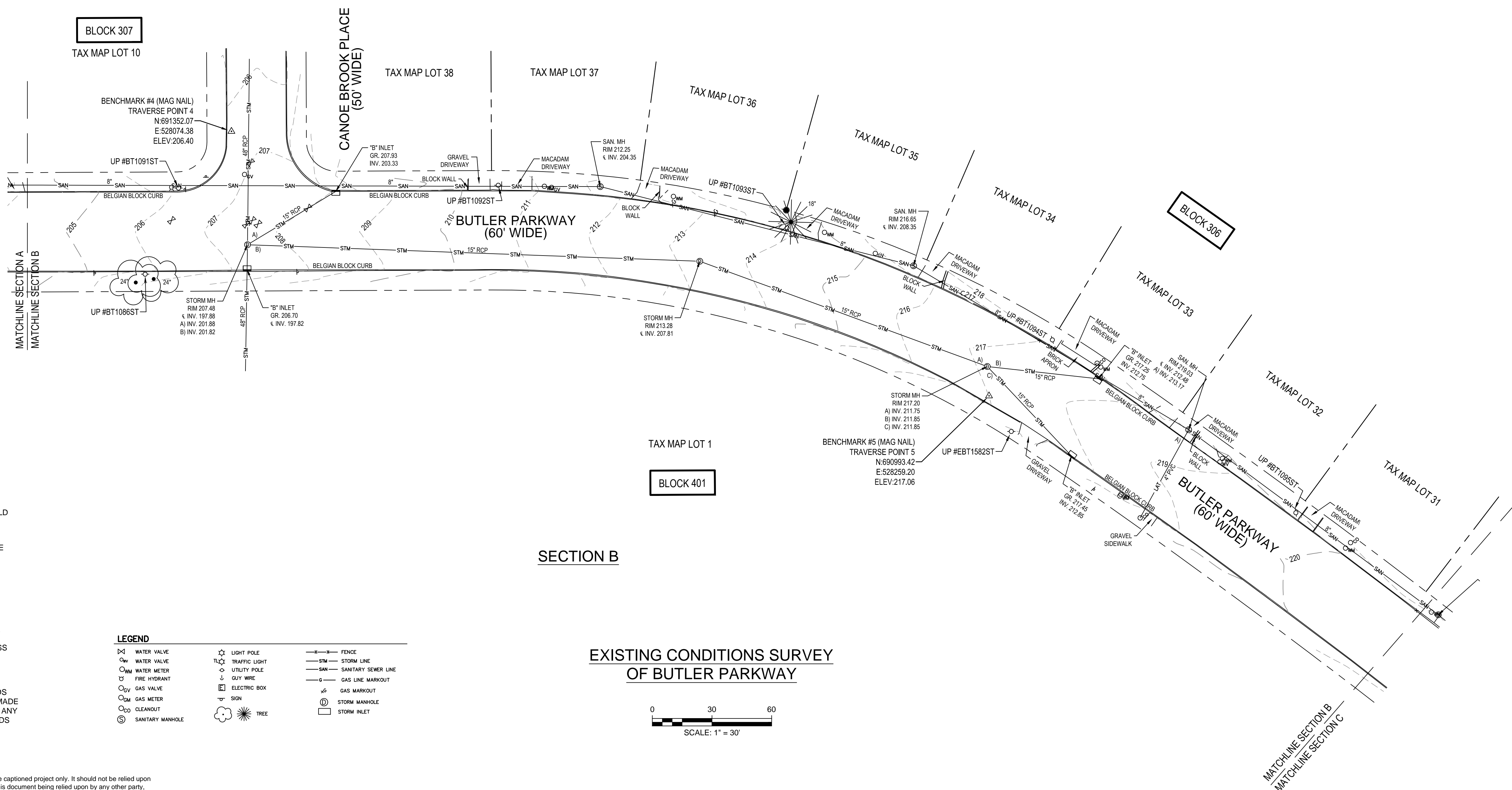
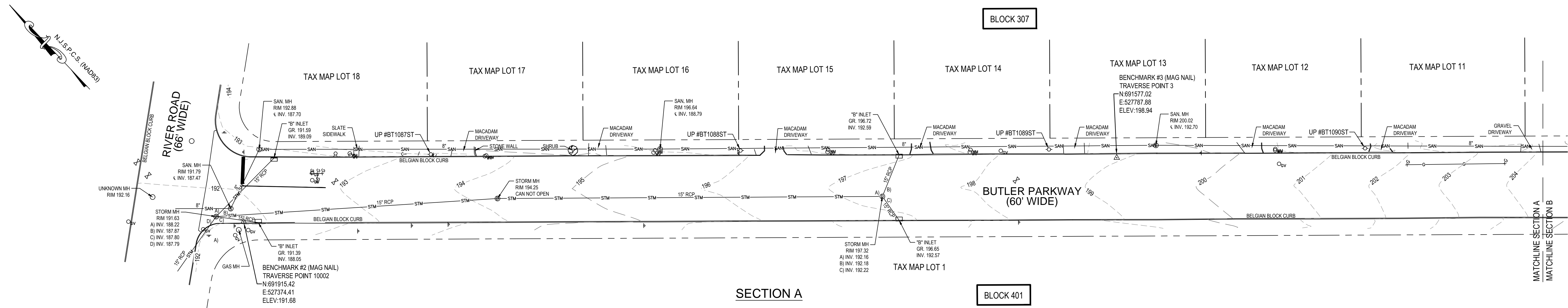


UNION COUNTY, NEW JERSEY

ALT BID 2 "RAISED INTERSECTION"			
2A	VERTICAL RAISED INTERSECTION, 3"	UNIT	2
2B	TRAFFIC STRIPES, 4" THICK	LF	500
2C	REGULATORY AND WARNING SIGN	SF	300

New Jersey American Water Co.
167 JFK Parkway
Short Hills, NJ 07078



SURVEY NOTES:

1. TOPOGRAPHIC INFORMATION SHOWN HEREON WAS OBTAINED IN THE FIELD BY MOTT MACDONALD ON AUGUST 07, 2019.
2. THE HORIZONTAL COORDINATE SYSTEM IS THE NEW JERSEY STATE PLANE COORDINATE SYSTEM (NAD83) AND VERTICAL DATUM IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV83); BOTH ESTABLISHED BY DIFFERENTIAL GPS ON AUGUST 07, 2019 FROM THE LEICA SMARTNET/NGS CORS NETWORK.
3. ANY UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON ABOVE GROUND OBSERVATIONS, UTILITY MARKING FOUND IN THE FIELD AND/OR INFORMATION SUPPLIED BY THE UTILITY COMPANIES. SINCE NO PHYSICAL LOCATION OF THE UNDERGROUND FACILITIES HAVE BEEN MADE BY THE UNDERSIGNED, NO GUARANTEE IS BEING MADE FOR THEIR COMPLETENESS OR ACCURACY.
4. THE UNDERSIGNED PROFESSIONAL IS NOT QUALIFIED TO MAKE ANY DETERMINATION AS TO THE EXISTENCE OR NON-EXISTENCE OF WETLANDS AND/OR HAZARDOUS MATERIALS. THEREFORE, NO STATEMENT IS BEING MADE OR IMPLIED HEREON, NOR SHOULD IT BE ASSUMED OR CONSTRUED THAT ANY STATEMENT IS BEING MADE BY THE FACT THAT NO EVIDENCE OF WETLANDS AND/OR HAZARDOUS MATERIALS IS PORTRAYED HEREON. THE CLIENT SHOULD PURSUE THESE MATTERS SEPARATE AND APART FROM THIS SURVEY.

© Mott MacDonald

This document is issued for the party which commissioned it and for specific purposes connected with the captioned project only. It should not be relied upon by any other party or used for any other purpose. We accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties.

M

M

**MOTT
MACDONALD**

111 Wood Avenue South
Iselin NJ 08830-4112
United States of America
Certificate No. 24GA28016600

T +1 (800) 832 3272
F +1 (973) 376 1072
www.mottmacamericas.com

Client

CITY OF SUMMIT

THOMAS F. MILLER
NJ PROFESSIONAL LAND SURVEYOR LIC. No. 36264

Date _____

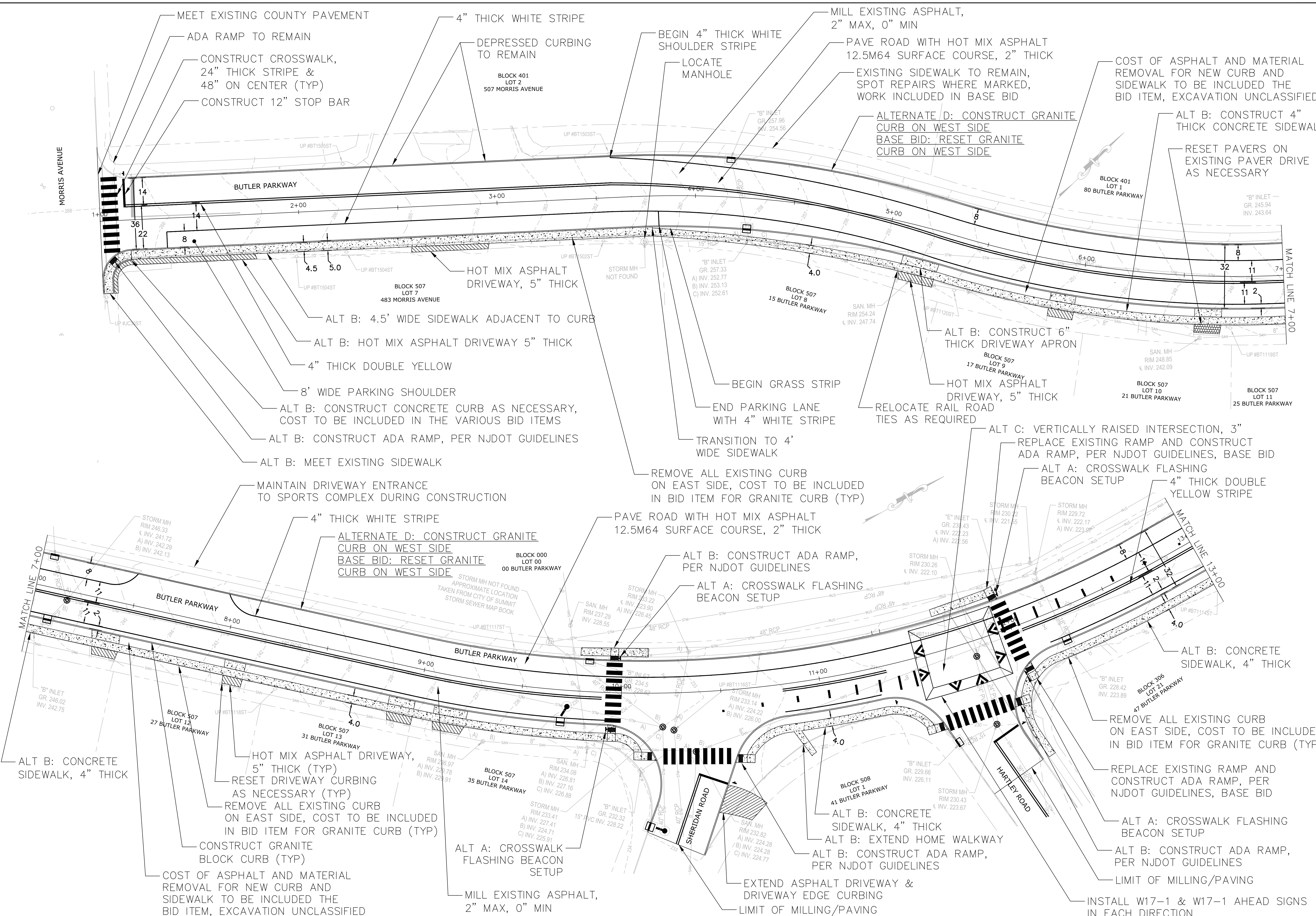
Rev	Date	Drawn	Description	Ch'k'd	App'd

Project Number	507100713
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B/O	Total
1	2

Designed			Eng check		
Drawn	C.A.		Coordination		
Dwg check	T.F.M.		Approved	T.F.M.	
Scale at ARCH D	Status	Rev	Security		
As Shown	PRE	Rev0	STD		
Drawing Number			2019-		

Title	EXISTING CONDITIONS SURVEY OF BUTLER PARKWAY CITY OF SUMMIT, UNION COUNTY NEW JERSEY (FROM MORRIS AVENUE TO RIVER ROAD)
-------	---



REVISIONS	
NO.	DATE

BUTLER PARKWAY IMPROVEMENT PROJECT
ENTIRE LENGTH
CONSTRUCTION & LAYOUT PLAN 1

CITY OF SUMMIT UNION CO., N.J.
DIVISION OF ENGINEERING
DEPARTMENT OF COMMUNITY SERVICES
512 SPRINGFIELD AVENUE
SUMMIT, NJ 07901
UNION COUNTY

