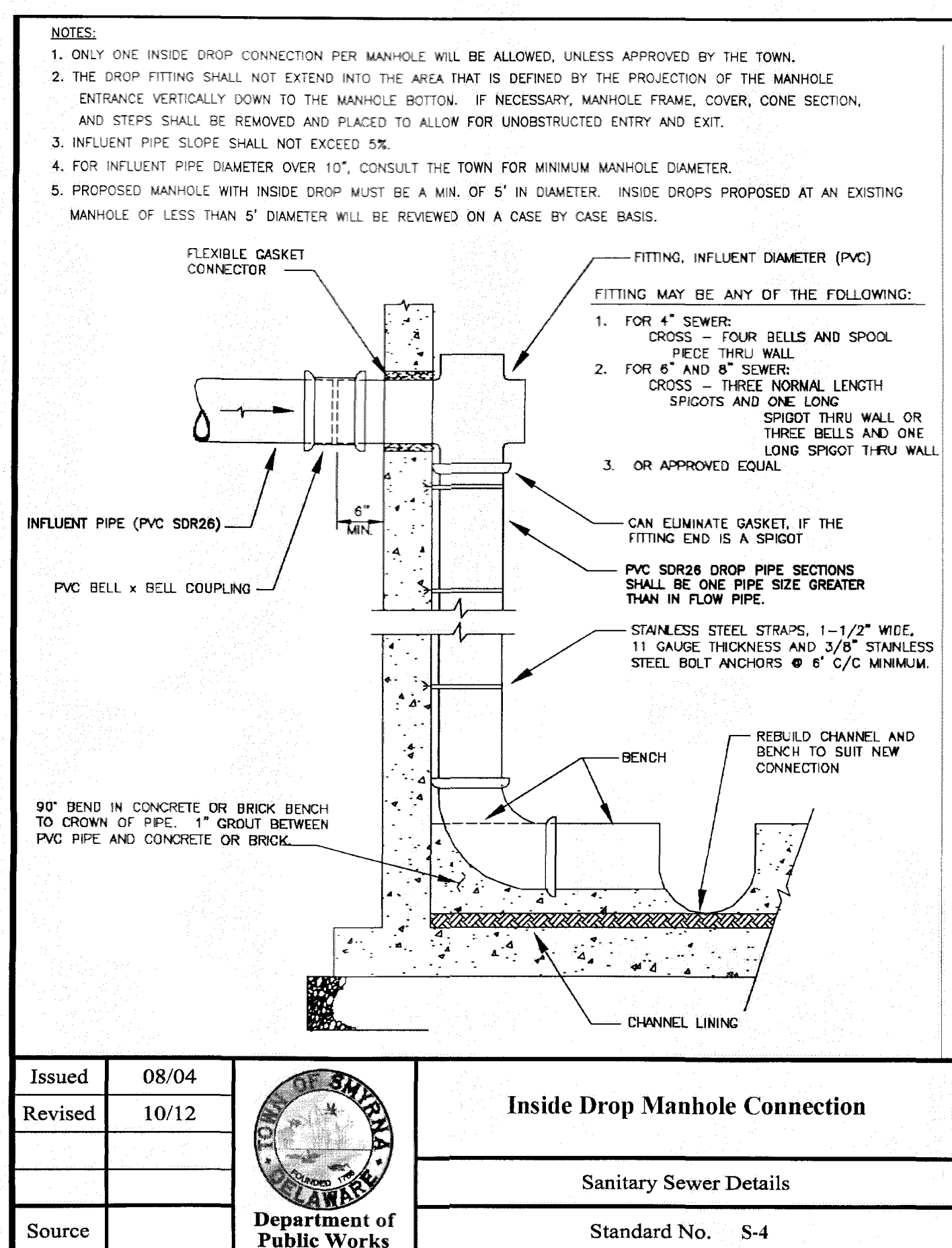
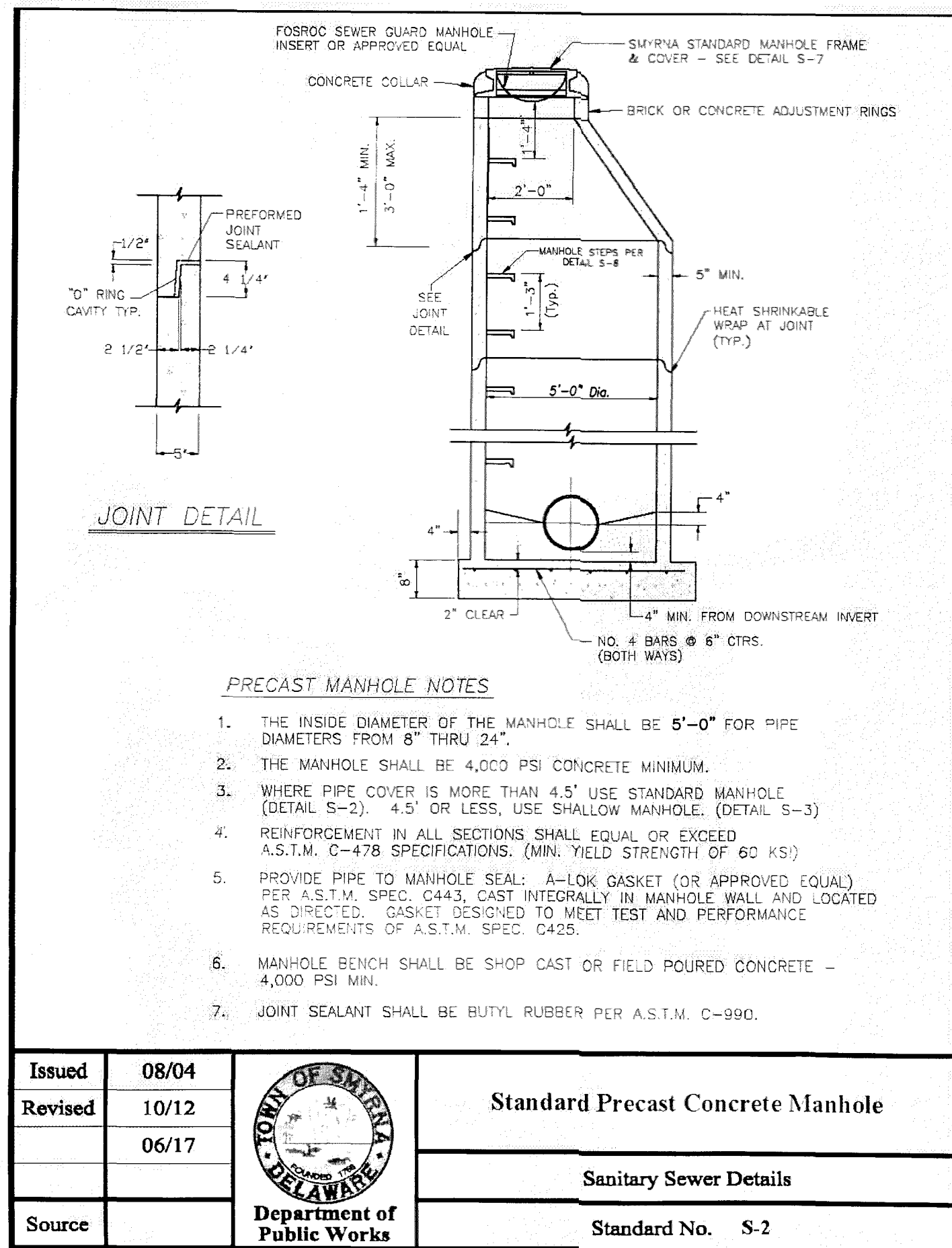
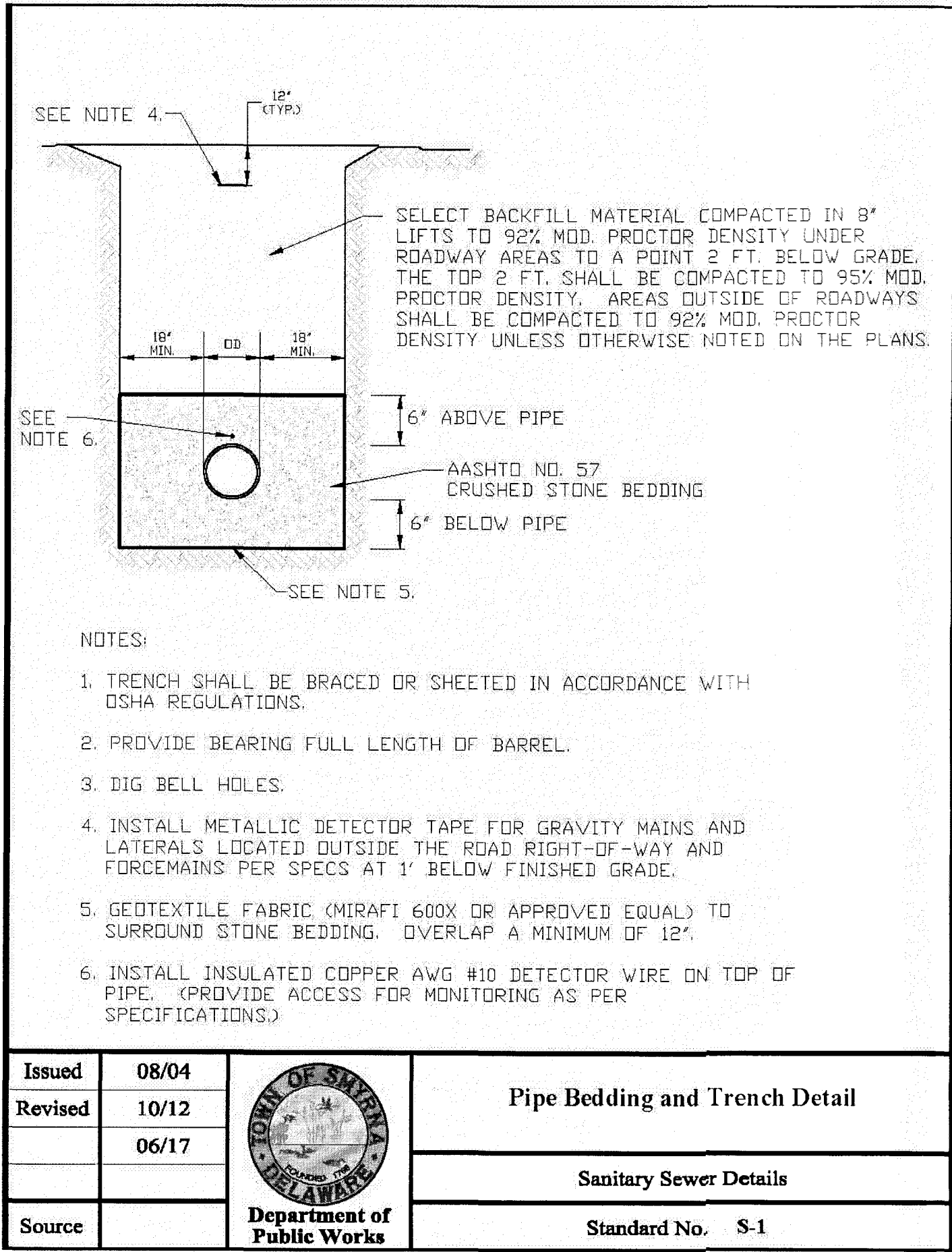


LARSON
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CIVIL ENGINEERING & LAND PLANNING

910 SOUTH CHAPEL STREET • SUITE 200
NEWARK, DE 19713
Phone: (302) 731-7434
Fax: (302) 731-8211

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SHEET NO.: UP-3 CADD FILE: UtilityPlan_Khokhar



DATE	4/19/21	SCALE	AS NOTED	UTILITY DETAIL SHEET
JOB NO.	18-009	DRAWN BY	BDLenhoff	
APPLICATION NO.		DESIGNED BY	AJCollins	
APPROVED BY:	GH Larson	CHECKED BY:	DJLberman	
DATE		REVISION		

FOR

GATEWAY NORTH MIXED-USE

TOWN OF SMYRNA, KENT COUNTY, DELAWARE

PREPARED FOR: KHOKHAR, LLC

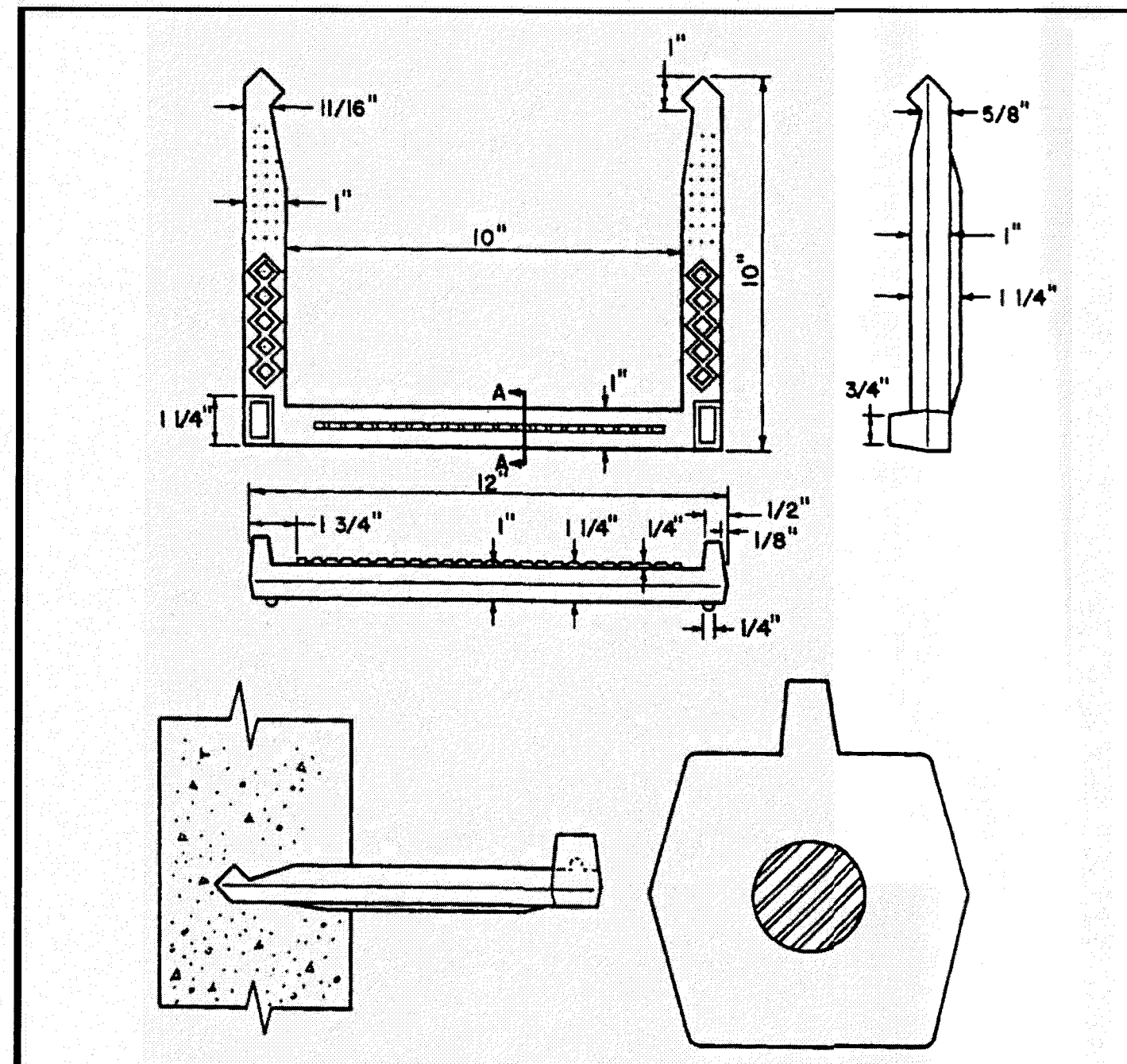
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910 SOUTH CHAPEL STREET • SUITE 200
NEWARK, DE 19713
Phone: (302) 731-7434
Fax: (302) 731-8211

