

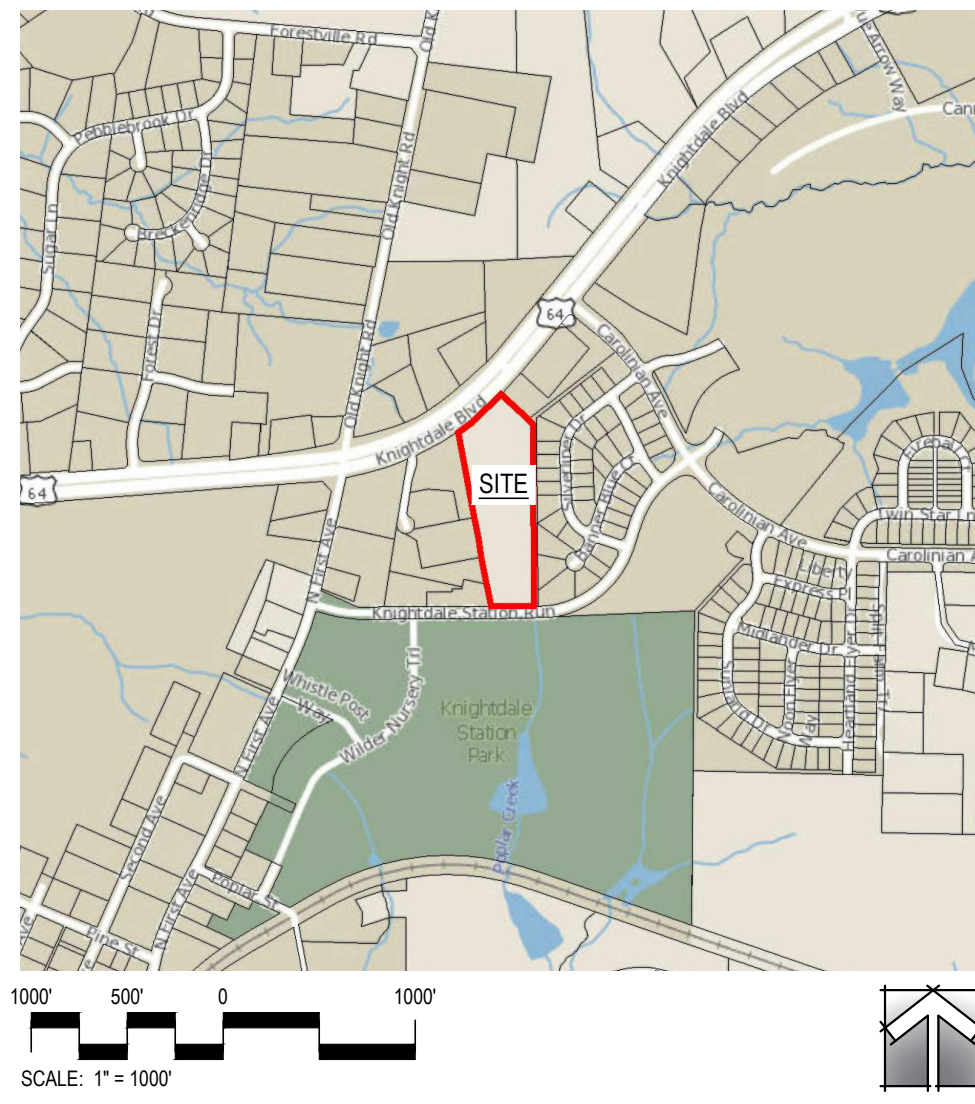
Reference: ZMA-1-20

for Site Development Approval

1st Submittal: 01.29.2021

The Lofts at Knightdale Station

Knightdale, North Carolina 27545



Overall Site Data - 01.29.2021 (updated xx.xx.2021) Project: The Lofts at Knightdale Station. Includes site address, tax parcel number, deed book, zoning, and public infrastructure summary.

Building Setbacks table with columns for Side, Rear, Front, Building #1, Building #2, Office/Retail Building, and Minimum/Maximum dimensions.

Open Space Calculation table showing Open Space Required (PUD), Total Open Space Required (SF), and Active Open Space breakdown.

WATER ALLOCATION POLICY table with BASE POINTS and BONUS POINTS sections.

a. Town Approved Standards Shall Control. In the event of a conflict or inconsistency between these construction drawings and the Town of Knightdale's Approved Standards...

b. Professional Design Engineer Certification. These improvements shall be constructed in accordance with the following drawings and with the Standard Specifications of the Town of Knightdale.



Notes

- GENERAL NOTES: 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH TOWN OF KNIGHTDALE AND/OR NCDOT STANDARDS. 2. THE CONTRACTOR SHALL CONDUCT THE WORK IN A SAFE MANNER... 10. UNLESS NOTED, ALL DIMENSIONS SHOWN ARE TO BACK OF CURB. 11. TRASH AND CARDBOARD DUMPSTER(S) ENCLOSURE SHALL COMPATIBLE WITH MATERIAL AND/OR COLOR OF THE PRINCIPAL BUILDING.

Sheet Index

Sheet Index table listing COVER, SITE PLAN, EXHIBIT FOR DUKE ENERGY RIGHT OF WAY RESTRICTIONS, OPEN SPACE DIAGRAM, WALL DETAILS, etc., with corresponding sheet numbers.

Project Team

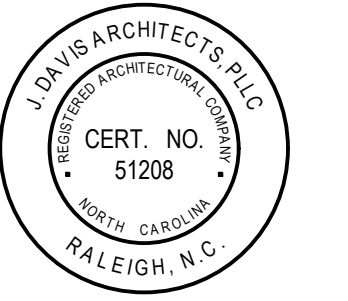
Project Team table listing roles and contact information for Owner (Brown Investment Properties), Developer (Brown Investment Properties), Landscape Architect (JDavis Architects, PLLC), Architect (JDavis Architects, PLLC), and Engineer/Surveyor (Bohler Engineering NC, PLLC).



Reference: ZMA-1-20

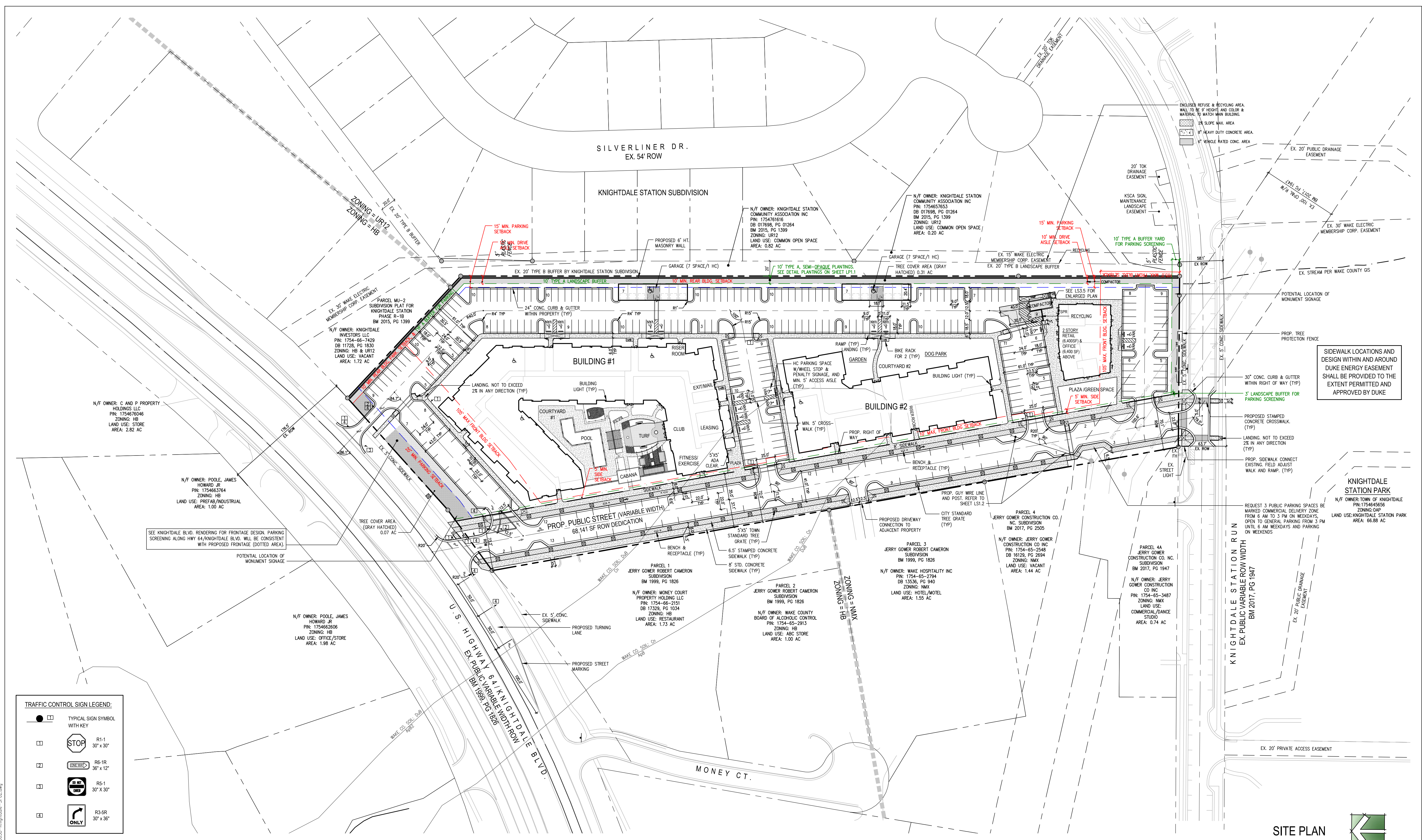
Brown Investment Properties The Lofts at Knightdale Station 7630 Knightdale Boulevard Knightdale, North Carolina 27545

FOR SITE DEVELOPMENT APPROVAL



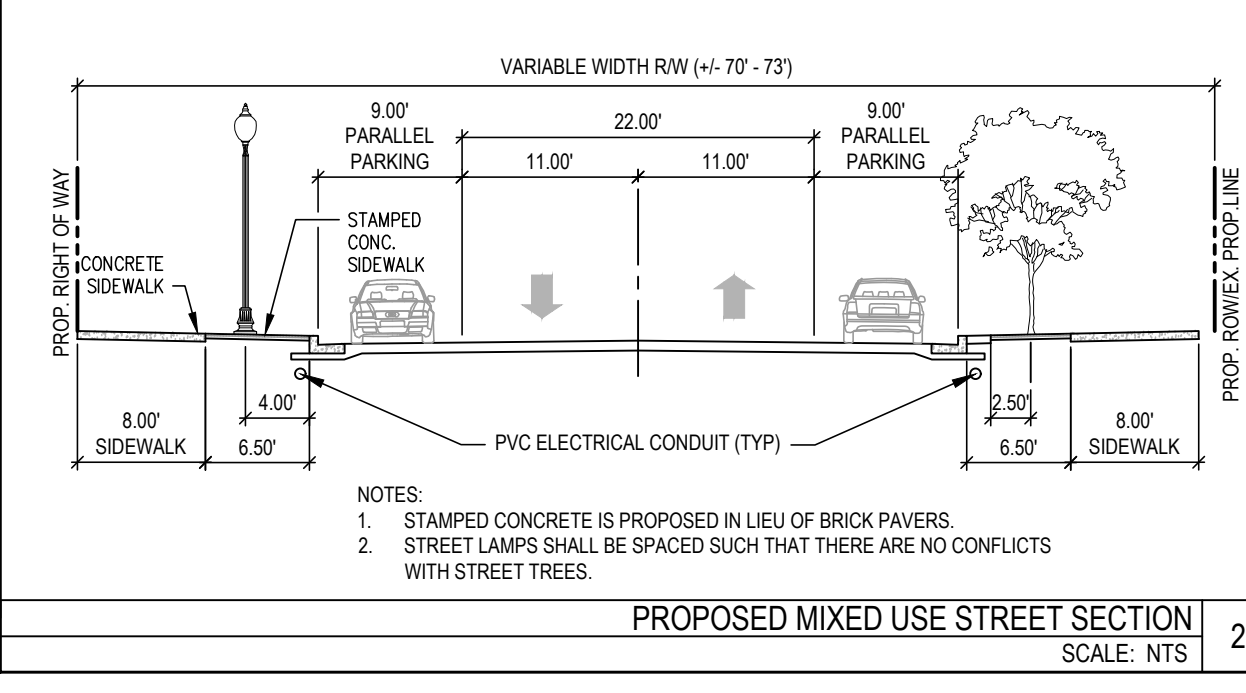
Revision and Approval table with columns for PROJECT, ISSUE, REVISIONS, DRAWN BY, CHECKED BY, and CONTENT.

L1.1



TRAFFIC CONTROL SIGN LEGEND:

●	TYPICAL SIGN SYMBOL WITH KEY
⊠	R1-1 30" x 30"
⊠	R6-1R 36" x 12"
⊠	R5-1 30" x 30"
⊠	R3-SR 30" x 30"
⊠	ONLY



- ACCESSIBILITY NOTES:**
- ALL INTERSECTIONS OF ACCESSIBLE ROUTES SHALL HAVE MINIMUM 5X5' LANDING.
 - MINIMUM LANDINGS AT ACCESS AISLE FOR HC PARKING SPACE SHALL BE 4' X 4'.
 - ALL LANDINGS SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION.
 - HANDICAP PARKING SPACE(S) AND HC ACCESS AISLE(S) SHALL BE NO GREATER THAN 2% SLOPE IN ANY DIRECTION.
 - ALL ACCESSIBLE ROUTE SHALL NOT EXCEED 2% CROSS PITCH. MAXIMUM RAMP RUN TO BE 8.3%. RAMP MUST HAVE BETWEEN 34" AND 38" HEIGHT HANDRAILS ON BOTH SIDES IF THE SLOPE IS GREATER THAN 5%, AND MINIMUM 5X5' LANDING SHALL BE PROVIDED EVERY 30' MAXIMUM RUN. MINIMUM 5X5' LANDING IS REQUIRED AT THE TOP & BOTTOM OF THE RAMP. MINIMUM 5X5' TURN PLATFORM/LANDING IS REQUIRED.
 - ALL CROSS WALK SHALL BE NO GREATER THAN 2% SLOPE IN ANY DIRECTION.
 - ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT ADA STANDARDS.
 - REFER TO GRADING PLAN FOR ACCESSIBLE ROUTE.
- HC RAMPS:**
- ALL HC RAMP AT INTERSECTIONS ARE TO BE FIELD ADJUSTED WITH INPUT FROM THE TOWN OF KNIGHTDALE FIELD INSPECTOR PRIOR TO INSTALLATION.

REFER TO COVER SHEET FOR GENERAL NOTES AND SITE DATA.
REFER TO LS3.1 TO LS3.6 FOR SITE DETAILS.



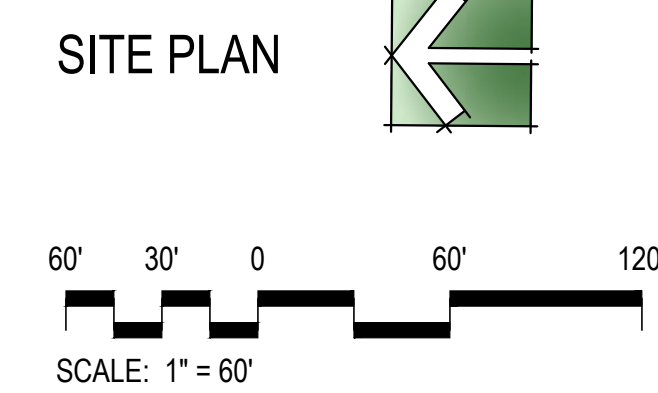
REFERENCE:
ZMA-1-2020

a. Town Certification. This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale.

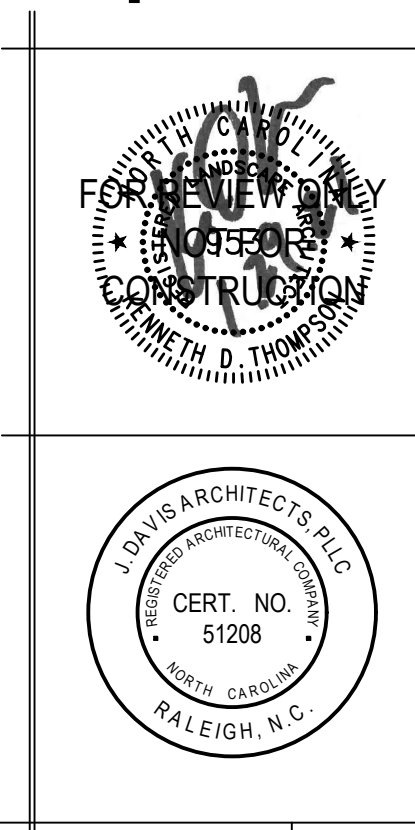
By: _____ Date: _____
Town Engineer

These plans are approved by the Town of Knightdale and serve as construction plans for this project.

By: _____ Date: _____
Administrator



FOR SITE DEVELOPMENT APPROVAL



PROJECT:	BIP-20038	DATE:	
ISSUE:	Sketch Plan		12.04.2019
	PUD - Master Plan		06.22.2020
	Site Develop. Approval		01.29.2021
REVISIONS:			
DRAWN BY:	MA, SB		
CHECKED BY:	KT		
CONTENT:	SITE PLAN		

LS1.1

1/29/2021 8:35 AM P:\2020\20038_Knightdale-BIP-20038-4c_LAND\DP\DWY\20038-Knightdale-SFD2.dwg

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BUILDING A SMARTER ENERGY FUTURE™

DUKE ENERGY ELECTRIC TRANSMISSION RIGHT-OF-WAY GUIDELINES/RESTRICTIONS VALID FOR NORTH CAROLINA AND SOUTH CAROLINA (Revised 11/20/2014)

This list of right-of-way restrictions has been developed to answer the most frequently asked questions about property owner use of Duke Energy's electric transmission rights of way. This list does not cover all restrictions or all possible situations. You should contact the Asset Protection right-of-way specialist if you have additional concerns about the rights of way. This list of restrictions is subject to change at any time and without notice. Duke Energy reserves all rights conveyed to it by the right-of-way agreement applicable to the subject property. All activity within the rights of way shall be reviewed by an Asset Protection right-of-way specialist to obtain prior written approval. Engineering plans may be required. Compliance with the Duke Energy Right-of-Way Guidelines/Restrictions or approval of any plans by Duke Energy does not mean that the requirements of any local, county, state or federal government or other applicable agency with governing authority have been satisfied.

- Structures, buildings, manufactured/mobile homes, satellite systems, swimming pools (any associated equipment and decking), graves, billboards, dumpsters, signs, wells, deer stands, retaining walls, septic systems or tanks (whether above or below ground), debris of any type, flammable material, building material, wrecked or disabled vehicles and all other objects (whether above or below ground) which in Duke Energy's opinion interfere with the electric transmission right of way are not allowed within the right-of-way limits. Transformers, telecommunication pedestals (and associated equipment) and fire hydrants are not allowed. Manholes, water valves, water meters, backflow preventers and irrigation heads are not permitted. Attachments to Duke Energy structures are prohibited.
- Fences and gates shall not exceed 10 feet in height and shall be installed greater than 25 feet from poles, towers and guy anchors. Fences shall not parallel the centerline within the rights of way but may cross from one side to the other at any angle not less than 30 degrees with the centerline. If a fence crosses the right of way, a gate (16 feet wide at each crossing) shall be installed by the property owner, per Duke Energy's specifications. The property owner is required to install a Duke Energy lock on the gate to ensure access. Duke Energy will supply a lock.
- Grading (cuts or fill) shall be no closer than 25 feet from poles, towers, guys and anchors (except for parking areas; see paragraph 7) and the slope shall not exceed 4:1. Grading or filling near Duke Energy facilities which will prevent free equipment access or create ground-to-conductor clearance violations will not be permitted. Storage or stockpiling of dirt or any other material is prohibited. Sedimentation control, including re-vegetation, is required per state regulations.
- Streets, roads, driveways, sewer/water lines, other utility lines or any underground facilities shall not parallel the centerline within the right of way but may cross, from one side to the other, at any angle not less than 30 degrees with the centerline. No portion of such facility or corresponding easement shall be located within 25 feet of Duke Energy's facilities. Roundabouts, cul-de-sacs and intersections (such as roads, driveways and alleyways) are not permitted.
- Any drainage feature that allows water to pond, causes erosion, directs stormwater toward the right of way or limits access to or around Duke Energy facilities is prohibited.
- Contact Duke Energy prior to the construction of lakes, ponds, retention or detention facilities, etc.
- Parking may be permitted within the right of way, provided that:
 - Prior to grading, concrete barriers shall be installed at a minimum of 9 feet from the Duke Energy facilities. During construction, grading shall be no closer than 10 feet to any Duke Energy facility.
 - After grading/paving activity is complete, a Duke Energy-approved barrier sufficient to withstand a 16mph vehicular impact shall be erected 9 feet from any Duke Energy facility.
 - Any access areas, entrances or exits shall cross (from one side to the other) the right of way at any angle not less than 30 degrees with the centerline and shall not pass within 25 feet of any structure. Parking lot entrances/exits cannot create an intersection within the right of way.
 - Lighting within the right-of-way limits must be approved by Duke Energy before installing. Due to engineering design standards, lighting is not allowed in the "Wire Zone." Where lighting is approved ("Border Zone"), the total height may not exceed 15 feet in Area A and 12 feet in Area B. See map on back of this page for areas. Contact your Asset Protection right-of-way specialist as the "Wire Zone" varies for the different voltage lines.
- Duke Energy will not object to certain vegetation plantings as long as:
 - They do not interfere with the access to or the safe, reliable operation and maintenance of Duke Energy facilities.
 - Duke Energy does not object to low-growing shrubs and grasses within the "Wire Zone." Tree species are not allowed within the "Wire Zone." Trees that are approved in the "Border Zone" may not exceed, at maturity, 15 feet in Area A and 12 feet in Area B. See map on back of page for areas. Contact the Asset Protection right-of-way specialist for "Wire Zone"/"Border Zone" definitions.
 - For compliant mature height species, refer to plants.ces.ncsu.edu/ for reference.
 - Engineering drawings must indicate the outermost conductor.
 - Vegetation that is not in compliance is subject to removal without notice.
 - Duke Energy may exercise the right to cut "danger trees" outside the right-of-way limits as required to properly maintain and operate the transmission line.