A. J. Schragger
Aaron J. Schragger
Professional Engineer
New Jersey Lic. No. 46143
City Engineer

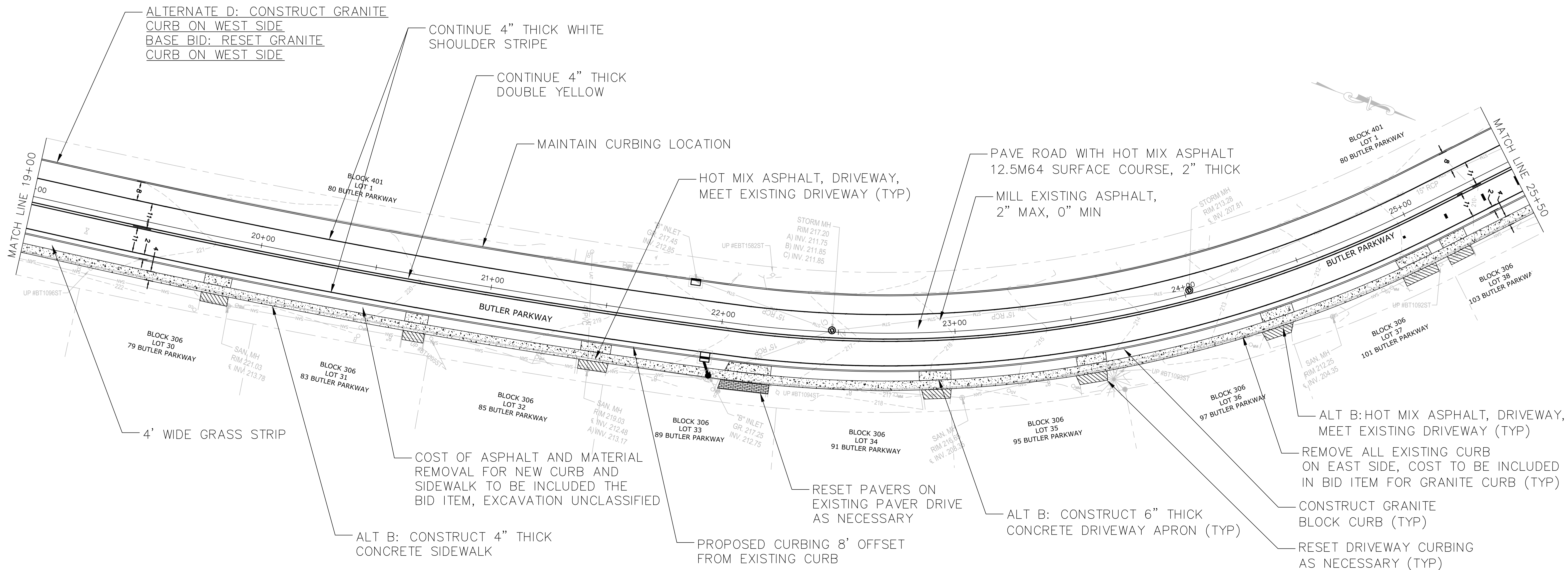
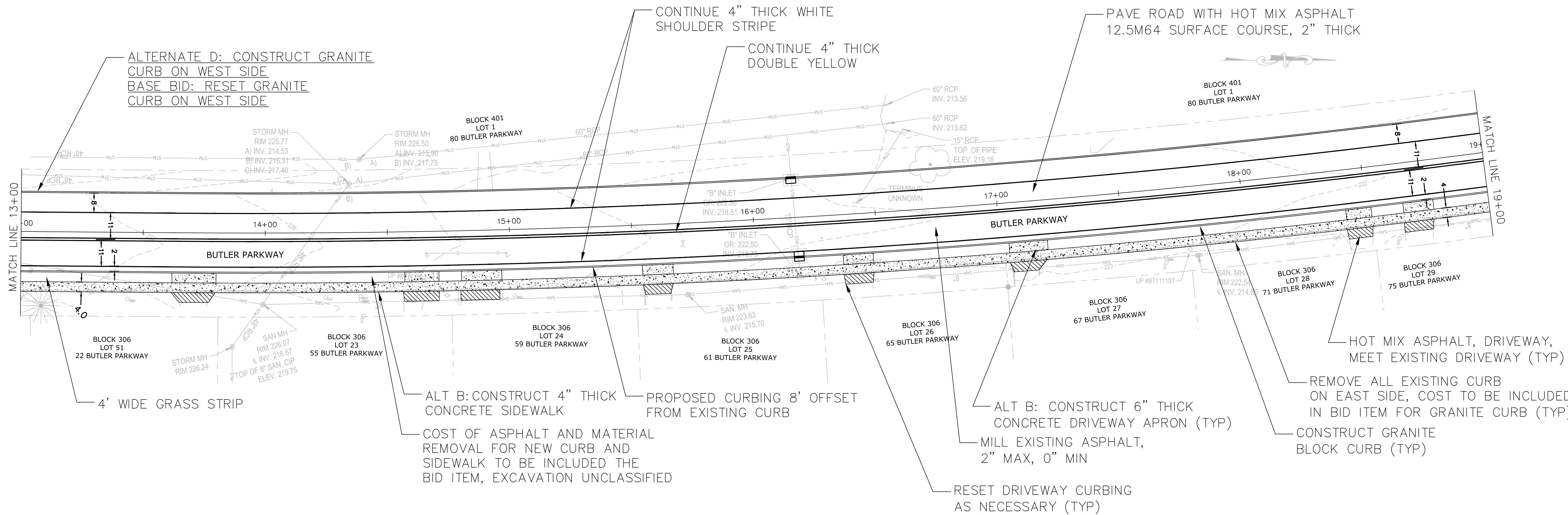
CITY OF SUMMIT
UNION COUNTY NEW JERSEY

DATE: 9/1/2020

DRAWN BY: RM

SCALE 1" = 20'

4 OF 15



REVISIONS	
NO.	DATE

BUTLER PARKWAY IMPROVEMENT PROJECT
ENTIRE LENGTH
CONSTRUCTION AND LAYOUT PLAN 2

CITY OF SUMMIT UNION CO., N.J.
DIVISION OF ENGINEERING
DEPARTMENT OF COMMUNITY SERVICES
512 SPRINGFIELD AVENUE
SUMMIT NJ 07901
UNION COUNTY

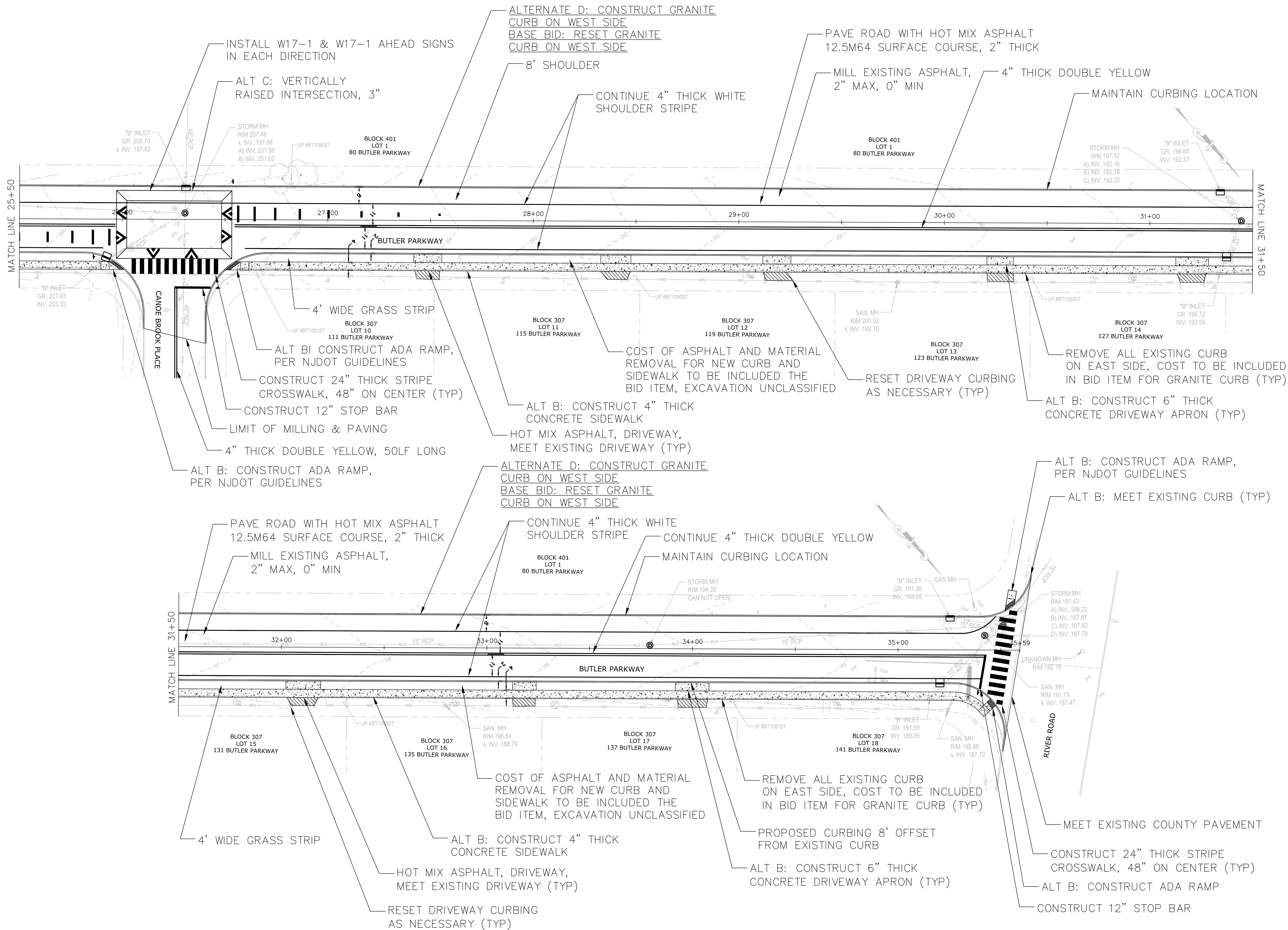
a/jh
Aaron J. Schrager
Professional Engineer
New Jersey Lic. No. 46143
City Engineer



DATE:
9/1/2020

DRAWN
BY: RM

SCALE
1" = 20'



REVISIONS	
NO.	DATE

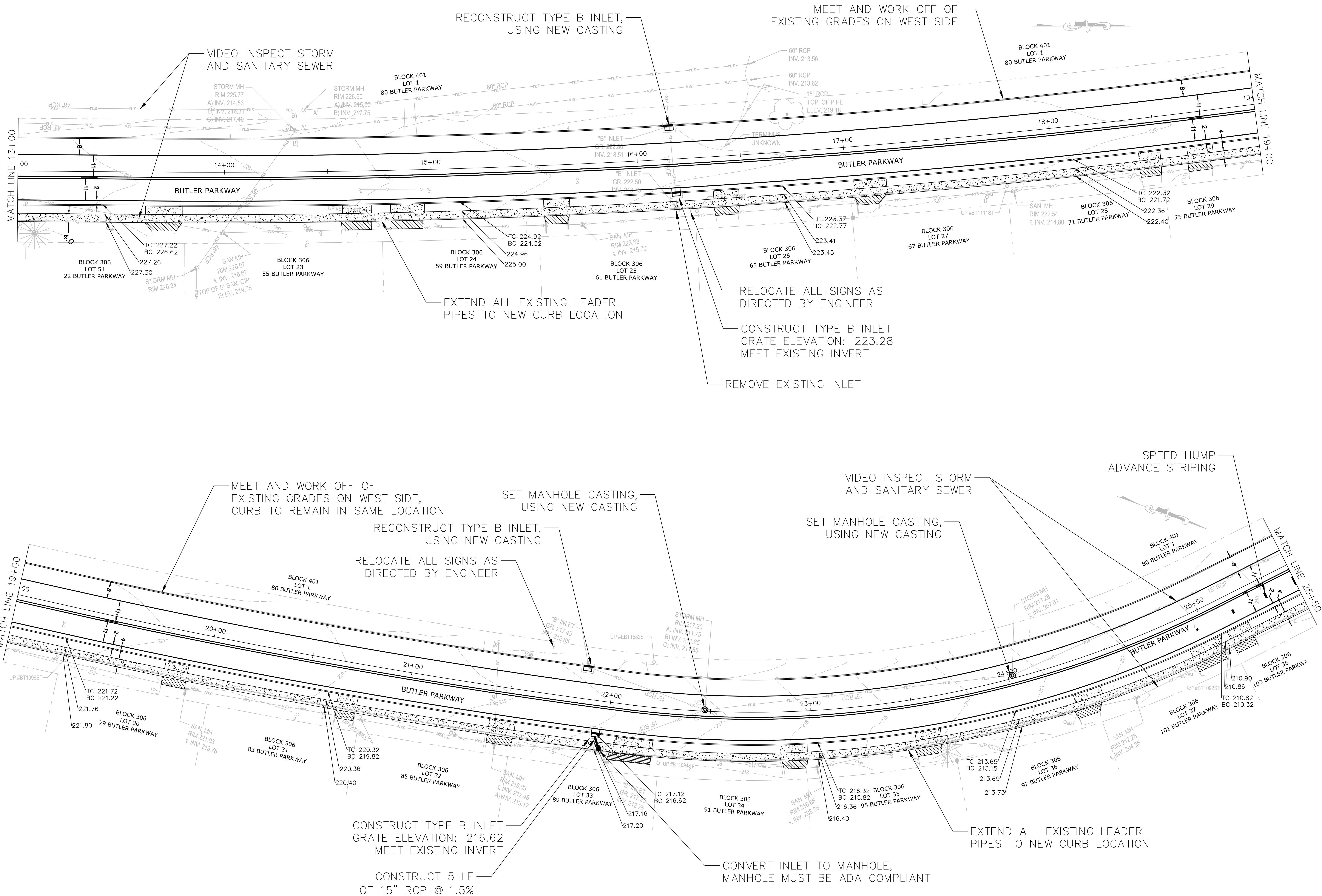
BUTLER PARKWAY IMPROVEMENT PROJECT
ENTIRE LENGTH
CONSTRUCTION AND LAYOUT PLAN 3

CITY OF SUMMIT UNION CO., N.J.
DIVISION OF ENGINEERING
DEPARTMENT OF COMMUNITY SERVICES
512 SPRINGFIELD AVENUE
SUMMIT NJ 07901
UNION COUNTY

a/jh
Aaron J. Schrager
Professional Engineer
New Jersey Lic. No. 46143
City Engineer




DATE: 9/1/2020
DRAWN BY: RM
SCALE 1" = 20'
6 OF 15



REVISIONS	
NO.	DATE

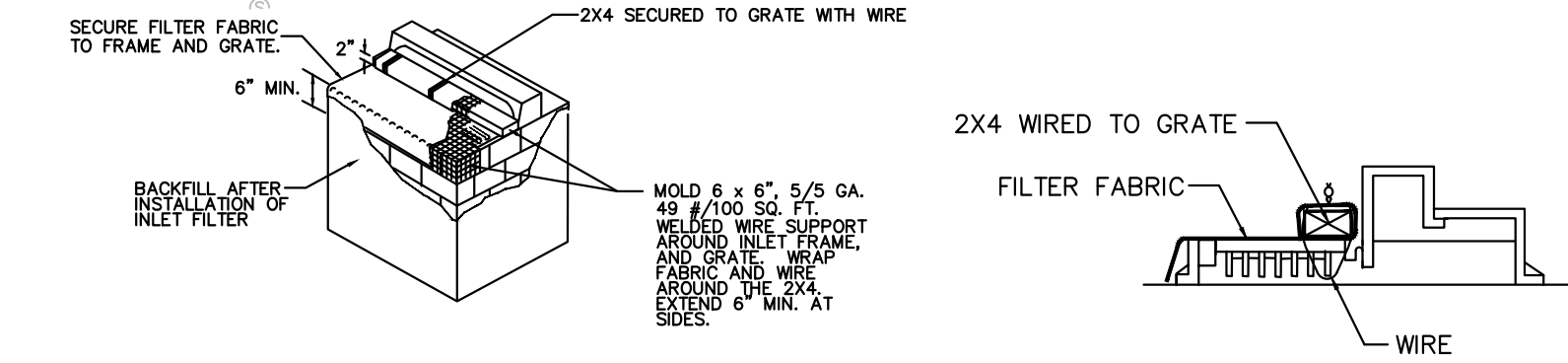
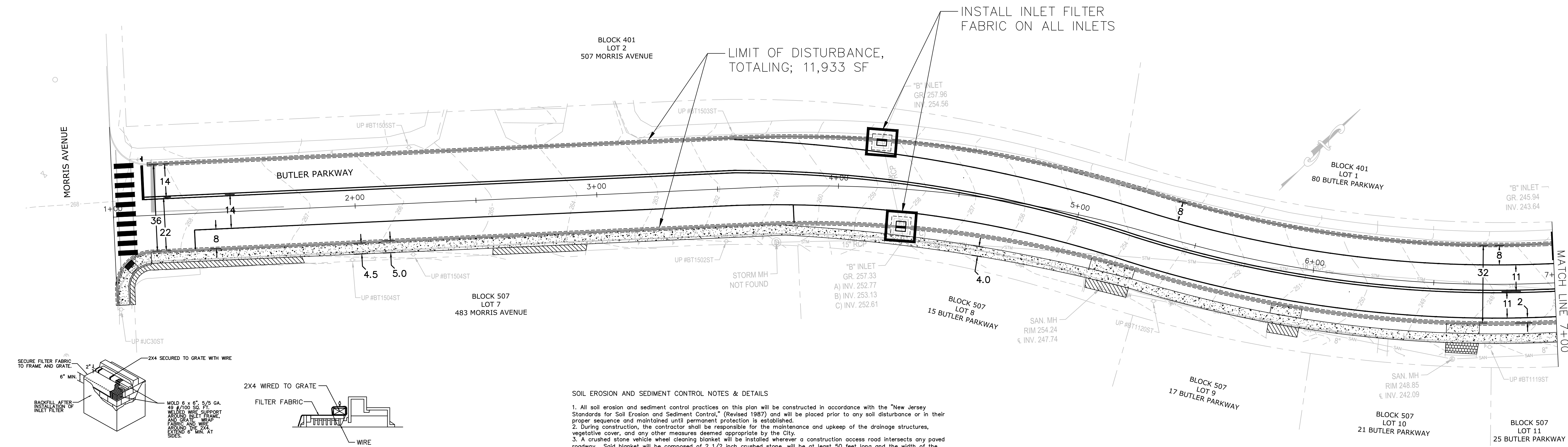
BUTLER PARKWAY IMPROVEMENT PROJECT
ENTIRE LENGTH
GRADING, DRAINAGE & SIGNS PLAN 1