DATE: 7-21-22

SEAL

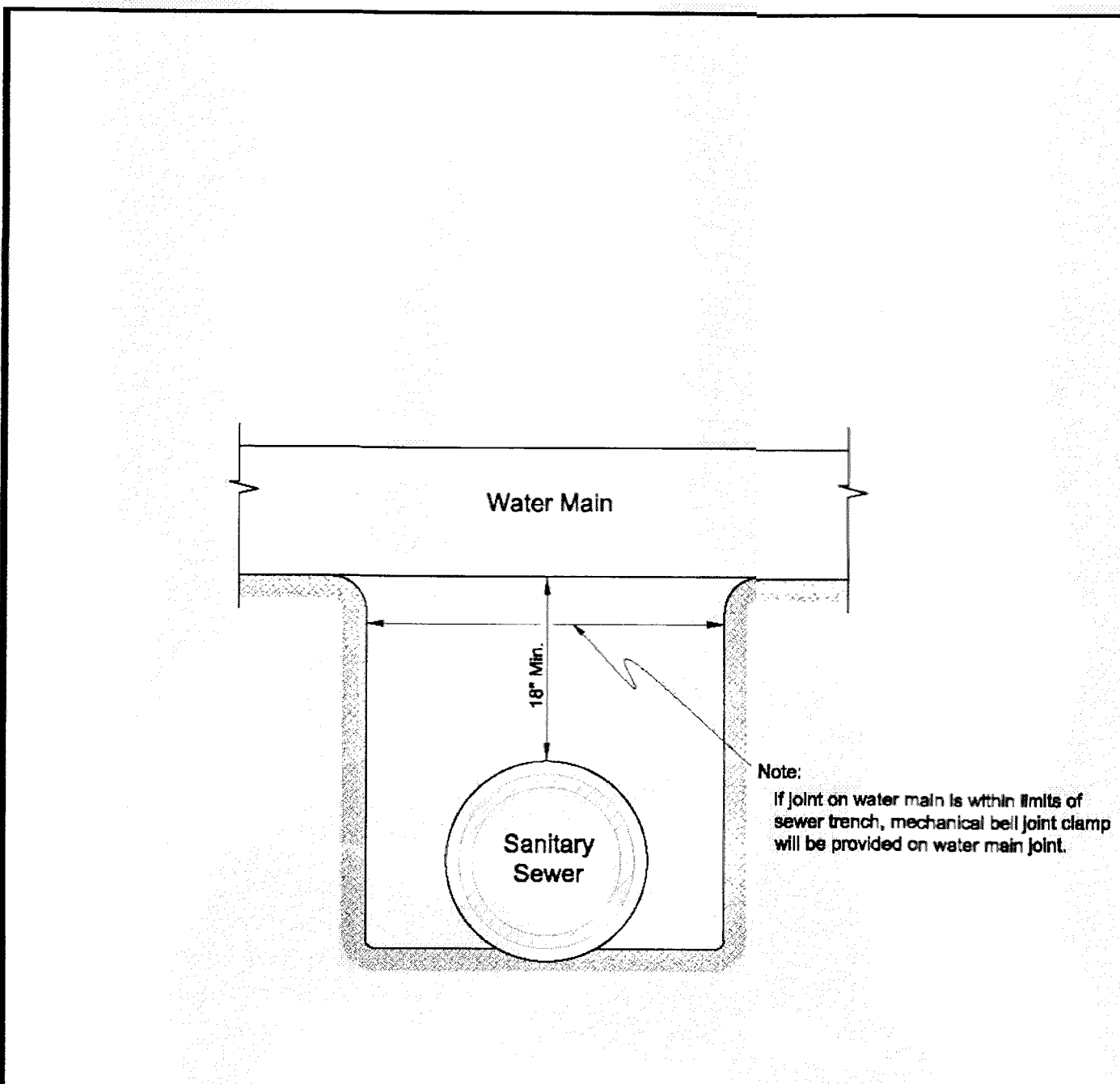
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Steps shall be placed into wet concrete wall during manufacture or mortared into holes after concrete has set.

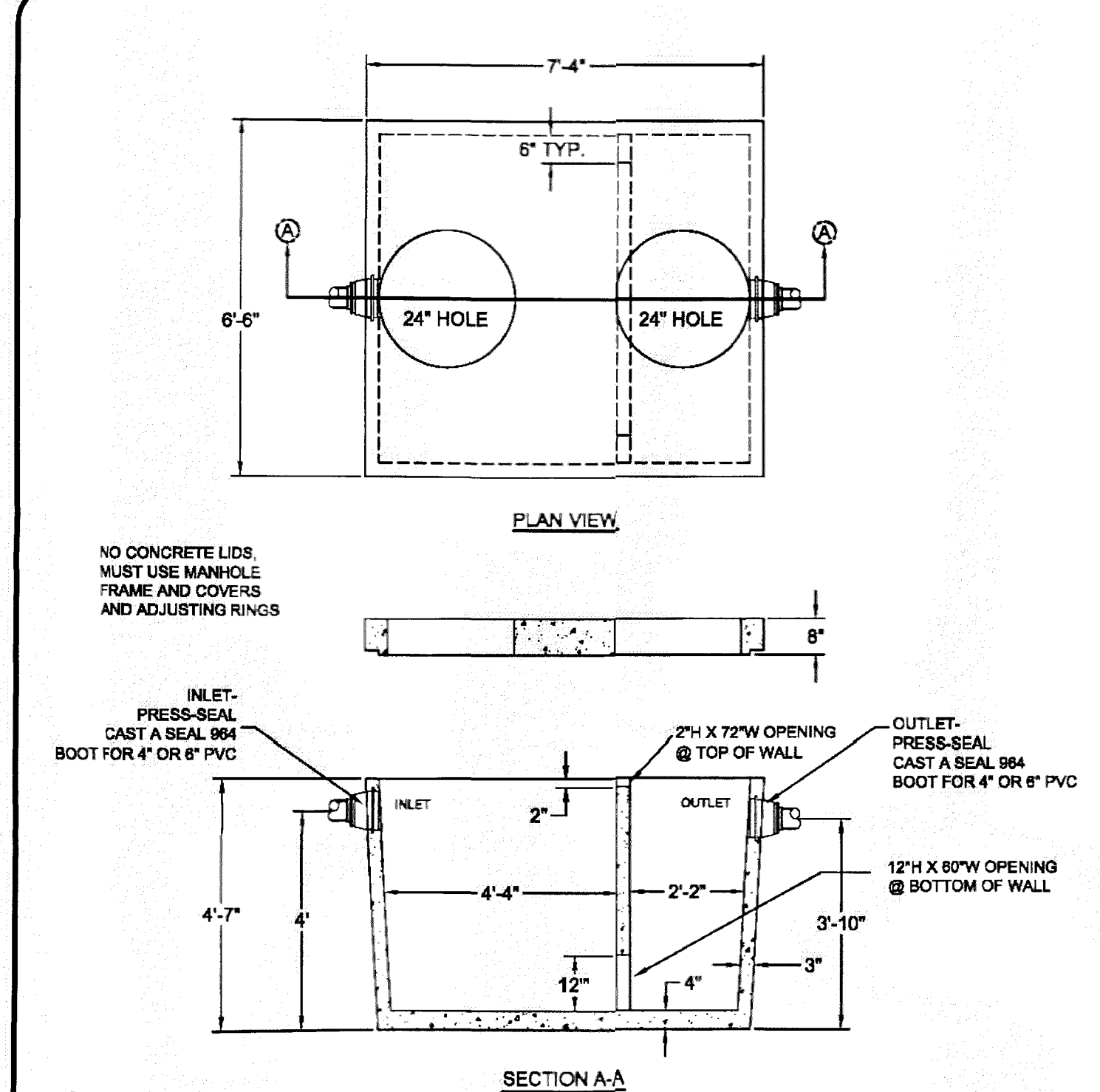
SECTION A-A
Polypropylene Plastic
No. 3 Deformed Steel Rod

Issued	08/04		Standard Manhole Steps
Revised			
Source			



Note: If joint on water main is within limits of sewer trench, mechanical bell joint clamp will be provided on water main joint.

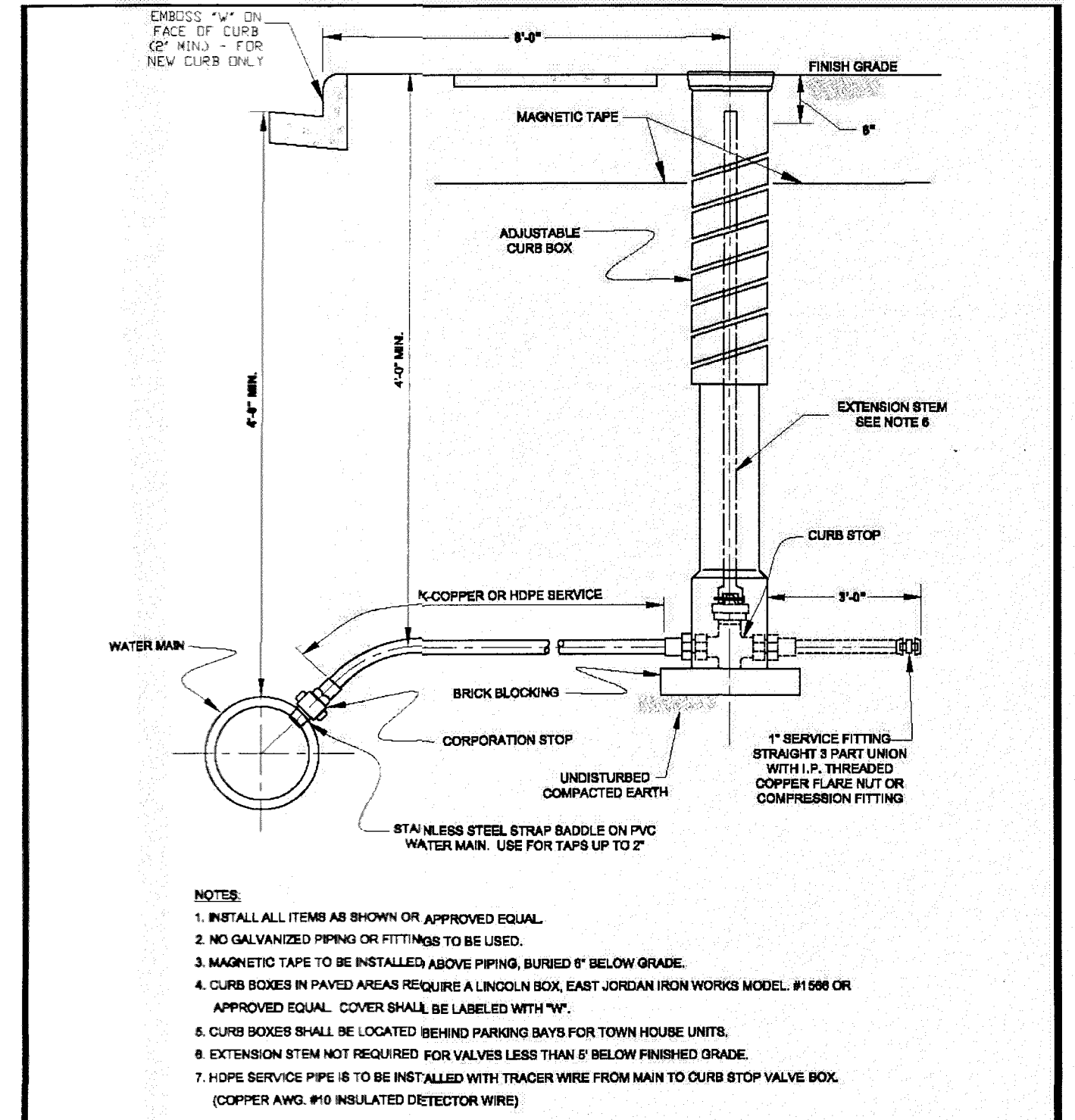
Issued	08/04		Water Main Clearance
Revised	10/12		
Source			



GENERAL NOTES:
 1. OVERALL HEIGHT: 5'-2"
 2. INTERIOR COATED WITH WP 850 EPOXY.
 3. EXTERIOR HAS NO COATING.
 4. WEIGHT: TANK 7,000 lbs. COVER 4,100 lbs.

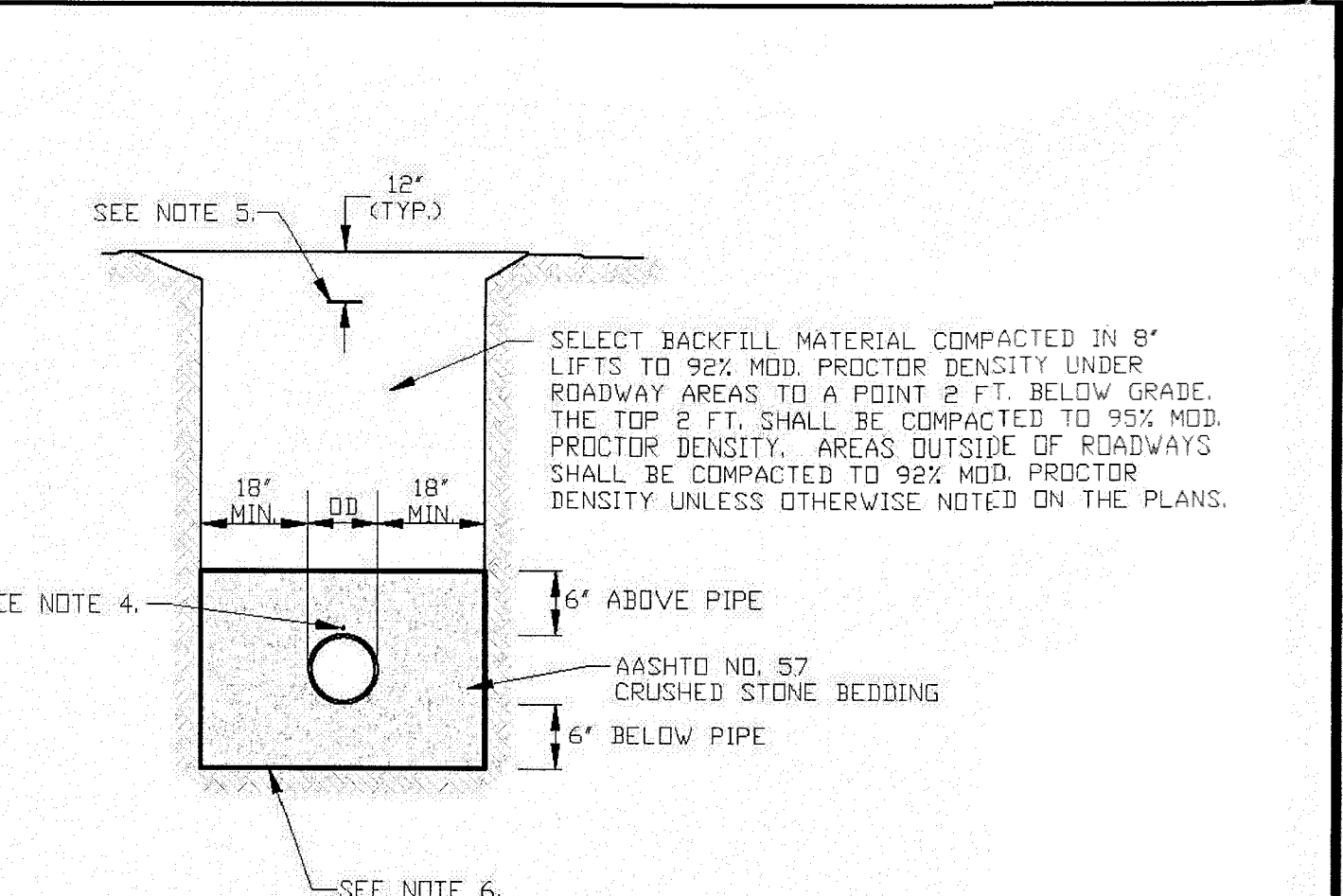
GILLESPIE PRECAST
 1-800-838-8884
 www.gillespieprecast.com