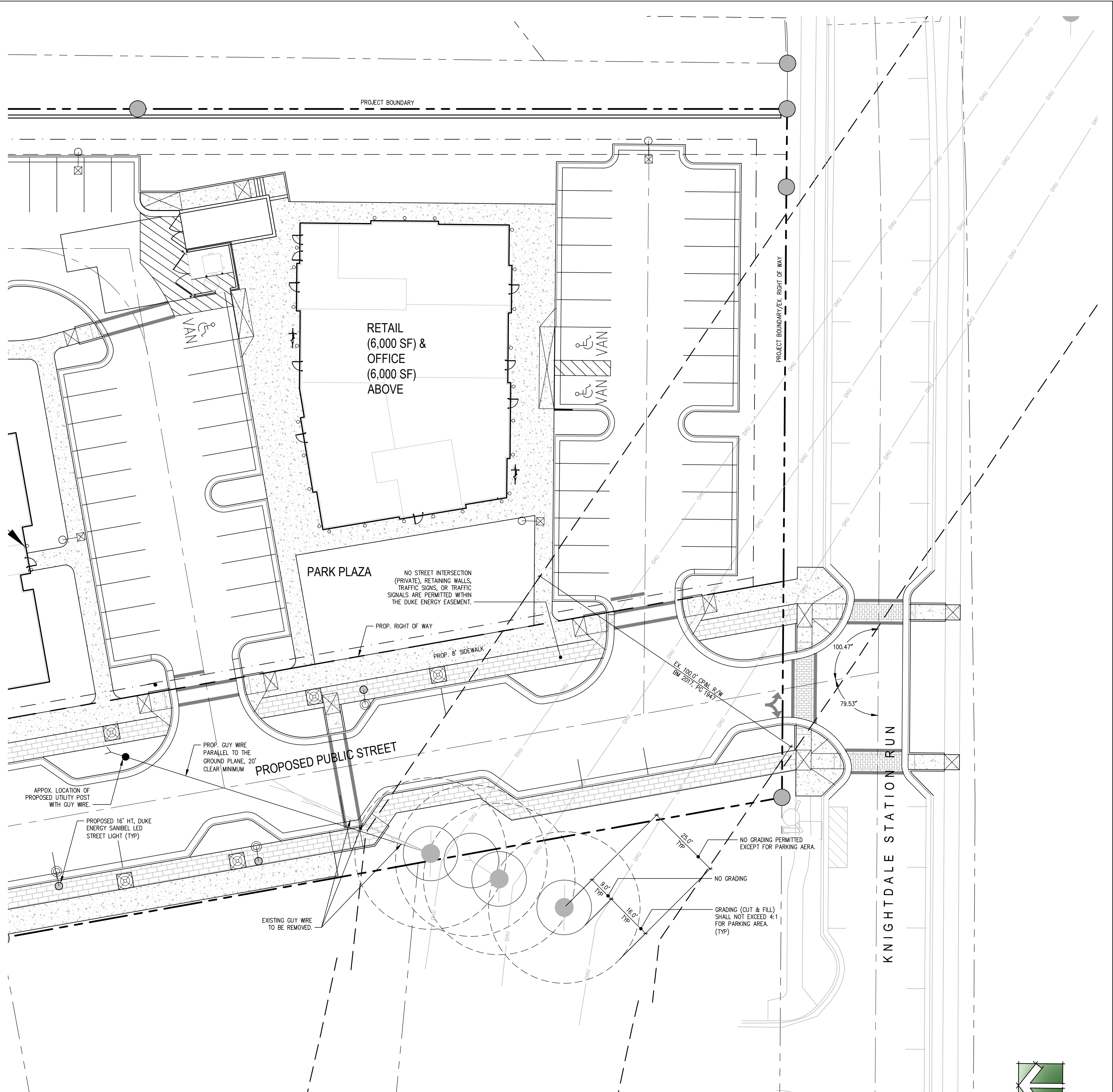
We hope this is useful information. If you have additional questions or plan any activity not mentioned above, please contact the Asset Protection right-of-way specialist for your area (see map).

Keywords: form, customer services, transmission, asset management, 02191
Applies to: Transmission - Carolinas (East and West)

FRM-TRM001047
Rev. 0 11/14
Page 1 of 1

AUTHORIZED COPY
Duke Energy Proprietary Business Information

SIDEWALK LOCATIONS AND DESIGN WITHIN AND AROUND DUKE ENERGY EASEMENT SHALL BE PROVIDED TO THE EXTENT PERMITTED AND APPROVED BY DUKE



811
Know what's below.
Call before you dig.

**EXHIBIT FOR
DUKE ENERGY RIGHT OF WAY
RESTRICTIONS**

20' 10' 0 20' 40'
SCALE: 1" = 20'

a. Town Certification. This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale.

By: _____ Date: _____
Town Engineer

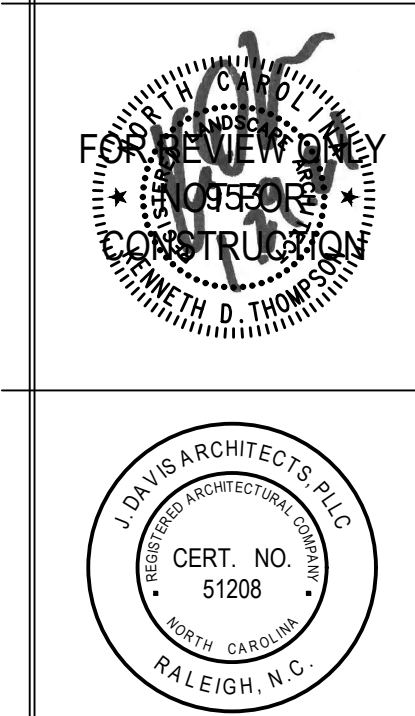
These plans are approved by the Town of Knightdale and serve as construction plans for this project.

By: _____ Date: _____
Administrator

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J.DAVIS
510 South Wilmington Street | Raleigh, NC 27601 | tel 919.835.1500
1218 Chestnut St., 7th Floor | Philadelphia, PA 19107 | tel 215.545.0121

Brown Investment Properties
The Lofts at Knightdale Station
7630 Knightdale Boulevard
Knightdale, North Carolina 27545



FOR SITE DEVELOPMENT APPROVAL

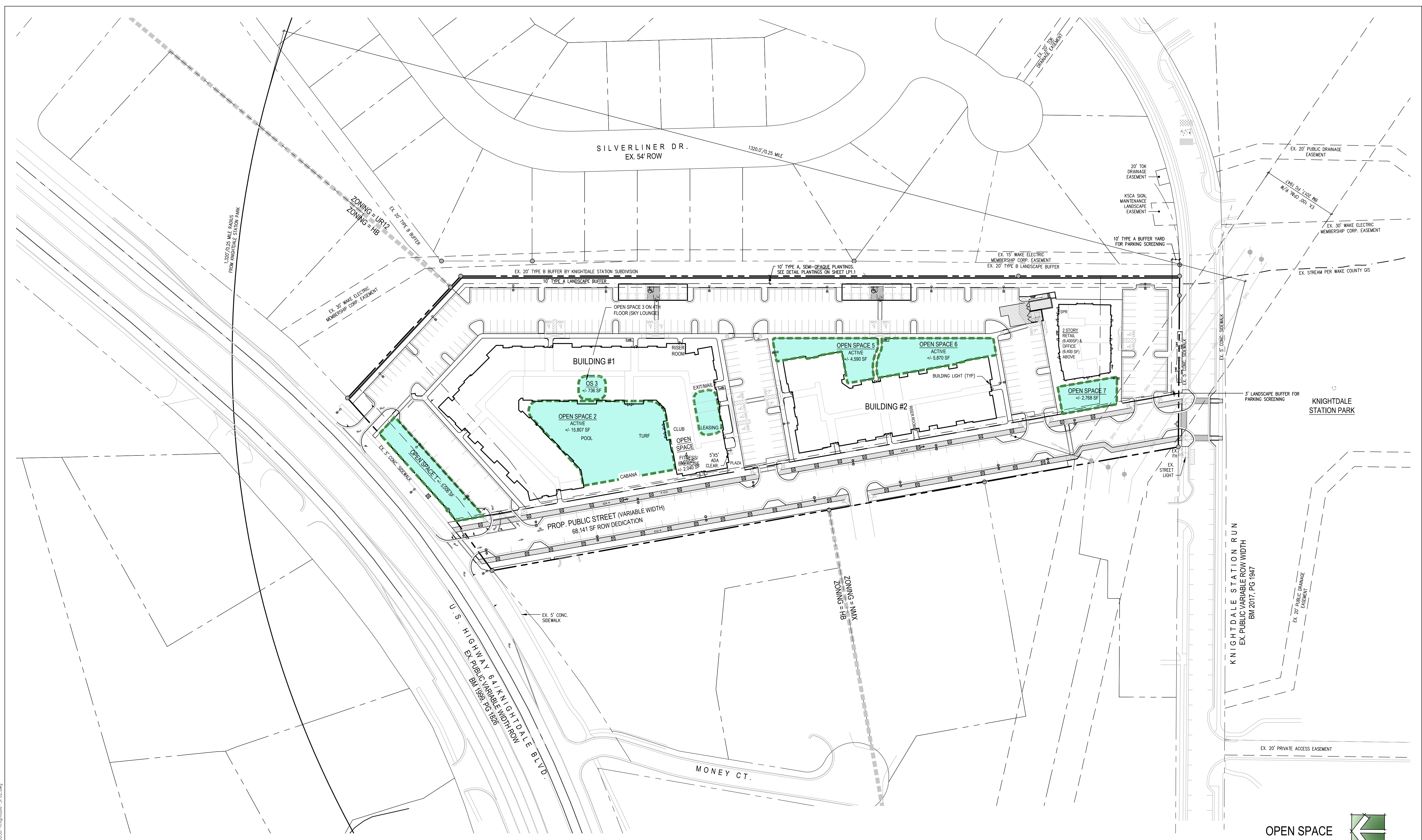
PROJECT:	BIP-20038	DATE:	
ISSUE:	Sketch Plan	12.04.2019	
	PUD - Master Plan	06.22.2020	
	Site Develop. Approval	01.29.2021	
REVISIONS:			
DRAWN BY:	SB		
CHECKED BY:	KT		
CONTENT:	EXHIBIT FOR DUKE ENERGY RIGHT OF WAY RESTRICTIONS		

LS1.2

Reference: ZMA-1-20

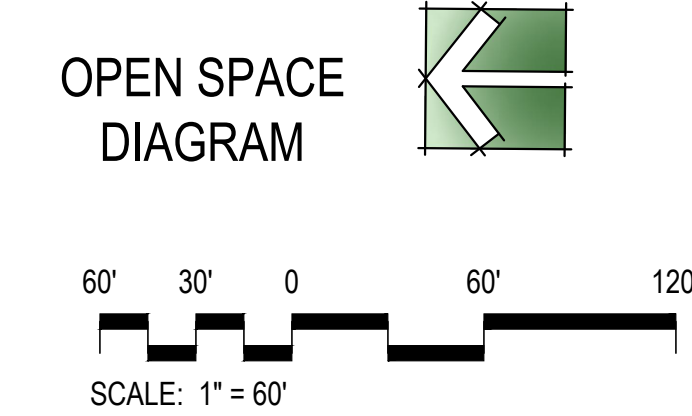
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1/29/2021 8:35 AM P:\2020\20038_Knightdale\20038-Knightdale-Site-Plan-4c_LAND\DWG\20038-Knightdale-Site-Plan-4c.dwg



SKY LOUNGE (OPEN SPACE 3):
 THE SKY LOUNGE WILL FACE WEST AND LOOK DOWN ONTO THE POOL AND POOL DECK. IT IS LOCATED ON THE FOURTH FLOOR AND NOT THE ROOF. THERE WILL BE NO VIEWS FROM THE SKY LOUNGE AREA TO THE RESIDENTIAL SINGLE-FAMILY SUBDIVISION TO THE EAST OF THE PROJECT.

Proposed storm drainage in LF		1,010 LF
Open Space Calculation		
Open Space Required (PUD)		34,444 SF
Total Open Space Required (SF)		34,444 SF
Total Open Space Required (AC)		0.79 AC
Min. Active Open Space Required (SF)	34,444 x 0.5 =	17,222 SF
Min. Active Open Space Required (AC)		0.40 AC
Open Space Provided		
Active Open Space		
OS 2 - Pool Courtyard		15,807 SF
OS 4 - Fitness Center		2,040 SF
OS 5 - Garden		4,590 SF
OS 6 - Dog Park		5,870 SF
Total Active Open Space Provided (SF)		28,307 SF
Total Active Open Space Provided (AC)		0.65 AC
Passive Open Space		
OS 1 - US 64 Frontage		5,006 SF
OS 3 - Sky Lounge		736 SF
OS 7 - Park Plaza		2,768 SF
Total Passive Open Space Provided (SF)		8,510 SF
Total Passive Open Space Provided (AC)		0.20 AC
Total Open Space Provided (SF)		36,817 SF



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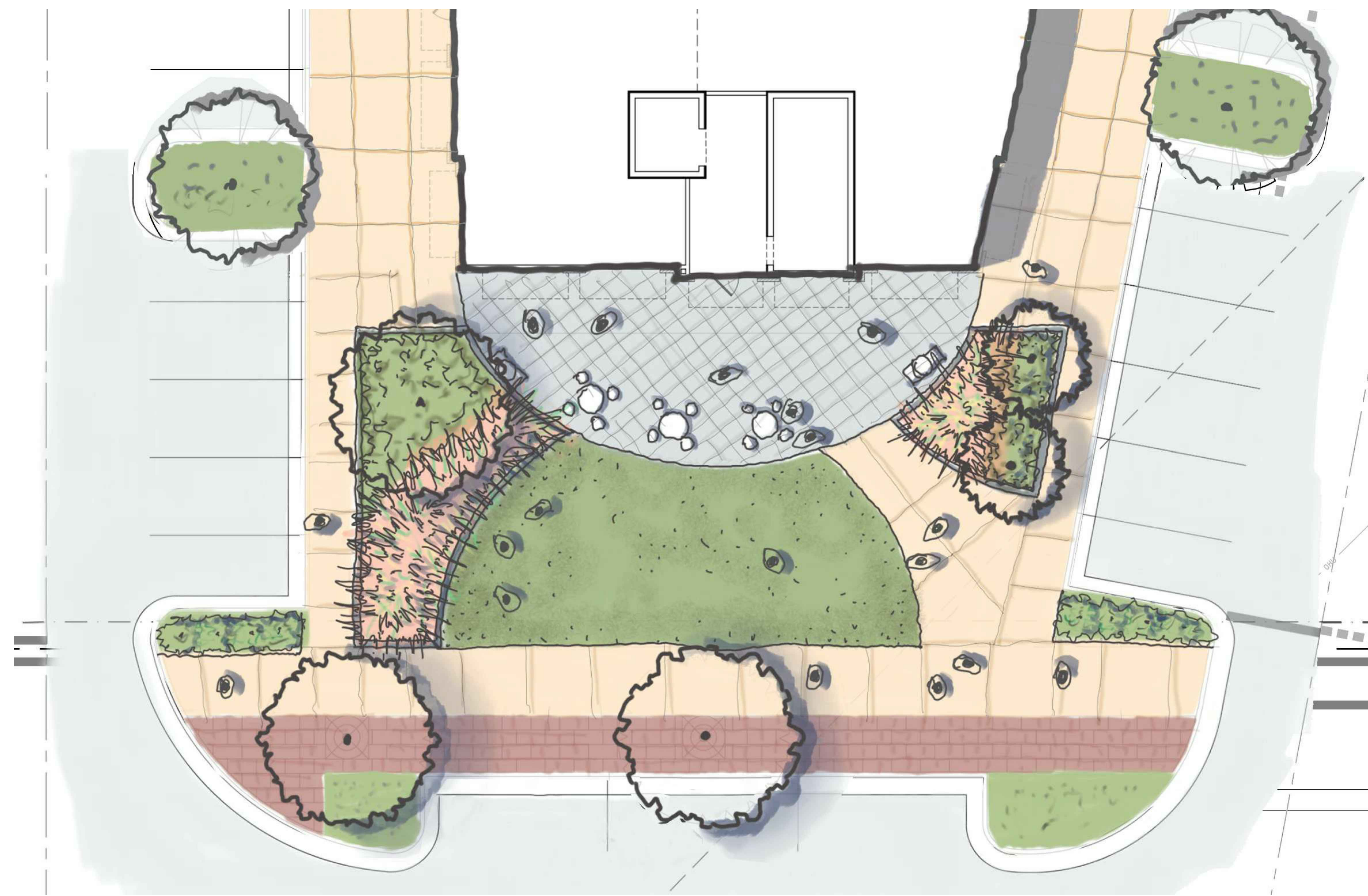
FOR SITE DEVELOPMENT APPROVAL

PROJECT:	BIP-20038	DATE:	
ISSUE:	Sketch Plan		12.04.2019
	PUD - Master Plan		06.22.2020
	Site Develop. Approval		01.29.2021
REVISIONS:			
DRAWN BY:	SB		
CHECKED BY:	KT		
CONTENT:	OPEN SPACE DIAGRAM		

LS2.1



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PARK PLAZA EXHIBIT AT OFFICE/RETAIL BUILDING
SCALE: NTS

3

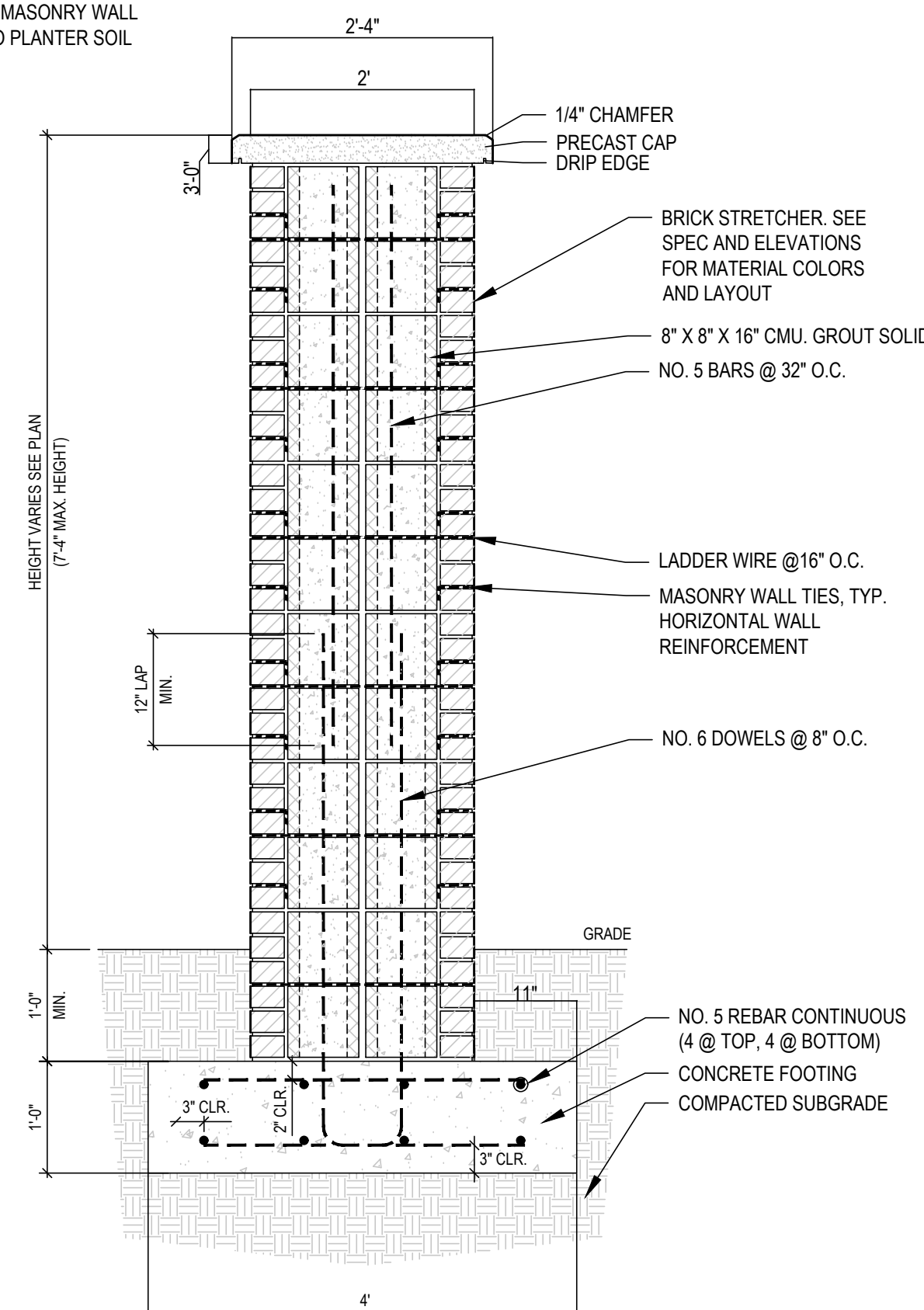


US HWY 64/KNIGHTDALE BOULEVARD FRONTAGE EXHIBIT
SCALE: NTS

2

NOTES:

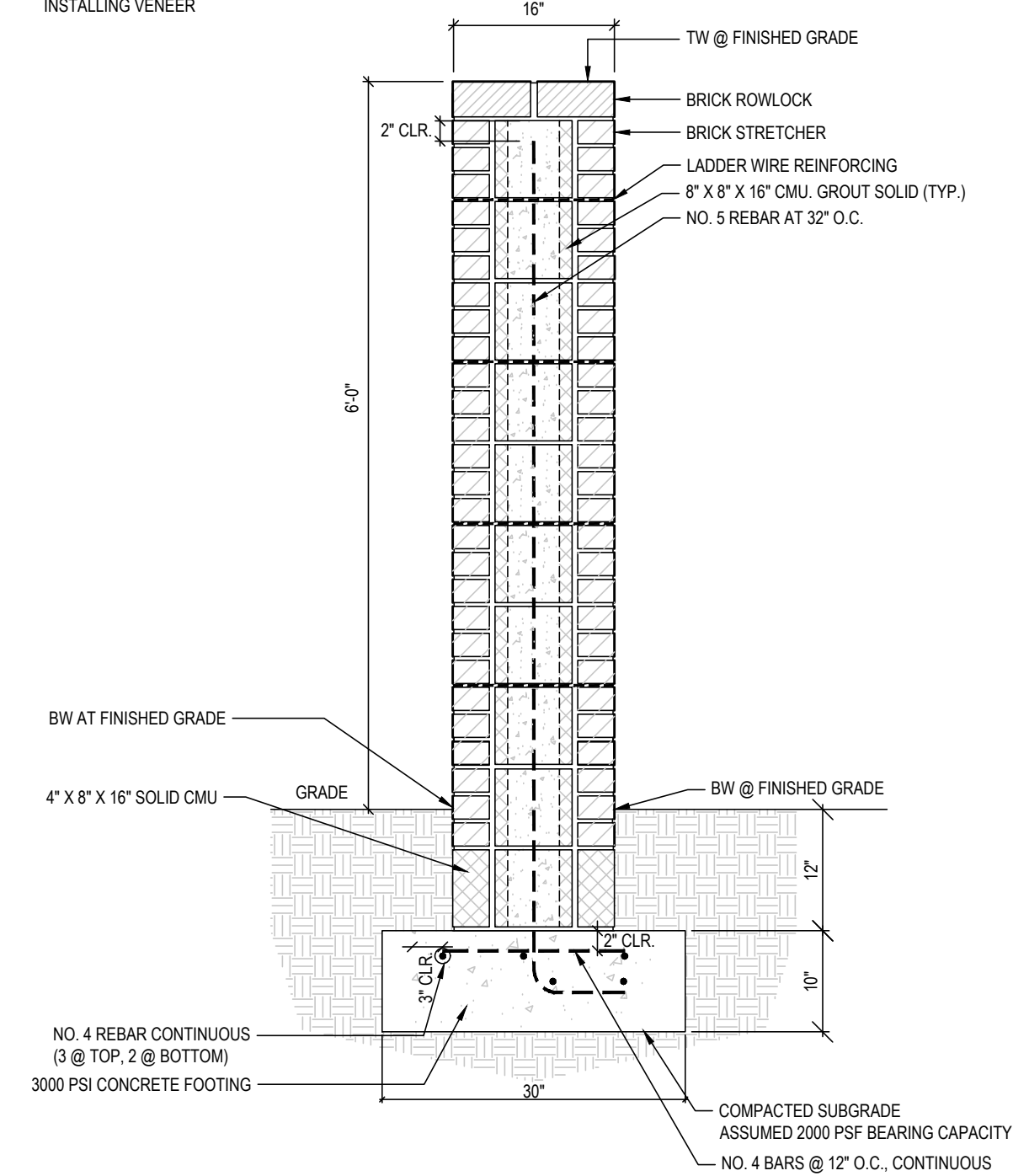
1. DAMP PROOFING TO BE APPLIED TO ALL EXPOSED SIDES & TOP OF CMU BEFORE INSTALLING VENEER. ADDITIONAL DAMP PROOFING TO BE APPLIED TO TOP OF BRICK WALL PRIOR TO INSTALLING BRICK CAP.
2. WATER PROOFING TO BE APPLIED TO SURFACE OF MASONRY WALL ADJACENT TO PLANTER SOIL.



BRICK COLUMN SECTION

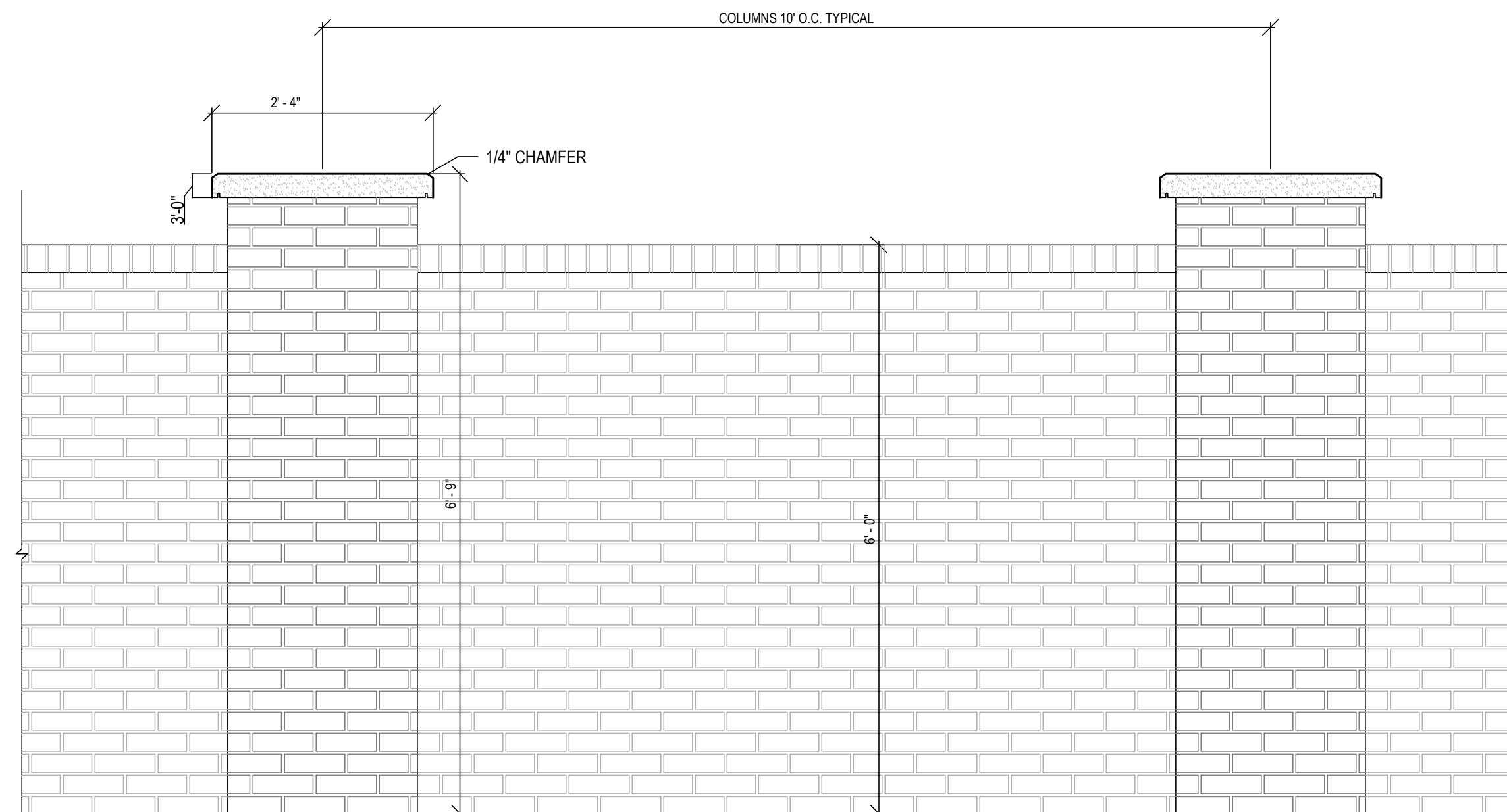
NOTES:

1. DAMP PROOFING TO BE APPLIED TO ALL EXPOSED SIDES & TOP OF CMU BEFORE INSTALLING VENEER.



BRICK WALL SECTION

* THE WALL DETAILS & EXHIBIT ARE SCHEMATIC ONLY.



WALL ELEVATION

WALL DETAILS
SCALE: 3/4"=1'-0"

1

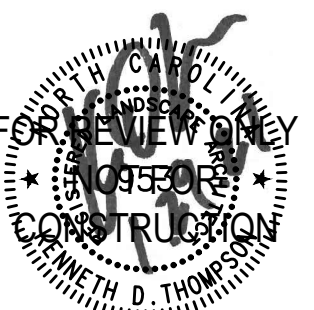
a. Town Certification. This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale.

By: _____ Date: _____
Town Engineer

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By: _____ Date: _____
Administrator