CITY OF SUMMIT UNION CO., N.J.
DIVISION OF ENGINEERING
DEPARTMENT OF COMMUNITY SERVICES
512 SPRINGFIELD AVENUE
SUMMIT NJ 07901
UNION COUNTY


Aaron J. Schrager
Professional Engineer
New Jersey Lic. No. 46143
City Engineer



DATE: 9/1/2020
DRAWN BY: RM
SCALE 1" = 20'
8 OF 15

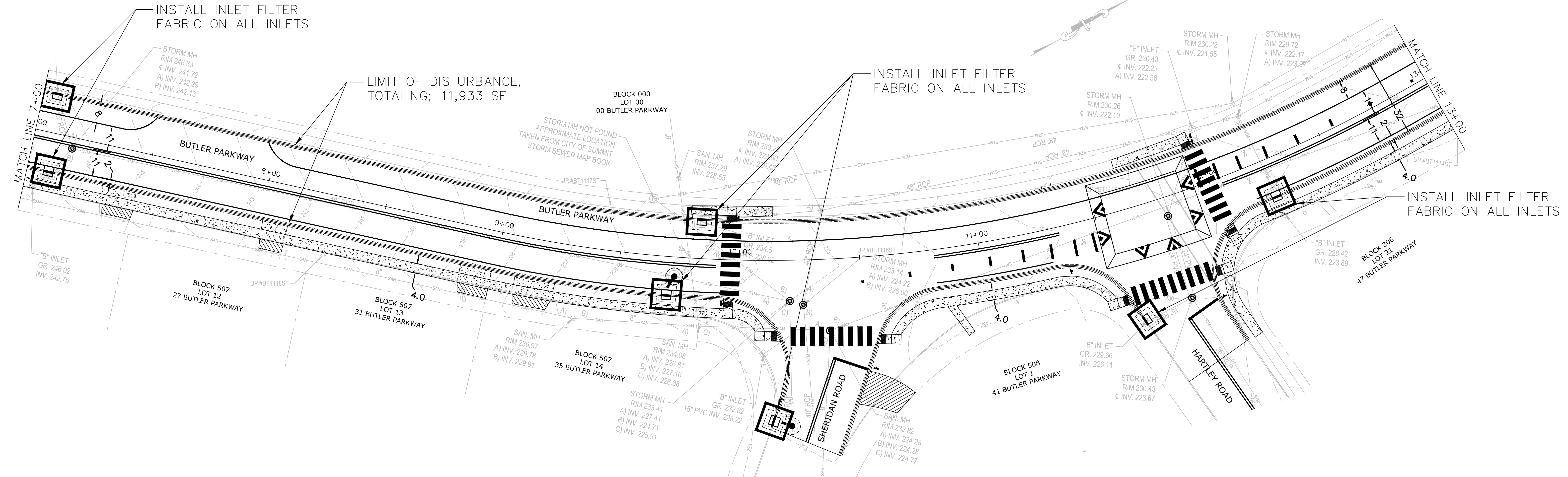


1. CONTRACTOR IS TO CLEAN INLET FILTER AFTER EVERY STORM.
2. CONTRACTOR TO REMOVE FABRIC AND MESH JUST PRIOR TO PAVING.
3. IF BOTTOM OF ROADWAY IS BELOW TOP OF INLET GRATE, CONSTRUCT PROPERLY FILTERED (OPENING) IN INLET WALL TO ALLOW PASSAGE OF WATER.
4. THE PROTECTION DEVICE WILL BE DESIGNED TO CAPTURE OR FILTER RUNOFF FROM THE 1 YEAR, 24 HOUR STORM EVENT AND SHALL SAFELY CONVEY HIGHER FLOWS DIRECTLY INTO THE STORM SEWER SYSTEM.

INLET FILTER DETAIL
N.T.S.

SOIL EROSION AND SEDIMENT CONTROL NOTES & DETAILS

1. All soil erosion and sediment control practices on this plan will be constructed in accordance with the "New Jersey Standards for Soil Erosion and Sediment Control," (Revised 1987) and will be placed prior to any soil disturbance or in their proper sequence and maintained until permanent protection is established.
2. During construction, the contractor shall be responsible for the maintenance and upkeep of the drainage structures, vegetative cover, and any other measures deemed appropriate by the City.
3. A crushed stone vehicle wheel cleaning blanket will be installed wherever a construction access road intersects any paved roadway. Said blanket will be composed of 2 1/2 inch crushed stone, will be at least 50 feet long and the width of the exit roadway or driveway, and will be properly maintained.
4. All paved roadways must be kept clean at all times.
5. Disturbed areas shall be maintained in a rough graded condition and temporarily seeded and mulched until proper weather conditions exist for the establishment of permanent vegetative cover.
6. All soil stockpiled for a period of greater than 30 days will be temporarily seeded and mulched.
7. Stockpiles shall not be located within 50 feet of a floodplain, slope, or drainage facility. All stockpile bases shall be protected by a hay bale barrier or sediment fence.
8. Immediately following initial disturbance or rough grading, all critical areas subject to erosion will receive a temporary seeding in combination with straw mulch or suitable equal, at a 2 ton/acre ratio rate, according to state standards.



REVISIONS	
NO.	DATE

BUTLER PARKWAY IMPROVEMENT PROJECT
ENTIRE LENGTH
SOIL EROSION & SEDIMENT CONTROL PLAN 1

CITY OF SUMMIT UNION CO., N.J.
DIVISION OF ENGINEERING
DEPARTMENT OF COMMUNITY SERVICES
512 SPRINGFIELD AVENUE
SUMMIT NJ 07901
UNION COUNTY

A. J. Schragger
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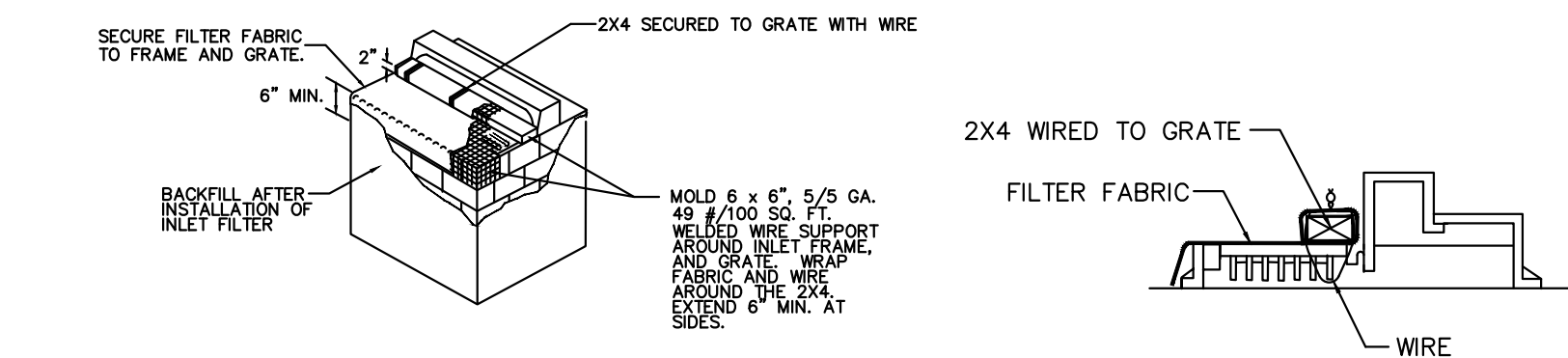
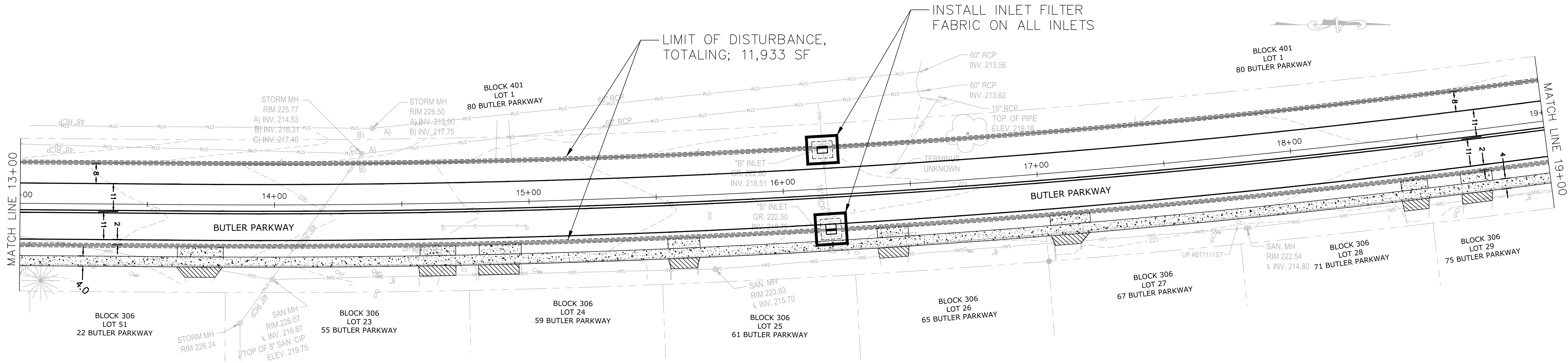
CITY OF SUMMIT
UNION COUNTY NEW JERSEY

DATE:
9/1/2020

DRAWN
BY: RM

SCALE
1" = 20'

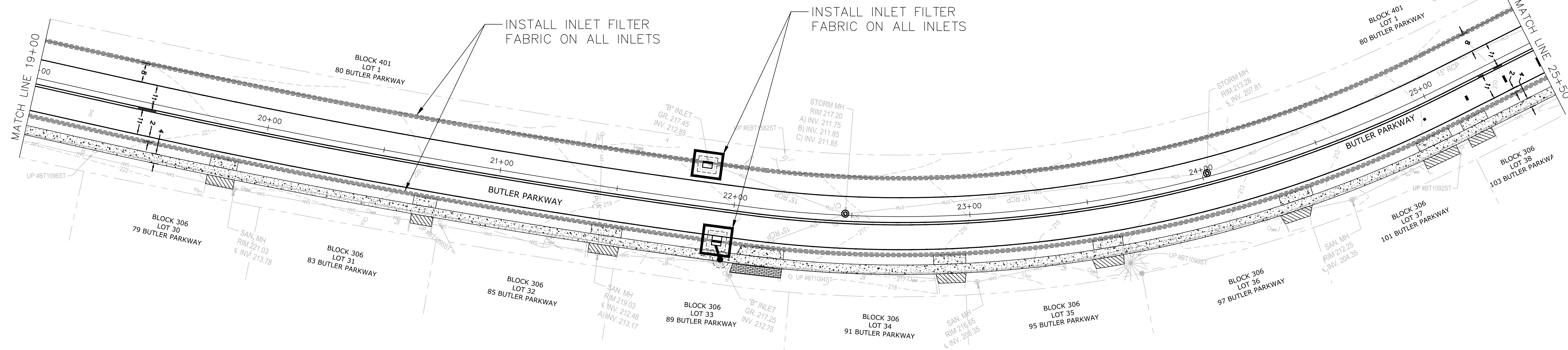
10 OF 15



1. CONTRACTOR IS TO CLEAN INLET FILTER AFTER EVERY STORM.
2. CONTRACTOR TO REMOVE FABRIC AND MESH JUST PRIOR TO PAVING.
3. IF BOTTOM OF ROADWAY IS BELOW TOP OF INLET GRATE, CONSTRUCT PROPERLY FILTERED OPENING(S) IN INLET WALL TO ALLOW PASSAGE OF WATER.
4. THE PROTECTION DEVICE WILL BE DESIGNED TO CAPTURE OR FILTER RUNOFF FROM THE 1 YEAR, 24 HOUR STORM EVENT AND SHALL SAFELY CONVEY HIGHER FLOWS DIRECTLY INTO THE STORM SEWER SYSTEM.

INLET FILTER DETAIL
N.T.S.

9. Temporary stabilization – any disturbed area that will be left exposed for more than thirty (30) days and not subject to construction activities shall immediately be stabilized upon disturbance by applying the following:
 - a. Ground Limestone at a rate of 90 pounds per 1,000 square feet.
 - b. Fertilizer at a rate of 14 pounds per 1,000 square feet using a 10–20–10 analysis or an equivalent worked into the soil a minimum of 4 inches.
 - c. Seed shall be annual ryegrass applied at not less than one pound per 1,000 square feet.
 - d. Mulch all newly seeded area with unratted salt hay or small grain straw at a rate of 90 pounds per 1,000 square feet according to NJ Standard. Mulch shall not be ground into short pieces and in no case shall more than 5 days elapse between seeding and mulching.
 - e. Mulch shall be anchored with a liquid mulch binder applied at a rate of one gallon per 1,000 square feet or by approved methods (i.e. peg and twine, mulch netting).
10. Between October 1 and March 1 and when the season prohibits temporary seeding or when disturbed areas are scheduled for immediate landscaping, applying the aforementioned items "d." and "e." will be adequate.
11. Seeding dates: The following are the recommended seeding dates for the establishment of temporary or permanent vegetation:
 - a. Spring: March 1 – May 15
 - b. Fall: August 15 – October 1
12. Permanent vegetative cover is to be established on exposed areas within 10 days after final grading. Mulch is to be used for protection until final vegetation is established.
13. Permanent seeding and stabilization to be in accordance with the standards for permanent vegetative cover – all exposed surfaces will be treated with 4" topsoil prior to final stabilization and the following items applied at the designated rates:
 - a. Lime shall be applied at 90 pounds per 1,000 square feet consisting of ground limestone incorporated into the top 4 inches of topsoil.
 - b. Fertilizer shall be 14 pounds per 1,000 square feet 10–20–10 incorporated into the top 4 inches of topsoil.
 - c. Seed shall be 25 pounds per acre of Kentucky Bluegrass, 15 pounds per acre of Red Fescue, spreading Fescue at 15 pounds per acre, and 10 pounds per acre of perennial ryegrass.
 - d. In shade areas, increase Red Fescue to 20 pounds per acre and decrease Kentucky Bluegrass to 20 pounds per acre.
 - e. Mulch all newly seeded area with unratted salt hay or small grain straw at a rate of 90 pounds per 1,000 square feet according to th NJ Standard. Mulch shall not be ground into short pieces and in no case shall more than 5 days elapse between seeding and mulching.
 - f. Mulch shall be anchored with a liquid mulch binder applied at rate of one gallon per 1,000 square feet or by approved methods (i.e. peg and twine, mulch netting).
14. Maximum side slopes of all exposed surfaces shall not exceed 3:1 unless otherwise approved by the City.