NEW CASTLE COUNTY
 1000 Gallon Load Bearing Grease Trap
 DRAWN BY: JHP DATE: 12/8/08
 SCALE: Not to Scale DWG. #: 1 of 1



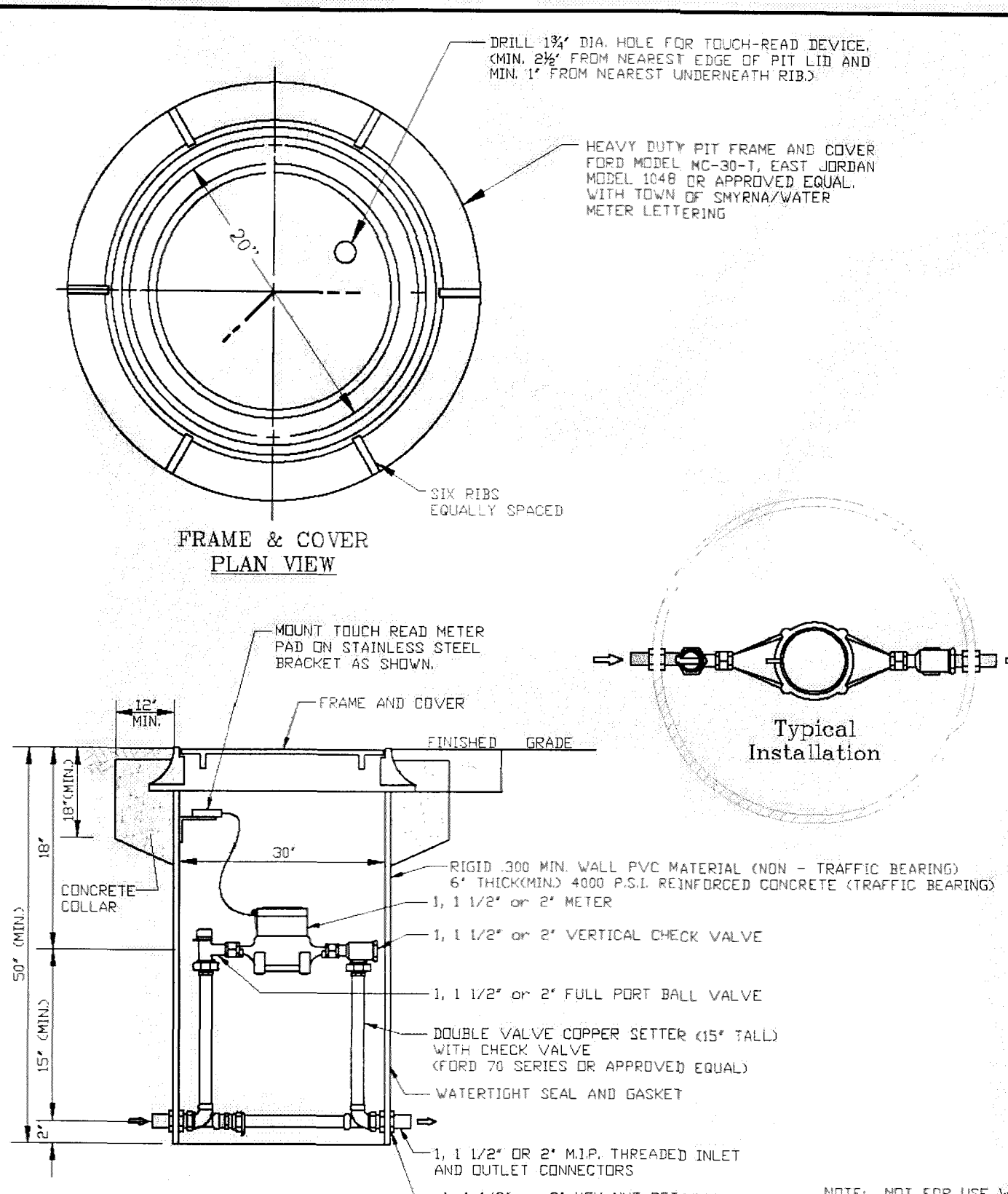
NOTES:
 1. INSTALL ALL ITEMS AS SHOWN OR APPROVED EQUAL.
 2. NO GALVANIZED PIPING OR FITTINGS TO BE USED.
 3. MAGNETIC TAPE TO BE INSTALLED ABOVE PIPING, BURIED 6" BELOW GRADE.
 4. CURB BOXES IN PAVED AREAS REQUIRE LUNGLIN BOX, EAST JORDAN IRON WORKS MODEL #1599 OR APPROVED EQUAL. COVER SHALL BE LABELED WITH "W".
 5. CURB BOXES SHALL BE LOCATED BEHIND PARKING BAYS FOR TOWN HOUSE UNITS.
 6. EXTENSION STEM NOT REQUIRED FOR VALVES LESS THAN 6" BELOW FINISHED GRADE.
 7. HOPE SERVICE PIPE IS TO BE INSTALLED WITH TRACER WIRE FROM MAIN TO CURB STOP VALVE BOX. (COPPER AWG. #10 INSULATED DETECTOR WIRE)

Issued	08/04		Standard Service Connection with Curb Box
Revised	10/12		
Revised	06/17		
Source			

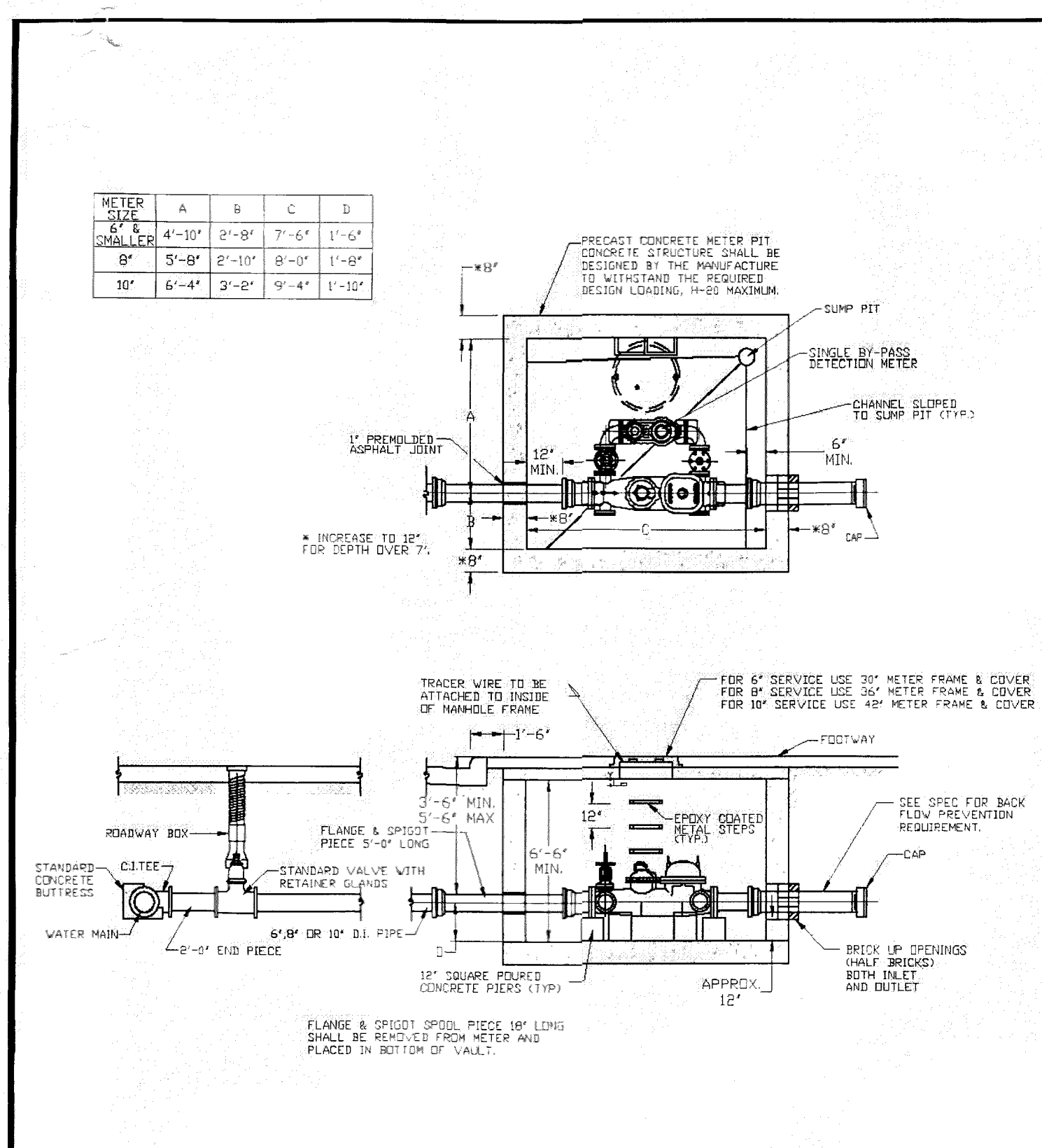


NOTES:
 1. TRENCH SHALL BE BRACED OR SHEETED IN ACCORDANCE WITH OSHA REGULATIONS.
 2. PROVIDE BEARING FULL LENGTH OF BARREL.
 3. DIG BELL HOLES.
 4. INSTALL INSULATED COPPER 10 GA DETECTOR WIRE ON TOP OF PIPE. PROVIDE ACCESS FOR MONITORING AT 400' (MAX.) INTERVAL PER SPECS AT VALVE BOXES.
 5. INSTALL METALLIC DETECTOR TAPE PER SPECS.
 6. GEOTEXTILE FABRIC (MIRAFIT 600X OR APPROVED EQUAL) TO SURROUND STONE BEDDING. OVERLAP A MINIMUM OF 12".

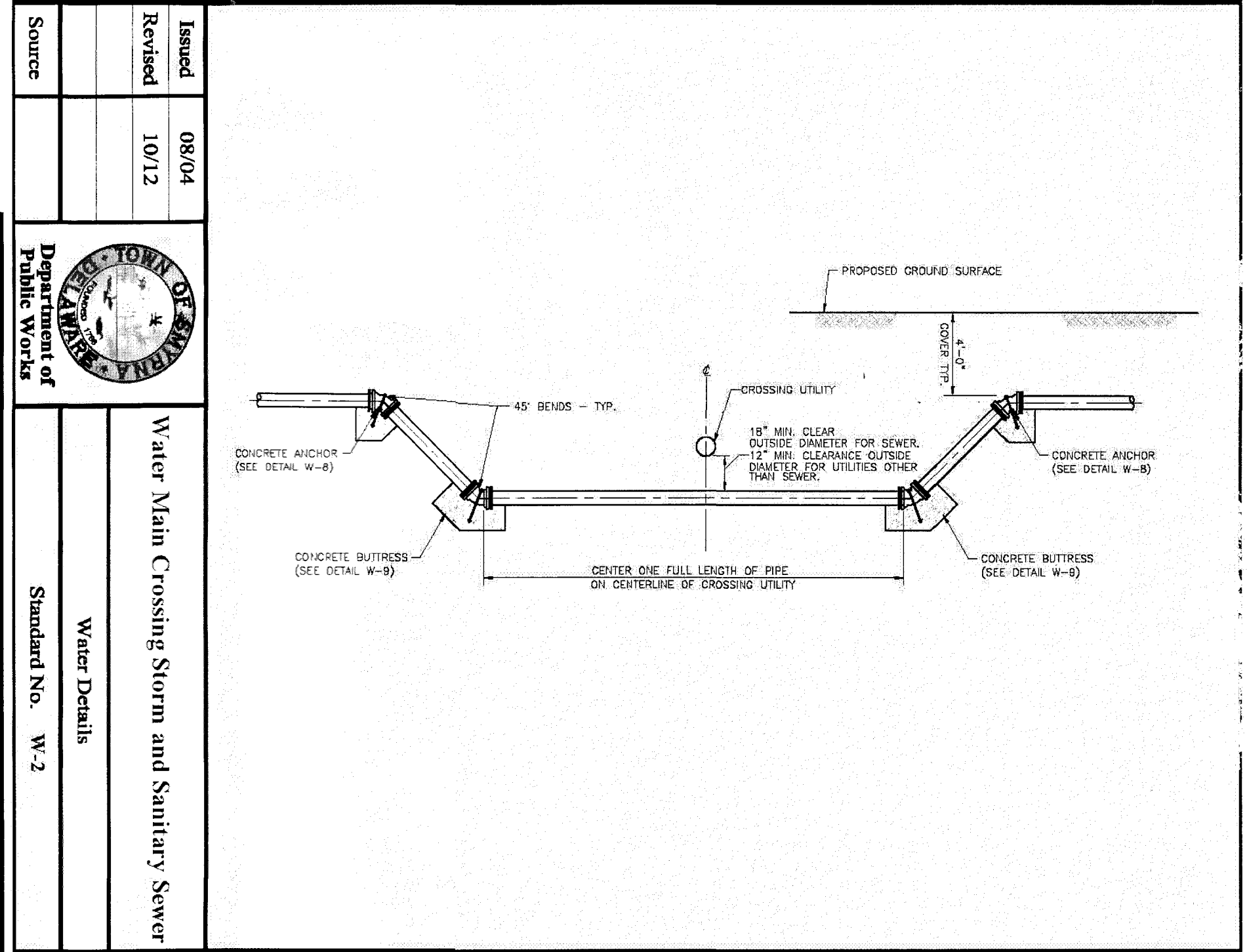
Issued	08/04		Pipe Bedding and Trench Detail
Revised	10/12		
Revised	06/17		
Source			



Issued	08/04		Meter Pit Setter (1", 1 1/2" and 2")
Revised	10/12		
Source			



Issued	08/04		Meter Pit Setter (3' and Above)
Revised	10/12		
Revised	06/17		
Source			



Issued	08/04		Water Main Crossing Storm and Sanitary Sewer
Revised	10/12		
Source			

UTILITY DETAIL SHEET
 FOR
GATEWAY NORTH MIXED-USE
 TOWN OF SMYRNA, KENT COUNTY, DELAWARE
 PREPARED FOR: KHOKHAR, LLC

LARSON ENGINEERING GROUP INC.
 CIVIL ENGINEERING & LAND PLANNING
 910 SOUTH CHAPEL STREET • SUITE 200
 NEWARK, DE 19713
 Phone: (302) 731-7434
 Fax: (302) 731-8211

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BEND TYPE	PIPE DIAMETER	THRUST BLOCK DIMENSIONS			
		L	H	F	T
1/32	6"	1'-0"	1'-2"	8"	7"
	8"	1'-4"	1'-4"	8"	7"
	10"	1'-8"	1'-8"	8"	8"
	12"	2'-0"	1'-8"	8"	8"
1/16	6"	1'-0"	1'-2"	8"	8"
	8"	1'-4"	1'-4"	8"	9"
	10"	1'-8"	1'-8"	8"	10"
	12"	2'-0"	1'-8"	8"	11"
1/8	6"	1'-0"	1'-2"	8"	8"
	8"	1'-4"	1'-4"	8"	9"
	10"	1'-8"	1'-8"	8"	10"
	12"	2'-0"	1'-8"	8"	11"
1/4	6"	1'-0"	1'-2"	8"	8"
	8"	1'-4"	1'-4"	8"	9"
	10"	1'-8"	1'-8"	8"	10"
	12"	2'-0"	1'-8"	8"	11"

NOTES:
 1. CONCRETE STRENGTH - MIN-3000 PSI AT 28 DAYS.
 2. STANDARD THRUST BLOCKING IS BASED ON THE FOLLOWING ASSUMPTIONS AND LIMITATIONS, IF THESE CONDITIONS ARE NOT MET, SPECIAL DESIGN IS REQUIRED:
 A) STATIC PRESSURE IS 150 PSI OR LOWER.
 B) DEPTH FROM FINISHED GRADE TO TOP OF PIPE ASSUMED TO EQUAL 3'-6" OR DEEPER.
 C) ELEVATION OF GROUND/WATER TABLE ASSUMED TO BE BELOW BOTTOM OF THE BLOCK.
 3. IF SOIL CONDITIONS ARE SOFT OR ORGANIC SPECIAL DESIGN IS REQUIRED (MIN. SOIL BEARING PRESSURE OF 3,000 PSF).
 4. FOR LARGER PIPE DIAMETER, SEE DRAWINGS FOR SPECIAL DETAILS.
 5. ALL DIMENSIONS ARE MINIMUMS EXCEPT WHERE LARGER DIMENSIONS WILL INTERFERE WITH THE PIPE JOINTS OR NOT FACILITATE BOLT REMOVAL ON MECHANICAL JOINT FITTINGS.
 6. MECHANICAL JOINTS (i.e. MEGA LUGS) MAY BE USED IN LIEU OF THRUST BLOCKS FOR HORIZONTAL BENDS.