FOR SITE DEVELOPMENT APPROVAL



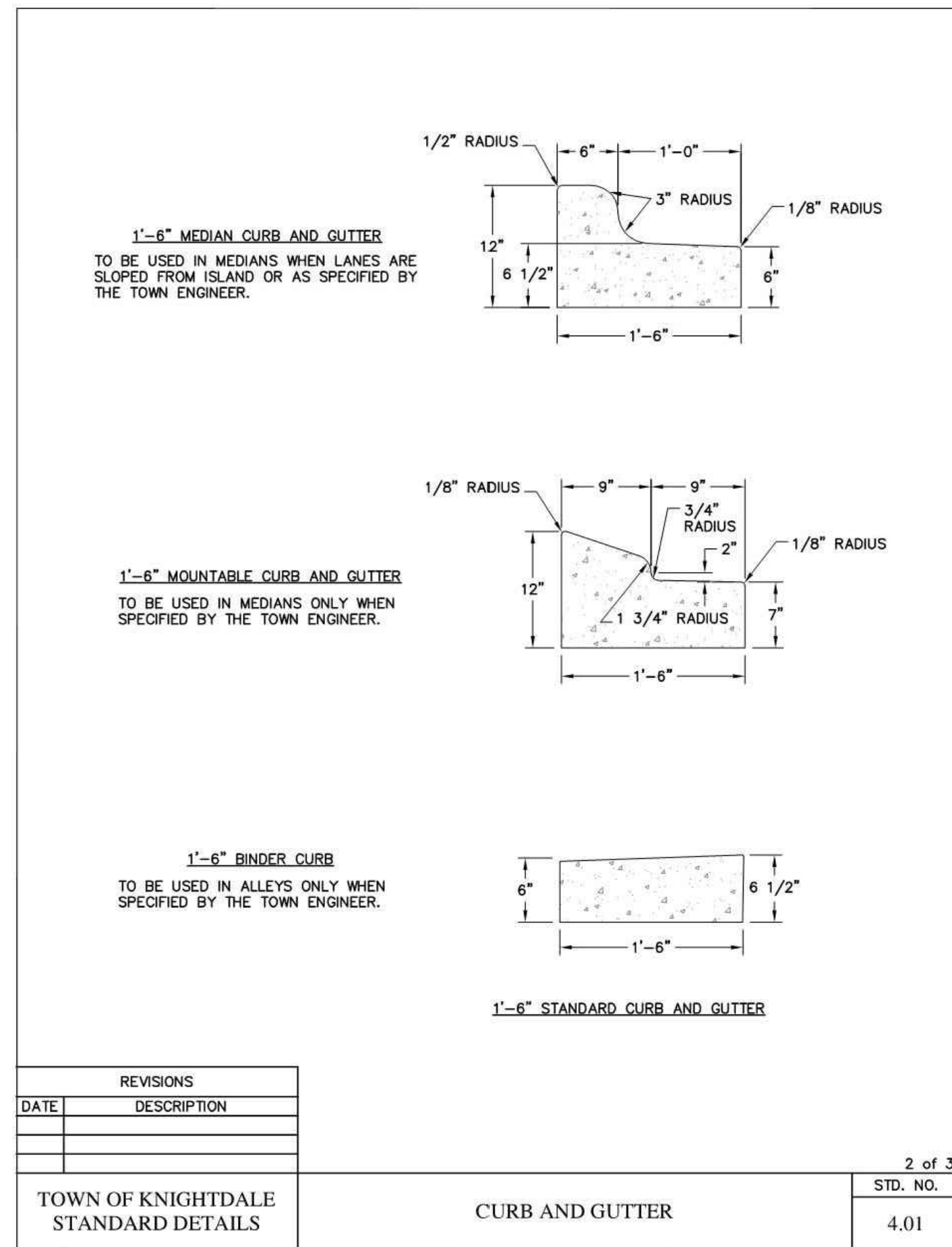
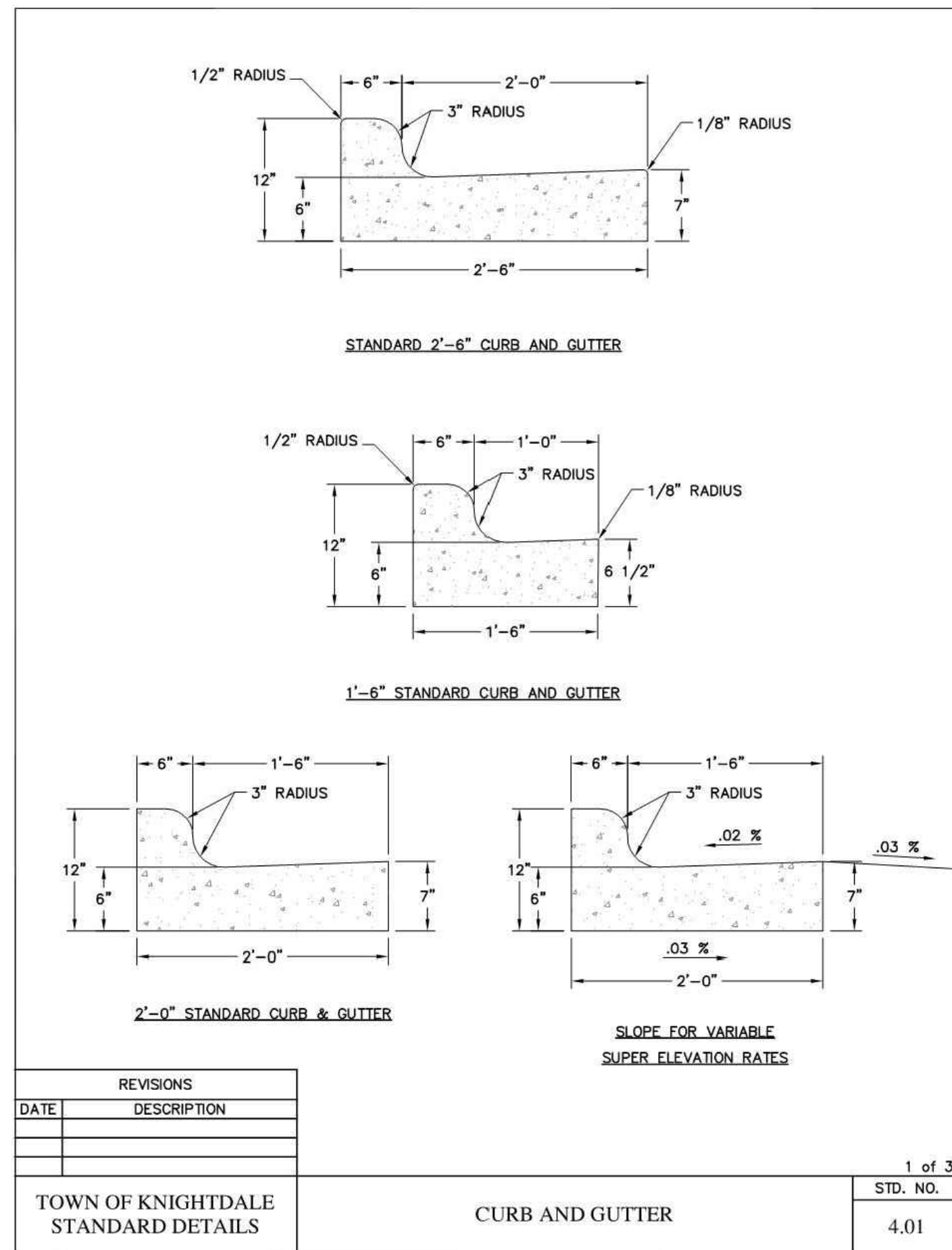
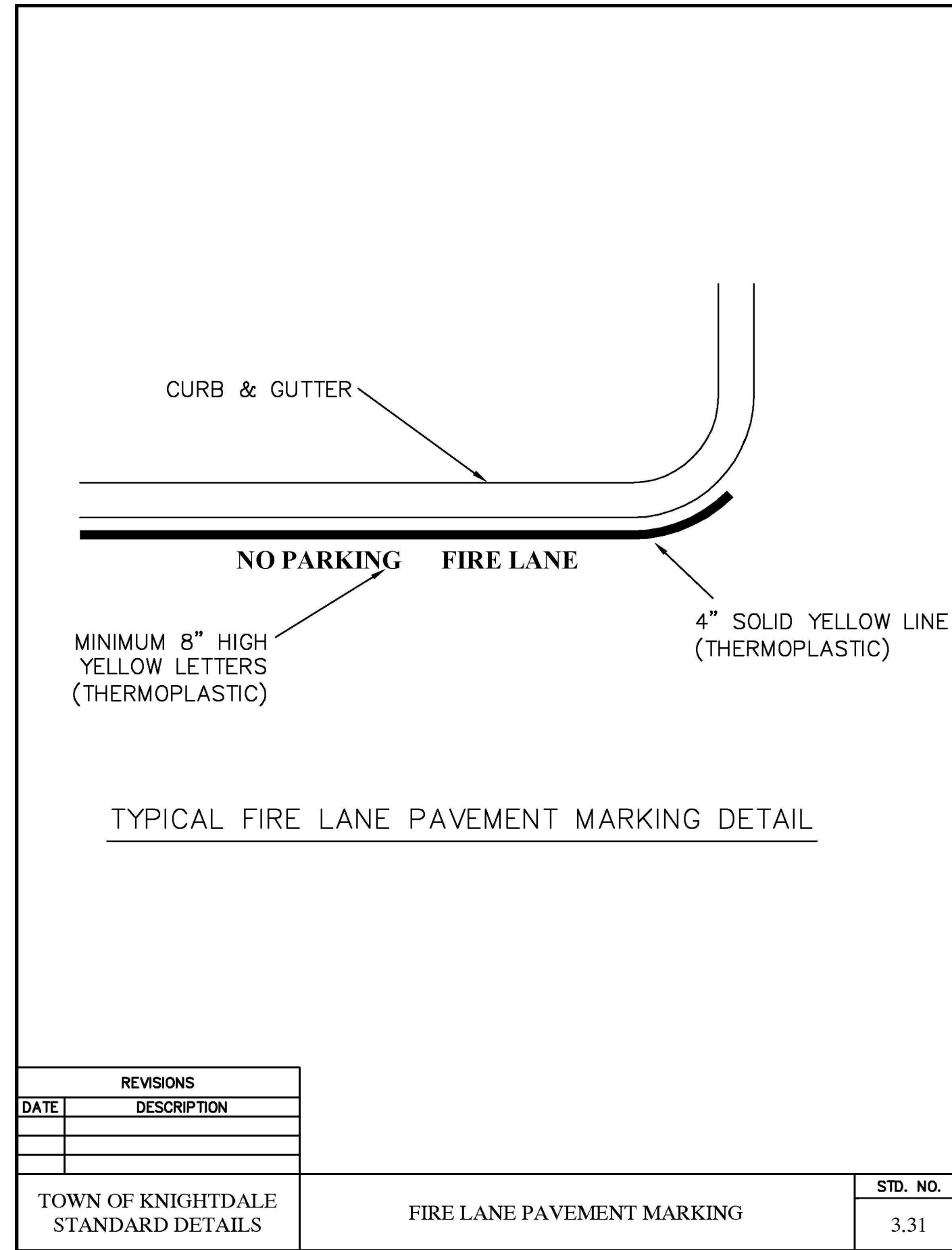
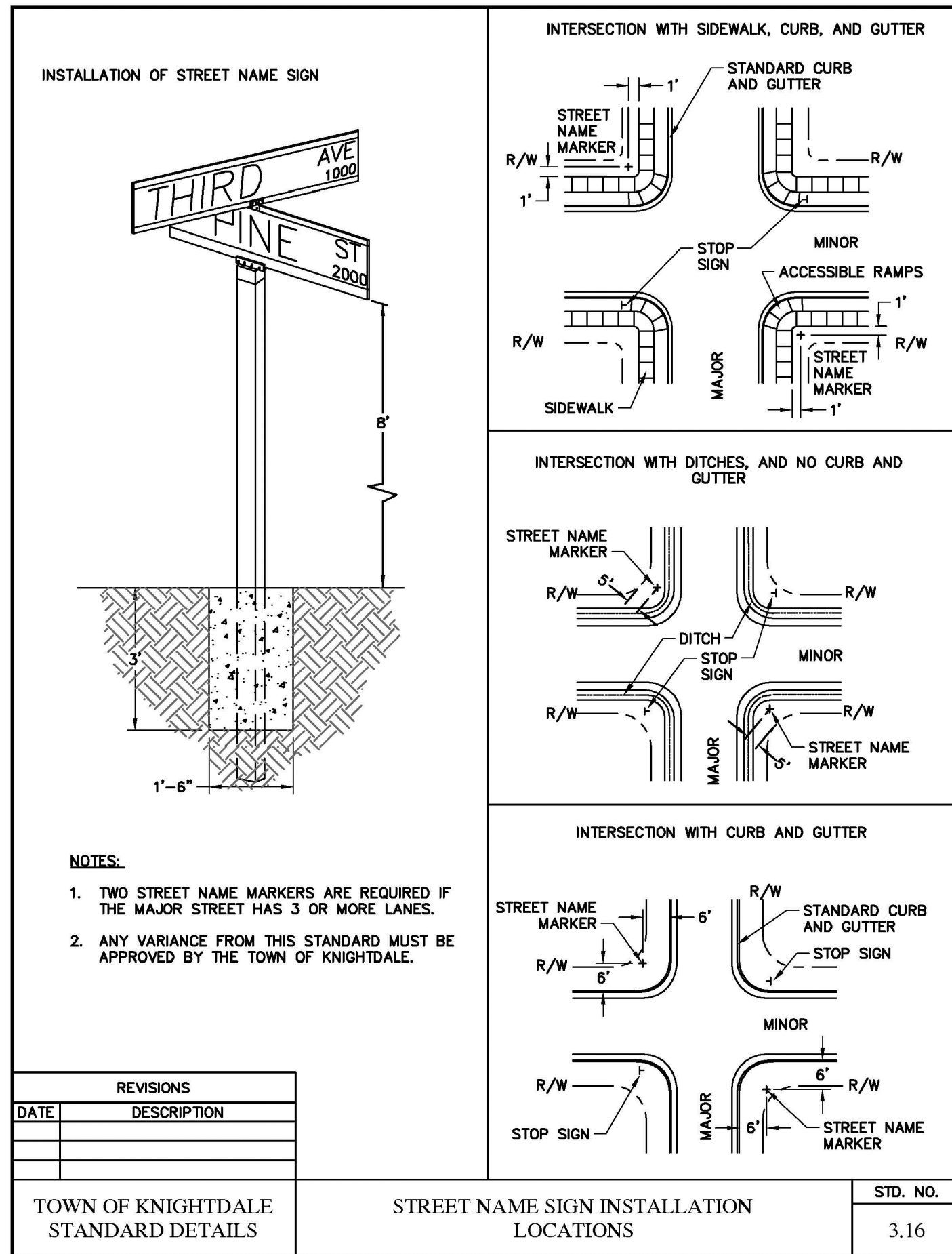
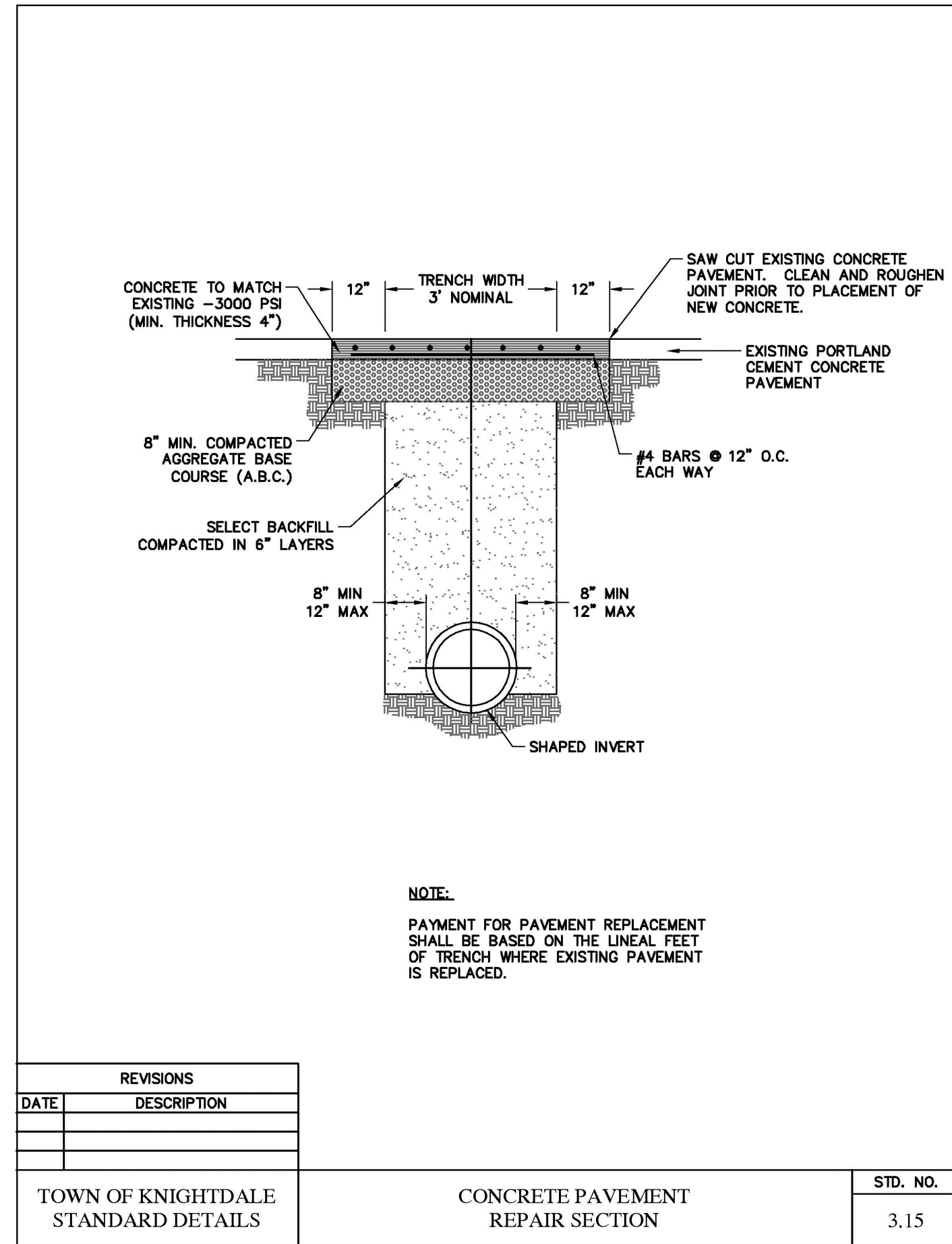
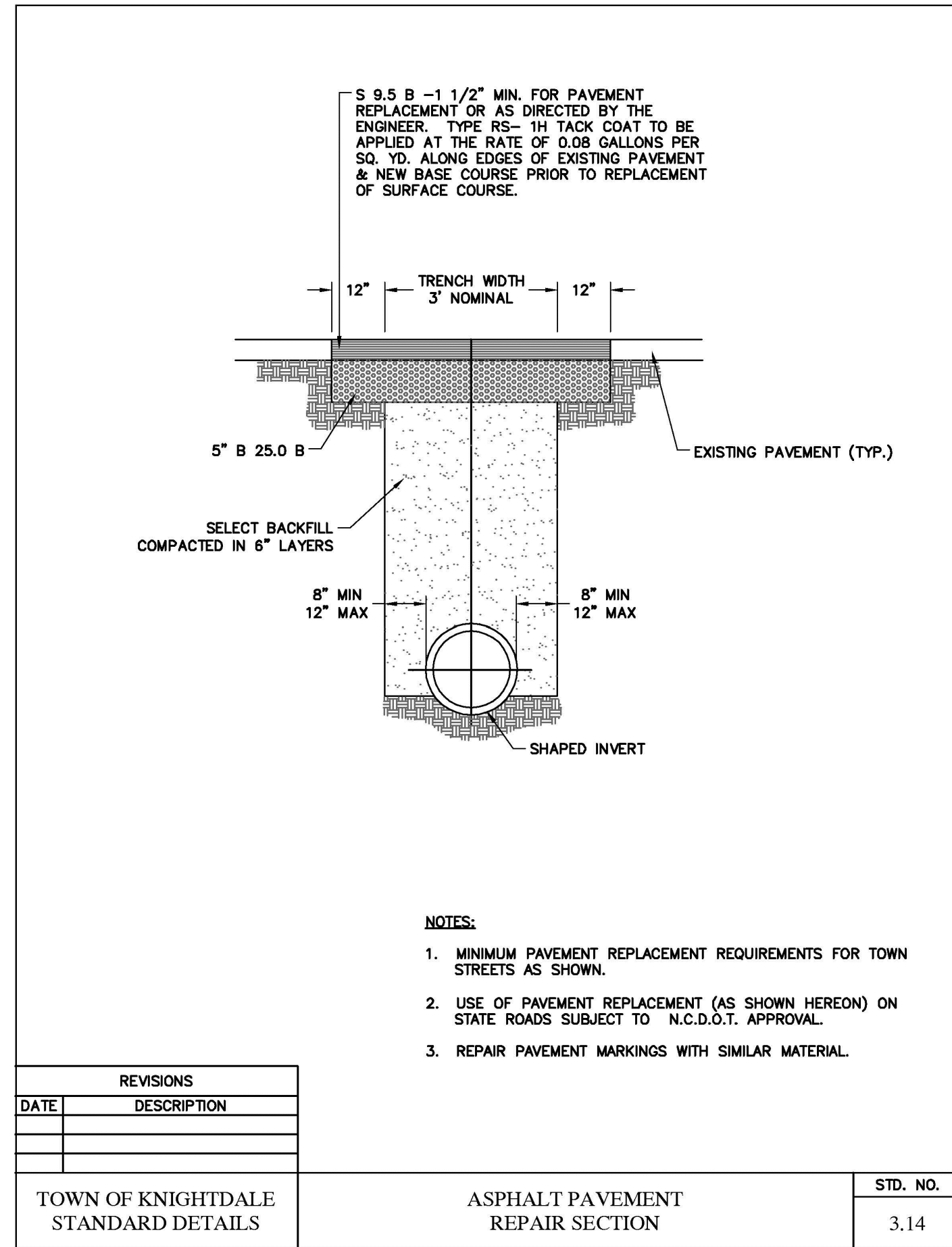
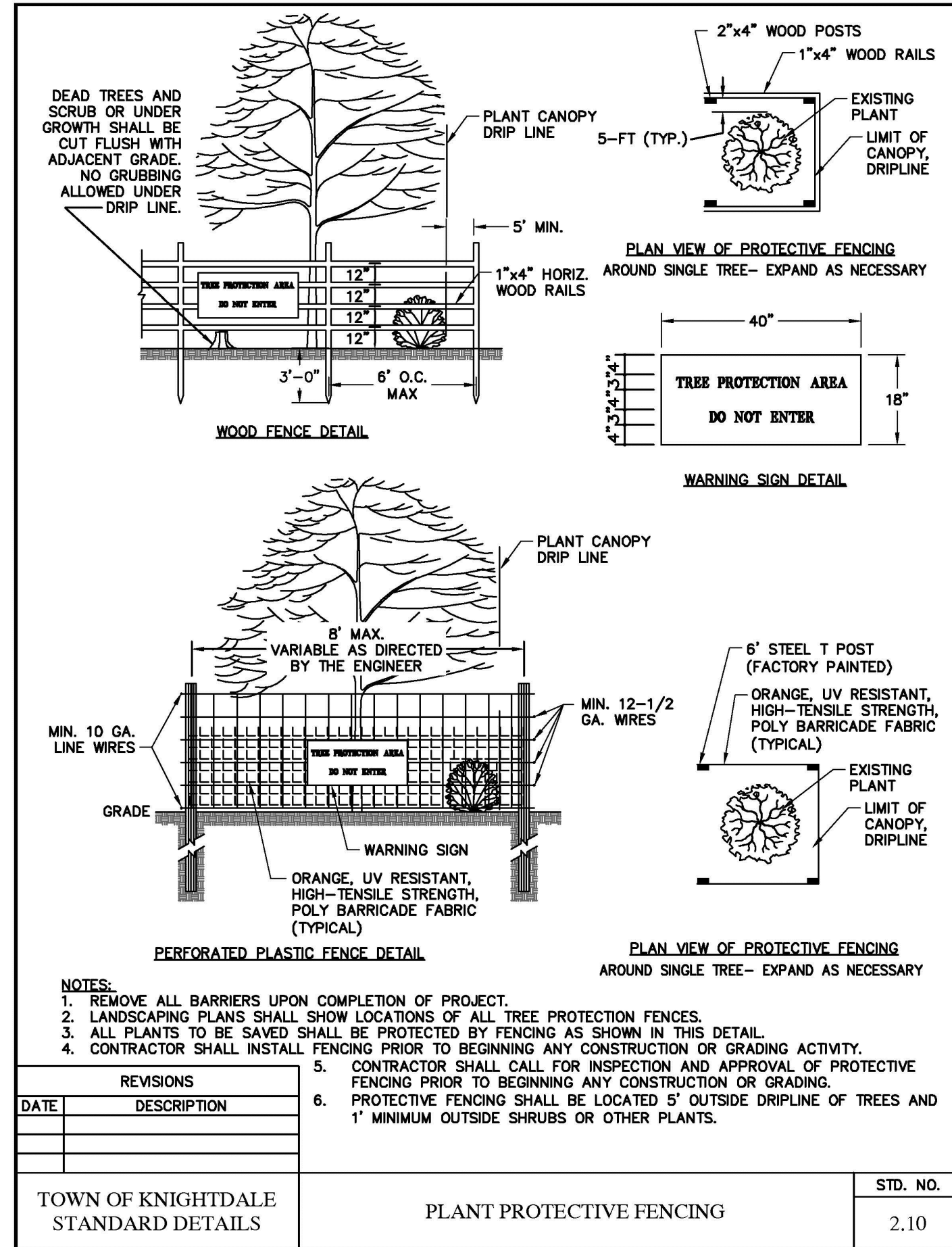
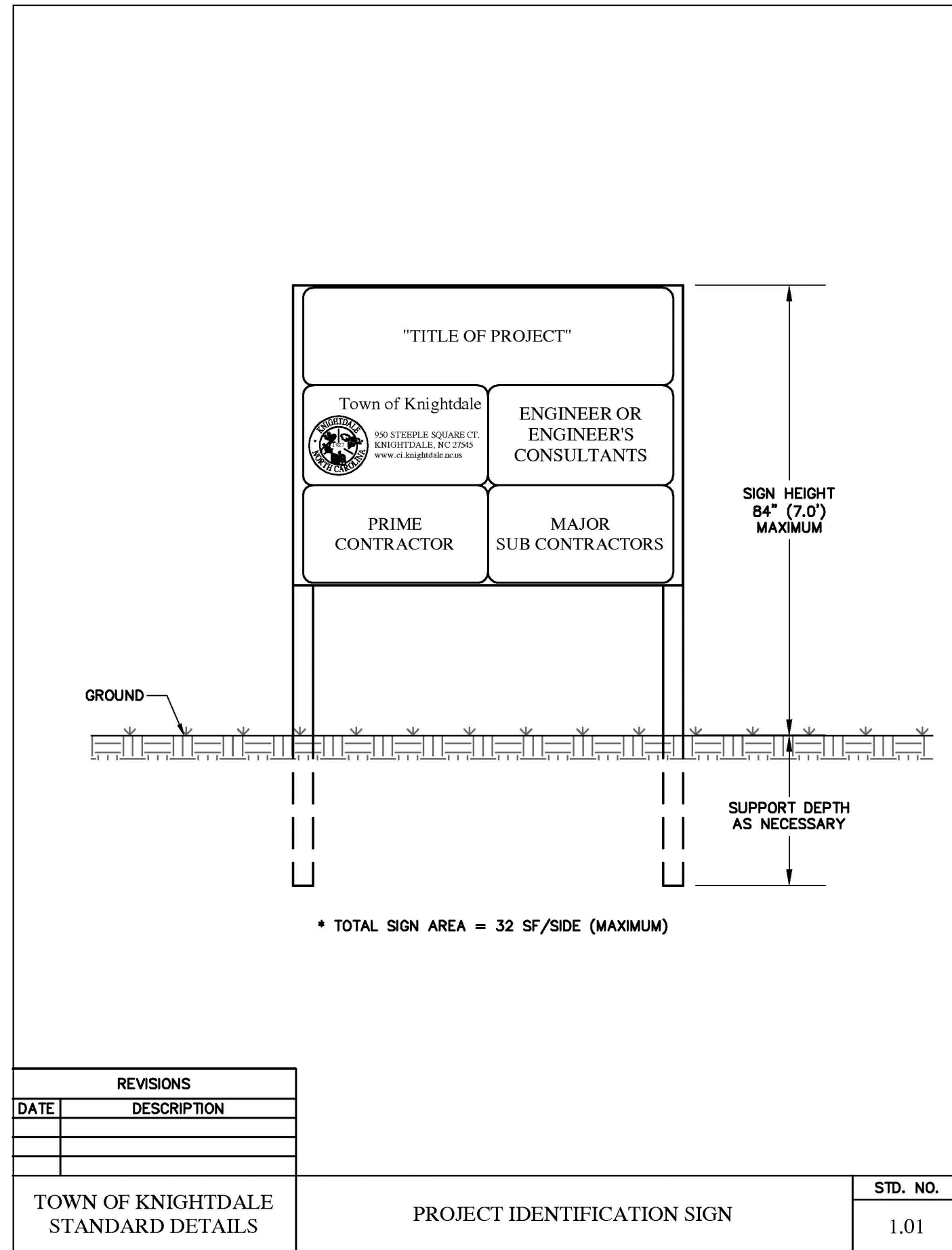
PROJECT:	BIP-20038	DATE:
ISSUE:	Sketch Plan	12.04.2019
	PUD - Master Plan	06.22.2020
	Site Develop. Approval	01.29.2021
REVISIONS:		
DRAWN BY:	YM, MA, SB	
CHECKED BY:	KT	
CONTENT:	WALL DETAILS, US HWY 64/KNIGHTDALE BLVD. FRONTAGE EXHIBIT & PARK PLAZA EXHIBIT	

LS3.1

Brown Investment Properties
The Lofts at Knightdale Station
7630 Knightdale Boulevard
Knightdale, North Carolina 27545

JDAVIS
510 South Wilmington Street | Raleigh, NC 27601 | tel 919.835.1500
1218 Chestnut Street, 7th Floor | Philadelphia, PA 19107 | tel 215.545.0121

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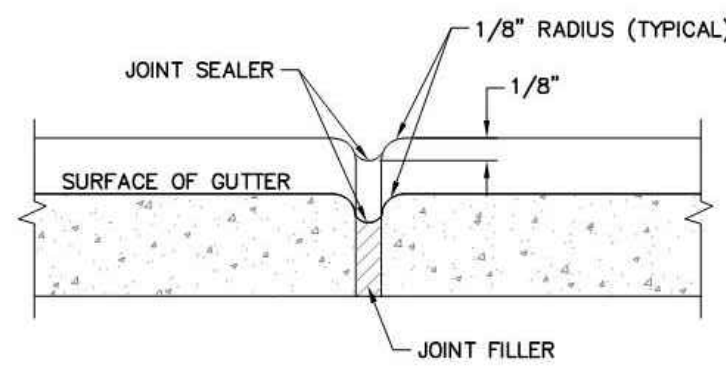
REVISIONS:

DRAWN BY: JD, SB

CHECKED BY: KT

CONTENT: SITE DETAILS

LS3.2

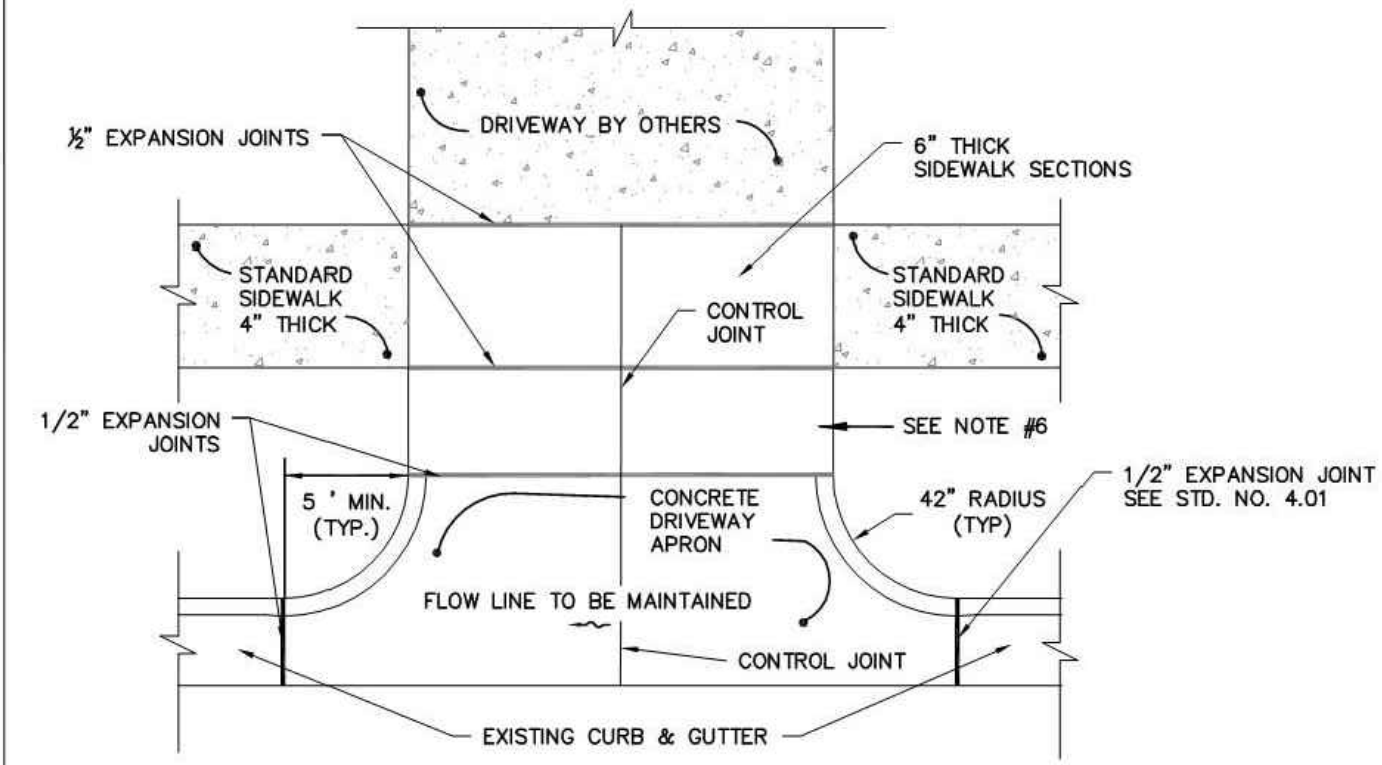


TRANSVERSE EXPANSION JOINT

NOTES:

- CONTRACTION JOINTS SHALL BE SPACED AT 10-FOOT INTERVALS. JOINT SPACING MAY BE ALTERED BY THE ENGINEER TO PREVENT UNCONTROLLED CRACKING.
- CONTRACTION JOINTS MAY BE INSTALLED BY THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS. WHERE SUCH JOINTS ARE NOT FORMED BY TEMPLATES, A MINIMUM DEPTH OF 1-1/2\"/>