REVISIONS	
NO.	DATE

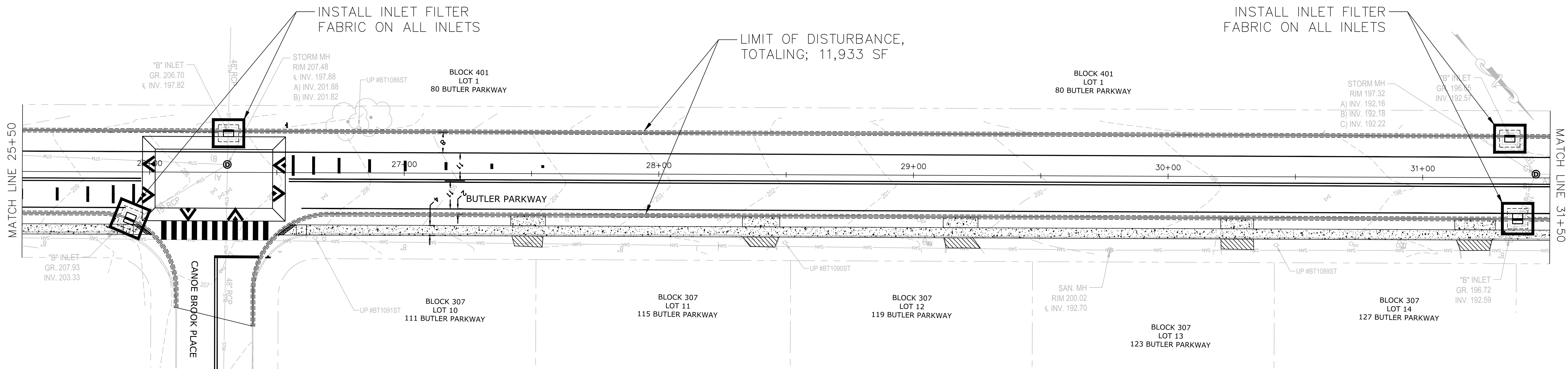
BUTLER PARKWAY IMPROVEMENT PROJECT
ENTIRE LENGTH
SOIL EROSION & SEDIMENT CONTROL PLAN 2

CITY OF SUMMIT UNION CO., N.J.
DIVISION OF ENGINEERING
DEPARTMENT OF COMMUNITY SERVICES
512 SPRINGFIELD AVENUE
SUMMIT NJ 07901
UNION COUNTY


Aaron J. Schrager
Professional Engineer
New Jersey Lic. No. 46143
City Engineer



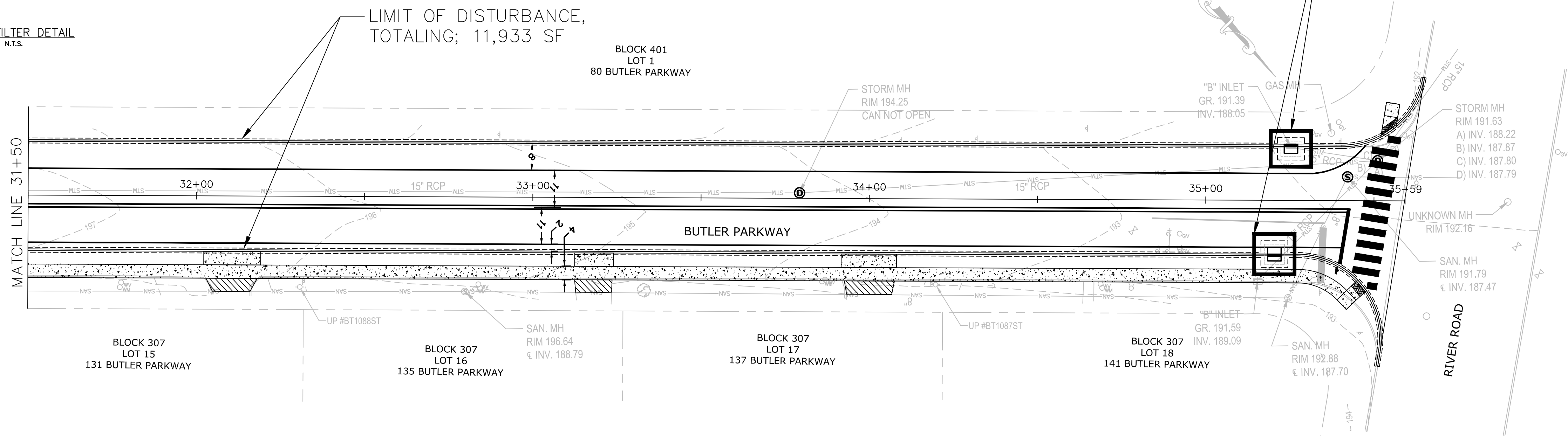
DATE: 9/1/2020
DRAWN BY: RM
SCALE 1" = 20'
11 OF 15



15. The site shall, at all times, be graded and maintained such that all storm water runoff is diverted to soil erosion and sediment control facilities.
16. All dewatering operations must discharge directly into a sediment filter area. The sediment filter should be composed of a suitable filter fabric filter.
17. All sedimentation structures will be inspected and maintained on a regular basis.
18. All storm drain inlets shall be protected with filters to prevent entry of sediment carried by runoff water until vegetation and/or paving is established.
19. All storm drainage outlets will be stabilized as required before the discharge points become operational.
20. The City may request additional measures to minimize on or off site erosion problems during construction.
21. Sequence of construction: a. Install vehicle wheel cleaning blanket and inlet protection. b. Install silt fence. c. Clear site. d. Strip and stockpile soil. e. Construct site improvements. f. Provide temporary stabilization. g. Provide permanent stabilization. h. Provide temporary silt fence, inlet protection and other soil erosion controls.
22. A copy of the soil erosion and sediment control plan must be on-site at all times and made available to the City representative during inspection.
23. Written notification shall be made to the Somerset-Union Soil Conservation District, 308 Milltown Road, Bridgewater, NJ, 08807, 48 hours prior to the start of any land disturbance activity.

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INLET FILTER DETAIL
N.T.S.



REVISIONS	
NO.	DATE

BUTLER PARKWAY IMPROVEMENT PROJECT
ENTIRE LENGTH
SOIL EROSION & SEDIMENT CONTROL PLAN 3

CITY OF SUMMIT UNION CO., N.J.
DIVISION OF ENGINEERING
DEPARTMENT OF COMMUNITY SERVICES
512 SPRINGFIELD AVENUE
SUMMIT NJ 07901
UNION COUNTY

a/jh
Aaron J. Schrager
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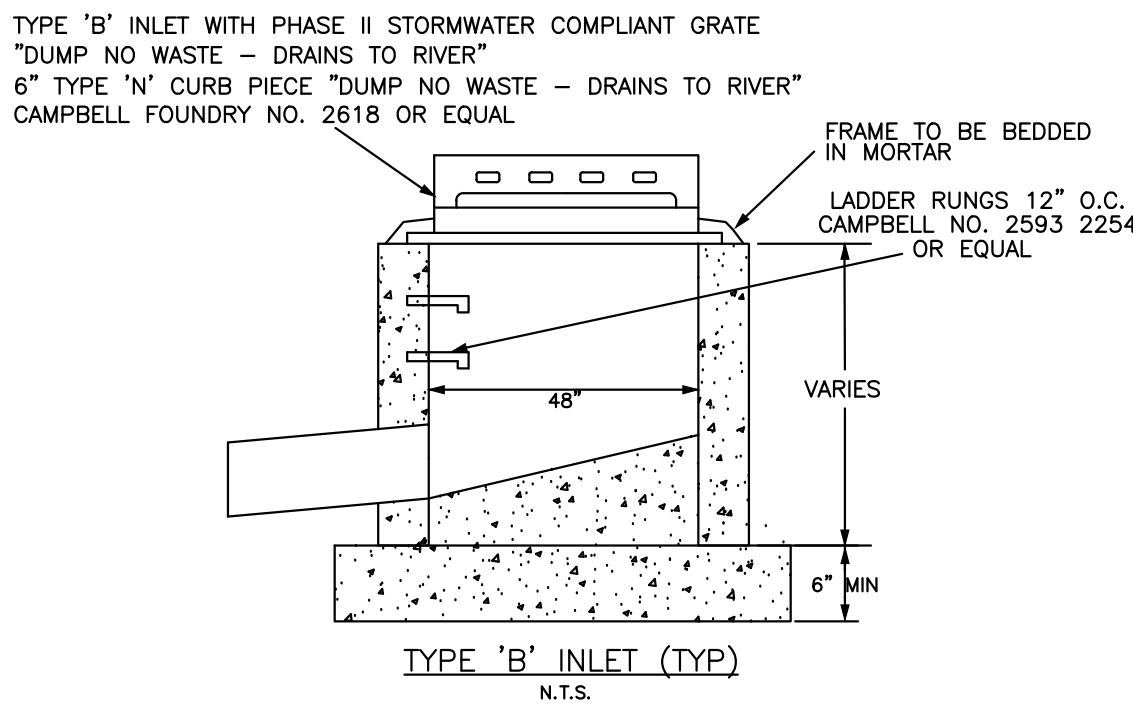
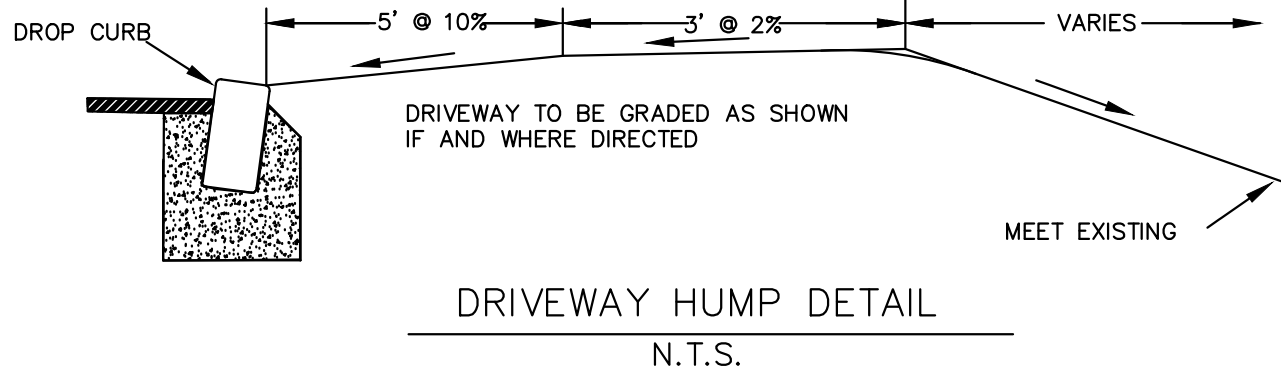
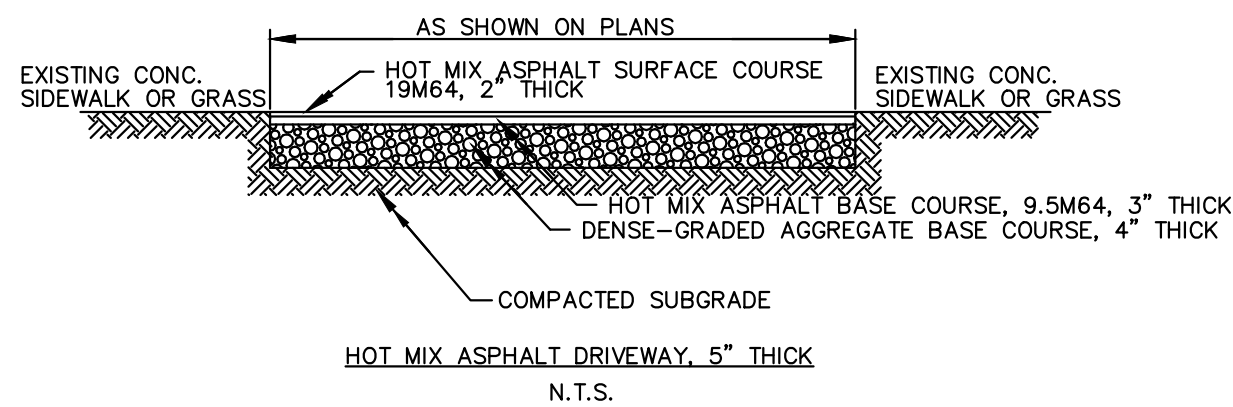
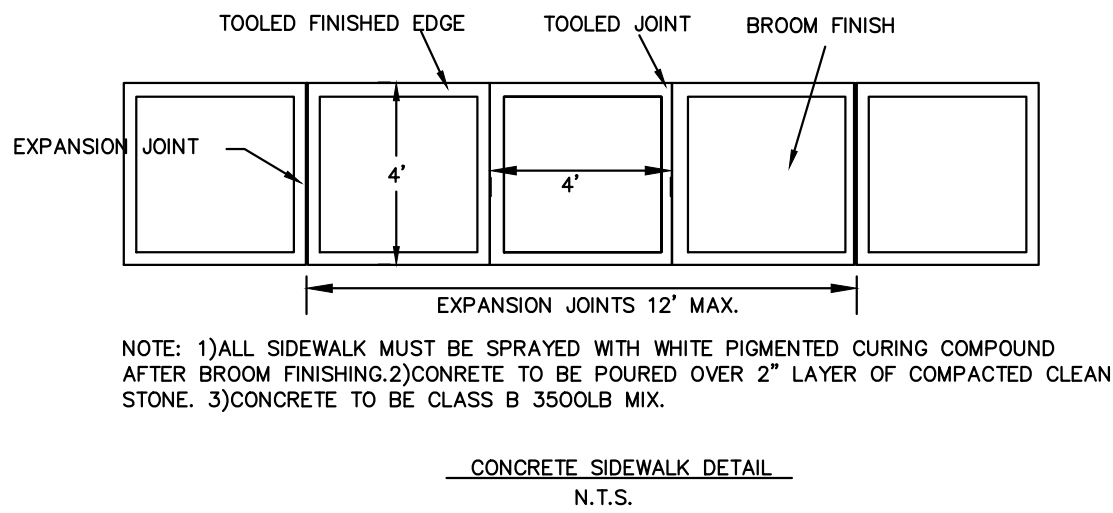
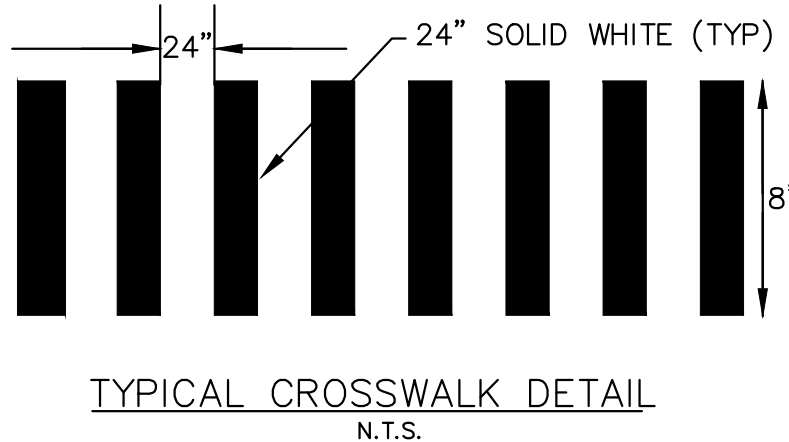
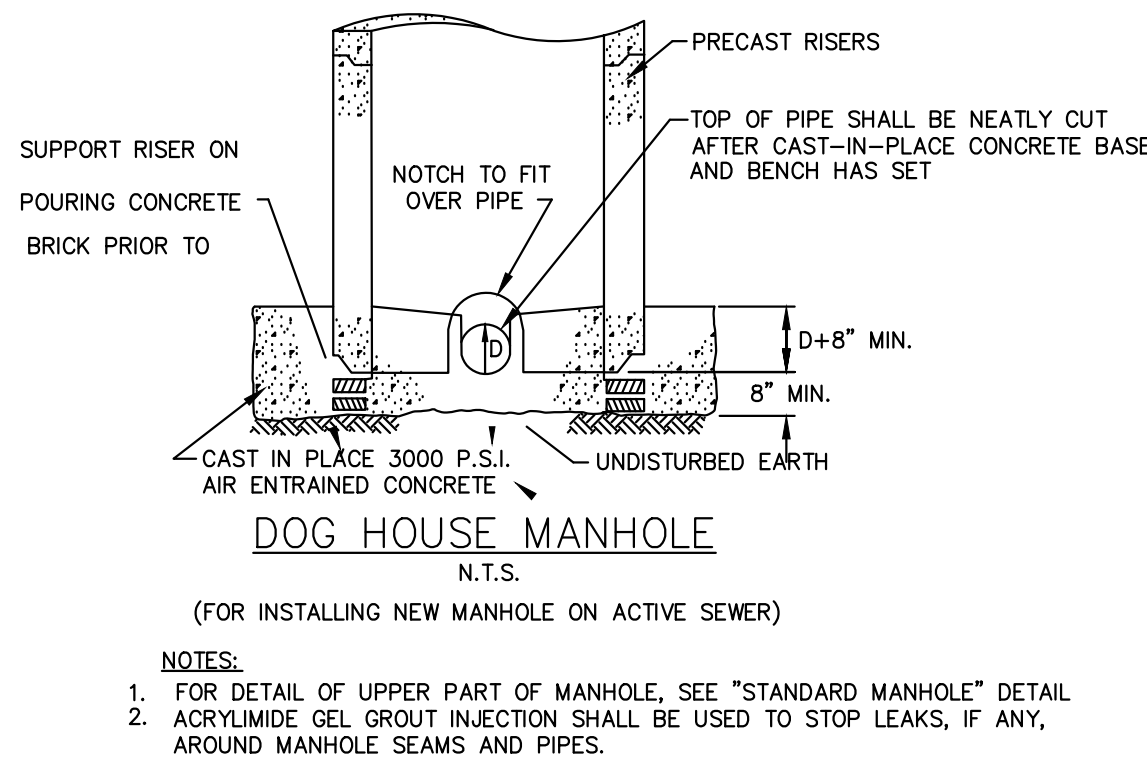
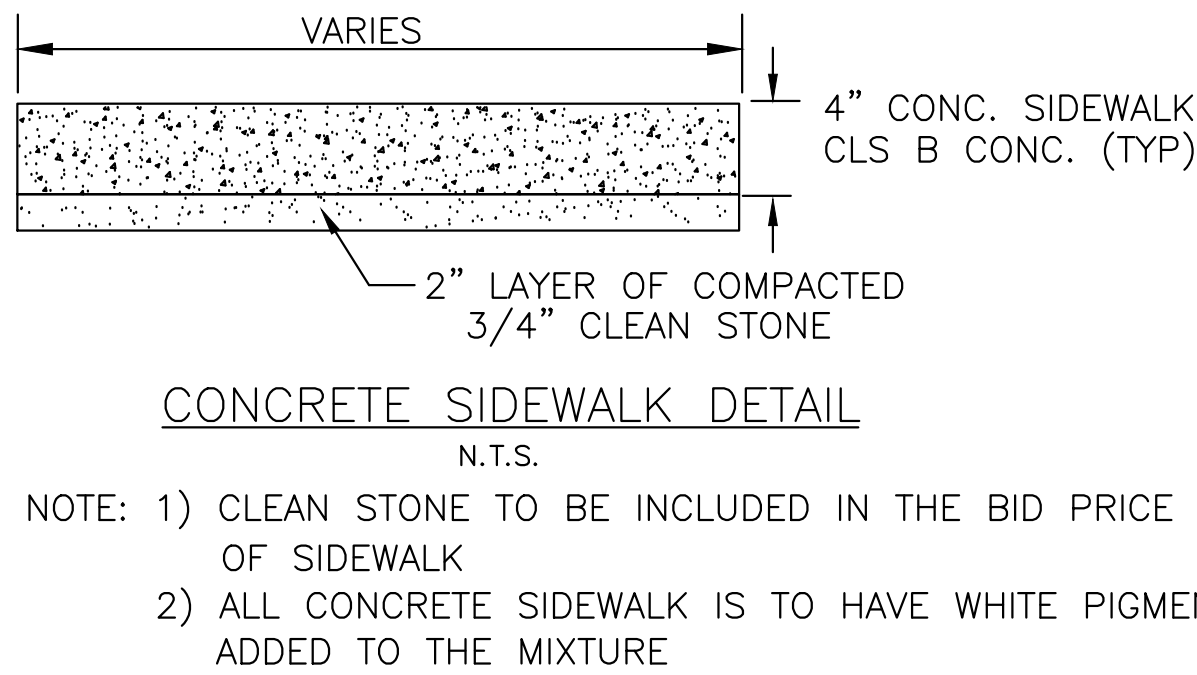
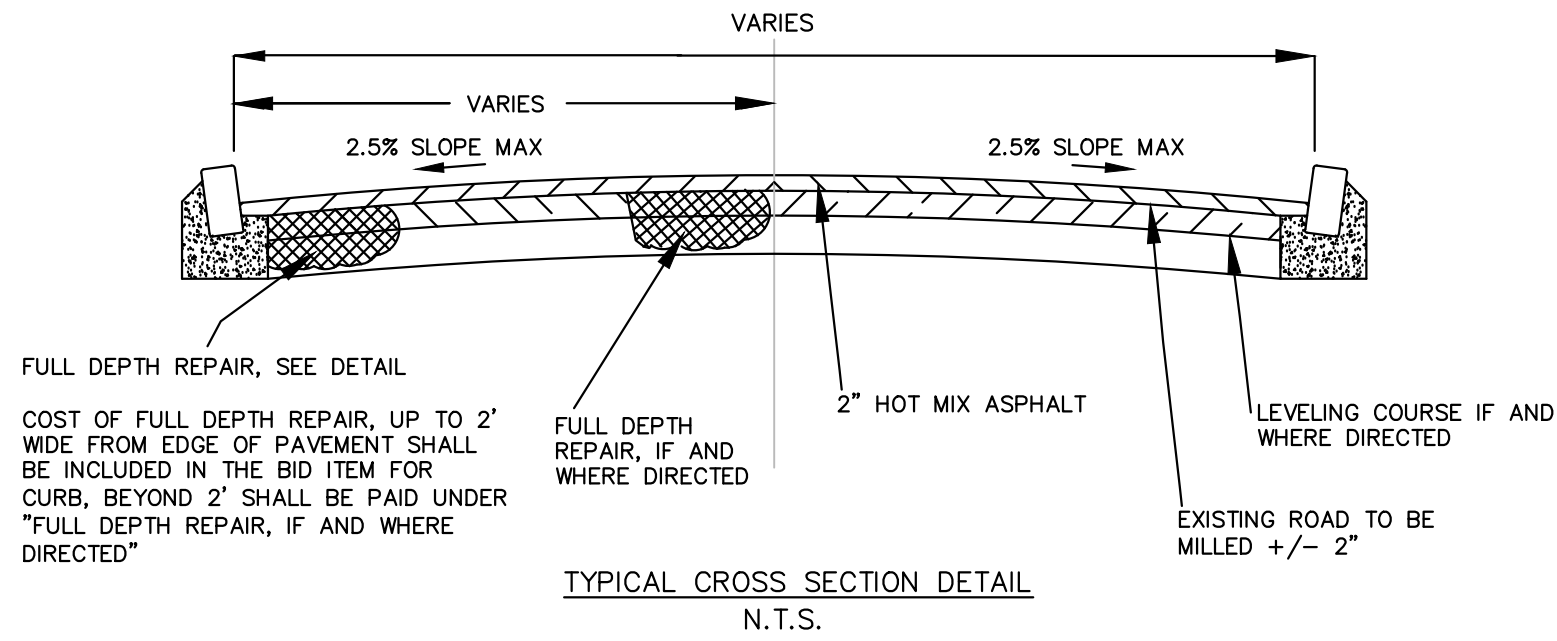