Issued	08/04		Thrust Blocks for Horizontal Bends
Revised			
Source	Department of Public Works		
	Standard No. W-5		

	Nominal Diameter of Branch					
	6"	8"	10"	12"	14"	16"
L	1'-0"	1'-4"	2'-0"	2'-0"	2'-4"	2'-8"
H	1'-4"	1'-8"	2'-0"	2'-6"	3'-0"	3'-4"
T	8"	9"	10"	1'-0"	1'-1"	1'-2"
F	1'-0"	1'-4"	1'-4"	1'-4"	1'-6"	1'-8"

NOTES:
 1. SEE BLOCKING DESIGN REQUIREMENT NOTES, STANDARD DETAIL W-5.
 2. MECHANICAL JOINTS (i.e. MEGA LUGS) MAY BE USED IN LIEU OF THRUST BLOCKS FOR HORIZONTAL BENDS.

Issued	08/04		Thrust Blocks for Tees and Tapping Sleeves
Revised			
Source	Department of Public Works		
	Standard No. W-6		

	Nominal Diameter of Branch					
	6"	8"	10"	12"	14"	16"
L	1'-3"	1'-8"	2'-1"	2'-6"	3'-0"	3'-4"
H	11"	1'-2"	1'-6"	1'-9"	2'-0"	2'-4"
T	6"	8"	8"	10"	11"	1'-0"
F	8"	10"	1'-0"	1'-2"	1'-4"	1'-6"

NOTES:
 1. SEE BLOCKING DESIGN REQUIREMENT NOTES, STANDARD DETAIL W-5.
 2. MECHANICAL JOINTS (i.e. MEGA LUGS) MAY BE USED IN LIEU OF THRUST BLOCKS FOR PLUGS AND CAPS.

Issued	08/04		Thrust Blocks for Plugs and Caps
Revised			
Source	Department of Public Works		
	Standard No. W-7		

BEND	SIZE	Nominal Diameter of Branch					
		6"	8"	10"	12"	14"	16"
1/32	L	2'-0"	2'-6"	2'-9"	3'-0"	3'-6"	4'-0"
	W	1'-6"	1'-6"	2'-5"	3'-0"	3'-3"	3'-6"
	D	1'-3"	1'-9"	1'-9"	2'-0"	2'-0"	2'-0"
	REBAR	3-#6	3-#6	3-#6	3-#6	3-#6	3-#6
1/16	L	2'-6"	2'-8"	3'-10"	4'-0"	4'-8"	5'-6"
	W	2'-0"	3'-4"	3'-8"	4'-0"	4'-2"	4'-4"
	D	1'-9"	2'-3"	2'-6"	2'-6"	2'-6"	2'-6"
	REBAR	3-#6	3-#6	3-#6	3-#6	3-#6	3-#6
1/8	L	3'-0"	4'-0"	4'-6"	4'-6"	5'-6"	6'-6"
	W	2'-6"	3'-0"	4'-0"	4'-6"	4'-10"	5'-2"
	D	2'-6"	2'-9"	3'-0"	3'-6"	3'-9"	4'-0"
	REBAR	3-#6	3-#6	3-#6	3-#6	3-#6	3-#6

NOTES:
 1. SEE BLOCKING DESIGN REQUIREMENT NOTES, STANDARD DETAIL W-5.

Issued	08/04		Anchorage for 1/32, 1/16, and 1/8 Upper Vertical Bends
Revised			
Source	Department of Public Works		
	Standard No. W-8		

BEND	SIZE	Nominal Diameter of Branch					
		6"	8"	10"	12"	14"	16"
1/32	L	8"	8"	10"	10"	1'-2"	1'-4"
	W	1'-2"	1'-4"	1'-6"	1'-8"	1'-10"	2'-0"
	T	0'-7"	0'-7"	0'-8"	0'-8"	0'-9"	0'-9"
1/16	L	8"	9"	1'-0"	1'-6"	1'-8"	2'-0"
	W	1'-2"	1'-4"	1'-6"	1'-8"	1'-10"	2'-0"
	T	0'-7"	0'-7"	0'-8"	0'-8"	0'-9"	0'-9"
1/8	L	1'-3"	1'-8"	2'-1"	2'-6"	3'-0"	3'-4"
	W	1'-2"	1'-4"	1'-6"	1'-10"	2'-2"	2'-6"
	T	0'-7"	0'-8"	0'-10"	0'-11"	1'-1"	1'-3"

NOTES:
 1. SEE BLOCKING DESIGN REQUIREMENT NOTES, STANDARD DETAIL W-5.

Issued	08/04		Thrust Blocks for 1/32, 1/16, and 1/8 Lower Vertical Bends
Revised			
Source	Department of Public Works		
	Standard No. W-9		

NOTES:
 1. Flushing Hydrant shall be Model No. TF-500 as manufactured by the John C. Kupferle Foundry Co., St. Louis, Mo. or approved equal.
 2. Hydrants shall be compression type closing with the pressure and furnished with a 2" FIP inlet. Water pressure alone shall close the valve. Hydrants shall be operated by use of a portable top stock coupling with the hydrant at or near the ground line.
 3. Hydrants shall be arranged for depth of bury suitable for water main design depth of cover. Working parts, thread protector and operating rod shall be brass and removable from the hydrant without the need for excavation. Brass thread protector shall have a 2" square nut.
 4. Brick blocking shall be provided as shown as well as parallel to the 2" Schedule 80 pipe to fully support the valve box.

Issued	08/04		Standard Flushing Hydrant
Revised	06/17		
Source	Department of Public Works		
	Standard No. W-10		

NOTES:
 1. All 1-1/2" fittings to be copper or brass with flare or compression connections.
 2. All 1-1/2" piping to be K-copper.

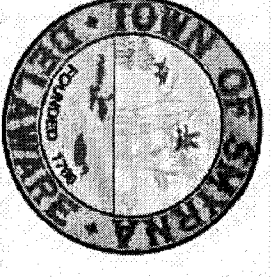
Issued	08/04		Temporary Cap and Blow-Off
Revised	06/17		
Source	Department of Public Works		
	Standard No. W-11		

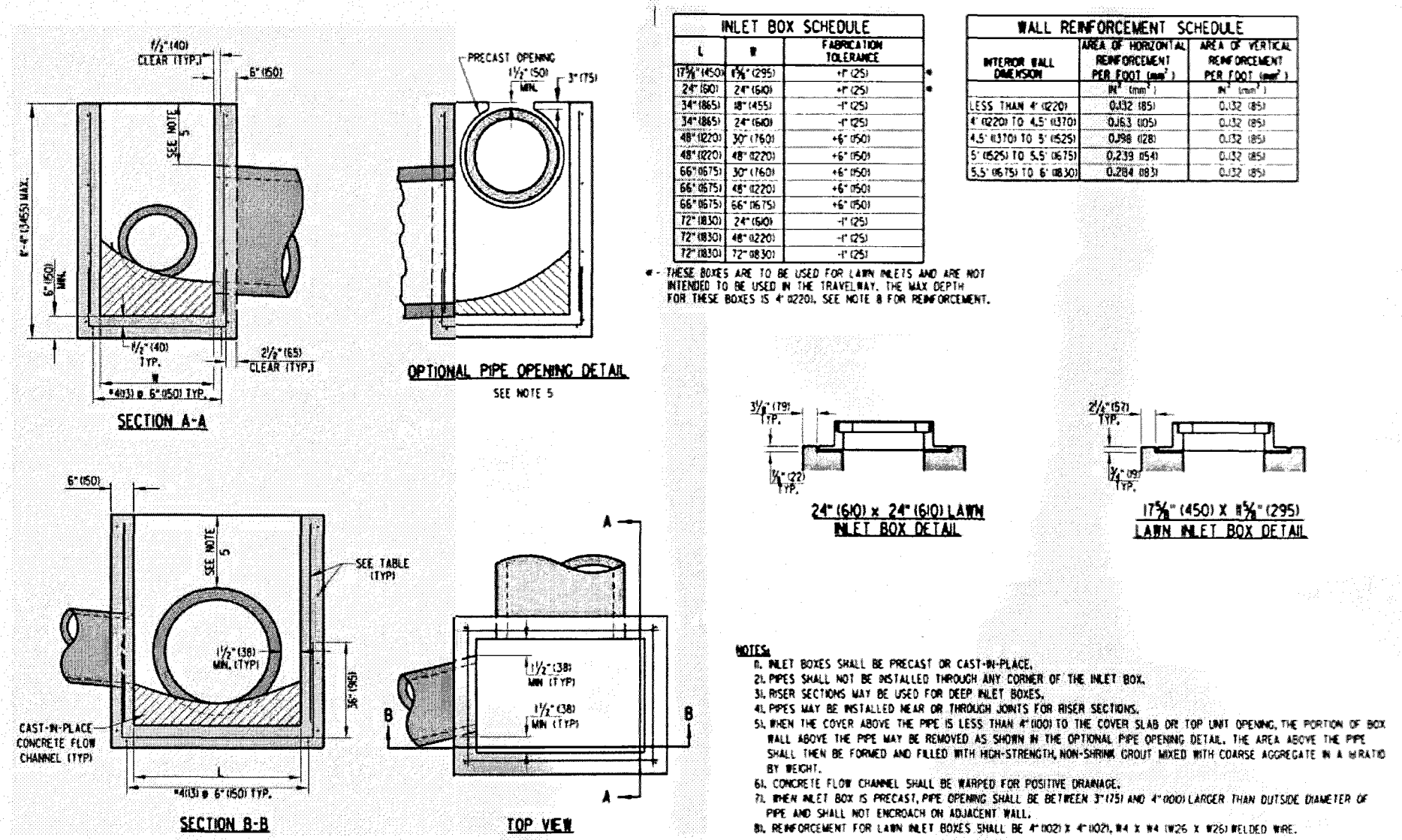
DATE	4/19/21	SCALE	AS NOTED	UTILITY DETAIL SHEET FOR GATEWAY NORTH MIXED-USE TOWN OF SMYRNA, KENT COUNTY, DELAWARE PREPARED FOR: KHOKHAR, LLC
JOB NO.	18-009	DRAWN BY	BDLenhoff	
APPLICATION NO.		DESIGNED BY	AJCollins	
APPROVED BY:	GHLarson	CHECKED BY:	DJLiberman	
DATE		REVISION		

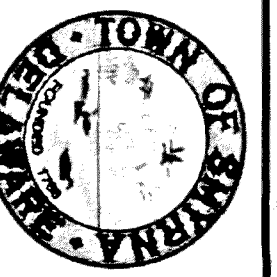
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910 SOUTH CHAPEL STREET • SUITE 200
NEWARK, DE 19713
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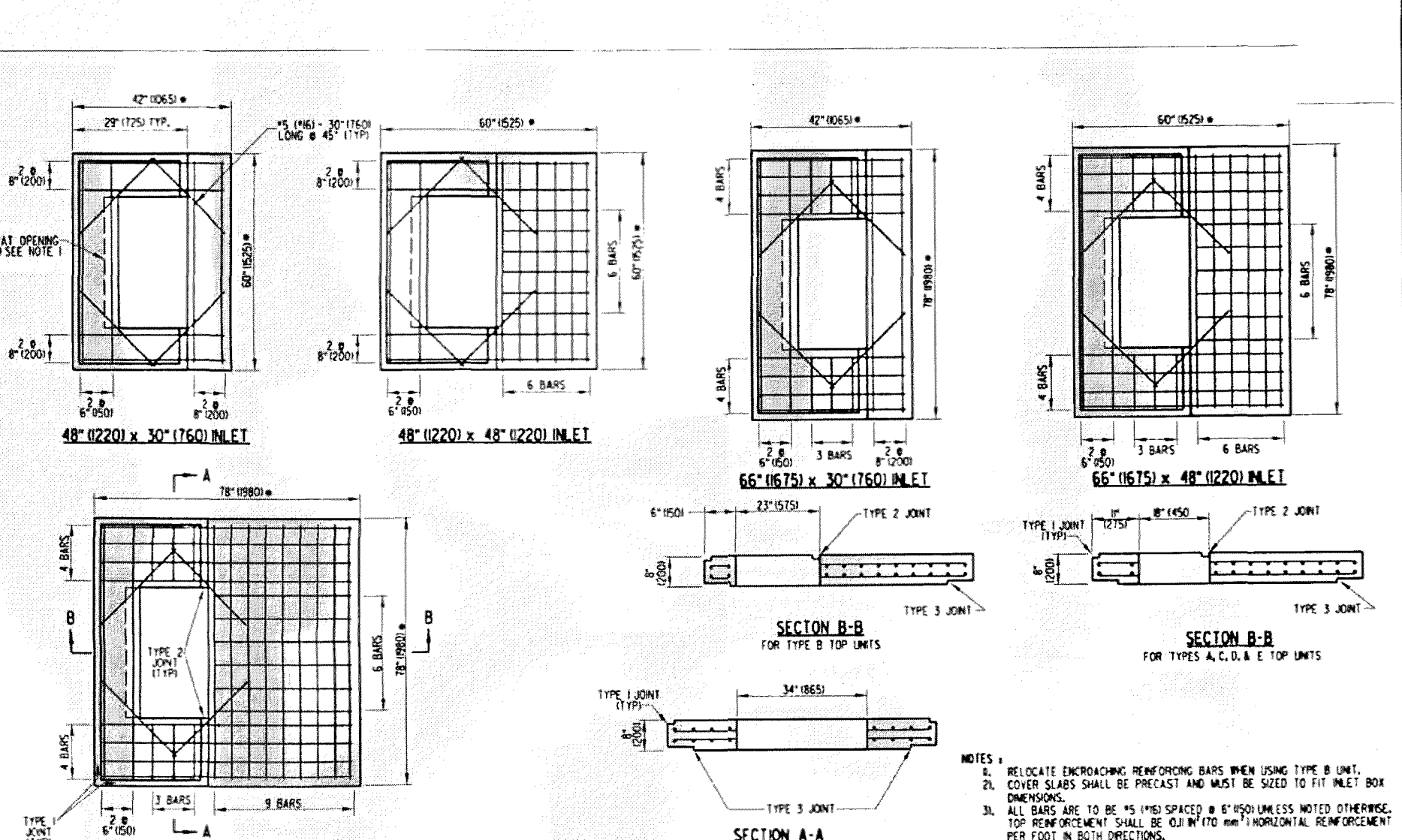
SHEET NO.: UP-6
CADD FILE: UtilityPlan_Khokhar