REVISIONS		STD. NO.
DATE	DESCRIPTION	
3 of 3		
TOWN OF KNIGHTDALE STANDARD DETAILS	CURB AND GUTTER	4.01



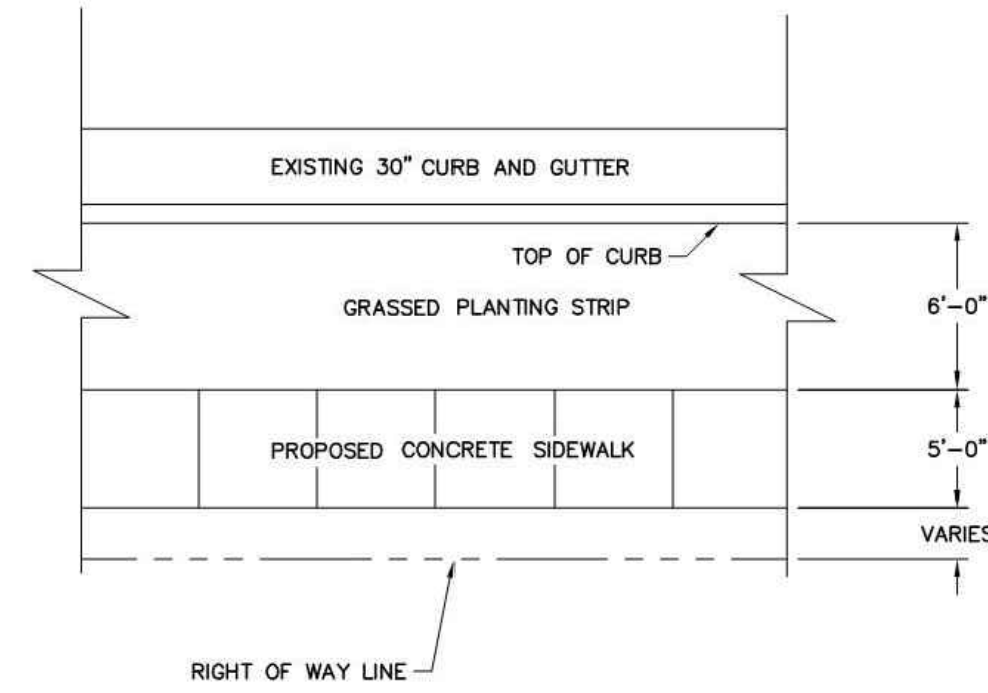
PLAN VIEW

TYPICAL SECTION

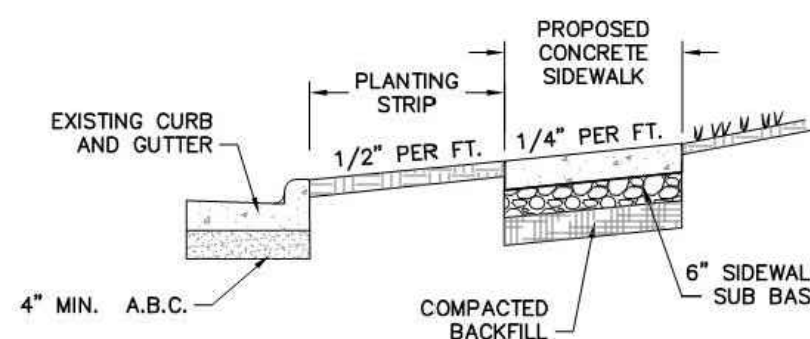
NOTES:

- RESIDENTIAL DRIVEWAYS TO BE 12' TO 18'.
- COMMERCIAL DRIVEWAYS TO BE A MAXIMUM OF 36' WDE.
- CONCRETE SHALL BE 3000 P.S.I.
- CONTROL JOINTS NOT TO EXCEED 10' ON CENTER.
- CURB RADIUS SHALL NOT RISE MORE THAN 1 (ONE) INCH.
- IF THE DRIVEWAY SECTION BETWEEN THE SIDEWALK AND THE DRIVEWAY APRON IS 18\"/>

REVISIONS		STD. NO.
DATE	DESCRIPTION	
TOWN OF KNIGHTDALE STANDARD DETAILS	STANDARD DRIVEWAY APRON	4.03



PLAN VIEW

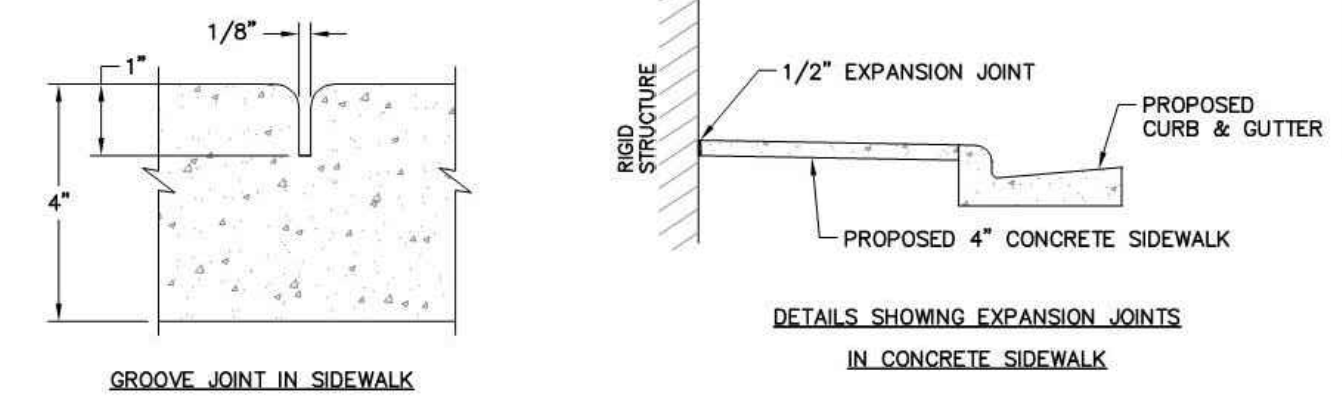


TYPICAL SECTION

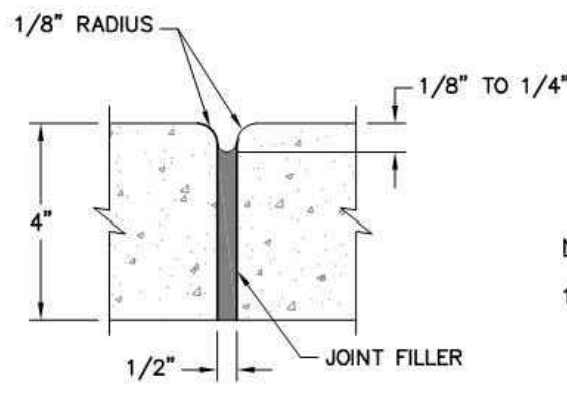
NOTES:

- TRANSVERSE EXPANSION JOINTS TO BE A MAXIMUM OF 50 FEET APART.
- CONTROL JOINTS TO BE AT 5 FEET O.C.
- ALL CONCRETE TO BE FINISHED WITH CURING COMPOUND.
- SIDEWALK SUB BASE TO BE A MIXTURE OF 70 PERCENT #57 STONE AND ASTM C33 SAND OR EQUAL.

REVISIONS		STD. NO.
DATE	DESCRIPTION	
TOWN OF KNIGHTDALE STANDARD DETAILS	CONCRETE SIDEWALKS	4.04



GROOVE JOINT IN SIDEWALK

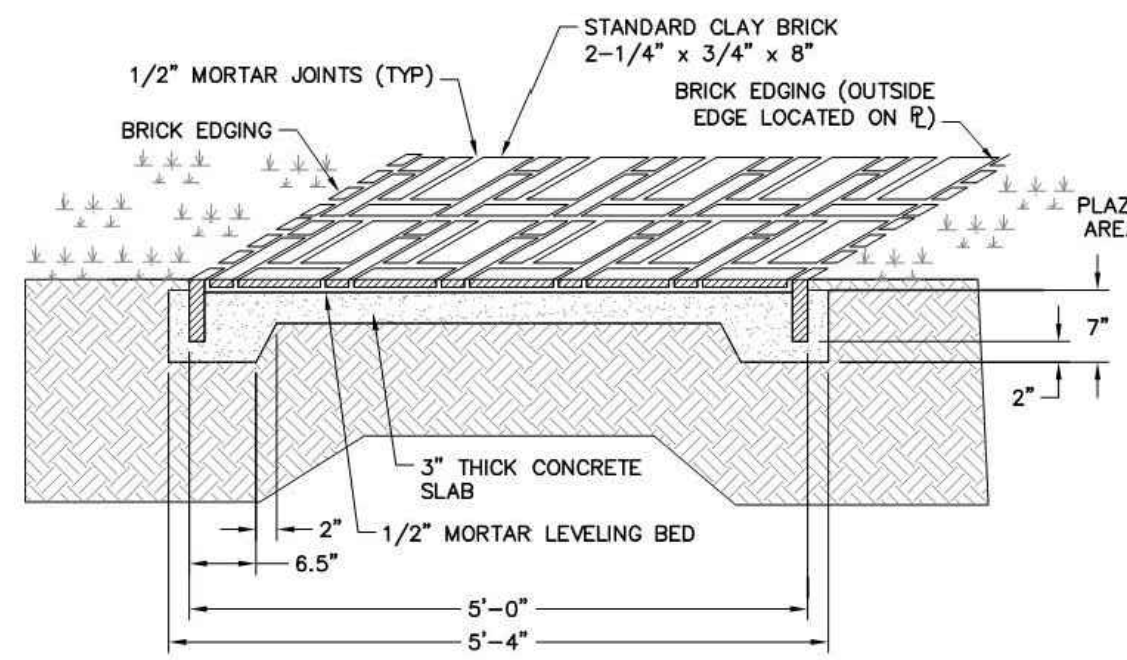


TRANSVERSE EXPANSION JOINT IN SIDEWALK

NOTES:

- A GROOVE JOINT 1\"/>

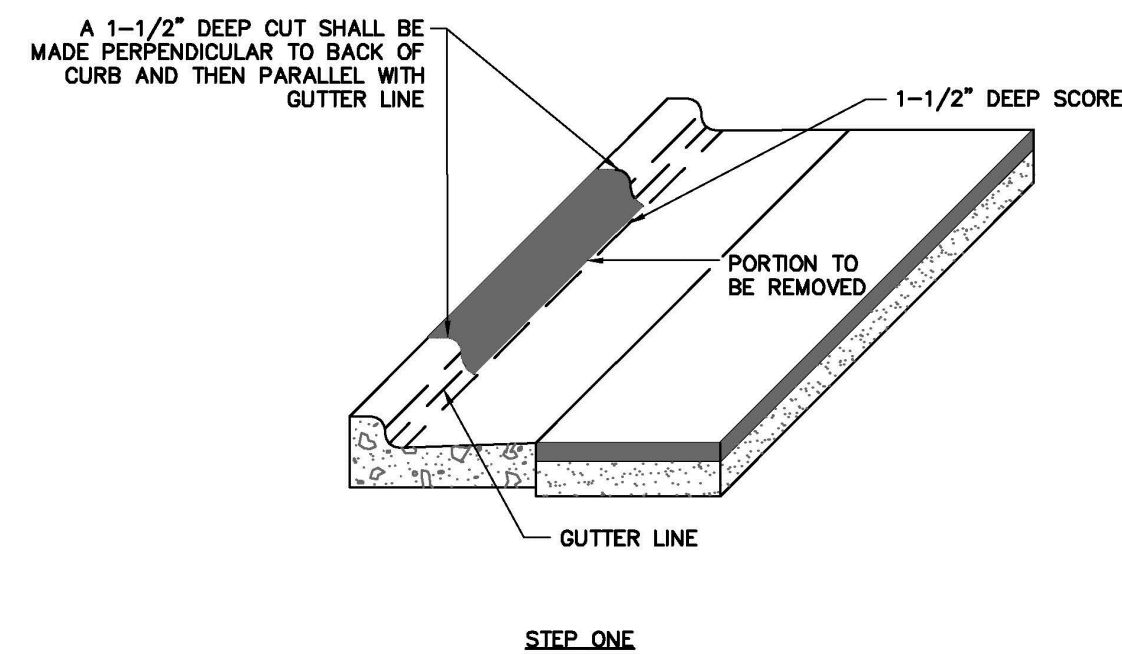
REVISIONS		STD. NO.
DATE	DESCRIPTION	
TOWN OF KNIGHTDALE STANDARD DETAILS	CONCRETE SIDEWALKS	4.04



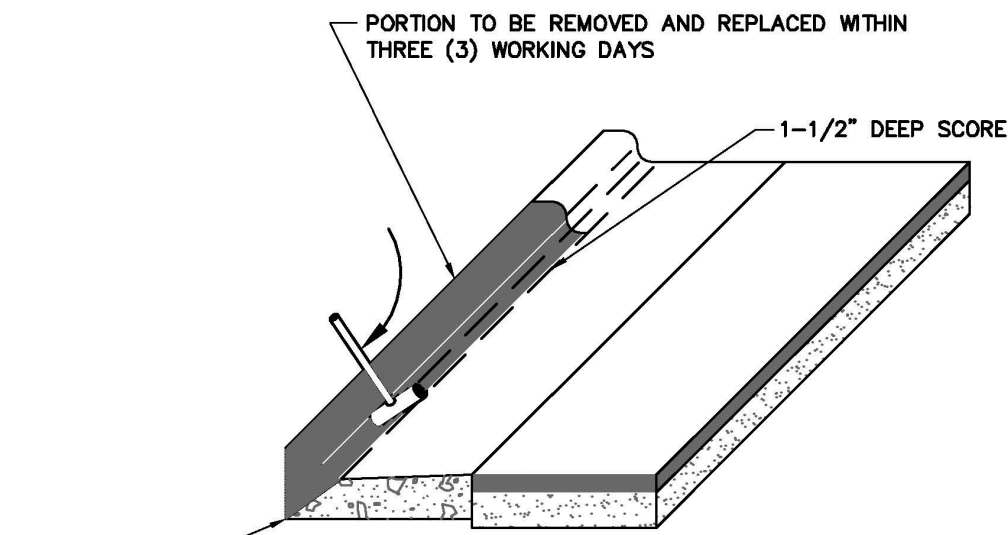
NOTE:

- STAMPED CONCRETE TO BE USED IN LIEU OF BRICK PAVERS.
- REFER TO TYPICAL SIDEWALK CONCRETE DETAIL FOR CONCRETE INSTALLATION.
- STAMPED CONCRETE PATTERN AND COLOR SHALL BE APPROVED BY THE TOWN OF KNIGHTDALE PRIOR TO THE INSTALLATION.
- CONTRACTOR TO REFERENCE MANUFACTURER'S GUIDELINES FOR ANY SPECIFIC MATERIAL REQUIREMENTS AND/OR INSTALLATION METHODS.

REVISIONS		STD. NO.
DATE	DESCRIPTION	
TOWN OF KNIGHTDALE STANDARD DETAILS	GUIDELINES FOR BRICK SIDEWALK	4.05



STEP ONE

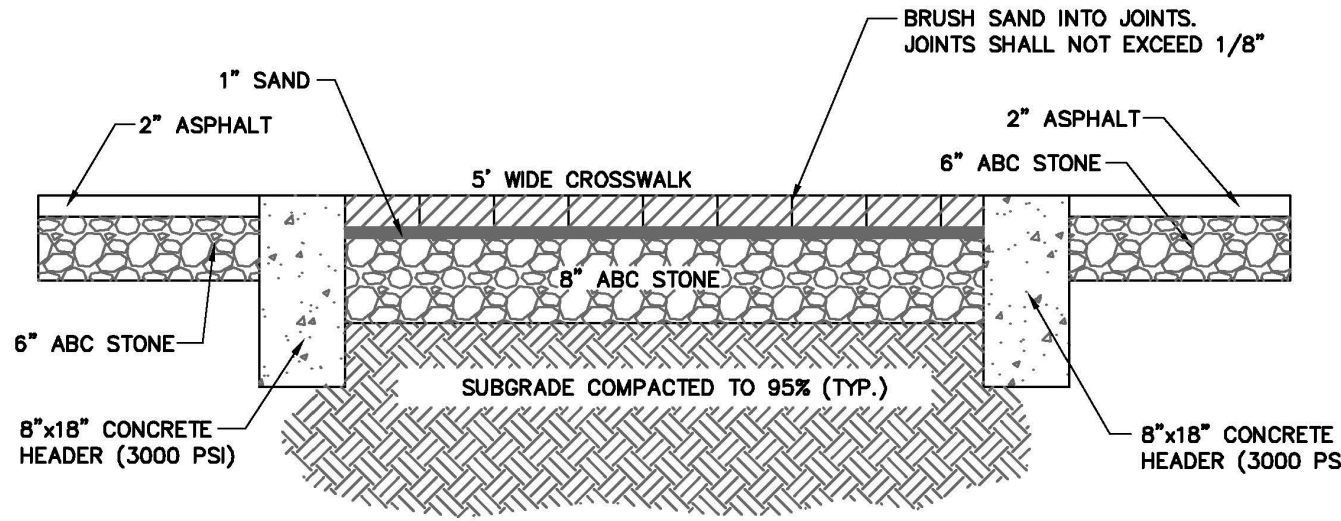


STEP TWO

NOTES:

- CURB AND GUTTER SECTION SHALL BE REMOVED IN ACCORDANCE WITH DRIVEWAY WIDTH APPROVED BY THE TOWN.
- IF PERPENDICULAR CUT IS WITHIN 12\"/>

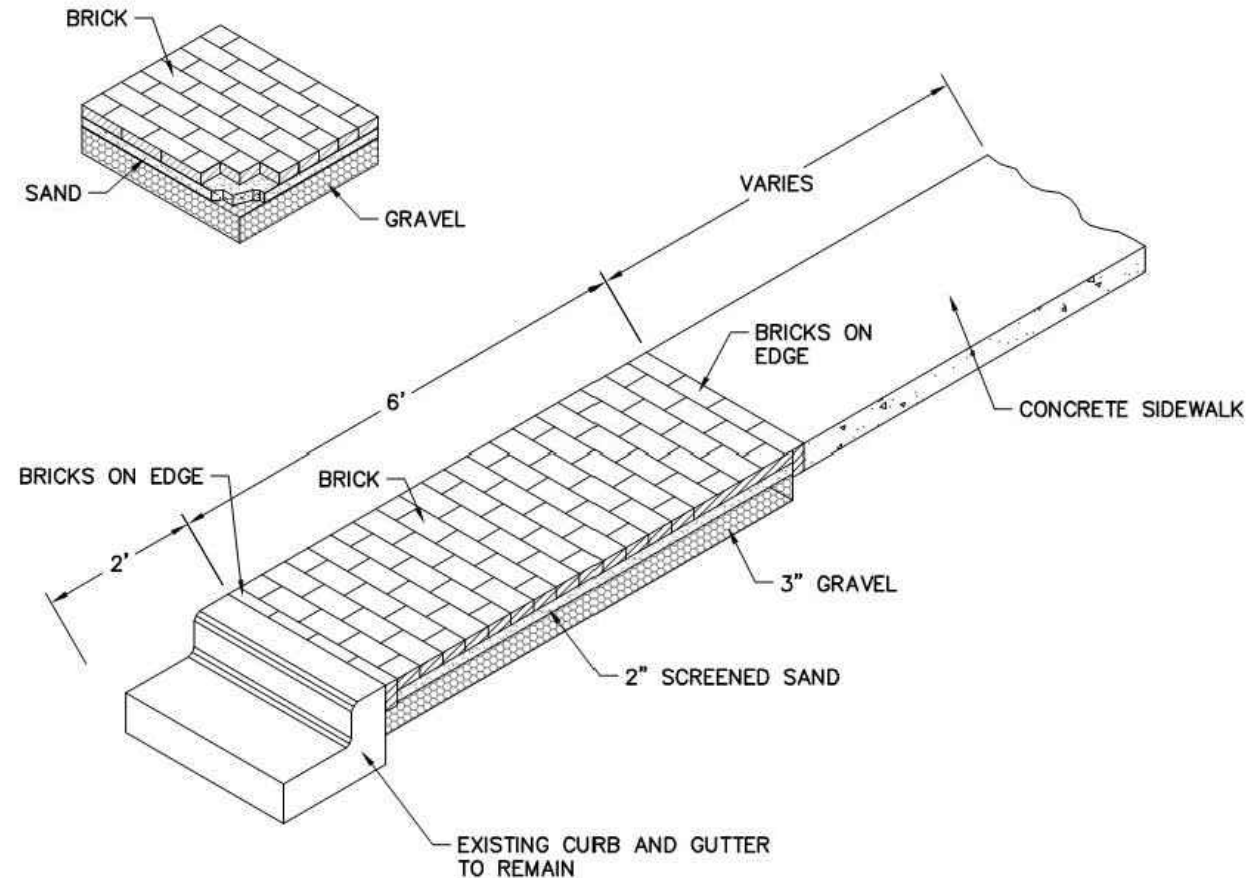
REVISIONS		STD. NO.
DATE	DESCRIPTION	
TOWN OF KNIGHTDALE STANDARD DETAILS	STANDARD METHOD OF REMOVING EXISTING CURB (FOR A DRIVEWAY APRON INSTALLATION)	4.07



NOTE:

- STAMPED CONCRETE TO BE USED IN LIEU OF BRICK PAVERS.
- REFER TO VEHICULAR RATED CONCRETE DETAIL FOR CONCRETE INSTALLATION.
- STAMPED CONCRETE PATTERN AND COLOR SHALL BE APPROVED BY THE TOWN OF KNIGHTDALE PRIOR TO THE INSTALLATION.
- CONTRACTOR TO REFERENCE MANUFACTURER'S GUIDELINES FOR ANY SPECIFIC MATERIAL REQUIREMENTS AND/OR INSTALLATION METHODS.

REVISIONS		STD. NO.
DATE	DESCRIPTION	
TOWN OF KNIGHTDALE STANDARD DETAILS	BRICK CROSSWALK	4.10



NOTE:

- TO BE USED ONLY IN COMMERCIAL/MIXED USE AREAS WHERE SIDEWALKS AND TREE PLANTINGS GET COMBINED.
- STAMPED CONCRETE TO BE USED IN LIEU OF BRICK PAVERS.
- REFER TO VEHICULAR RATED CONCRETE DETAIL FOR CONCRETE INSTALLATION.
- STAMPED CONCRETE PATTERN AND COLOR SHALL BE APPROVED BY THE TOWN OF KNIGHTDALE PRIOR TO THE INSTALLATION.
- CONTRACTOR TO REFERENCE MANUFACTURER'S GUIDELINES FOR ANY SPECIFIC MATERIAL REQUIREMENTS AND/OR INSTALLATION METHODS.