DATE:
9/1/2020

DRAWN
BY: RM

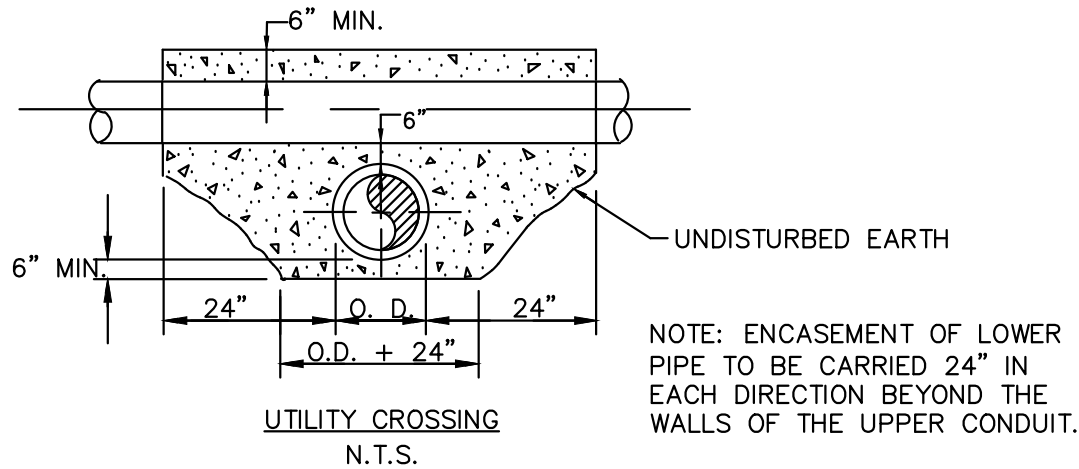
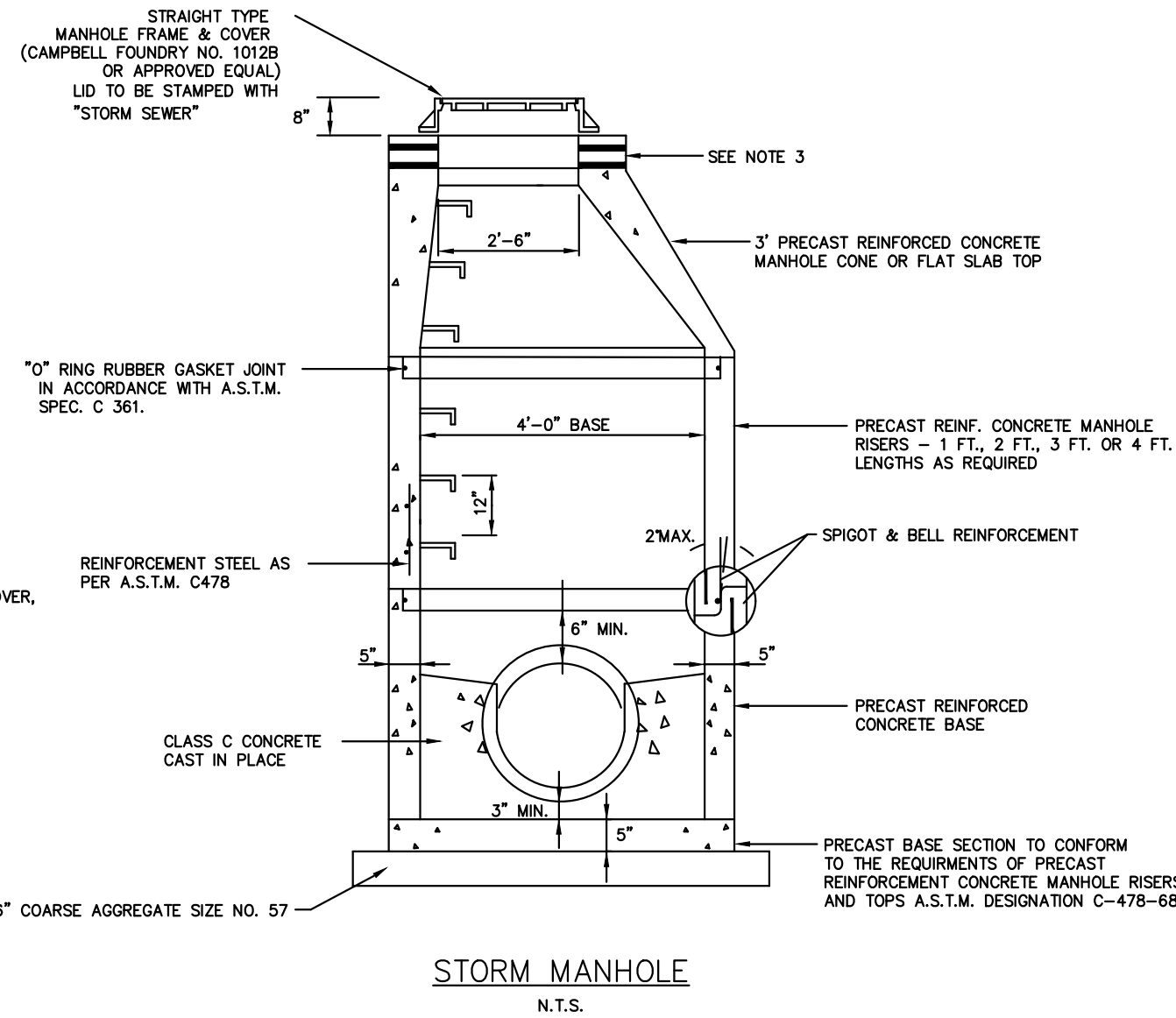
SCALE
1" = 20'

12 OF 15



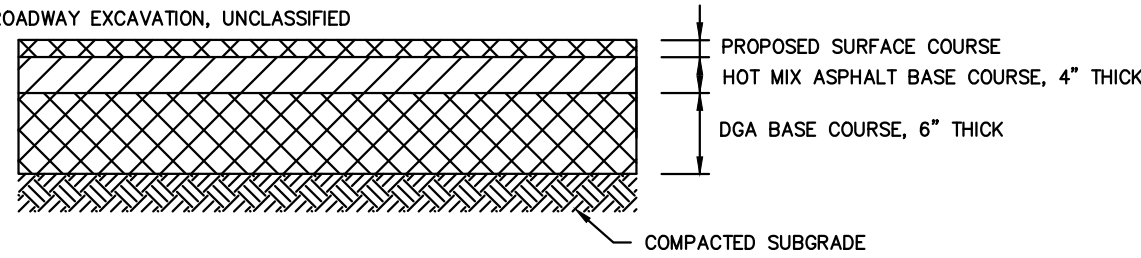
MANHOLE NOTES

- MANHOLES MAY BE CONSTRUCTED OF BRICK, CONCRETE, CONCRETE BLOCK OR PRECAST CONCRETE.
- WHEN THE DEPTH OF A MANHOLE EXCEEDS 10 FT. AS MEASURED FROM TOP OF COVER TO INVERT, WALLS OF BRICK, CONCRETE OR CONCRETE BLOCK BELOW A DEPTH OF 8 FT. SHALL BE 12" THICK. THE OVERALL HORIZONTAL DIMENSIONS SHALL BE INCREASED 12" AND THE DEPTH OF THE FOUNDATION INCREASED TO 12" WHEN ROCK IS ENCOUNTERED THE HORIZONTAL DIMENSION AND DEPTH OF THE FOUNDATION SHALL NOT BE INCREASED. THE THICKNESS OF PRECAST CONCRETE MANHOLE WALLS DOES NOT HAVE TO BE INCREASED IF THE DEPTH EXCEEDS 10 FEET.
- CASTINGS OF PRECAST MANHOLES SHALL BE ADJUSTED TO GRADE WITH COURSES OF BRICK OR CONCRETE BLOCK, AS REQUIRED, 12" MAXIMUM.
- AS AN ALTERNATE TO THE STANDARD MANHOLE FRAME AND COVER, A 36" DIAMETER FRAME WITH A 4" FLANGE MAY BE FURNISHED WITH ALL OTHER DIMENSIONS AND WEIGHTS REMAINING THE SAME.
- IN BRICK, CONCRETE OR CONCRETE BLOCK MANHOLES, INVERTS SHALL BE CONSTRUCTED IN TWO STAGES.
- AS AN ALTERNATE, COPOLYMER POLYPROPYLENE PLASTIC LADDER RUNGS MAY BE FURNISHED IN PRECAST MANHOLES AND INLETS.