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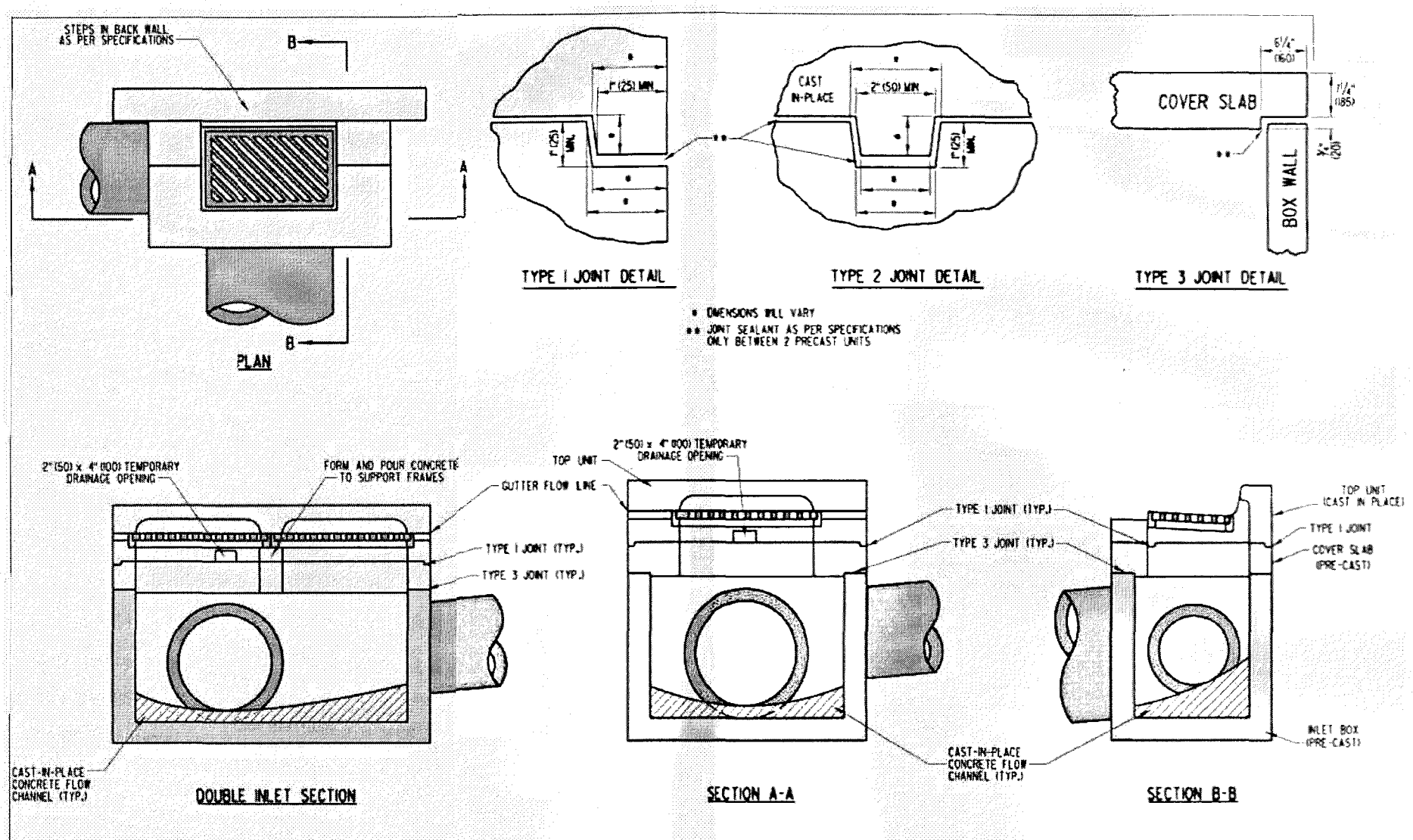
Issued	08/04
Revised	10/12
Source	DeIDOT
 Department of Public Works	
Storm Drain Details	
Standard No. D-6	

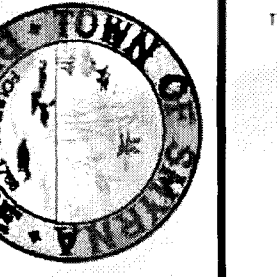


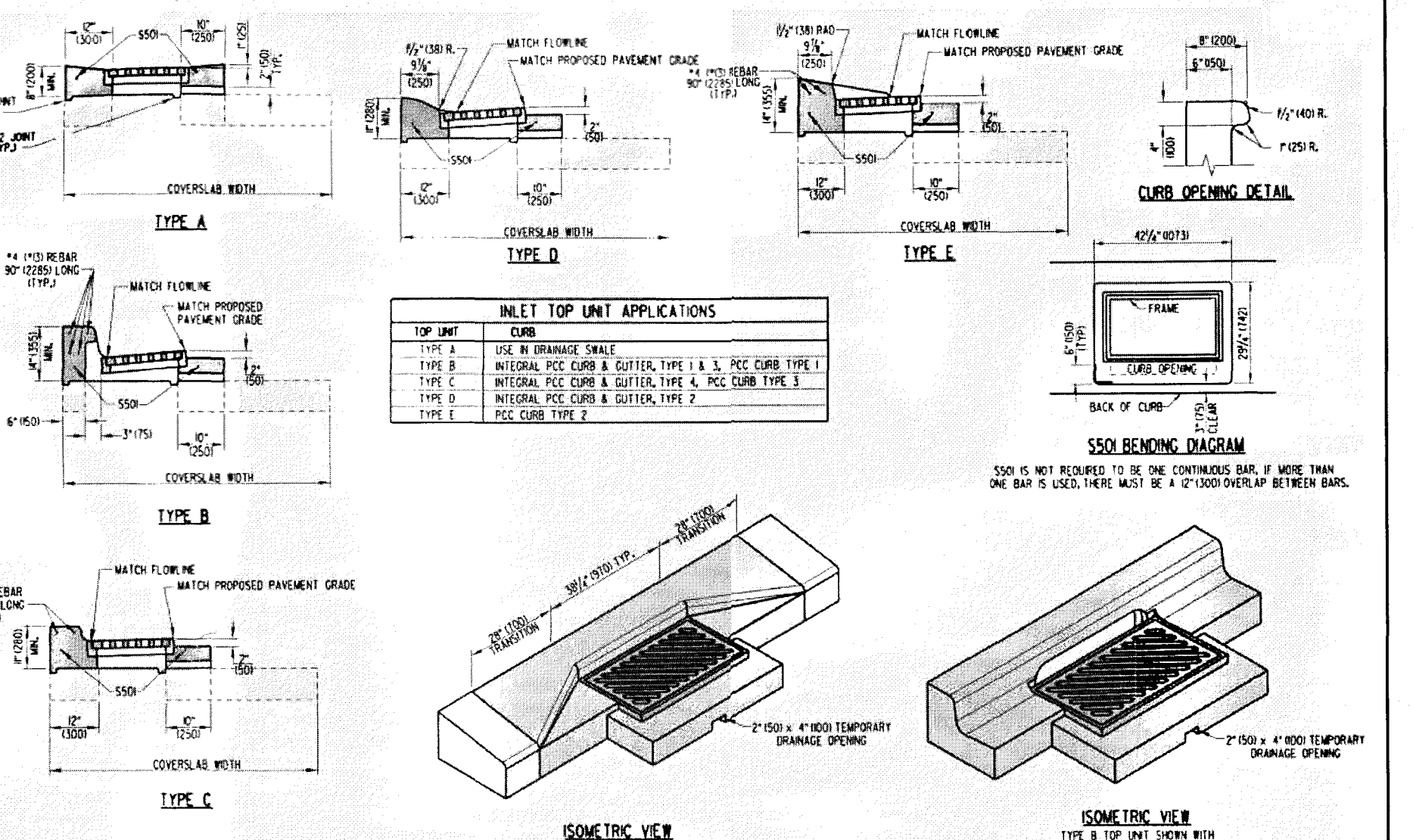
Issued	08/04
Revised	10/12
Source	DeIDOT
 Department of Public Works	
Storm Drain Details	
Standard No. D-10	



Issued	08/04
Revised	10/12
Source	DeIDOT
 Department of Public Works	
Storm Drain Details	
Standard No. D-7	



Issued	08/04
Revised	10/12
Source	DeIDOT
 Department of Public Works	
Storm Drain Details	
Standard No. D-9	




DATE	4/19/21	SCALE	AS NOTED
JOB NO.	18-009	DRAWN BY	BDLenhoff
APPLICATION NO.		DESIGNED BY	AJCollins
APPROVED BY:	GHLarson	CHECKED BY:	DJLiberman
DATE		REVISION	

UTILITY DETAIL SHEET

FOR

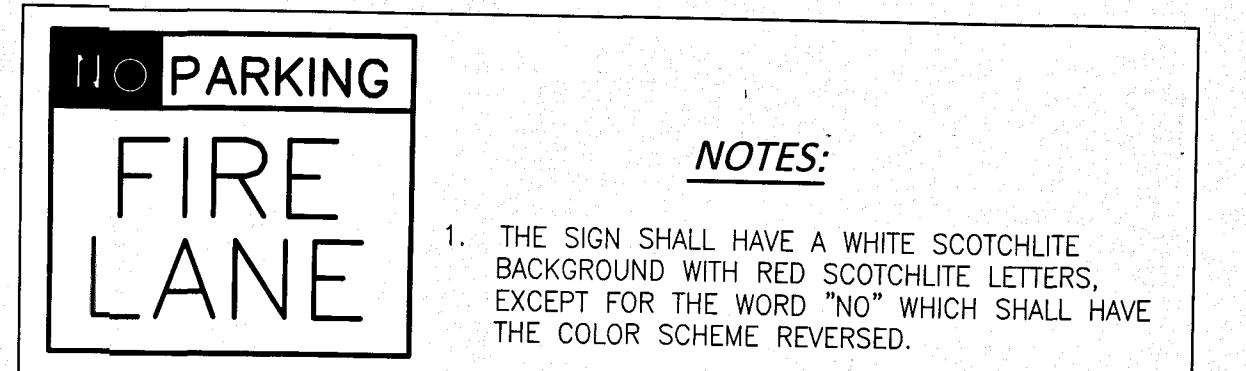
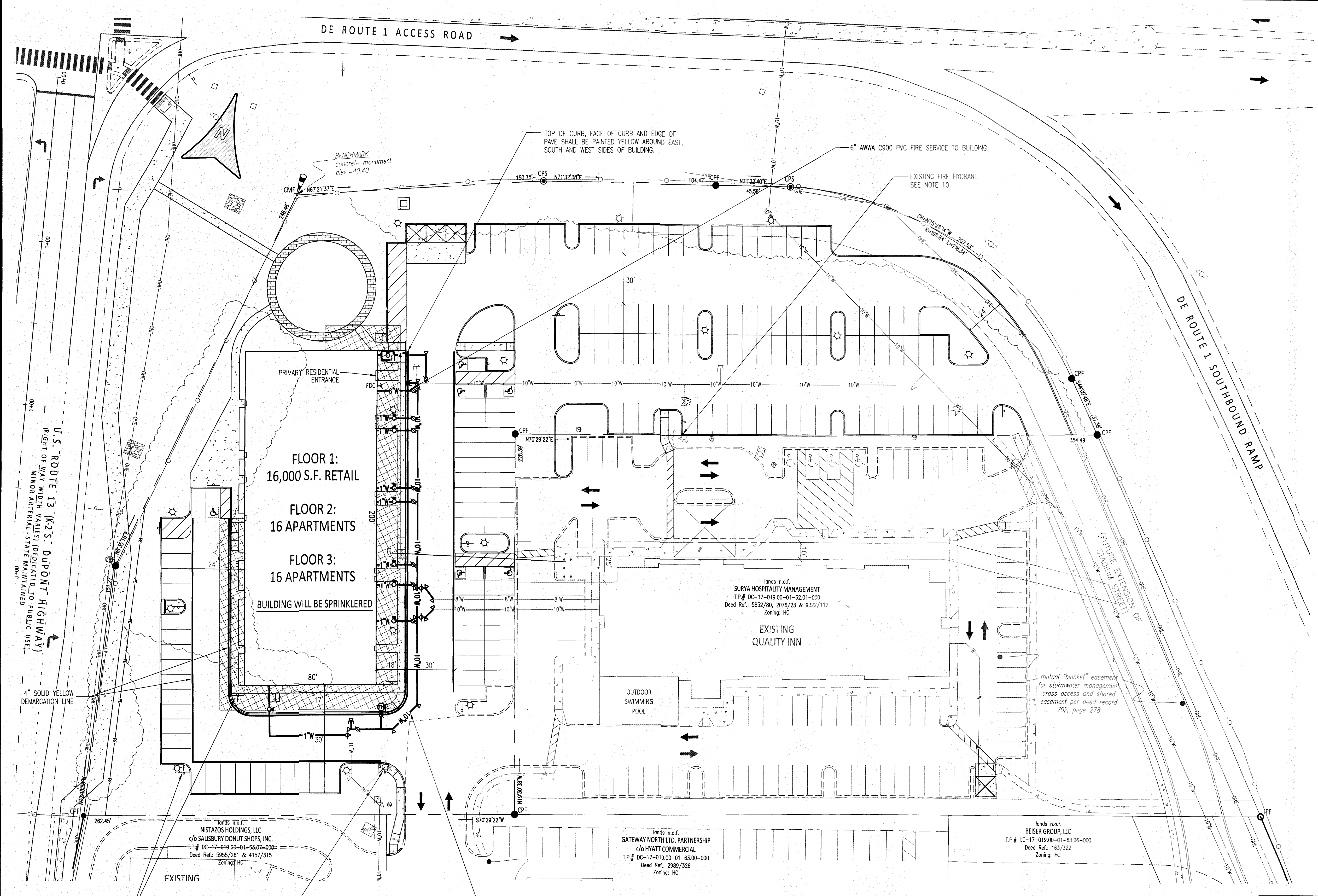
GATEWAY NORTH MIXED-USE

TOWN OF SMYRNA, KENT COUNTY, DELAWARE
PREPARED FOR: KHOKHAR, LLC


LARSON
 ENGINEERING GROUP INC.
 CIVIL ENGINEERING & LAND PLANNING
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 NEWARK, DE 19713
 Phone: (302) 731-7434
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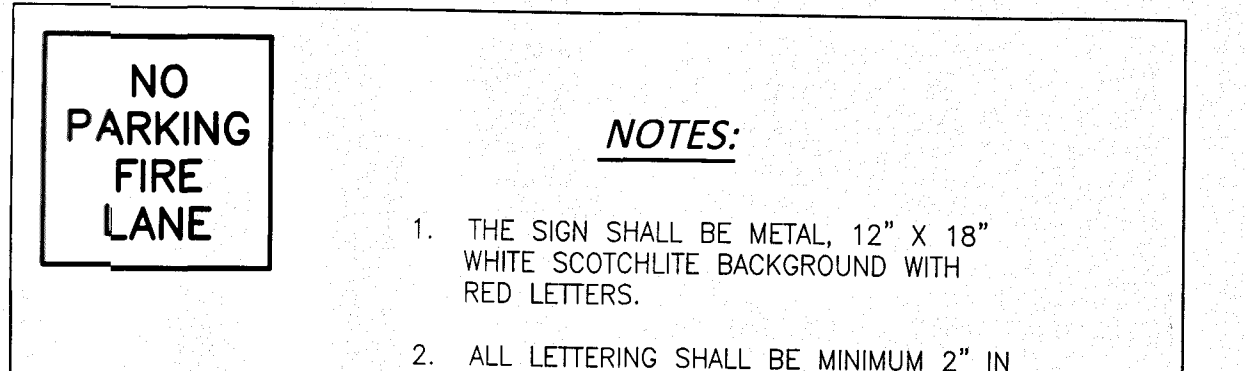
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SHEET NO.: U P - 8 CADD FILE: UtilityPlan_Khokhar



NOTES:

1. THE SIGN SHALL HAVE A WHITE SCOTCHLITE BACKGROUND WITH RED SCOTCHLITE LETTERS, EXCEPT FOR THE WORD "NO" WHICH SHALL HAVE THE COLOR SCHEME REVERSED.
2. THE SIGNS SHALL BE LOCATED AT EACH END AND 150' ON CENTER ALONG FIRE LANES.
3. ALL LETTERING SHALL BE 3 INCHES IN HEIGHT, EXCEPT FOR THE WORD "PARKING" WHICH SHALL BE 2 INCHES IN HEIGHT.