REVISIONS		STD. NO.
DATE	DESCRIPTION	
TOWN OF KNIGHTDALE STANDARD DETAILS	TYPICAL SIDEWALK CROSS SECTION MIXED USE AREAS	4.12

a. Town Certification. This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale.

By: _____ Date: _____
Town Engineer

These plans are approved by the Town of Knightdale and serve as construction plans for this project.

By: _____ Date: _____
Administrator

1/29/2021 7:11 AM P:\2020\20038_Knightdale-Brick-Sid-4c_LAND\01\DWG\20038-Knightdale-0101.dwg



JDAVIS
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1218 Chestnut Street, 7th Floor | Philadelphia, PA 19107 | Tel: 215.545.0121

Reference: ZMA-1-20

Brown Investment Properties
The Lofts at Knightdale Station
7630 Knightdale Boulevard
Knightdale, North Carolina 27545



FOR SITE DEVELOPMENT APPROVAL

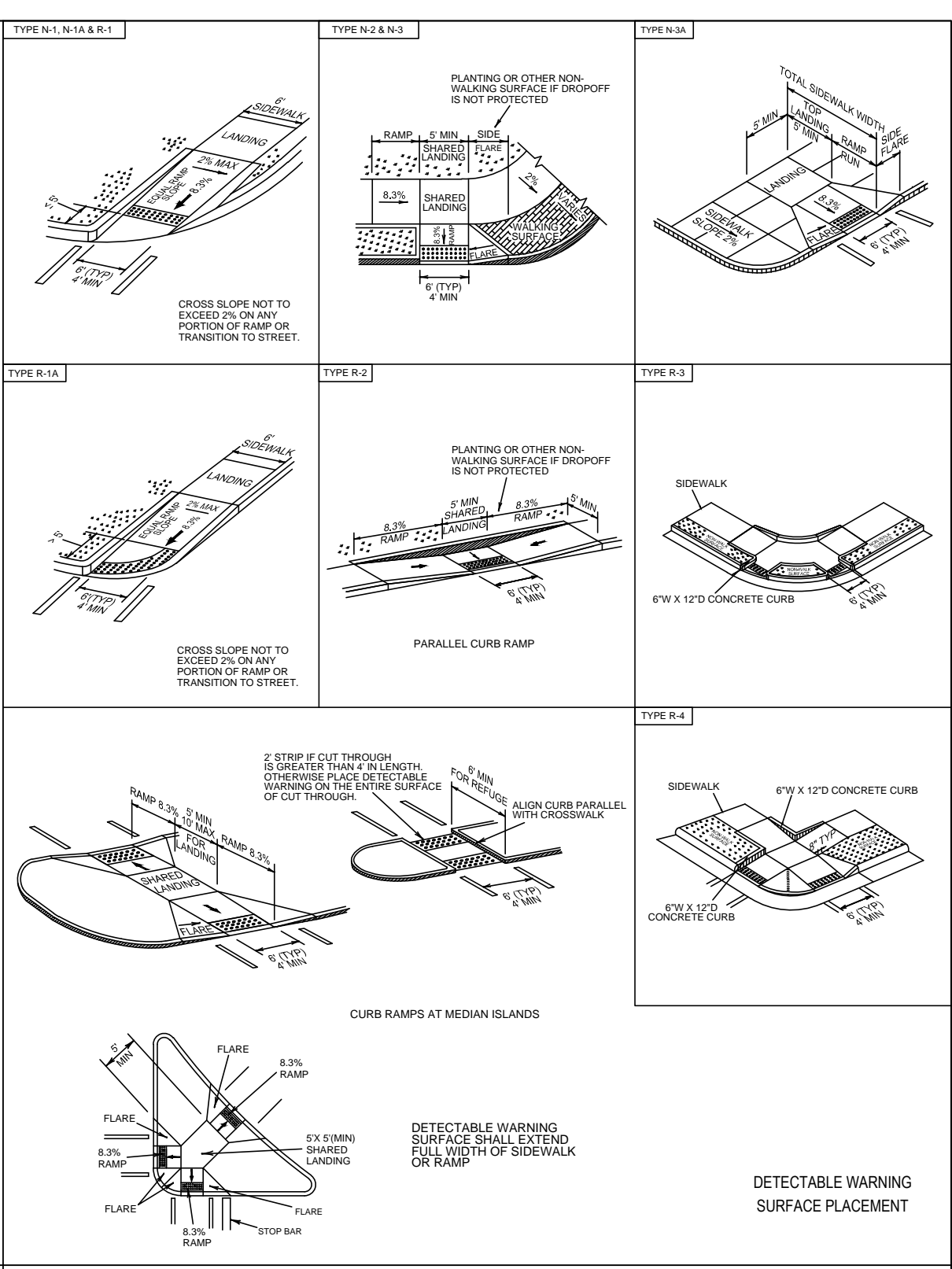
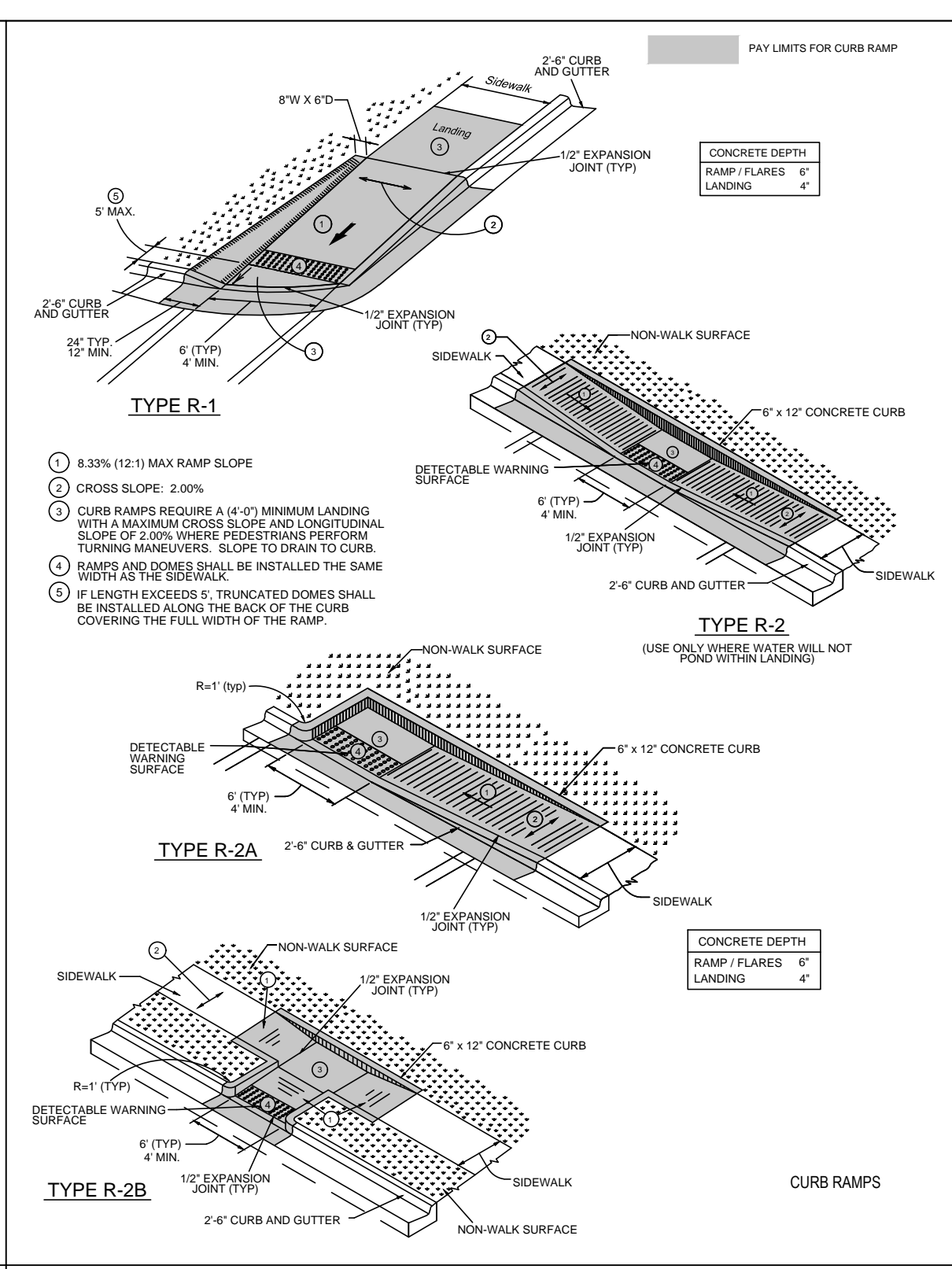
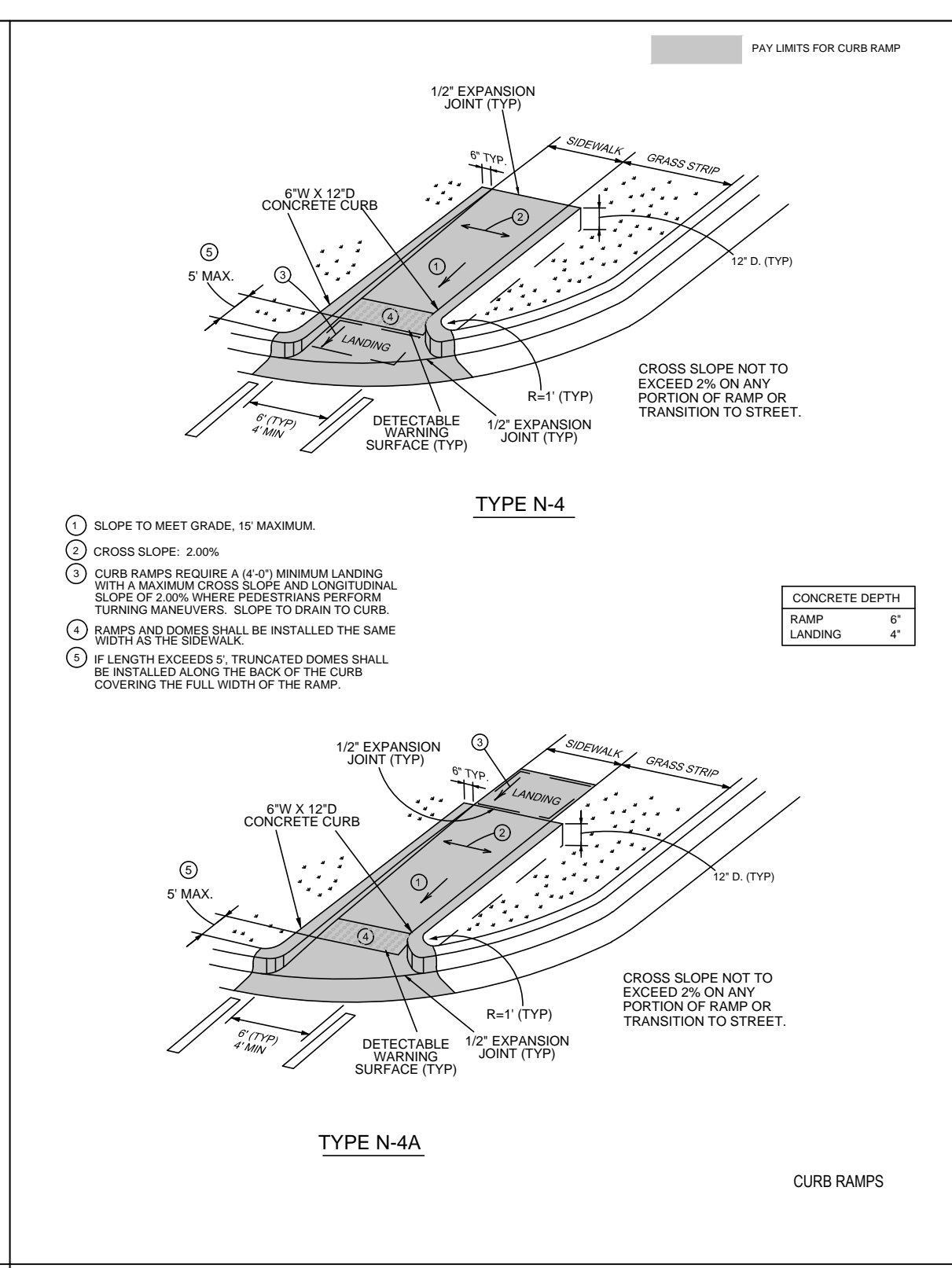
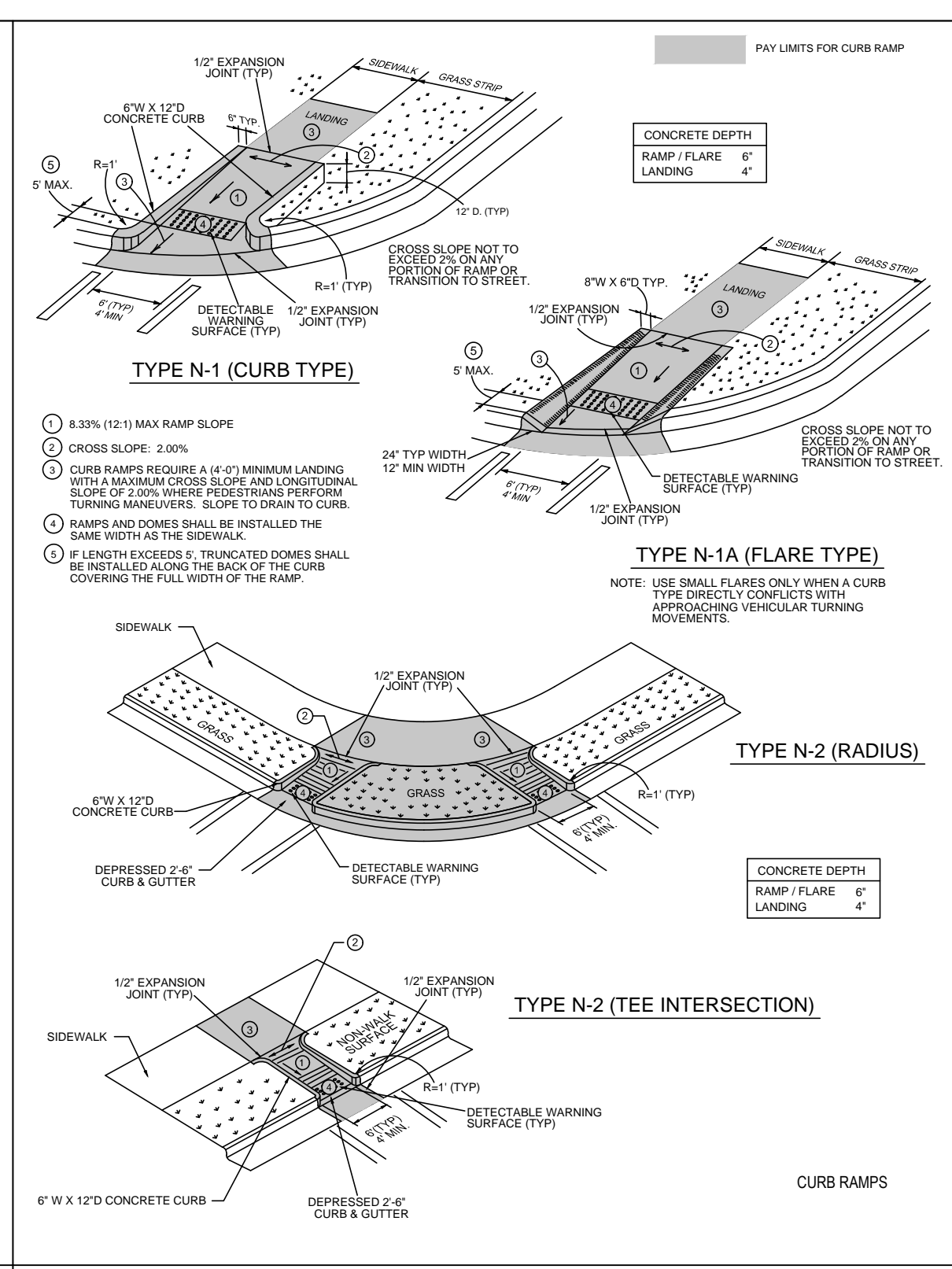
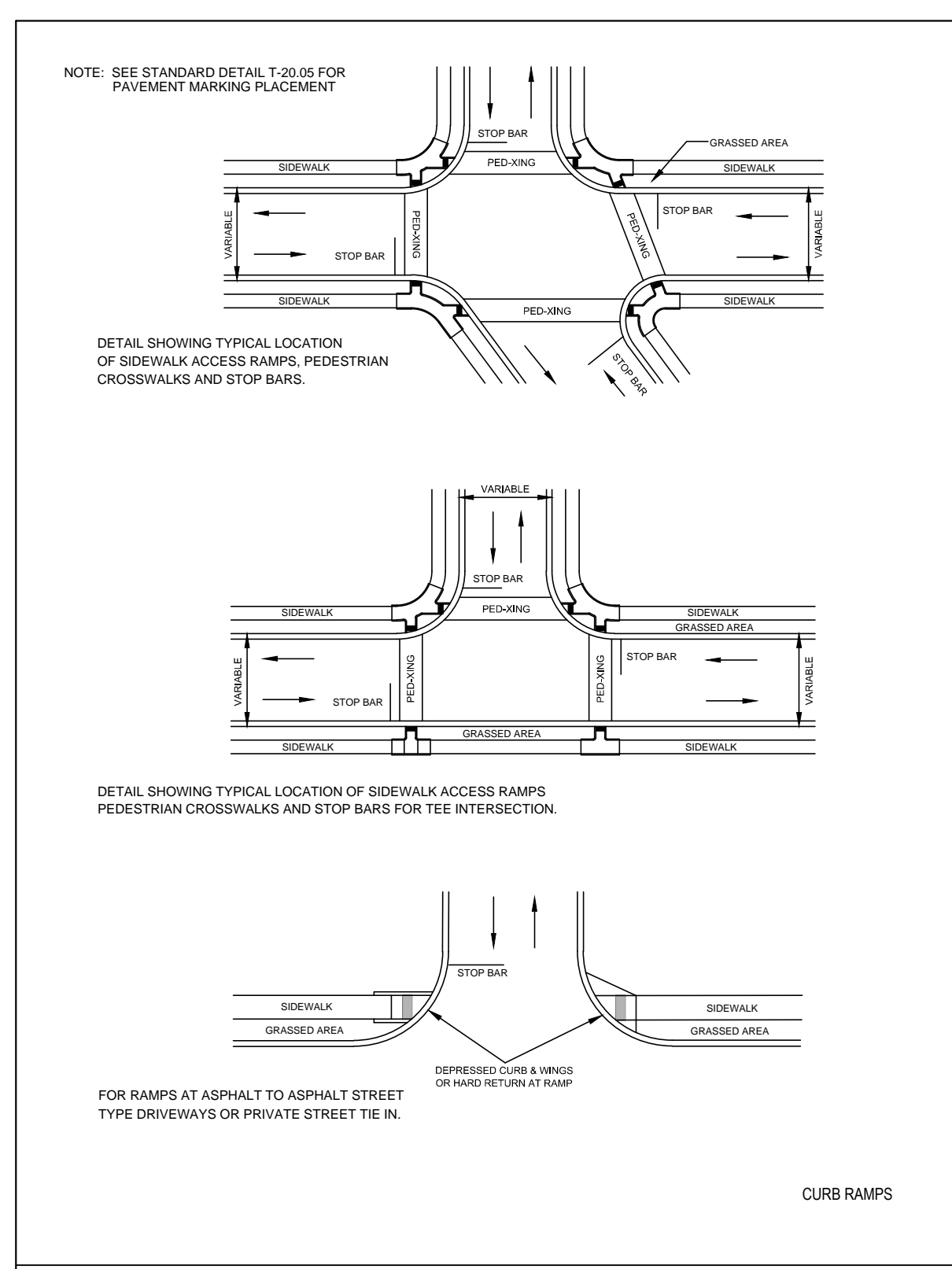
PROJECT:	BIP-20038	DATE:	12.04.2019
ISSUE:	Sketch Plan		
	PUD - Master Plan		06.22.2020
	Site Develop. Approval		01.29.2021

REVISIONS:			