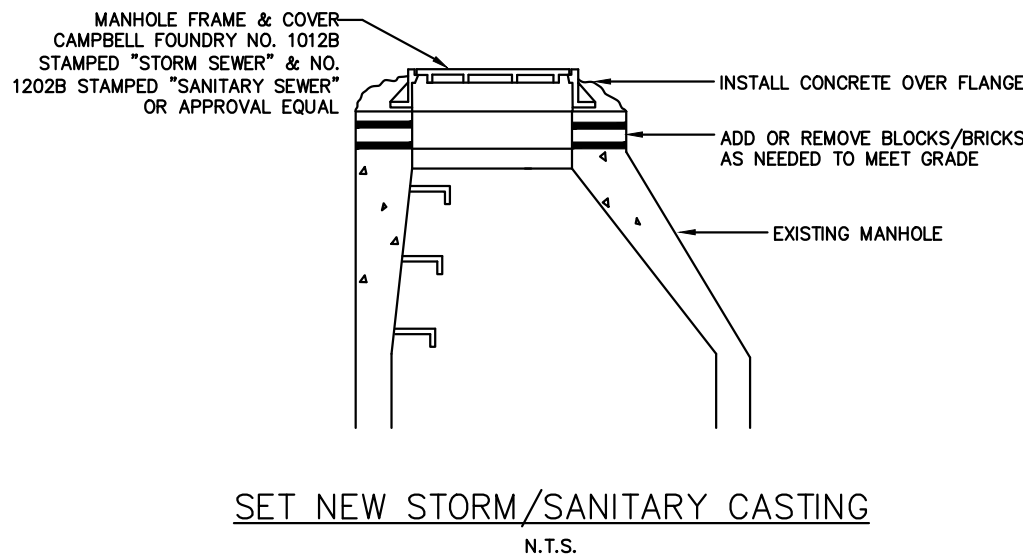


NOTES

- REMOVE AND REPLACE ROADWAY BASE SHALL CONSIST OF THE REMOVAL OF UNSUITABLE ROADWAY BASE MATERIAL OF WHATEVER NATURE ENCOUNTERED TO A DEPTH OF AT LEAST 10" UNCOVERED AFTER MILLING OR VISIBLE PRIOR TO MILLING OR RESURFACING AND THE INSTALLATION OF AT LEAST 4" HOT MIX ASPHALT BASE COURSE AND 6" DGA. THE PERIMETER OF THE REPAIR SHALL BE SAWCUT.
- THE FOLLOWING ITEMS OF WORK ARE INCLUDED UNDER REMOVE AND REPLACE ROADWAY BASE:
 - SAWCUT
 - HOT MIX ASPHALT BASE COURSE
 - DGA
 - ROADWAY EXCAVATION, UNCLASSIFIED



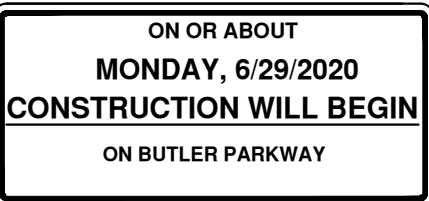
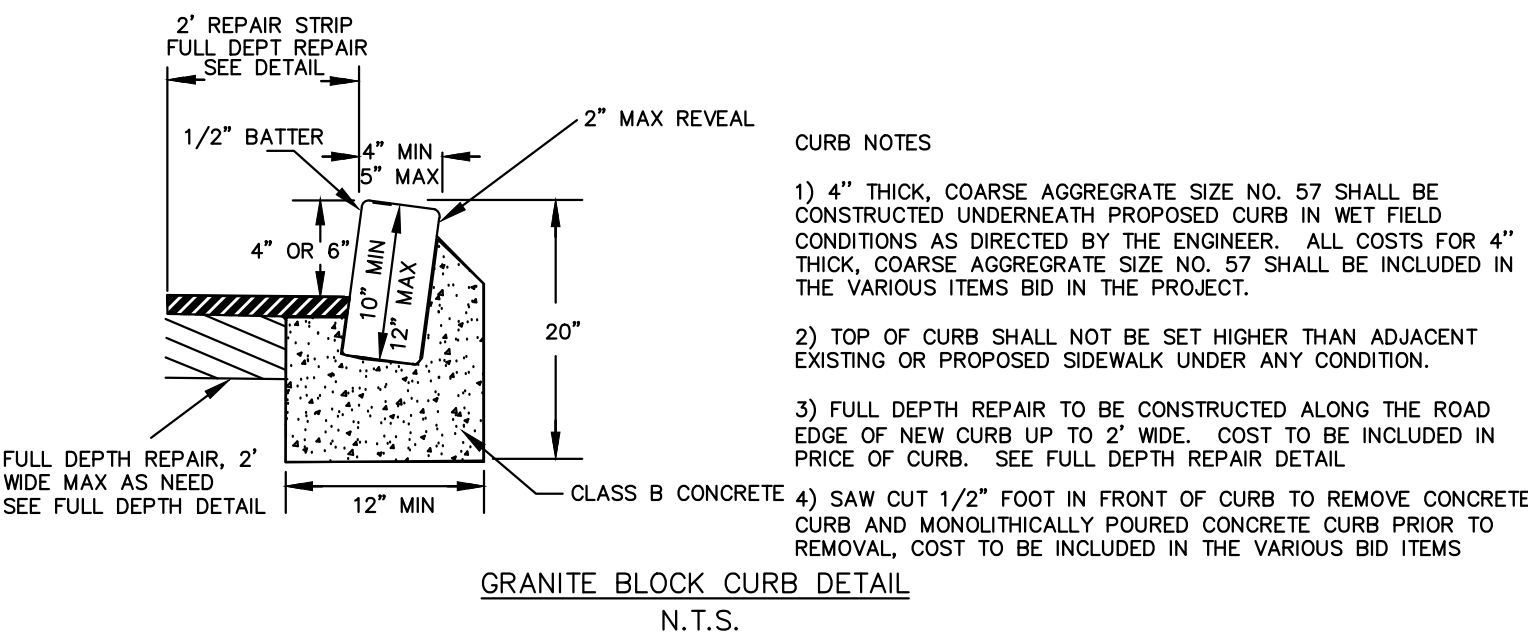
HOT MIX ASPHALT PAVEMENT REPAIR
N.T.S.



SET NEW STORM/SANITARY CASTING
N.T.S.

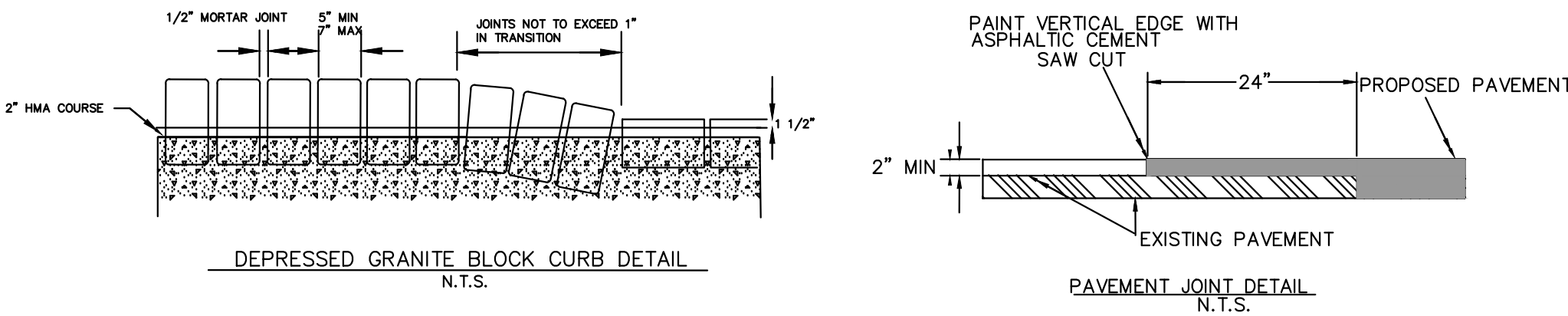
EXISTING LEGEND - SEE SURVEY PROPOSED LEGEND

- | | | | |
|--|--|--|------------------------|
| | PROPOSED ASPHALT DRIVEWAY | | PROPOSED INLET FILTER |
| | PROPOSED SIDEWALK/HANDICAP RAMP/DRIVEWAY APRON | | SET NEW CASTING |
| | PROPOSED RCP PIPE | | PROPOSED STORM MANHOLE |
| | PROPOSED INLET | | |
| | RECONSTRUCT INLET | | |



NOTE: 1) THE CONTRACTOR SHALL MOUNT THE SIGN IN ACCORDANCE WITH NJDOT 2019 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION & THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
2) EXACT WORDING TO BE APPROVED BY THE CITY ENGINEER

CONSTRUCTION IDENTIFICATION SIGN DETAIL
N.T.S.



PAVEMENT JOINT DETAIL
N.T.S.

REVISIONS	DESCRIPTION
NO.	DATE

BUTLER PARKWAY IMPROVEMENT PROJECT ENTIRE LENGTH DETAIL PLAN

CITY OF SUMMIT UNION CO., N.J.
DIVISION OF ENGINEERING
DEPARTMENT OF COMMUNITY SERVICES
512 SPRINGFIELD AVENUE
SUMMIT, NJ 07901
UNION COUNTY

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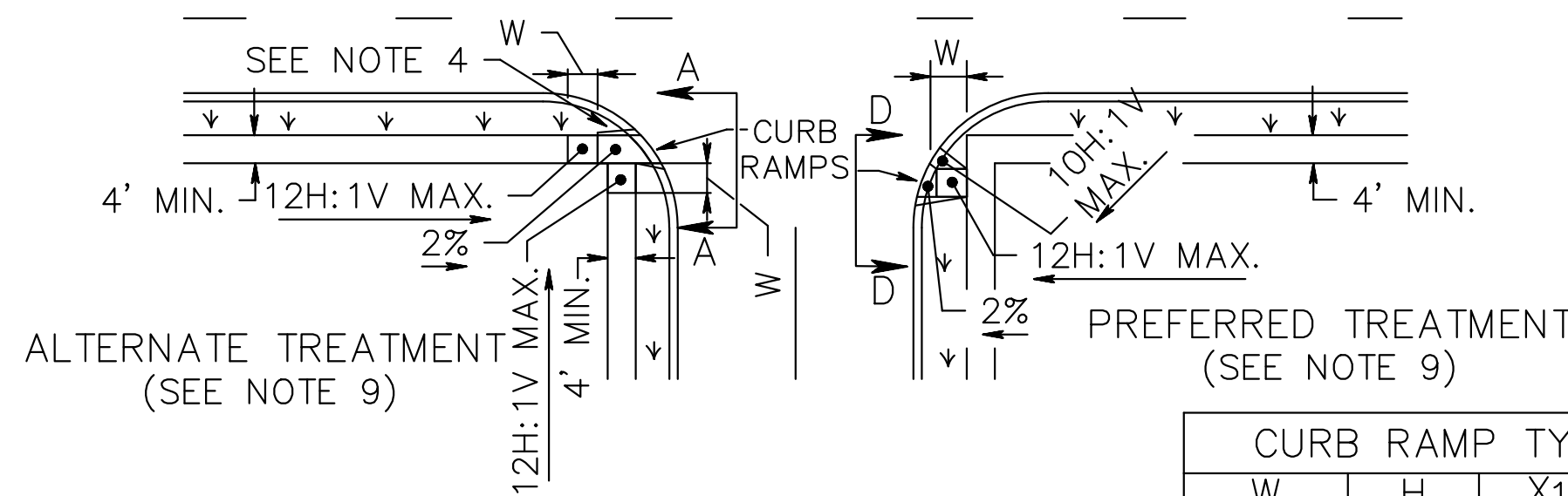
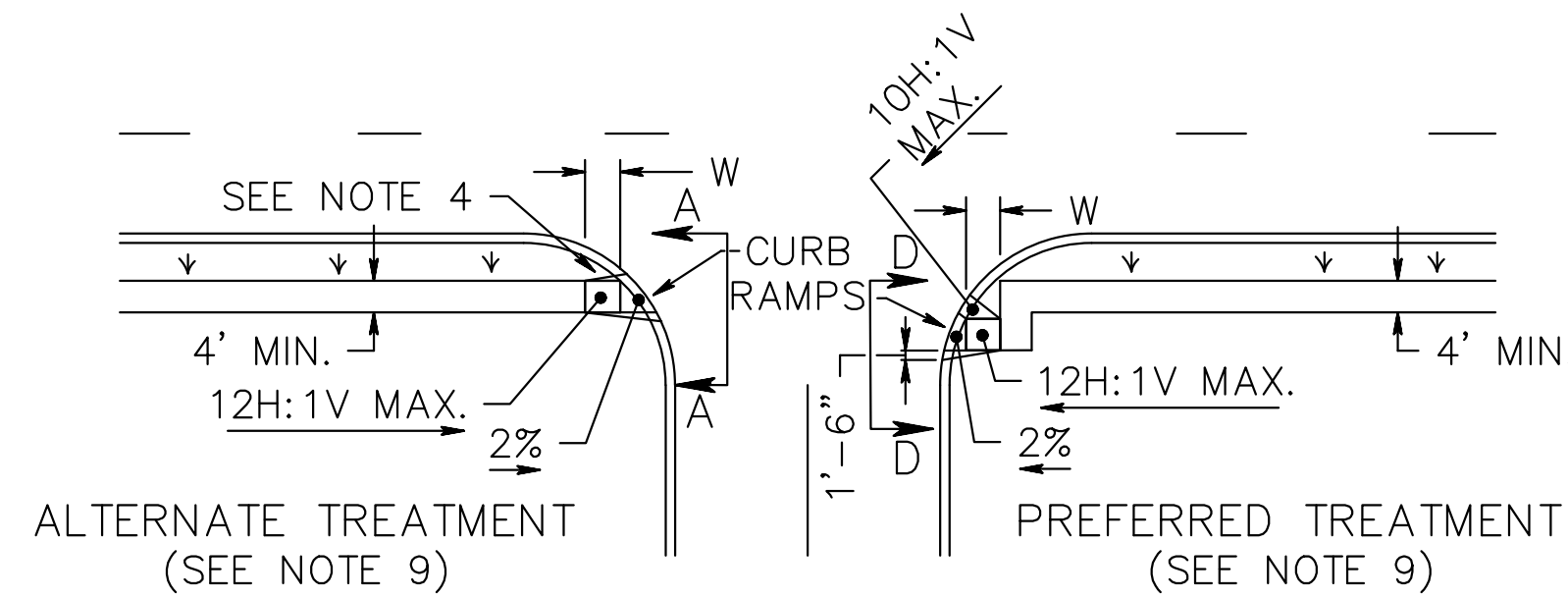
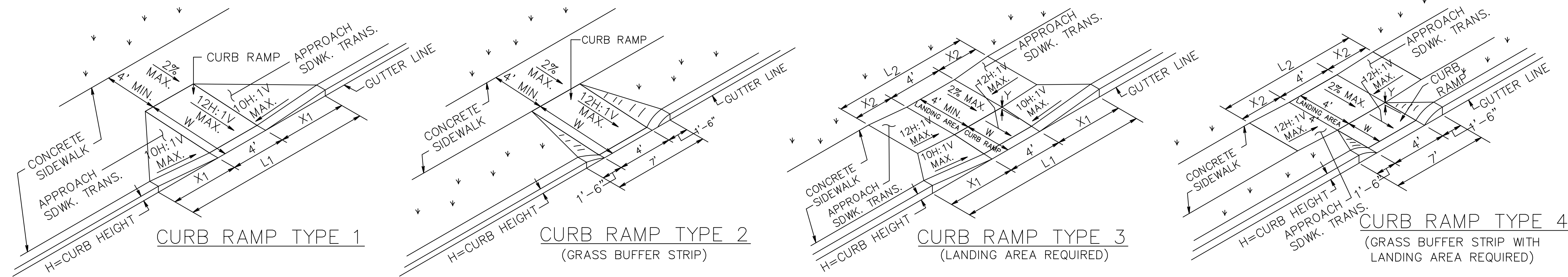