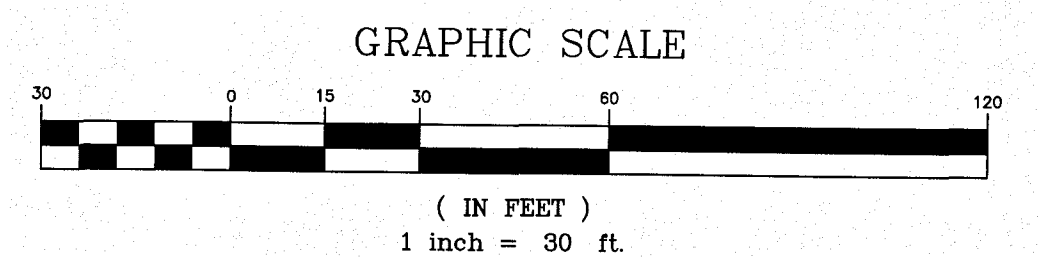
NOTES:

1. THE SIGN SHALL BE METAL, 12" X 18" WHITE SCOTCHLITE BACKGROUND WITH RED LETTERS.
2. ALL LETTERING SHALL BE MINIMUM 2" IN HEIGHT CENTERED JUSTIFIED READING "NO PARKING FIRE LANE" IN ALL CAPS WITH EACH WORD ON IT'S OWN LINE.
3. THE SIGNS SHALL BE LOCATED AT EACH END & 150' ON CENTER ALONG FIRE LANES.

NO PARKING SIGN
NOT TO SCALE

FIRE PROTECTION NOTES

1. PLAN PURPOSE: FIRE PROTECTION REQUIREMENTS PER DELAWARE STATE FIRE PROTECTION REGULATIONS
2. TAX PARCEL NUMBER: 17-019.00-01-62.00-000
3. OWNER: KHOKHAR, LLC
129-06 18TH AVENUE
COLLEGE POINT, NY 11356
4. WATER SUPPLIER: TOWN OF SMYRNA
5. BUILDING HEIGHT: 3 STORY, 45' (MAX.)
6. BUILDING CONSTRUCTION: NFPA TYPE V (III)
7. BUILDINGS WILL BE PROTECTED BY AUTOMATIC SPRINKLERS.
8. FIRE PROTECTION REQUIREMENTS: MAIN SIZES = 6" MINIMUM CAPACITY = 1500 GPM @ 20 PSI RESIDUAL FOR 2 HOURS DURATION. HYDRANT SPACING = 800' ON CENTER.
9. ALL FIRE LANES, FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS SHALL BE MARKED IN ACCORDANCE WITH THE STATE FIRE PREVENTION REGULATIONS.
10. TOWN OF SMYRNA FLOW TEST RESULTS FROM 4/23/21. STATIC PRESSURE = 51 PSI
RESIDUAL PRESSURE = 1190 GPM/49 PSI
11. LOCK BOX REQUIRED, CONTACT LOCAL FIRE CHIEF FOR ORDERING INFORMATION AND LOCATION OF BOX ON THE BUILDING.



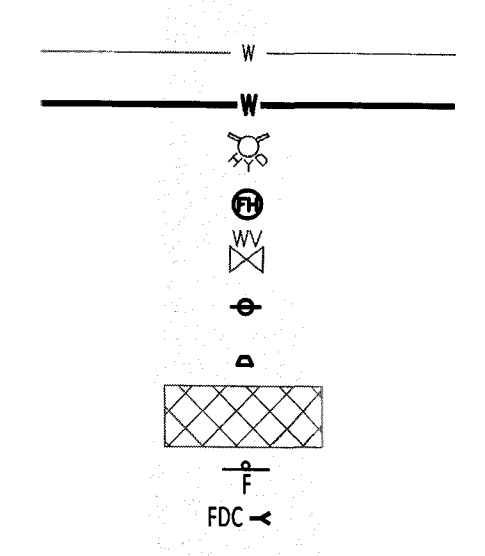
NO PARKING FIRE LANE SIGN.
SEE DETAIL ON THIS SHEET
(TYP. OF 8)

EXISTING FIRE HYDRANT
SEE NOTE 10.

PROPOSED 10" AWWA C-900 PVC WATER MAIN

LEGEND

- EXISTING WATER LINE
- PROPOSED WATER LINE
- EXISTING FIRE HYDRANT
- PROPOSED FLUSHING HYDRANT
- EXISTING WATER VALVE
- PROPOSED WATER VALVE
- PROPOSED BUTTRESS
- 15' PERIMETER ACCESSIBILITY
- PROPOSED FIRE LANE SIGN
- PROPOSED FIRE DEPARTMENT CONNECTION



DATE	SCALE
4/19/21	1"=30'
JOB NO.	DRAWN BY
18-008	BDLenhoff
APPLICATION NO.:	DESIGNED BY:
	AJCollins
APPROVED BY:	CHECKED BY:
GHLarson	DJLiberman
DATE	REVISION
5/14/21	NOTES 6, 11

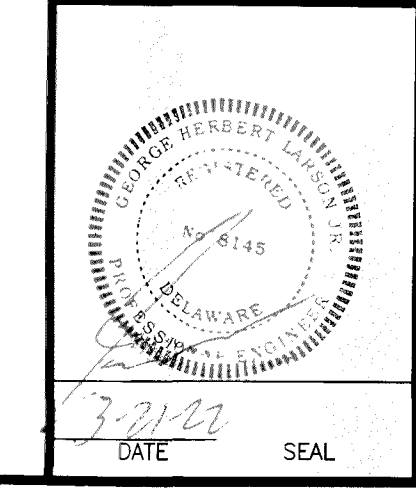
FIRE PROTECTION PLAN

FOR

GATEWAY NORTH MIXED-USE

TOWN OF SMYRNA, KENT COUNTY, DELAWARE

PREPARED FOR: KHOKHAR, LLC

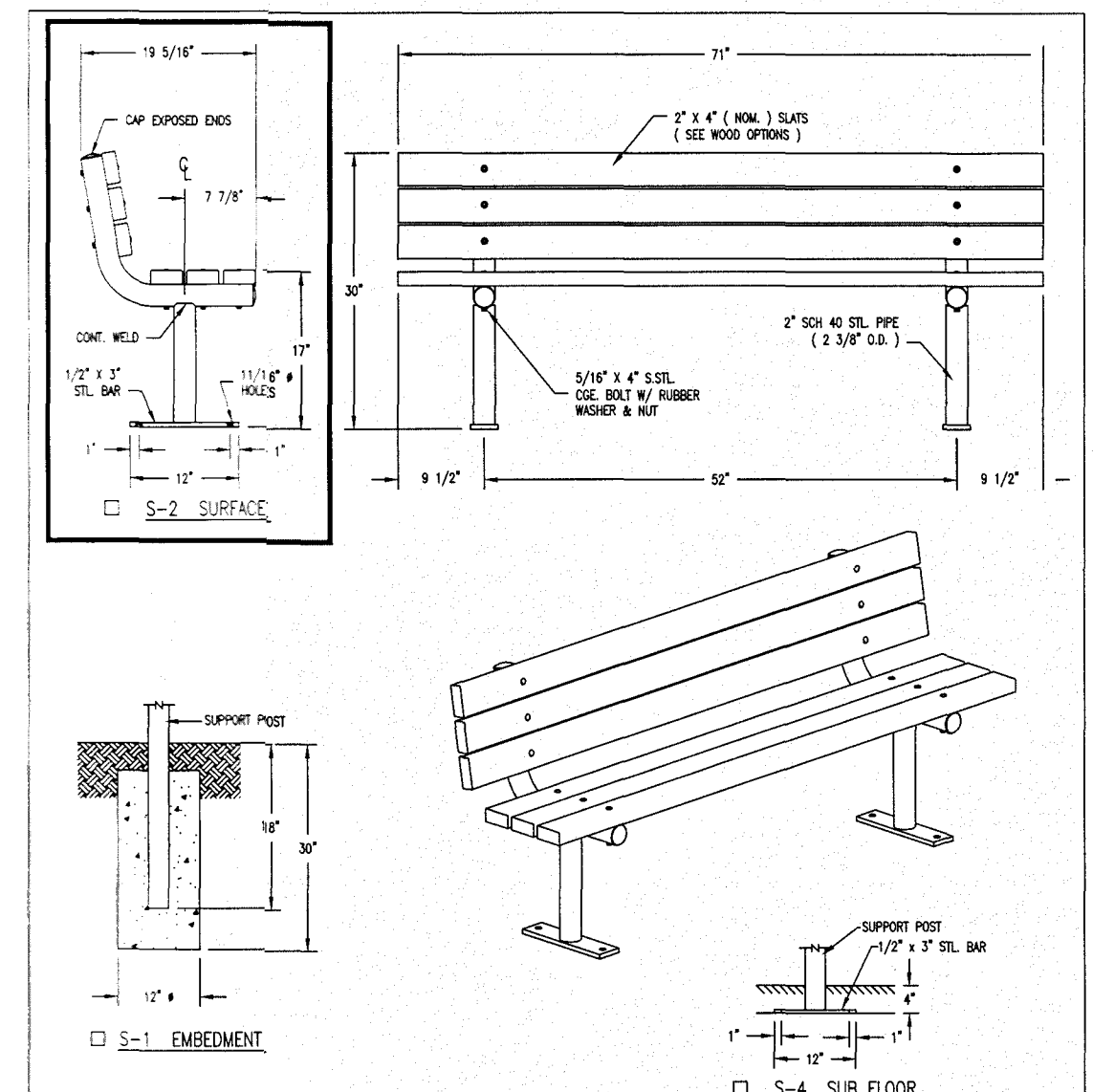
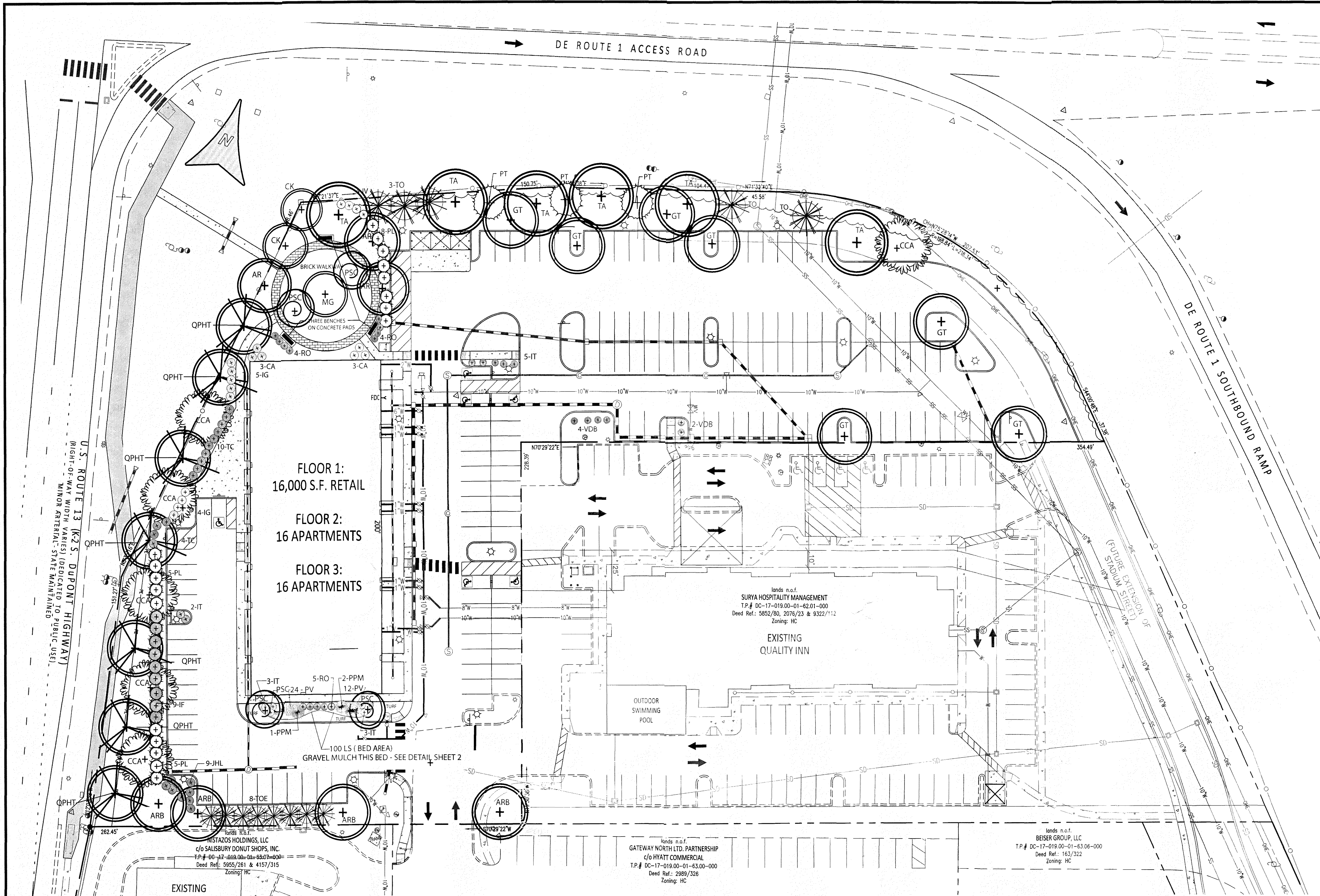


LARSON
ENGINEERING GROUP INC.
CIVIL ENGINEERING & LAND PLANNING

910 SOUTH CHAPEL STREET • SUITE 200
NEWARK, DE 19713
Phone: (302) 731-7434
Fax: (302) 731-8211

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CADD FILE: FireProtectionPlan.dwg
SHEET NO.: FP-1



NOTES

- 1) ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
- 2) ALL WOOD MEMBERS TREATED W/ CLEAR PRESERVATIVE.
- 3) 1/2" x 3 3/4" EXPANSION ANCHOR BOLTS PROVIDED FOR S-2 & S-4 OPTIONS.

WOOD OPTIONS

- 2" x 4" BTR. DOUGLAS FIR KD S4S EE
- IPE S4S EE
- OTHER

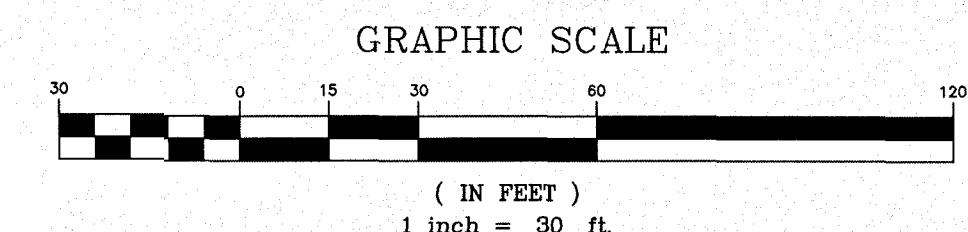
SCALE	NONE	TITLE	BENCH
DATE DRAWN	7/21/09	REV	
DRAWN BY	ET	DRAWING NUMBER	79-60
DATE REV.	10/26/11	REV. BY	E
REV.	1	ISS	

DuMor, inc.
P.O. Box 142 Millstown, PA 17059-0142

PROVIDE 3 - 6' BENCHES WITH CONCRETE PAD 3'-3" SURFACE MOUNT - DOUGLAS FIR SEATS BY DUMOR MANUFACTURES REP GENERAL RECREATION MICHAEL WILEY 800-726-4793

GENERAL NOTES

1. ALL PROPRIETARY PRODUCTS ARE THE BASIS OF DESIGN. PROVIDE THESE PRODUCTS AND PLANT SPECIES CULTIVARS OR APPROVED EQUAL.