DRAWN BY: JD, SB
CHECKED BY: KT
CONTENT: TOWN OF KNIGHTDALE
STANDARD DETAILS & SPECIFICATIONS

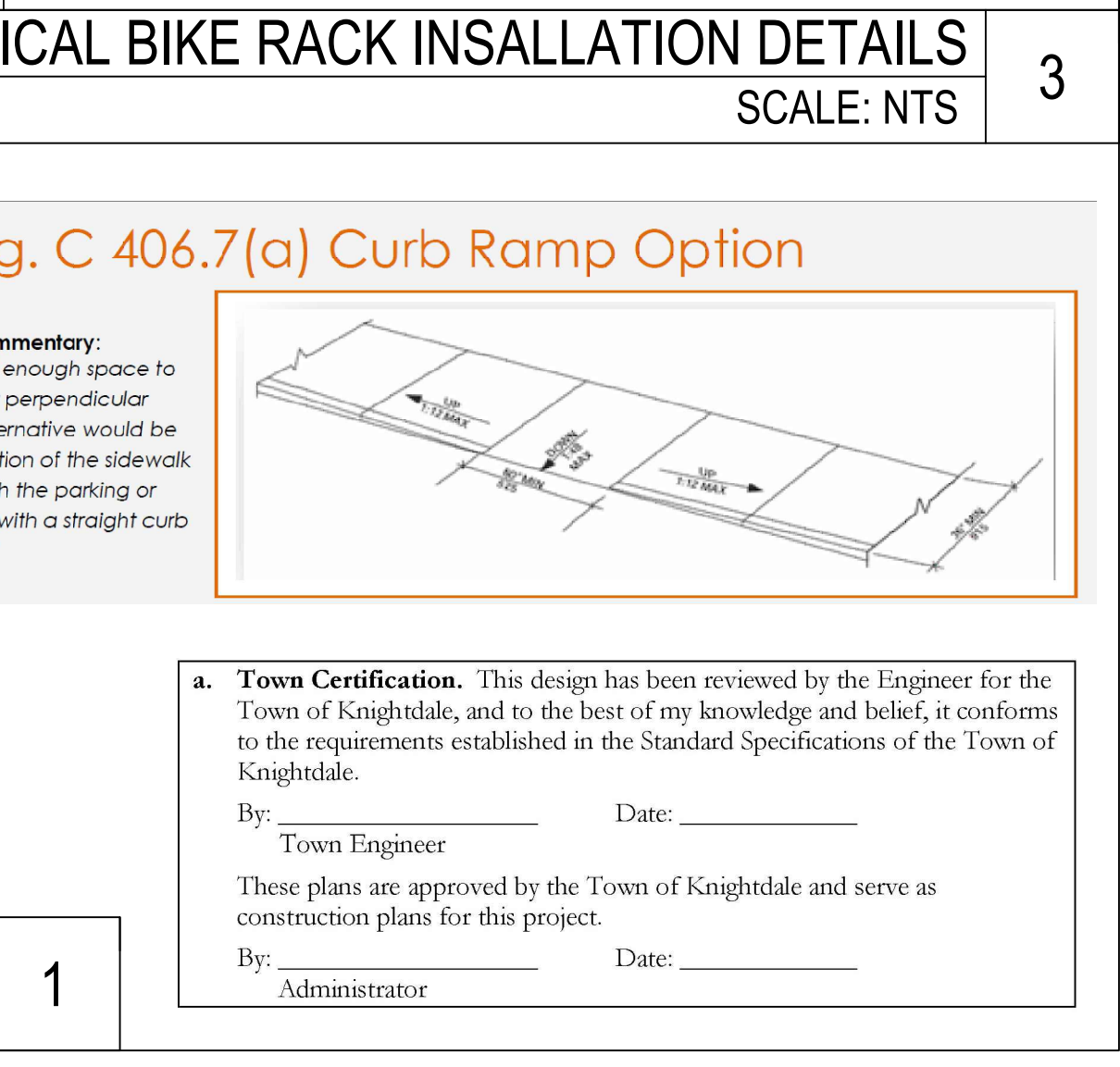
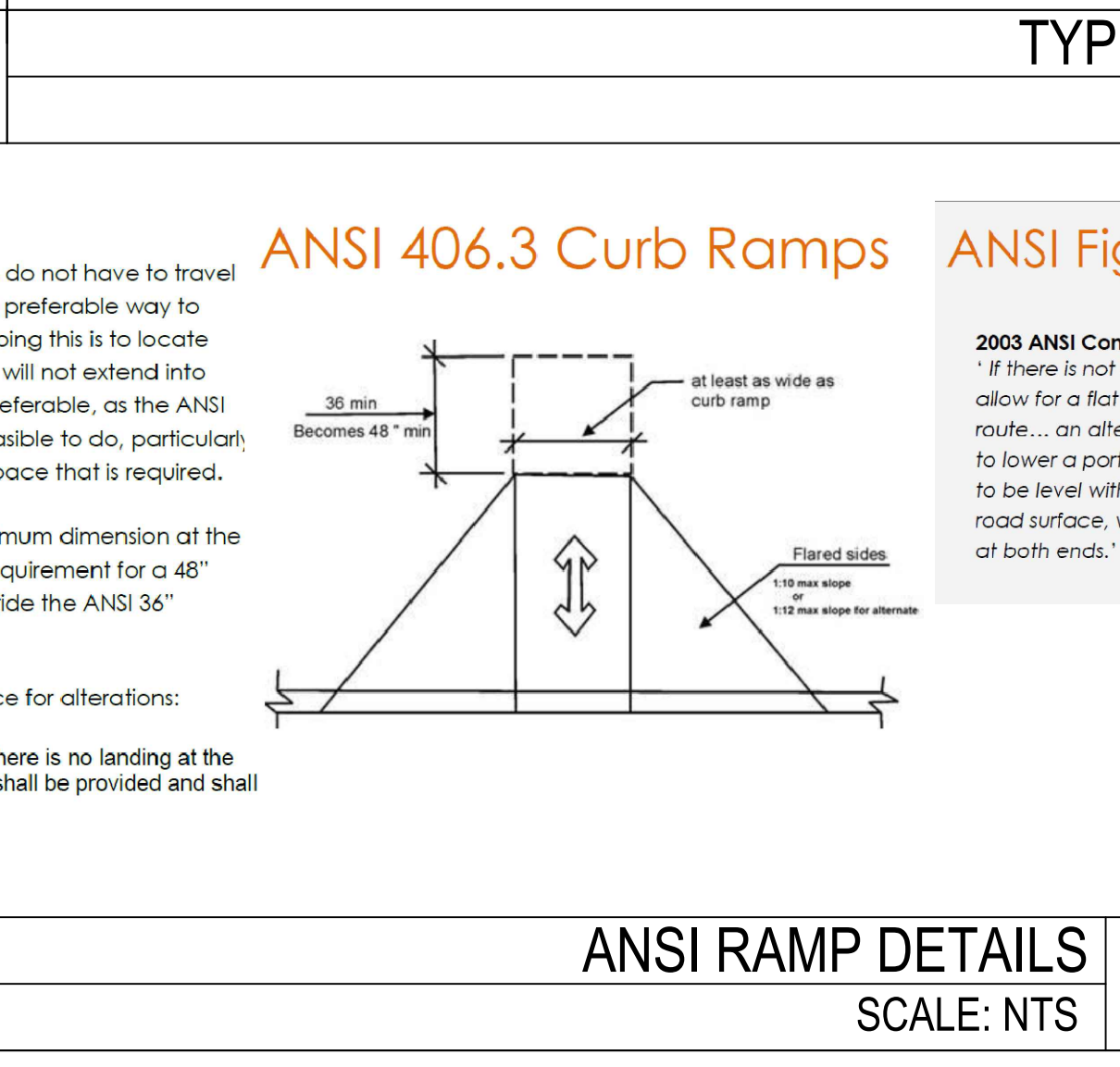
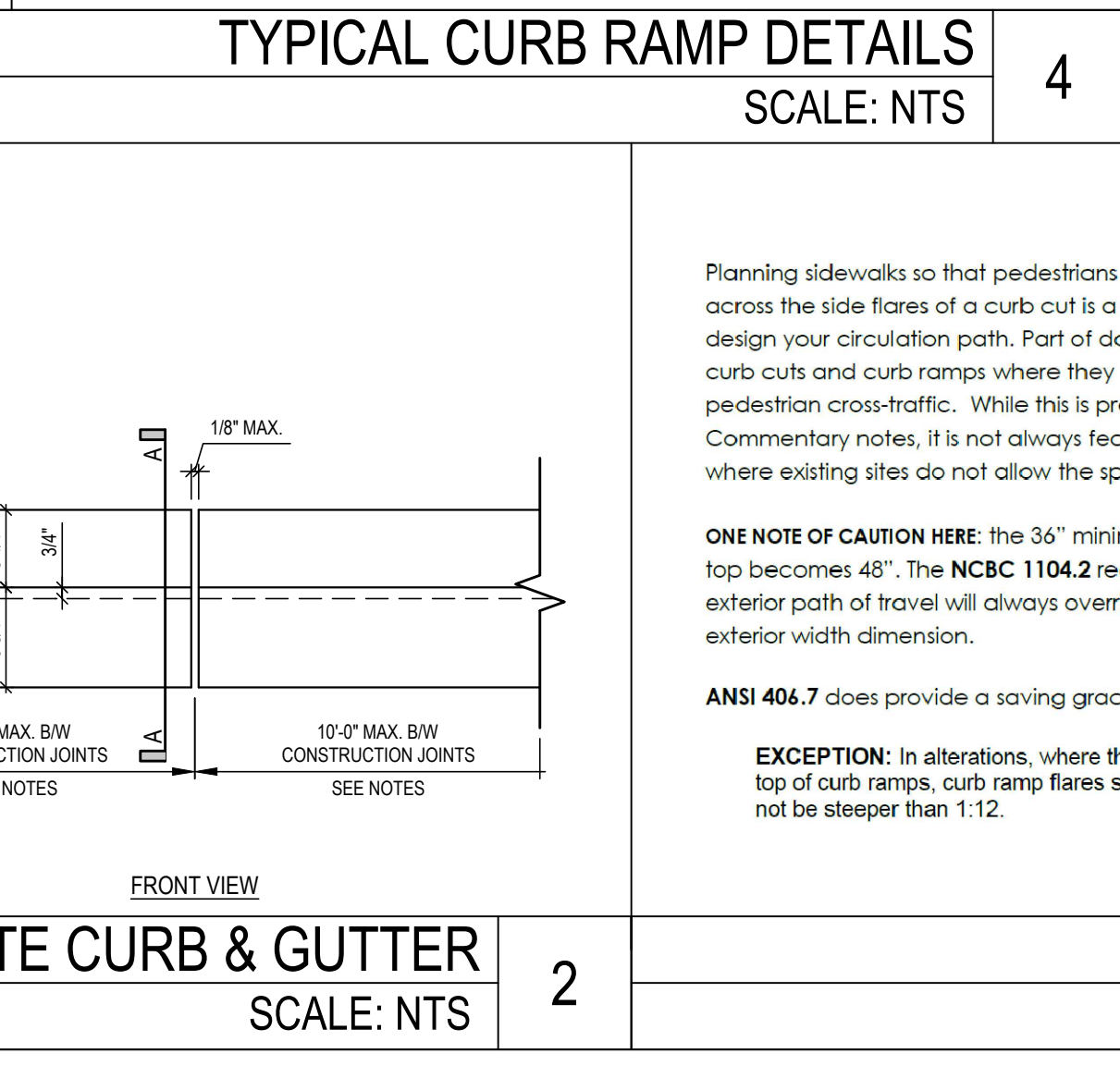
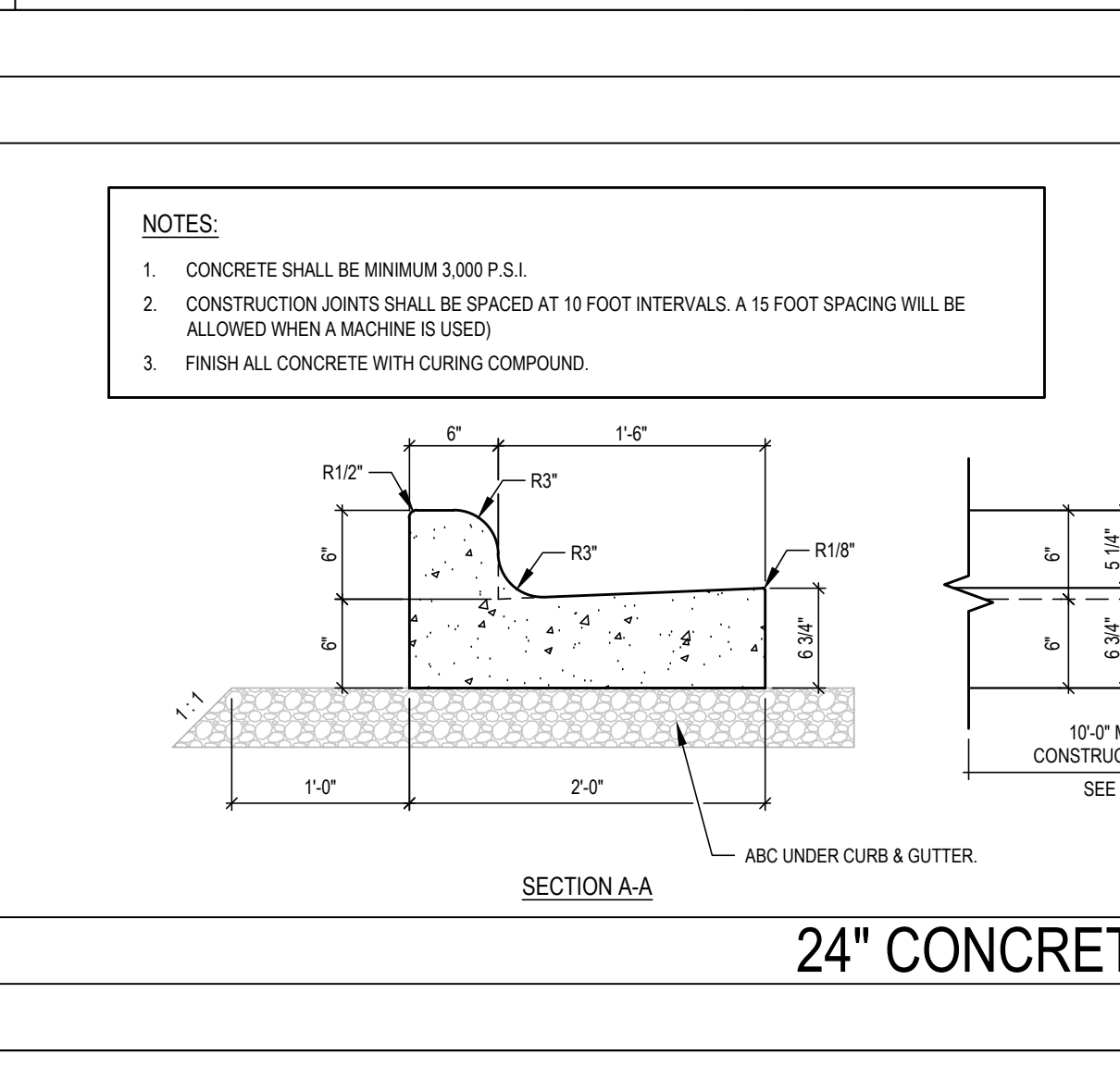
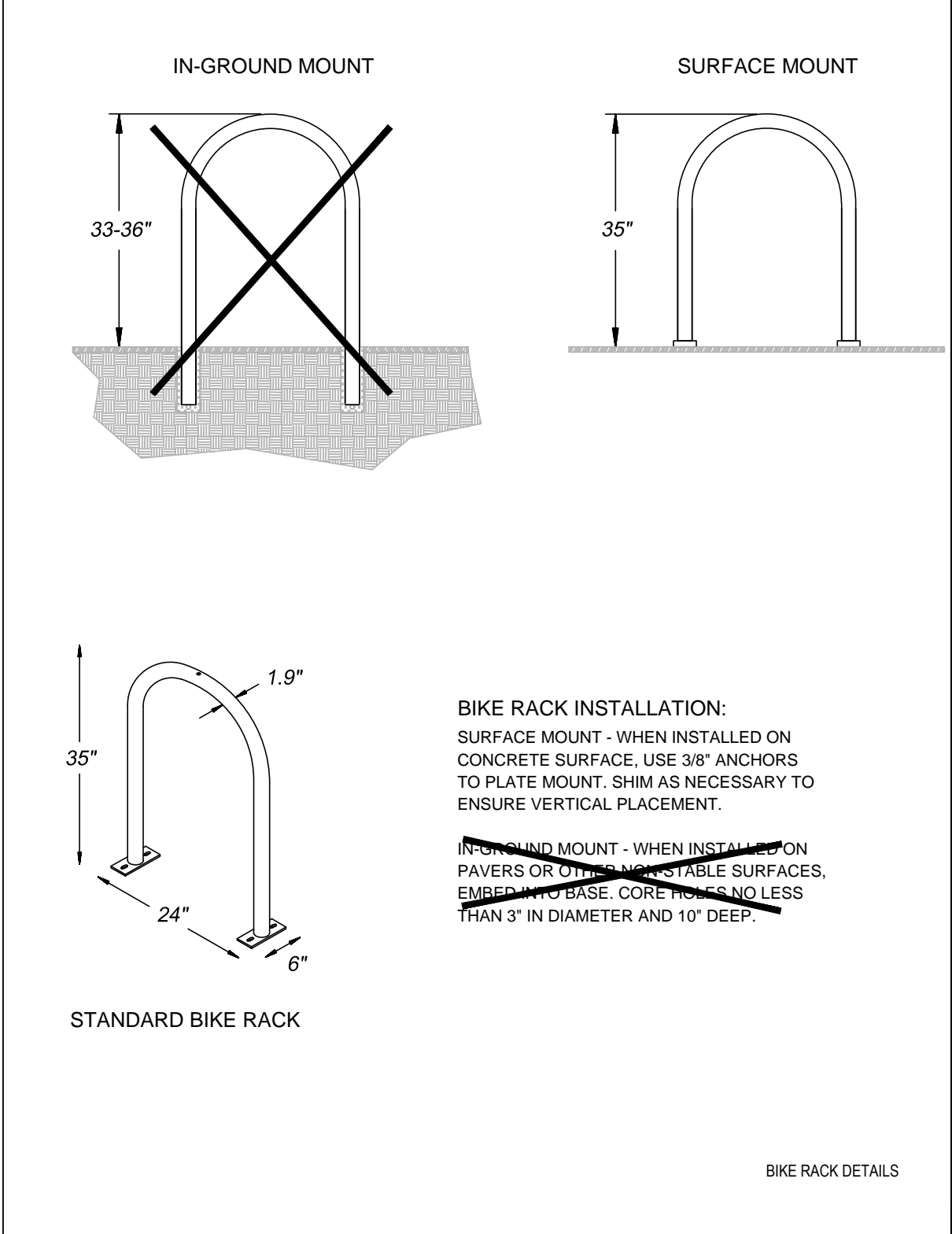
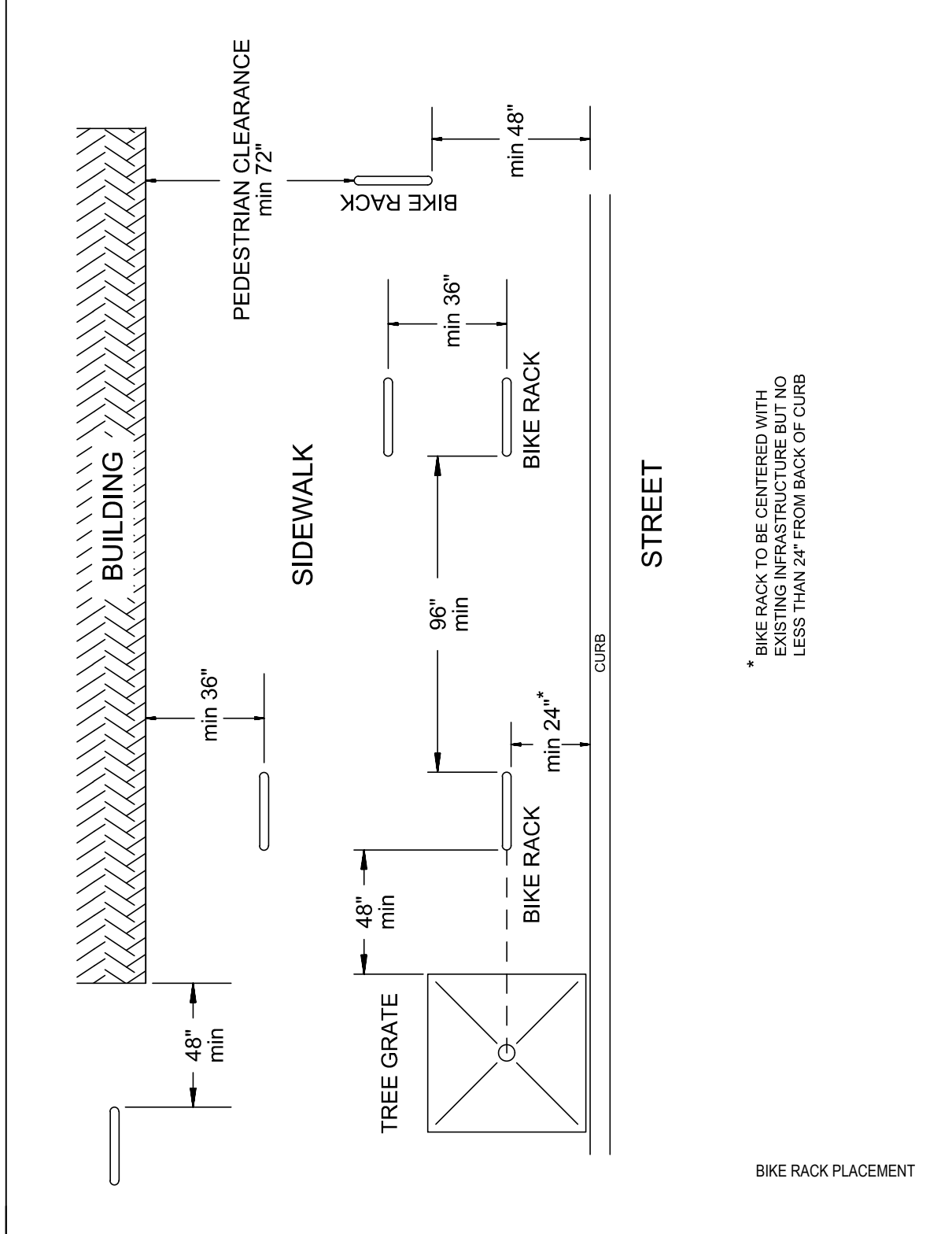
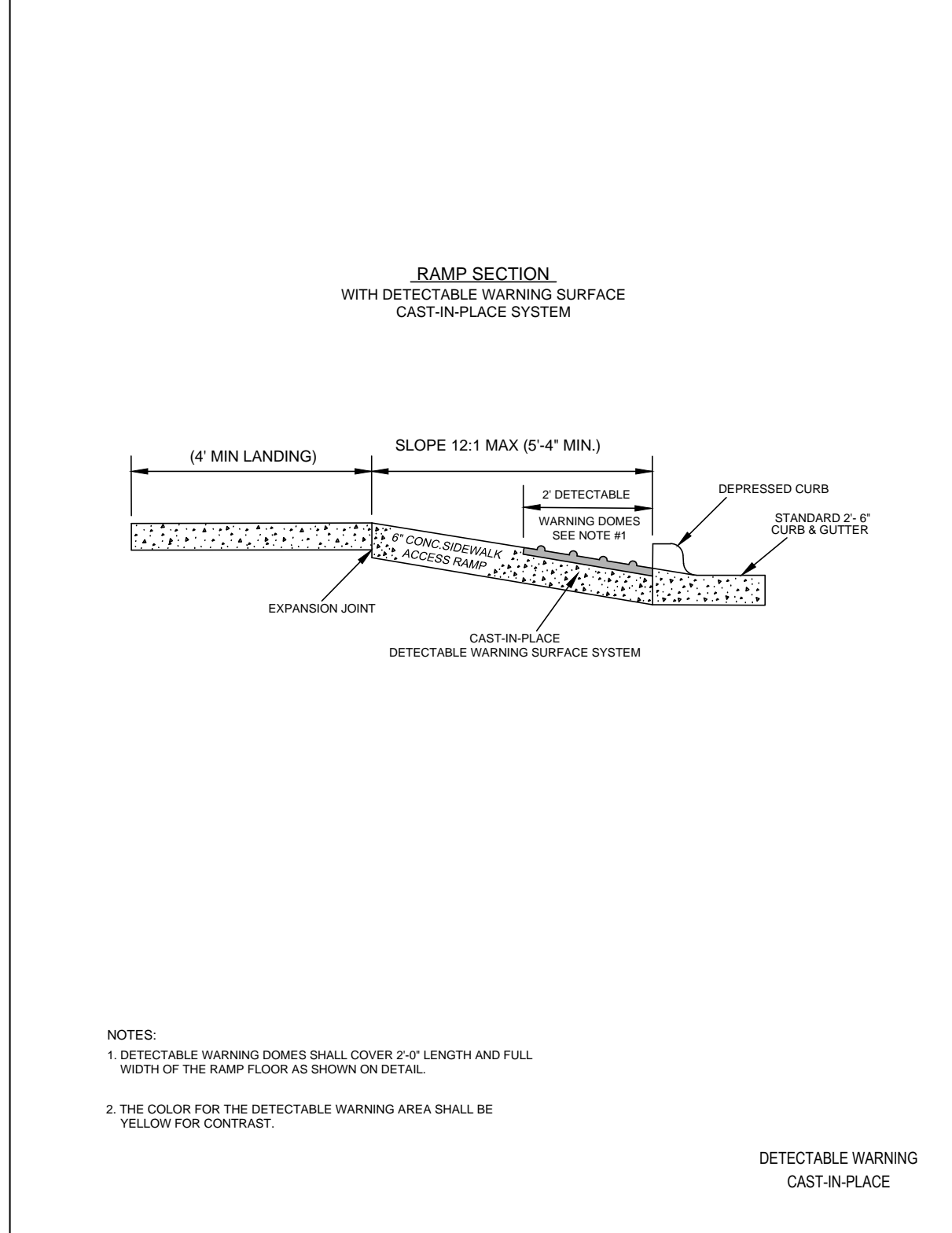
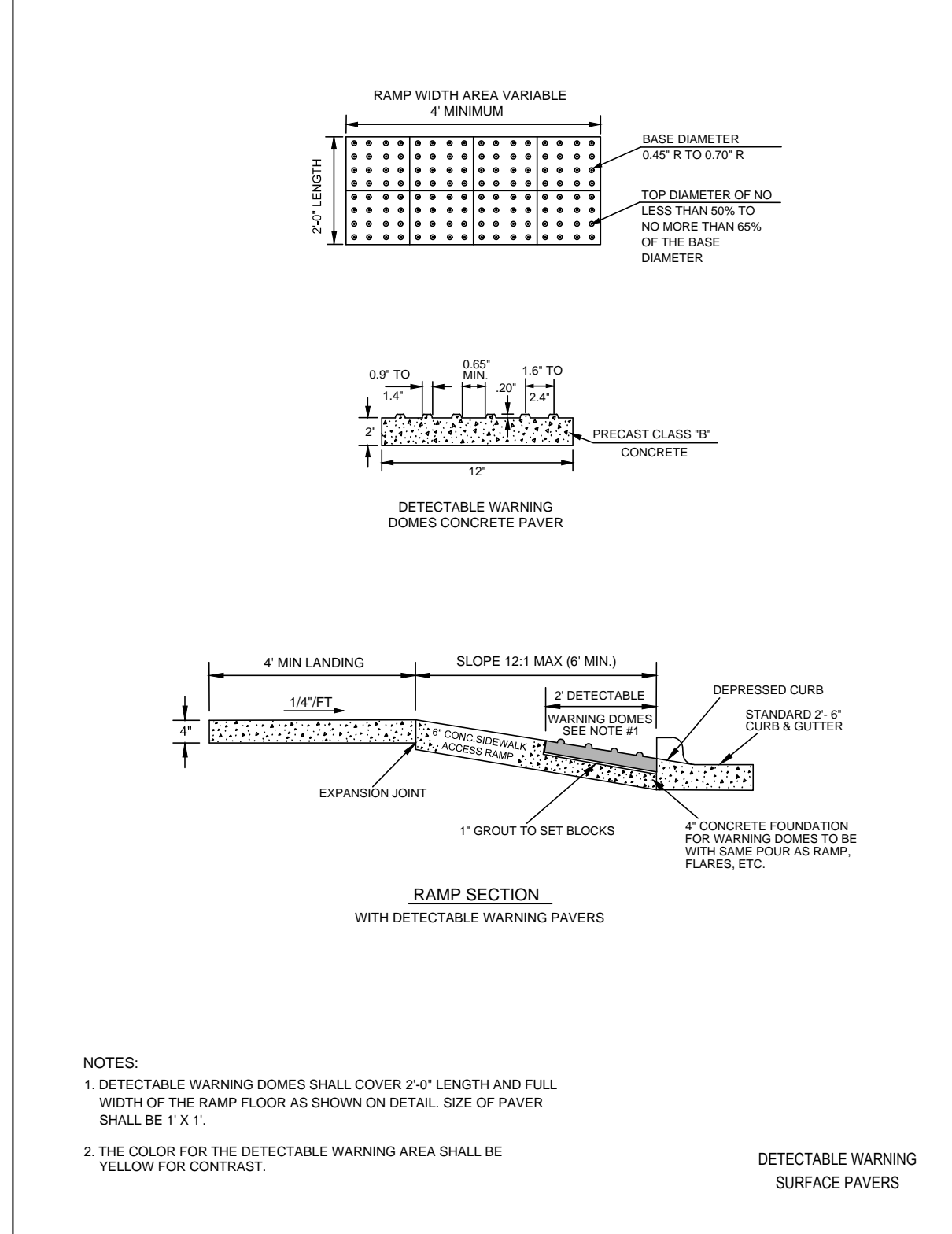
LS3.3