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9/1/2020

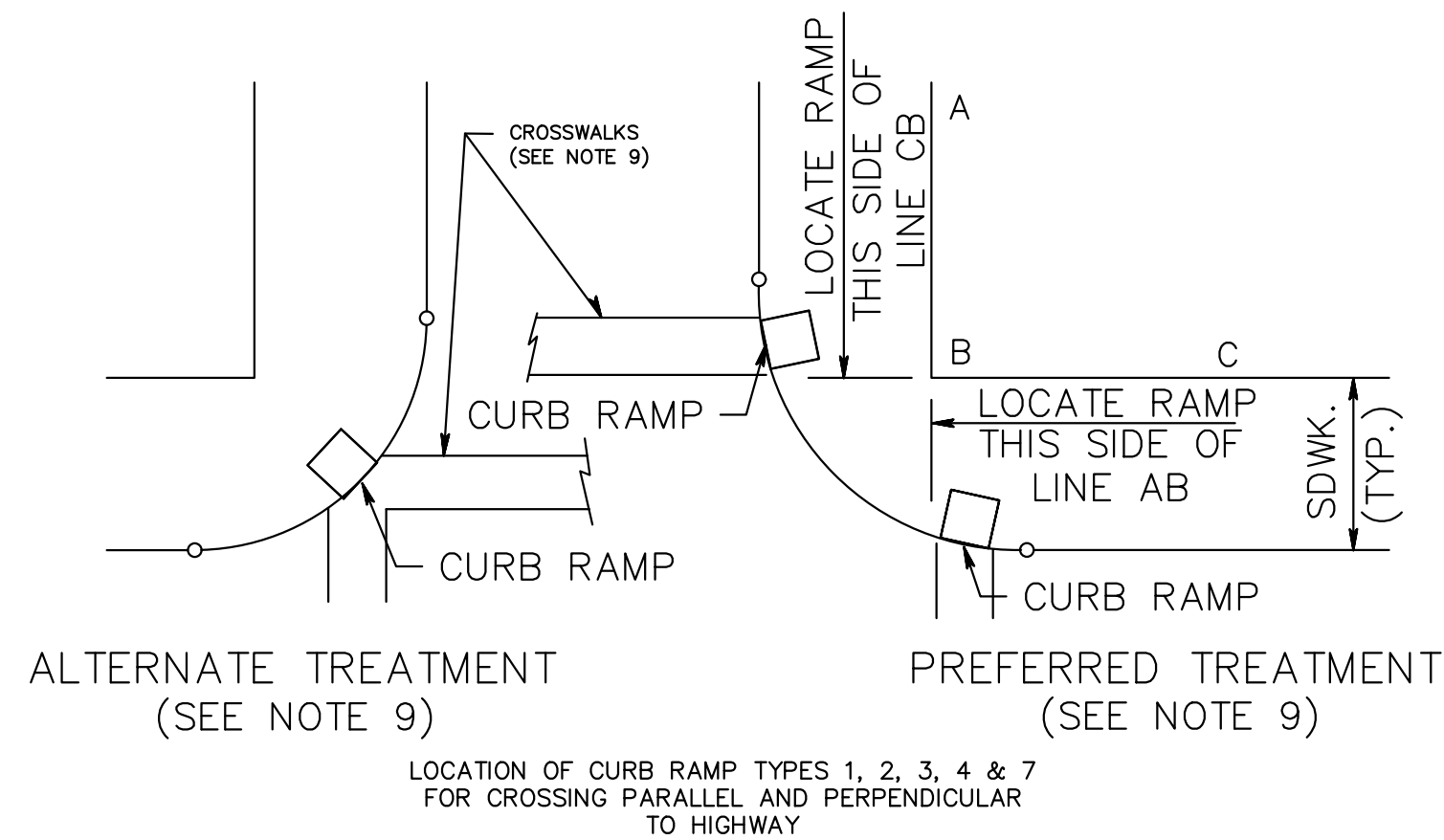
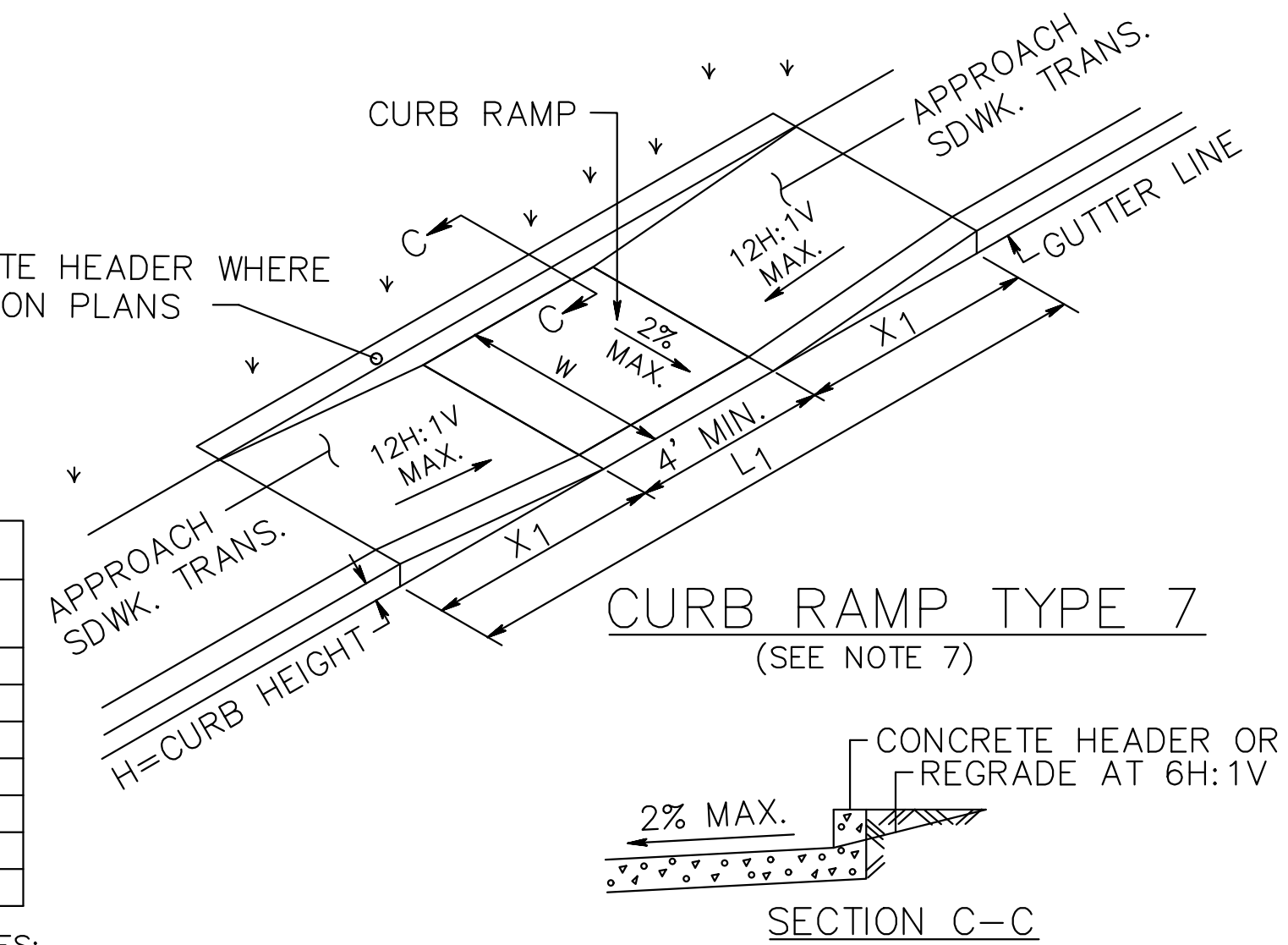
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BY: RM

SCALE
AS NOTED

13 OF 15



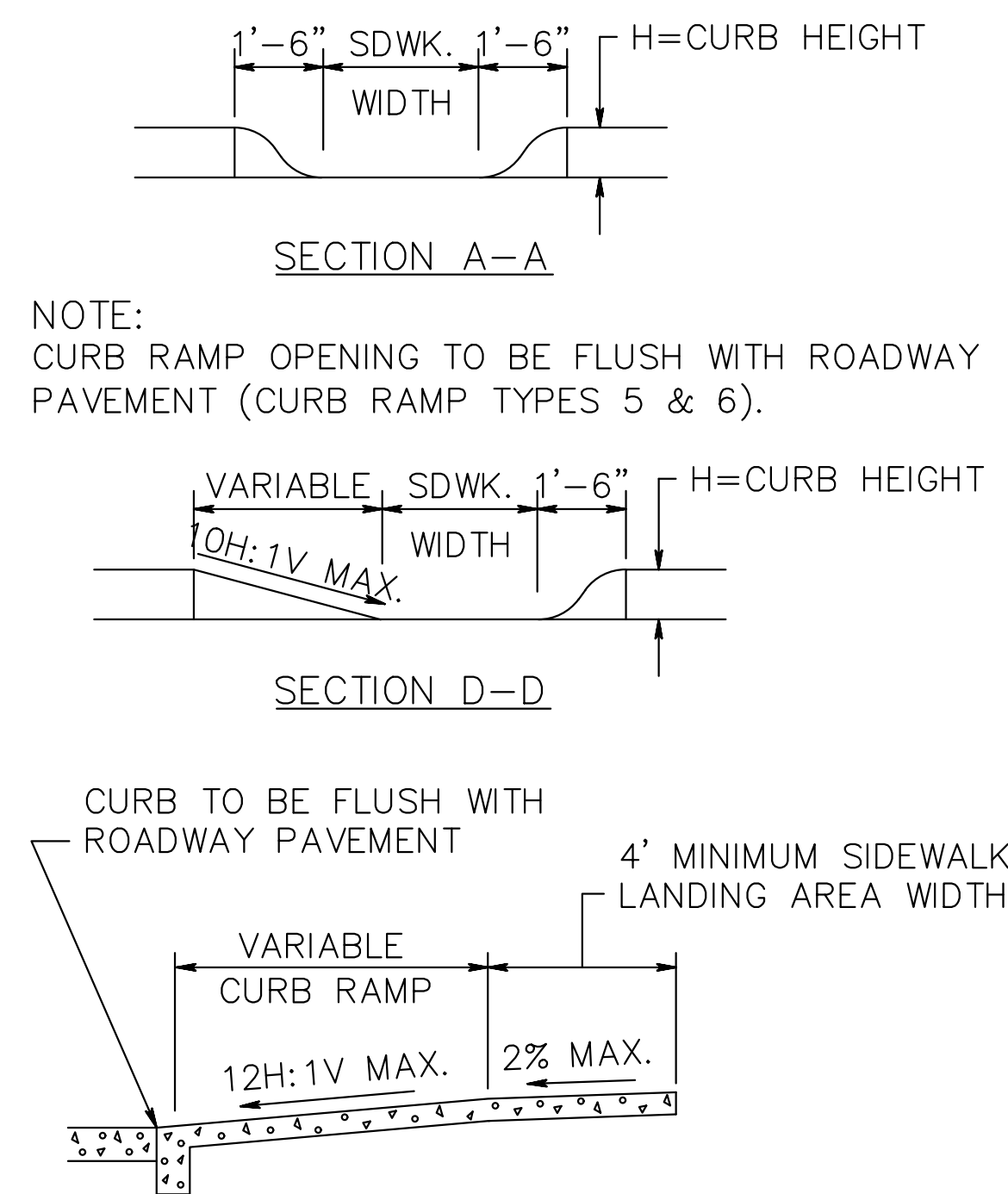
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W FEET	H INCHES	X1 FEET	L1 FEET
4 MIN.	3	3	11
6 MAX.	4	4	13
	5	5	15
	6	6	17
	7	7	19
	8	8	21
	9	9	23



CURB RAMP TYPE 1			
H INCHES	X1 FEET	L1 FEET	W FEET
3	2.5	9.0	3
4	3.3	10.6	4
5	4.2	12.4	5
6	5.0	14.0	6
7	5.8	15.6	7
8	6.7	17.4	8
9	7.5	19.0	9