FLOOR 1:
16,000 S.F. RETAIL

FLOOR 2:
16 APARTMENTS

FLOOR 3:
16 APARTMENTS

lands n.o.f.
SURYA HOSPITALITY MANAGEMENT
T.P.# DC-17-019.00-01-62.01-000
Deed Ref: 5852/80, 2076/23 & 9322/112
Zoning: HC

EXISTING QUALITY INN

lands n.o.f.
GATEWAY NORTHLD. PARTNERSHIP
c/o HYATT COMMERCIAL
T.P.# DC-17-019.00-01-63.00-000
Deed Ref: 2889/326
Zoning: HC

lands n.o.f.
BEISER GROUP, LLC
T.P.# DC-17-019.00-01-63.06-000
Deed Ref: 163/322
Zoning: HC

lands n.o.f.
STACOS HOLDINGS, LLC
c/o SAUSBURY DONUT SHOPS, INC.
T.P.# DC-13-019.00-01-63.07-000
Deed Ref: 5955/261 & 4157/315
Zoning: HC

SEE SHEET 2 FOR PLANTING SCHEDULE AND DETAILS

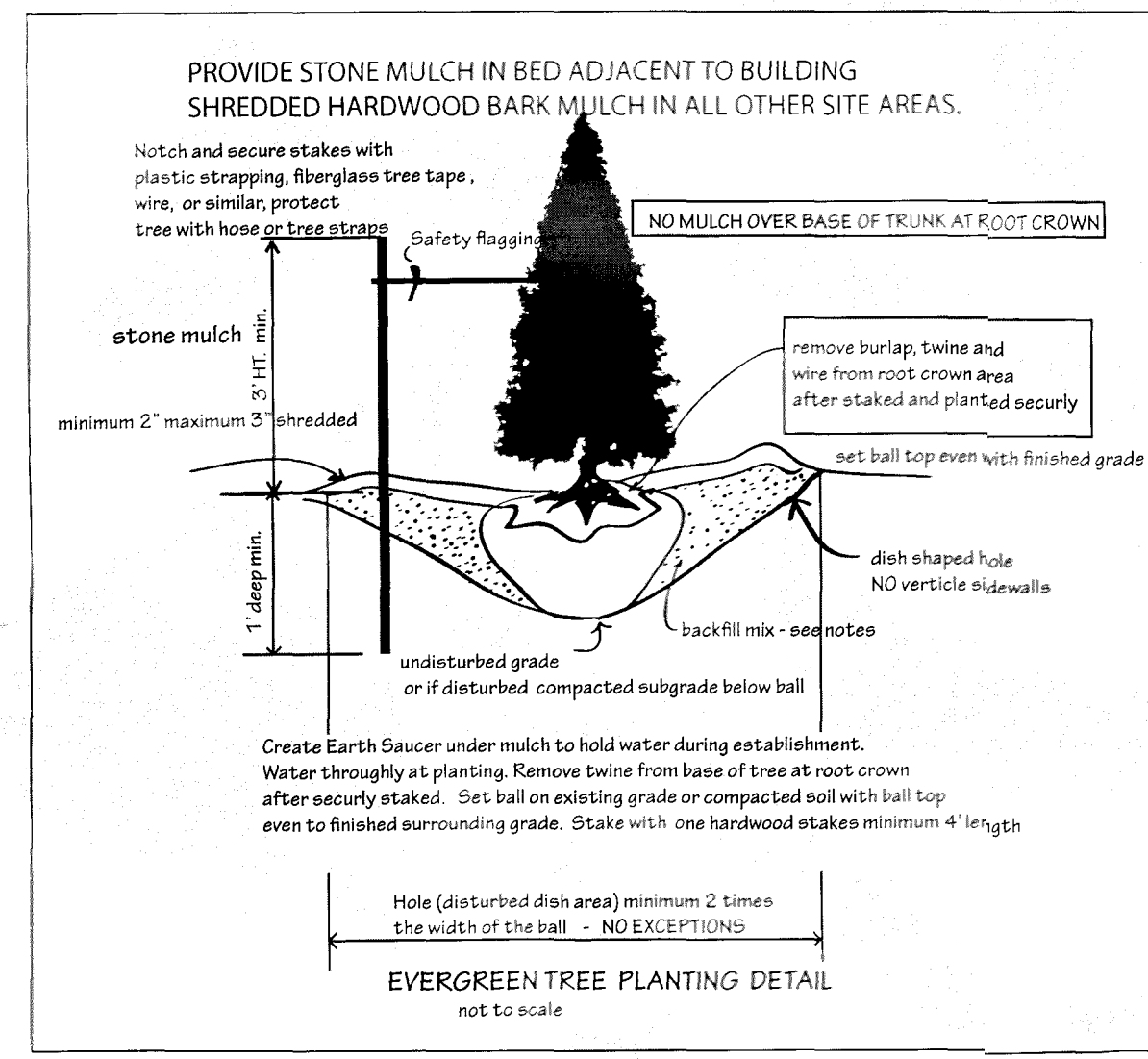
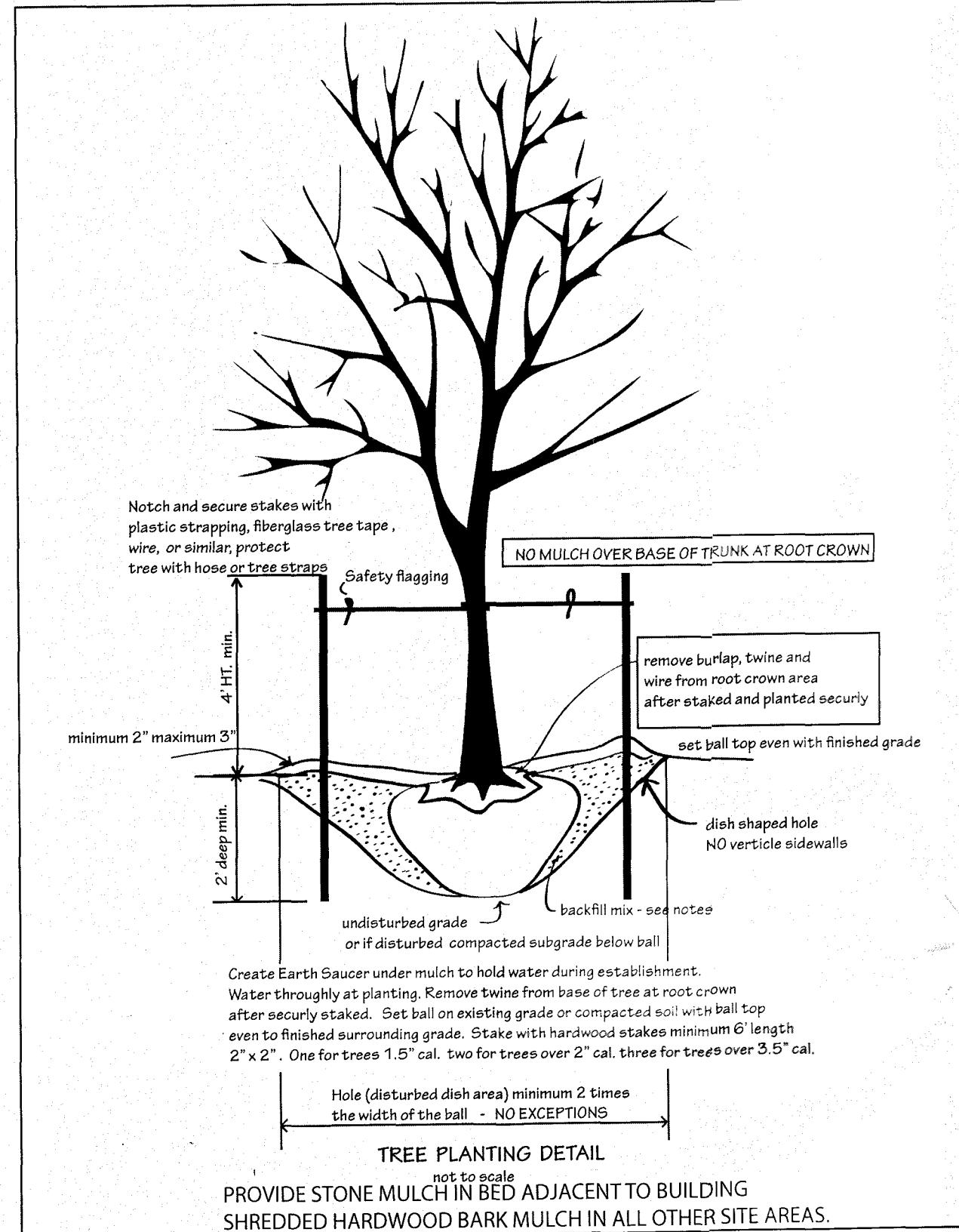
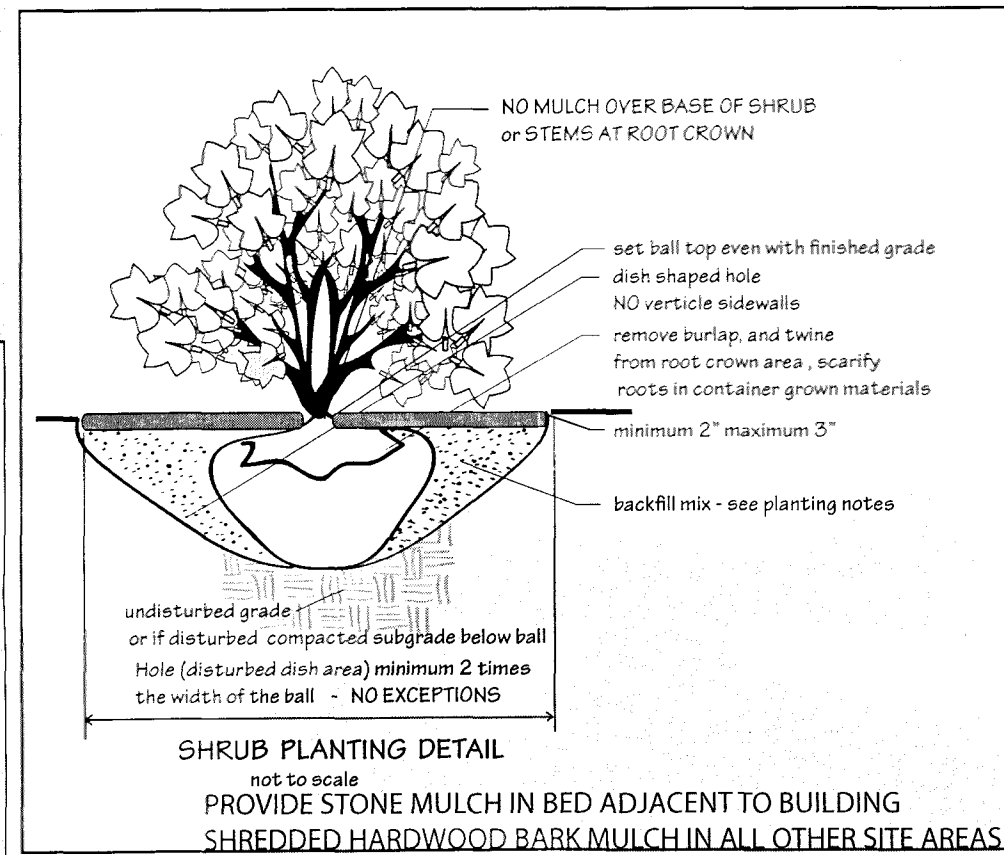
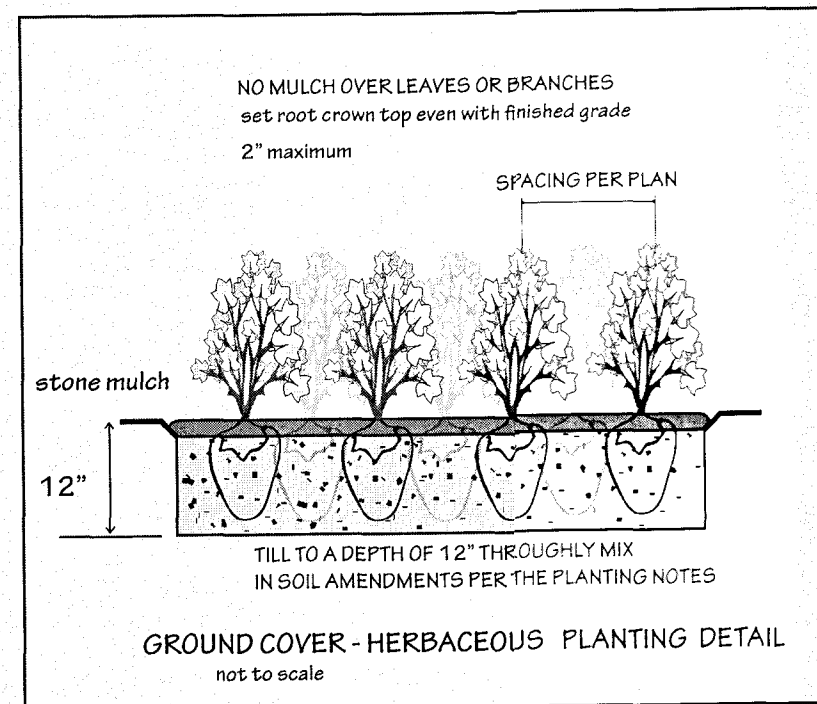
REQUIREMENTS

Street trees at 30' on center (40' max 20' min.)
S. DuPont Blvd at frontage - 150' = 7 street trees
(set back from utility corridor & outside of Del Dot Easement)

Smyrna Town Code Appendix B - Subdivision & Land Development §5.17(d) requires
1 tree per 3,000 sq. ft. of lot area (at least 2" in caliper).
Trees Required - 2.89 AC = 123888.4 sq. ft. / 3,000 = 41.96 - 42 TREES REQUIRED - 43 PROVIDED

DATE 3-11-21	SCALE 1"=30'	LANDSCAPE PLAN	
JOB NO.	DRAWN BY ET	FOR	
APPLICATION NO.	DESIGNED BY ET	GATEWAY NORTH MIXED-USE	
APPROVED BY:	CHECKED BY:	TOWN OF SMYRNA, KENT COUNTY, DELAWARE	
DATE 4-13-21	REVISION Trees removed from islands for pipes.	PREPARED FOR: KHOKHAR, LLC	
		<p>1901 Hickory Hill Road Chadds Ford PA 19317 610-388-7758 ellentraceyDESIGNSetc@gmail.com</p>	
DATE 4-13-21	SEAL	CADD FILE:	LS-1