CURB RAMP TYPE 2, 5 OR 6	
H INCHES	W FEET
3	3
4	4
5	5
6	6
7	7
8	8
9	9

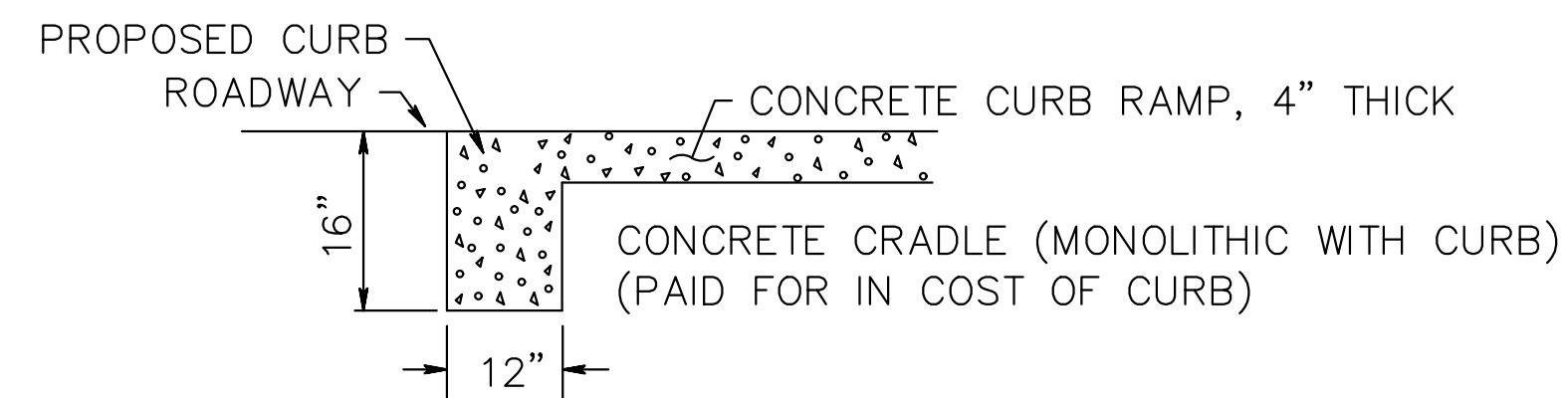
- GENERAL NOTES:
- LANDING AREA, APPROACH SIDEWALK TRANSITIONS, AND CURB RAMP SHALL BE KEPT CLEAR OF OBSTRUCTIONS.
 - DIMENSIONS SHOWN IN TABLES ARE FOR RELATIVELY FLAT SIDEWALK AREAS. CARE SHOULD BE TAKEN WHEN DETERMINING CURB RAMP SIZE BASED ON CURB HEIGHT (H) WHERE ELEVATION OF CURB AND SIDEWALK VARY DRASTICALLY IN AREA OF PROPOSED CURB RAMP.
 - CURB (DROPPED CURB) GUTTERLINE TO BE FLUSH WITH ROADWAY PAVEMENT A MINIMUM OF 4 FEET AT ALL CURB RAMP.
 - FOR CURB RAMP TYPES 5 AND 6, IF A GRASS BUFFER DOES NOT EXIST, SLOPE CURB TO EQUAL SLOPE OF ADJACENT CURB RAMP.
 - SIDEWALK AND CURB RAMP WITHIN AREA ENCLOSED BY HEAVY LINES TO BE PAID FOR AS CONCRETE SIDEWALK OF THE APPROPRIATE ADJACENT THICKNESS.
 - CURB AND HEADER WITHIN AREA ENCLOSED BY HEAVY LINES TO BE PAID FOR AS VERTICAL CURB OR SLOPING CURB OF THE APPROPRIATE ADJACENT SIZE AND KIND.
 - WHERE THE DISTANCE FROM THE GUTTER LINE TO THE OUTSIDE EDGE OF SIDEWALK IS 6 FEET OR LESS, CURB RAMP TYPE 7 SHOULD BE USED, INSTEAD OF CURB RAMP TYPE 1 THROUGH 4.
 - CROSSWALKS AND STOP LINES MAY BE MARKED OR UNMARKED, SEE PLANS.
 - PREFERRED AND ALTERNATE TREATMENTS SHOULD NOT BE INTERMIXED WITHIN THE SAME INTERSECTION.
 - DIMENSIONS SHOWN IN TABLES ARE FOR 3 INCH TO 9 INCH CURB HEIGHTS. WHERE THE CURB HEIGHTS ARE OTHER THAN WHAT IS PROVIDED IN THE TABLES, THE DIMENSIONS OF THE RAMPS WILL HAVE TO BE CALCULATED BASED ON CROSS SLOPES SHOWN.



CURB RAMP TYPE 3							
W FEET	H INCHES	X1 FEET	L1 FEET	Y INCHES	X2 FEET	L2 FEET	
2.5	3	2.5	9	2.5	0.5	5	
	4	3.3	10.6	2.5	1.5	7	
	5	4.2	12.4	2.5	2.5	9	
	6	5.0	14.0	2.5	3.5	11	
	7	5.8	15.6	2.5	4.5	13	
	8	6.7	17.4	2.5	5.5	15	
3.0	9	7.5	19.0	2.5	6.5	17	
	3	*	*	*	*	*	
	4	3.3	10.6	3.0	1	6	
	5	4.2	12.4	3.0	2	8	
	6	5.0	14.0	3.0	3	10	
	7	5.8	15.6	3.0	4	12	
3.5	8	6.7	17.4	3.0	5	14	
	9	7.5	19.0	3.0	6	16	
	3	*	*	*	*	*	
	4	3.3	10.6	3.5	0.5	5	
	5	4.2	12.4	3.5	1.5	7	
	6	5.0	14.0	3.5	2.5	9	
4.0	7	5.8	15.6	3.5	3.5	11	
	8	6.7	17.4	3.5	4.5	13	
	9	7.5	19.0	3.5	5.5	15	
	3	*	*	*	*	*	
	4	*	*	*	*	*	
	5	4.2	12.4	4.0	1	6	

CURB RAMP TYPE 4				
W FEET	H INCHES	Y INCHES	X2 FEET	L2 FEET
2.5	3	2.5	0.5	5
	4	2.5	1.5	7
	5	2.5	2.5	9
	6	2.5	3.5	11
	7	2.5	4.5	13
	8	2.5	5.5	15
3.0	9	2.5	6.5	17
	3	**	**	**
	4	3.0	1	6
	5	3.0	2	8
	6	3.0	3	10
	7	3.0	4	12
3.5	8	3.0	5	14
	9	3.0	6	16
	3	**	**	**
	4	3.5	0.5	5
	5	3.5	1.5	7
	6	3.5	2.5	9
4.0	7	3.5	3.5	11
	8	3.5	4.5	13
	9	3.5	5.5	15
	3	**	**	**
	4	**	**	**
	5	4.0	1	6

* TYPE 3 RAMP IS NOT APPLICABLE, USE TYPE 1.
** TYPE 4 RAMP IS NOT APPLICABLE, USE TYPE 2.



DROPPED CURB AND CRADLE

SECTION THROUGH CURB RAMPS 1 THROUGH 6

REVISIONS	DESCRIPTION
NO. DATE	

BLACKBURN ROAD IMPROVEMENT PROJECT
VALLEY VIEW AVENUE TO OAK KNOLL ROAD
SUMMIT COUNTY
ADA DETAIL SHEET

CITY OF SUMMIT UNION CO., N.J.
DIVISION OF ENGINEERING
DEPARTMENT OF COMMUNITY SERVICES
512 SPRINGFIELD AVENUE
SUMMIT, NJ 07901
UNION COUNTY

Aaron J. Schrager
Aaron J. Schrager
Professional Engineer
New Jersey Lic. No. 46143
City Engineer



DATE:
9/1/17

DRAWN
BY: RM

SCALE
AS NOTED

14 OF 15

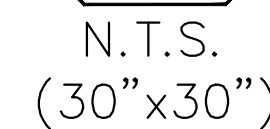
Sheridan Rd

Canoe Brook rd

Game Over!

N.T.S.

- 1) SIGNS TO BE MOUNTED ON A 2 3/8" OD BLACK POLE
- 2) POLE TO HAVE A 18" MIN CONCRETE FOOTING
- 3) SIGNS TO BE MOUNTED ON A LYLE SIGNS PLACE HOLDER
- 4) COST FOR POST, HARDWARE, AND FOOTING TO BE INCLUDED IN "STREET SIGN POST"
- 5) SIGN WIDTHS MAY VARY
- 6) WHITE BACKGROUND, BLACK LETTERS, BLOCK BORDER
- 7) MUST MEET MUTCD REFLECTIVE STANDARDS
- 8) PROOF MUST BE SUBMITTED FOR APPROVAL PRIOR TO INSTALL



R1-1



W17-

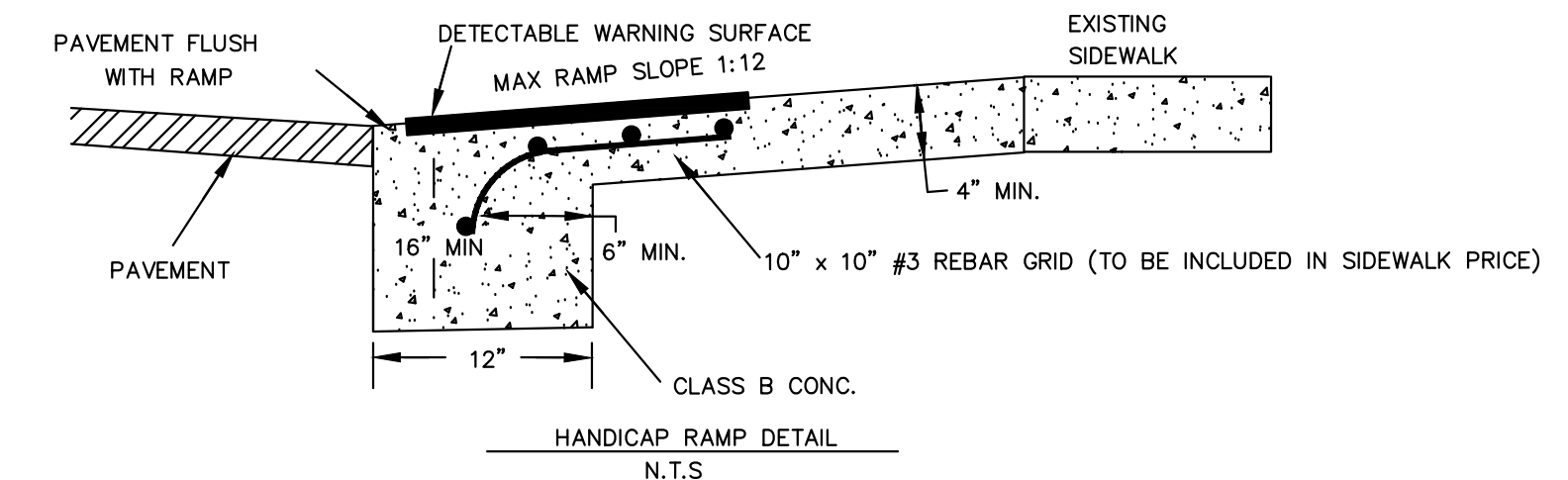
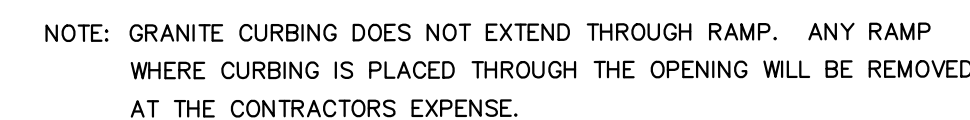


7-1 (AHEAD)

* SPEED BUMP AHEAD
SIGN TO BE PLACED
APROX 100 FEET PRIOR
TO THE SPEED HUMP



PIPE ITEM SHALL INCLUDE:
EXCAVATION
REMOVAL/HAULING OF EXCAVATION
PIPE
BEDDING/DGA
BACKFILLING
SAWCUTTING
6" BASE HMA REPAIR/FULL DEPTH REPAIR



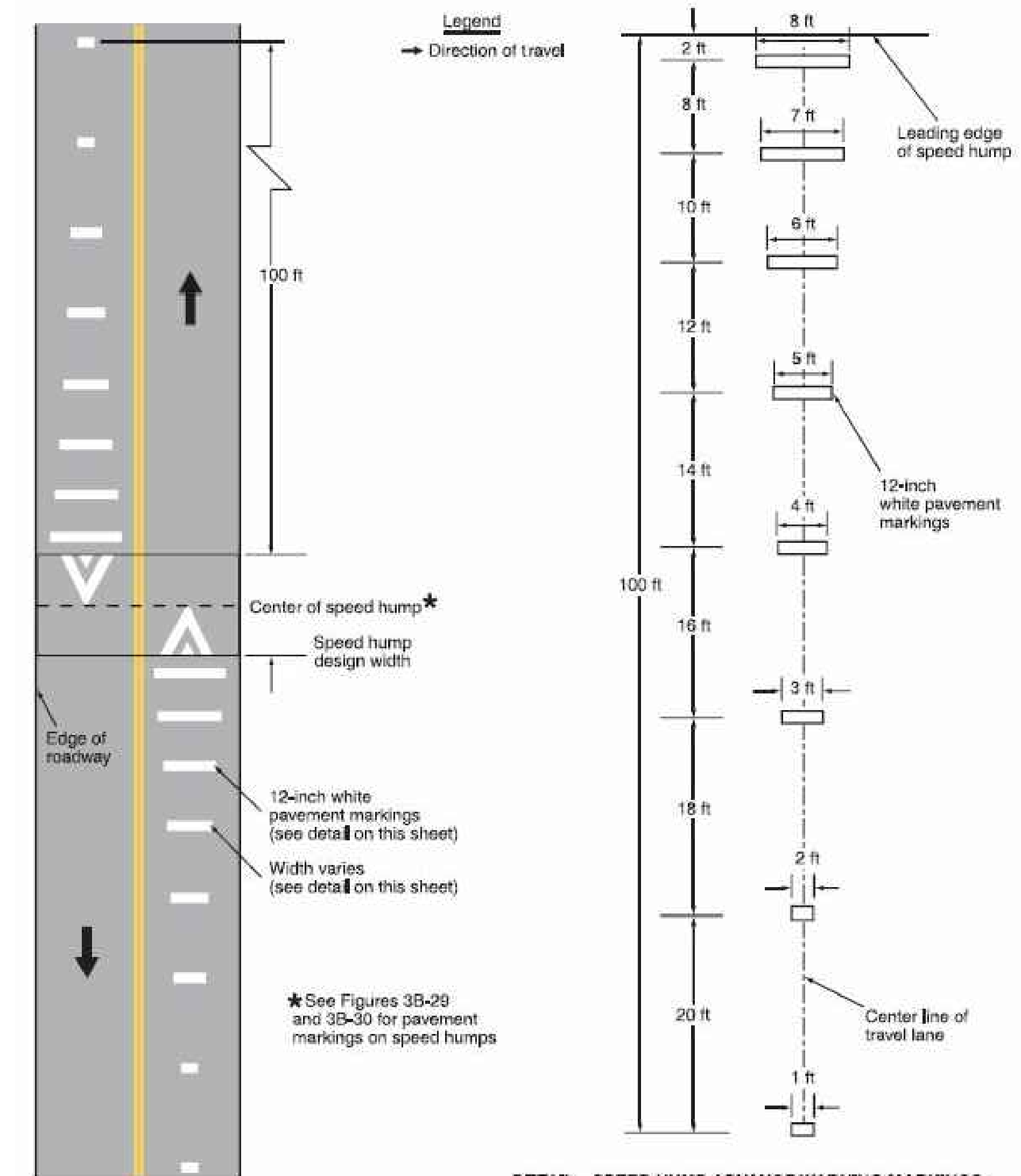
15-12

SPEED CONTROL DEVICES - VERTICAL RAISED INTERSECTION (CENTER ONLY)
N.T.S.



PAVEMENT MARKINGS FOR SPEED TABLES

N.T.S.



DETAIL—SPEED HUMP ADVANCE WARNING MARKINGS

SPEED HUMP ADVANCE WARNING MARKINGS
N.T.S.

REVISIONS	
NO.	DESCRIPTION

BUTLER PARKWAY IMPROVEMENT PROJECT
ENTIRE LENGTH
DETAIL PLAN

CITY OF SUMMIT UNION CO., N.J.
DIVISION OF ENGINEERING
DEPARTMENT OF COMMUNITY SERVICES
512 SPRINGFIELD AVENUE
SUMMIT NJ 07901
UNION COUNTY


Aaron J. Schrage
Professional Engineer
New Jersey Lic. No. 46143
City Engineer



DATE:
9/1/2020

DRAWN
BY: RM

SCALE
AS NOTED