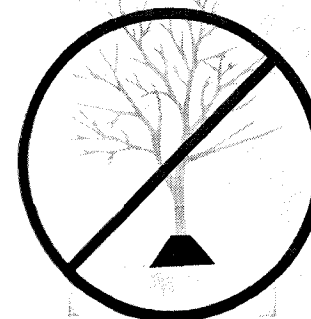
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PLANTING SCHEDULE		MINIMUM SIZE		SPACING	
TYPE	KEY #	BOTANICAL AND COMMON NAME			
T	AR	3 ACER RUBRUM - RED SUNSET - RED SUNSET MAPLE	2.0" CAL. BB	INDIVIDUAL	- site specific - see plan
T	ARB	3 ACER RUBRUM - RED SUNSET - RED SUNSET MAPLE	2.0" CAL. BB	INDIVIDUAL	- site specific - see plan
T	CCA	6 CARPINUS CAROLINIANA PALISADE - PALISADE AMERICAN HORNBEEAM	2.0" CAL. BB	INDIVIDUAL	- site specific - see plan
T	CK	3 CLADRASITIS KENTUCKEA PERKINS PINK - YELLOW WOOD	2.0" CAL. BB	INDIVIDUAL	- site specific - see plan
T	GT	8 GLEDITSIA TRIACANTHOS INERMIS SHADEMASTER - SHADEMASTER HONEY LOCUST	2.0" CAL. BB	INDIVIDUAL	- site specific - see plan
T	MG	1 MAGNOLIA GRANDIFLORA BRACKENS BROWN BEAUTY - SOUTHERN MAGNOLIA	2.0" CAL. BB	INDIVIDUAL	- site specific - see plan
T	PSC	4 PRUNUS SARGENTII COLUMNARIS - SARGENTS COLUMNAR CHERRY	2.0" CAL. BB	INDIVIDUAL	- site specific - see plan
T/E	PT	3 PINUS TAEDA - LOBLOLLY PINE	2.0" CAL. 12'-14' HT.	INDIVIDUAL	- site specific - see plan
T	TA	5 TILIA AMERICANA - AMERICAN - LINDEN	2.0" CAL. BB	INDIVIDUAL	- site specific - see plan
* ST/T	QPH	7 QUERCUS PHELLOS 'HIGH TOWER' - HIGH TOWER WILLOW OAK	3.5" - 4.0" CAL. BB	INDIVIDUAL	- site specific - see plan
E	TO	5 THUJA OCCIDENTALIS - EASTERN ARBORVITAE	6'-8" BB - 2" CAL.	15' ON CENTER	
E	TOE	8 THUJA OCCIDENTALIS - EMERALD - NARROW ARBORVITAE	5'-6" BB OR CONT	9'-0" ON CENTER	
S	CA	6 CLETHRA ALNIFOLIA - RUBY SPICE - SUMMERSWEET	24" - 36" CONT.	4'-0" ON CENTER	
S	TC	14 TAXUS CANADENSIS 'MARSHALL' - AMERICAN YEW	2.5" - 3" BB	4'-6" ON CENTER	
S	IG	9 ILEX GLABRA - INKBERRY	24" - 36" CONT	4'-0" ON CENTER	
S	IF	9 ILEX FOSTERI - FOSTER HOLLY	3'-4" CONT OR BB	6.5' ON CENTER	
S	IT	13 ILEX VIRGINICUS 'LITTLE HENRY' - ITEA	18" - 36" CONT.	3'-6" ON CENTER	
S	IV	4 ILEX VERTICILLATA - WINTER RED - WINTER BERRY HOLLY	24" - 36" CONT	5'-0" ON CENTER	
S	JHL	9 JUNIPERUS HORIZONTALIS LIME GLOW - JUNIPER	18" - 24" CONT.	3.5' ON CENTER	
S	PL	10 PRUNUS LARUCERASUS SCHIPKAENSIS - SKIP LARUEL	30" - 36" CONT	6.5' ON CENTER	
S	RO	5 ROSA KNOCK OUT - SHRUB ROSE	18" - 24" CONT.	3.0' ON CENTER	
S	VDB	6 VIBURNUM DENTATUM BLUE MUFFIN - ARROWOOD	18" - 36" CONT.	site specific - see plan	
S	PPM	3 PICEA PUNGENS MONTGOMERY - DWARF BLUE SPRUCE	2'-0" X 2'0" BB	INDIVIDUAL - site specific - see plan	
P/GC	LS	100 LIRIOPE SPICATA - NARROW LEAVED SPREADING LILY TURF	ONE QT. CONT.	9" - 12" ON CENTER	
G	PV	36 PANICUM VIRGATUM 'CHEYENNE SKY' - DWARF RED SWITCHGRASS	ONE GALLON CONT.	ONE FOOT SIX INCHES ON CENTER	

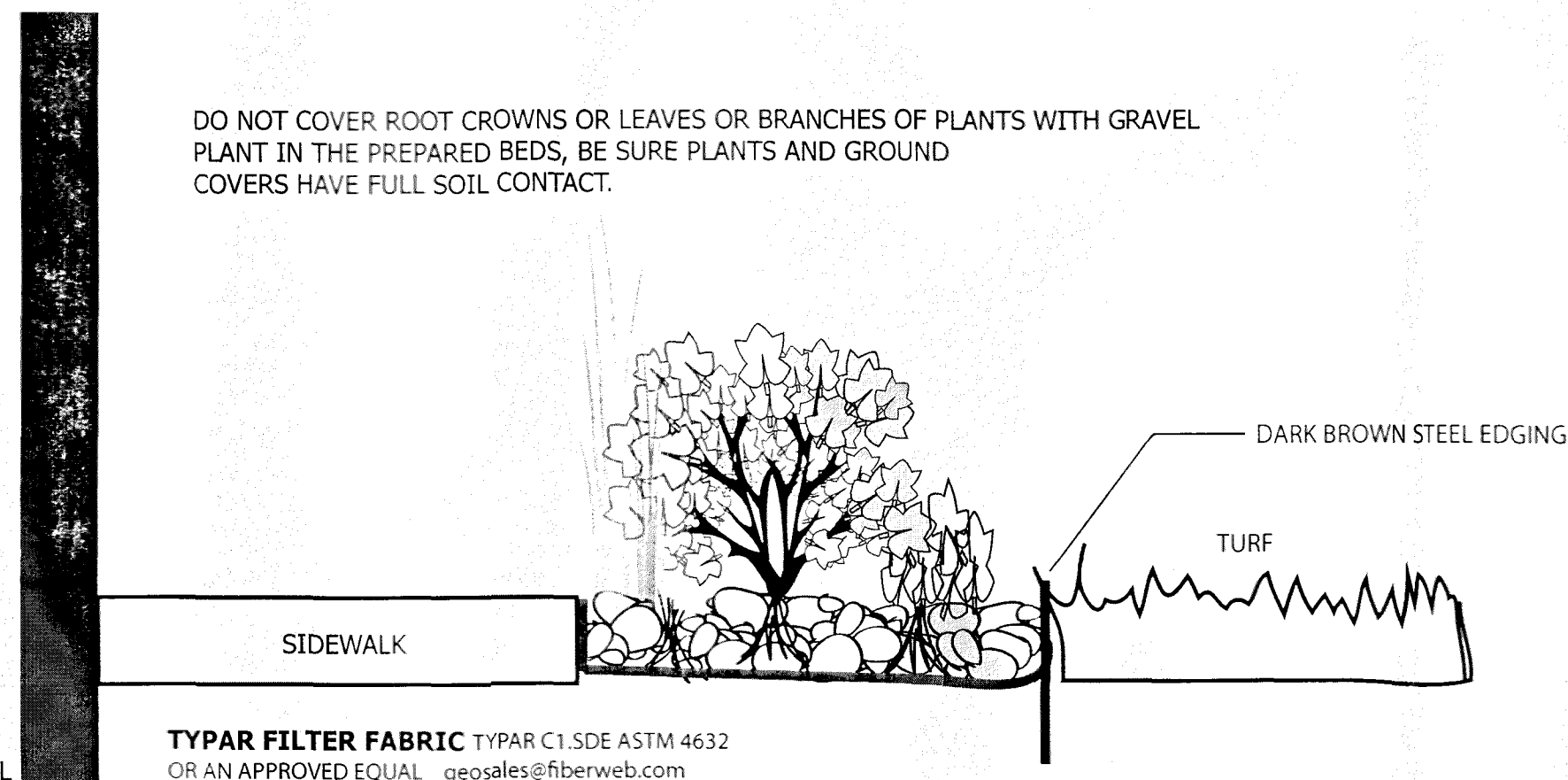
KEY - T = DENSITY TREE, E = EVERGREEN TREE ST = STREET TREE O = UNDERSTORY TREE S = SHRUB P = PERENNIAL
 G = GRASSES, GC = GROUND COVER H = HERBACEOUS RF = REFORESTATION B = BULBS V = VINES
 ALL TREES MUST BE PLANTED PER THE DETAIL INCLUDING SOIL AMENDMENTS - MULCHED - STAKED - GUYED AND WATERED WHEN INSTALLED
 * PROVIDE A 20 GAL GATOR BAG FILLED WITH WATER AT PLANTING

**unless otherwise noted plant in areas shown on the plan - relocate as needed for underground utilities, irrigation, vents, pipes, structures etc. NOTE ALL TREES THAT SATISFY THE TREE DENSITY REQUIREMENT SHALL BE A MINIMUM OF 2" CAL.



NO MULCH MOUNDS OVER TREE OR SHRUB TRUNKS OR STEMS

DO NOT COVER ROOT CROWNS OR LEAVES OR BRANCHES OF PLANTS WITH GRAVEL PLANT IN THE PREPARED BEDS, BE SURE PLANTS AND GROUND COVERS HAVE FULL SOIL CONTACT.



3" - 4" DARK RED ("BARN RED") GRAVEL - 3/8" - 3/4" SIZE RANGE set flush to walkways, lightly compact - grade to drain

PROVIDE SAMPLE FOR OWNERS APPROVAL PRIOR TO DELIVERY TO SITE

PLANTING BED AT BUILDING GRAVEL MULCH DETAIL NOT TO SCALE

GRAVEL BEDS AT TURF PLACE STEEL EDGING AND TURN UP FILTER FABRIC - INSTALL IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS - BROWN COL-MET LANDSCAPE EDGING - 4" HT - 10 FOOT SECTIONS WITH 10 GAUGE 12" TAPERED STAKES INT COMMERCIAL GRADE. FROM BFG SUPPLY 14500 Kinsman Rd P.O. Box 479 Burton, OH 44021 PHONE: 800-883-0234 FAX: 800-645-6126 EMAIL: info@bfgsupply.com ALSO AVAILABLE FROM AM LEONARD http://www.amleo.com/ OR AN APPROVED EQUAL

- PLANTING NOTES:
- 1- PLANT IN ACCORDANCE WITH THE STANDARDS AS SET FORTH BY THE AMERICAN ASSOCIATION OF NURSEYMEN, AND THE AMERICAN STANDARD FOR NURSERY STOCK.
 - 2- LOCATE OVERHEAD AND UNDERGROUND UTILITIES PRIOR TO PLANTING. FIELD ADJUST PLANT LOCATIONS AS NEEDED TO AVOID CONFLICT WITH SWALES, PIPES, DRAINAGE STRUCTURES, WIRES, UTILITY BOXES TRANSFORMERS, EXISTING VEGETATION THAT REMAINS, ETC. STOP PLANTING AND CONTACT THE LANDSCAPE ARCHITECT AND OWNER IF SOIL CONDITIONS ARE ENCOUNTERED THAT ARE UNSUITABLE FOR PROPER PLANT GROWTH.
 - 3- FIELD LOCATION PLANTS TO AVOID CONFLICT WITH SWALES, DRAINAGE AND UTILITIES ABOVE AND BELOW GROUND, EXISTING VEGETATION ETC.
 - 4- PLANTING BACKFILL MIX: ONE PART PEAT HUMUS, TO ONE PART TOPSOIL TO ONE PART EXISTING SOIL.
- AMENDMENTS: MIX INTO SOIL PRIOR TO BACKFILLING. 25 LBS ORGANIC FERTILIZER 5-10-5 ORGANIC FERTILIZER 75 LBS OF BONE MEAL, AND 1 LB OF ORGANIC DECOMPOSED COW MANURE PER CUBIC FOOT OF BACKFILL. SET BALL OR CONTAINER SOIL TOP EVEN WITH FINISHED GRADE.
- 5- THE QUANTITIES OF PLANTS ON THE PLAN DRAWING FOR CODE REQUIRED AREAS SHALL REMAIN WITH THE SPECIFIC AREA (IE, BUFFERYARDS, PARKING AREAS ETC) BUT SHALL BE FIELD LOCATED TO AVOID UTILITIES OR OBSTRUCTIONS AND SHALL GOVERN OVER THE SCHEDULE TO MEET MINIMUM CODE REQUIREMENTS.

SEED MIXTURES - VEGETATIVE STABILIZATION- FROM THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK

MIX NO	CERTIFIED SEED	LBS/AC	SQ FT	COASTAL PLAIN			PIEDMONT			ALL
				2/1-	5/1-	8-15-	3/1-	5-1-	8-1/	
11	TALL FESCUE	100	2.3	O	A	O	O	A	O	
	PERENNIAL RYEGRASS	25	0.57							
	KENTUCKY BLUEGRASS BLEND	30	0.69							

1. WHEN HYDROSEEDING IS THE CHOSEN METHOD OF APPLICATION, THE TOTAL RATE OF SEED SHOULD BE INCREASED BY 25%
2. WINTER SEEDING REQUIRES 3 TONS PER ACRE OF STRAW MULCH. PLANTING DATES LISTED ABOVE AREA AVERAGE FOR DELAWARE THESE DATES MAY REQUIRE ADJUSTMENT TO REFLECT LOCAL CONDITIONS.
3. ALL SEED SHALL MEET THE MINIMUM PURITY AND MINIMUM GERMINATION PERCENTAGES RECOMMENDED BY THE DELAWARE DEPARTMENT OF AGRICULTURE. THE MAXIMUM % OF WEED SEEDS SHALL BE IN ACCORDANCE WITH SECTION 1 CHAPTER 24 TITLE 3 OF THE DELAWARE CODE.
4. COOL SEASON SPECIES MAY BE PLANTED THROUGHOUT THE SUMMER IF SOIL MOISTURE IS ADEQUATE OR SEEDED AREA CAN BE IRRIGATED.
5. ALL SUGMINOUS SEED MUST BE INOCULATED.
6. WARM SEASON GRASS MIX AND REED CANARY GRASS CANNOT BE MOVED MORE THAN 4 TIMES PER YEAR.
7. WARM SEASON GRASSES REQUIRE A SOIL TEMPERATURE OF AT LEAST 50 DEGREES IN ORDER TO GERMINATE AND WILL REMAIN DORMANT UNTIL THEN.

SOD - ALL DESIGNATED AREAS NOT PLANTED WITH SEED SHRUBS OR GROUND COVER SHALL BE SODDED WITH A BLEND OF TURF TYPE TALL FESCUE SOD.

LANDSCAPE WORK RELATED DOCUMENTS Drawings, special provisions, and general provisions of the contract. SUMMARY

This specification includes provisions for: Planting trees, shrubs and ground covers. QUALITY ASSURANCE

Landscape work shall be performed by a firm specializing in landscape work of this type. Do not make substitutions, if specified material is not available submit proposal of equivalent material for Landscape Architects approval.

TREES, SHRUBS, PLANTS AND MATERIALS Provide plants and materials as specified on the plan drawings. All materials, plants, and procedures shall comply with the recommendations and requirements of ANSI Z60.1 "American Standard for Nursery Stock". Provide healthy vigorous stock free of insects and disease.

INSPECTIONS The owner's representative may inspect work and materials at any time during the installation of the project, for compliance with scheduled requirements.

The Owner's representative retains the right to reject unsatisfactory material at any time. Remove rejected materials immediately from the site.

DELIVERY, STORAGE, and HANDLING Deliver plant materials after preparation for planting is completed, and plant immediately. Protect materials from deterioration during delivery, and while stored at the site.

JOB CONDITIONS Locate all utilities prior to digging. Protect utilities from damage during work. The contractor shall repair and or replace any utilities damaged during the planting procedures.

PRODUCTS Provide plants and materials as specified on the plan drawings, and in the planting and soil amendment schedules. Provide plants to the size and type specified and apply soil amendments, and mulches in the amounts shown on the details. Provide stone mulch trash, weeds, and insects.

SUBMITTALS Submit source data for all plants and planting materials. Provide a one gallon sample of shredded hardwood bark mulch for owners approval prior to delivery of any mulch to site.

EXECUTION Prepare tree and shrub pits for planting soil. Place the tree and shrubs and backfill around the balls to the depths indicated on the plan details. Compact soil and secure around the ball. Mix soil amendments prior to backfilling.

Mulch the trees, shrubs and ground cover materials. Do not heap mulch over root crowns. Till surface areas for ground cover plantings to the depths indicated on the details with the soil amendments.

Plant and mulch ground cover plants in soil and do not cover with mulch after planting. Water plants thoroughly after planting. The Contractor shall fill and provide one watering bag: "Tregator" or equal, at 20 gal. capacity filled, after the planting is complete for each tree if indicated on the planting schedule.

Prune back top growth one third at planting on all shade trees greater than 2" cal.

WARRANTY Warranty all plants and materials for a period of one year from owner's acceptance. Replacement materials shall be installed per the original specifications, during the appropriate growing season

DATE 3-11-21	SCALE	LANDSCAPE DETAILS	
JOB NO.	DRAWN BY ET	FOR	
APPLICATION NO.	DESIGNED BY ET	GATEWAY NORTH MIXED-USE	
APPROVED BY:	CHECKED BY:		
DATE	REVISION	TOWN OF SMYRNA, KENT COUNTY, DELAWARE	
		PREPARED FOR: KHOKHAR, LLC	
DATE 3-11-21	SEAL	SHEET NO.: LS-2	