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CITY OF RALEIGH CURB RAMPS GENERAL NOTES

- CITY OF RALEIGH STANDARD CURB RAMPS HAVE BEEN DEVELOPED IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA) AND PUBLIC RIGHT OF WAY ACCESS GUIDELINES (PROWAG).
- CURB RAMPS SHALL BE PROVIDED AT LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. SIDEWALK ACCESS RAMPS SHALL BE LOCATED AS INDICATED IN THE DETAIL, HOWEVER, THE LOCATION MAY BE ADJUSTED IN COORDINATION WITH THE CITY OF RALEIGH WHERE EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC. AFFECT PLACEMENT.
- DOUBLE WHEELCHAIR RAMPS ARE TO BE INSTALLED AT ALL PUBLIC STREET INTERSECTIONS WHERE SIDEWALK IS REQUIRED.
- THE WALKING SURFACE SHALL BE SLIP RESISTANT. THE COLOR FOR THE DETECTABLE WARNING AREA SHALL BE YELLOW FOR CONTRAST.
- NO SLOPE ON THE SIDEWALK ACCESS RAMP SHALL EXCEED 17'FT (12:1) IN RELATIONSHIP TO THE GRADE OF THE STREET.
- IN NO CASE SHALL THE WIDTH OF THE SIDEWALK ACCESS RAMP BE LESS THAN 48" ALL RAMPS SHALL BE INSTALLED THE SAME WIDTH AS THE SIDEWALK.
- USE CLASS A (3000 PSI) CONCRETE WITH A SIDEWALK FINISH IN ORDER TO OBTAIN A ROUGH NONSKID SURFACE.
- A 1/2" EXPANSION JOINT INSTALLED FULL DEPTH WILL BE REQUIRED WHERE THE CONCRETE SIDEWALK ACCESS RAMP JOINS THE CURB AND ALSO WHERE NEW CONCRETE ABUTS EXISTING CONCRETE.
- CURB RAMPS SHOULD BE PLACED PARALLEL TO THE DIRECTION OF TRAVEL.



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NOTES:

- CONCRETE SHALL BE MINIMUM 3,000 P.S.I.
- CONSTRUCTION JOINTS SHALL BE SPACED AT 10 FOOT INTERVALS. A 15 FOOT SPACING WILL BE ALLOWED WHEN A MACHINE IS USED.
- FINISH ALL CONCRETE WITH CURING COMPOUND.

Planning sidewalks so that pedestrians do not have to travel across the side flares of a curb cut is a preferable way to design your circulation path. Part of doing this is to locate curb cuts and curb ramps where they will not extend into pedestrian cross-traffic. While this is preferable, as the ANSI Commentary notes, it is not always feasible to do, particularly where existing sites do not allow the space that is required.

ONE NOTE OF CAUTION HERE: the 36" minimum dimension at the top becomes 48". The NCBC 1104.2 requirement for a 48" exterior path of travel will always override the ANSI 36" exterior width dimension.

ANSI 406.7 does provide a saving grace for alterations:

EXCEPTION: in alterations, where there is no landing at the top of curb ramps, curb ramp flares shall be provided and shall not be steeper than 1:12.

2003 ANSI Commentary:

"If there is not enough space to allow for a flat perpendicular route... an alternative would be to lower a portion of the sidewalk to be level with the parking or road surface, with a straight curb at both ends."

a. Town Certification. This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale.

By: _____ Date: _____

Town Engineer

These plans are approved by the Town of Knightdale and serve as construction plans for this project.

By: _____ Date: _____

Administrator

FOR SITE DEVELOPMENT APPROVAL

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Brown Investment Properties

The Lofts at Knightdale Station

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Knightdale, North Carolina 27545

Reference: ZMA-1-20

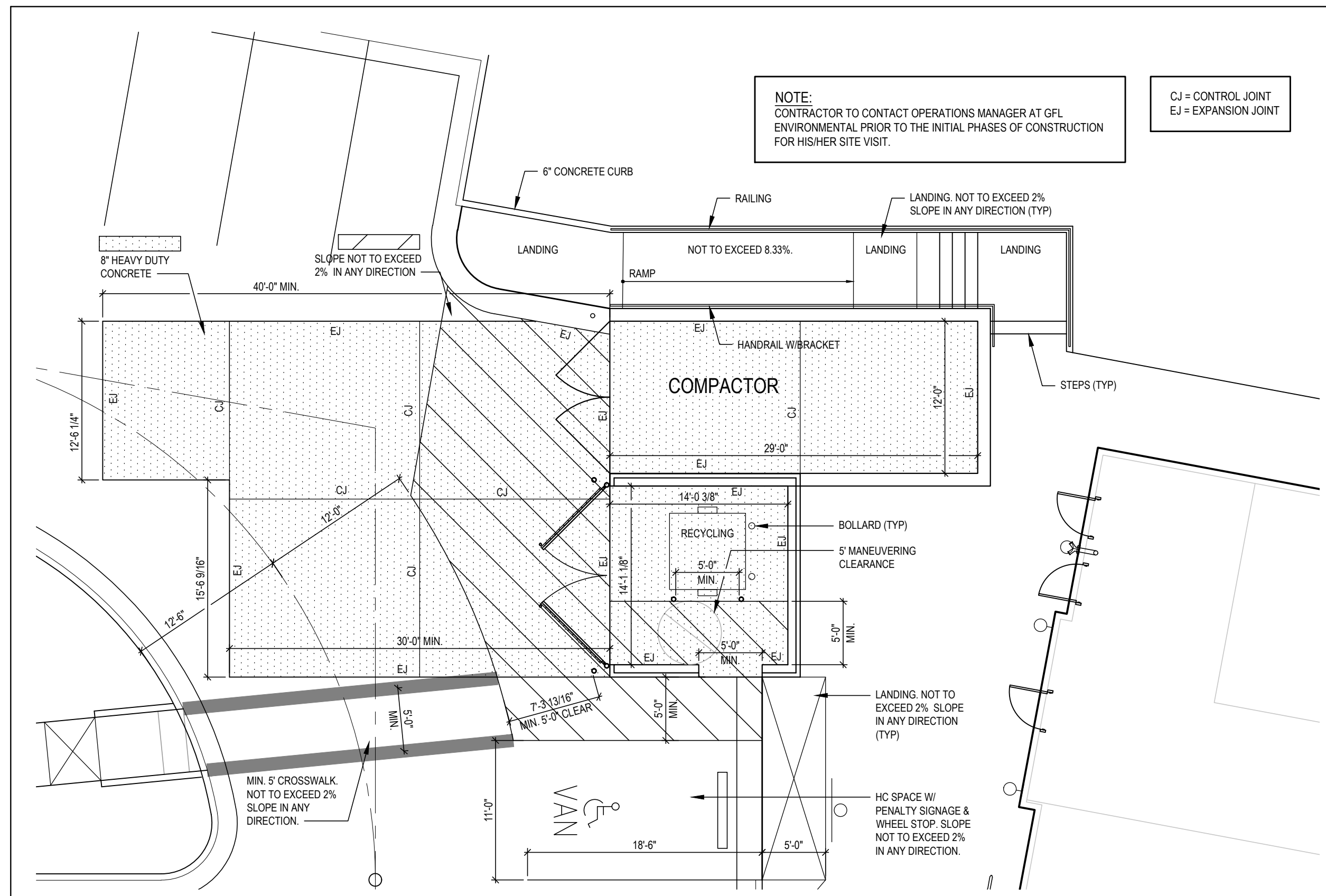
FOR SITE DEVELOPMENT APPROVAL

PROJECT: BIP-20038 DATE: 12.04.2019
ISSUE: Sketch Plan 06.22.2020
PUD - Master Plan 01.29.2021
Site Develop. Approval

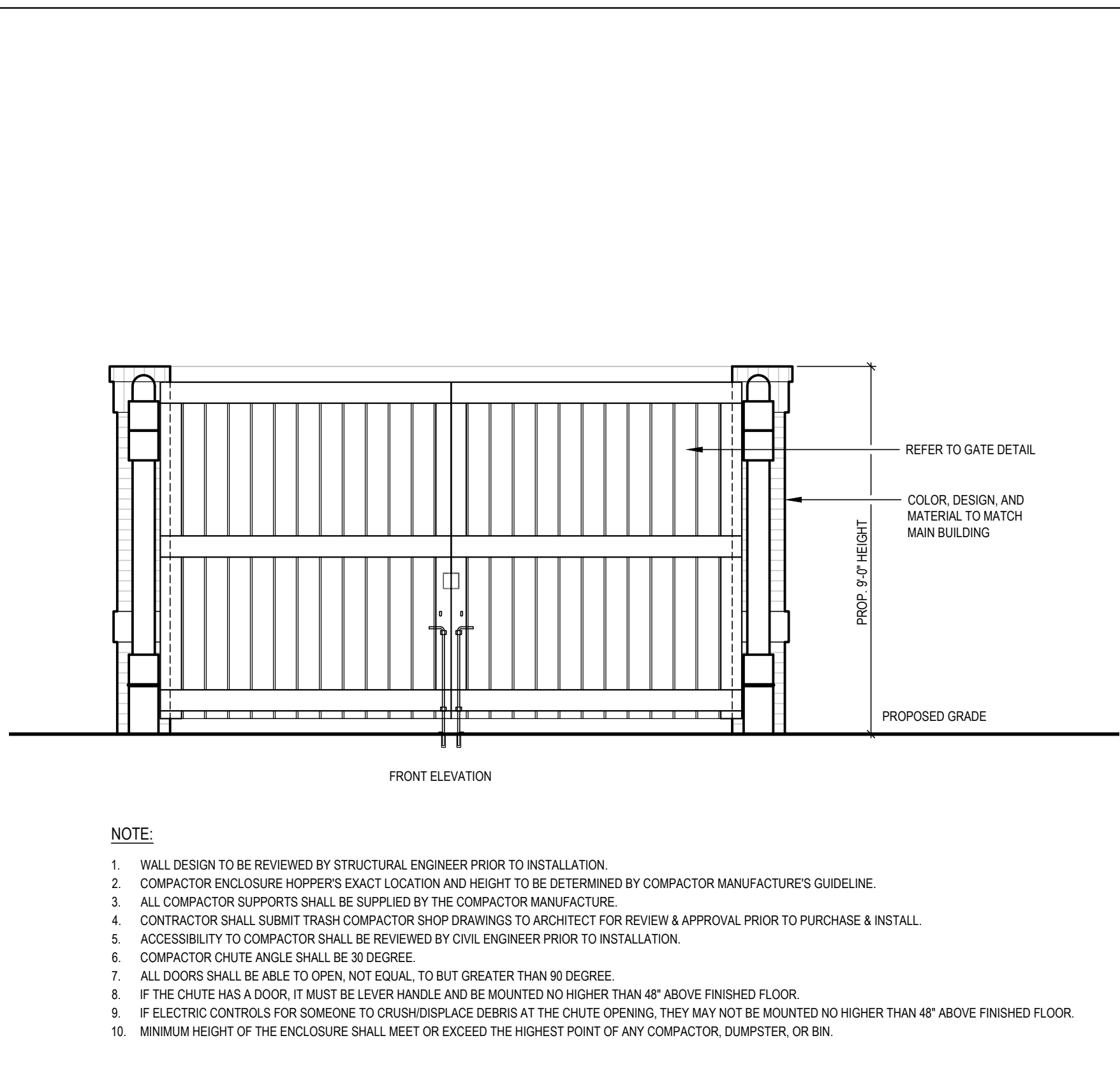
REVISIONS:

DRAWN BY: SB
CHECKED BY: KT
CONTENT: SITE DETAILS

LS3.4

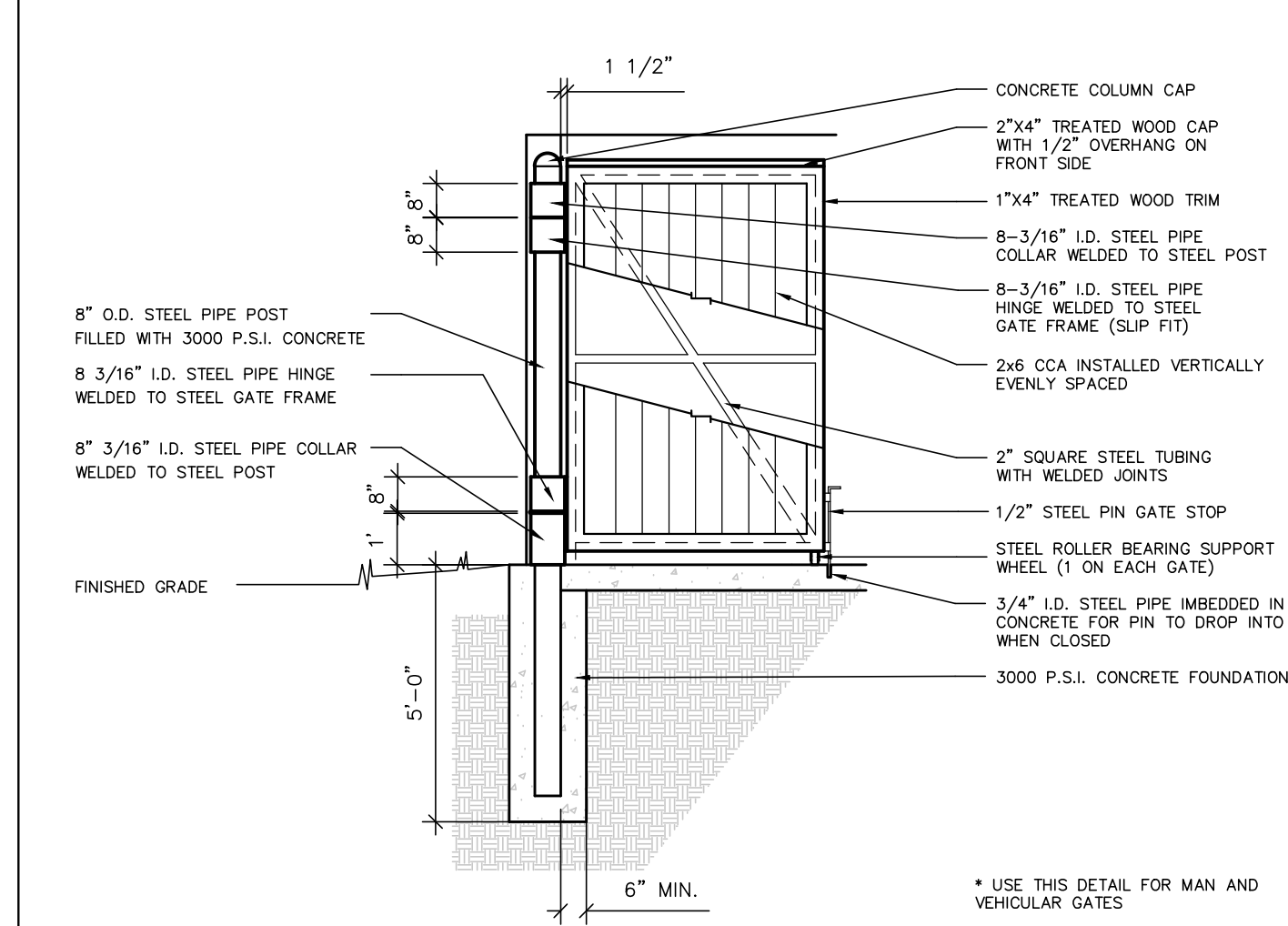


REFUSE AREA LAYOUT
SCALE: NTS 9

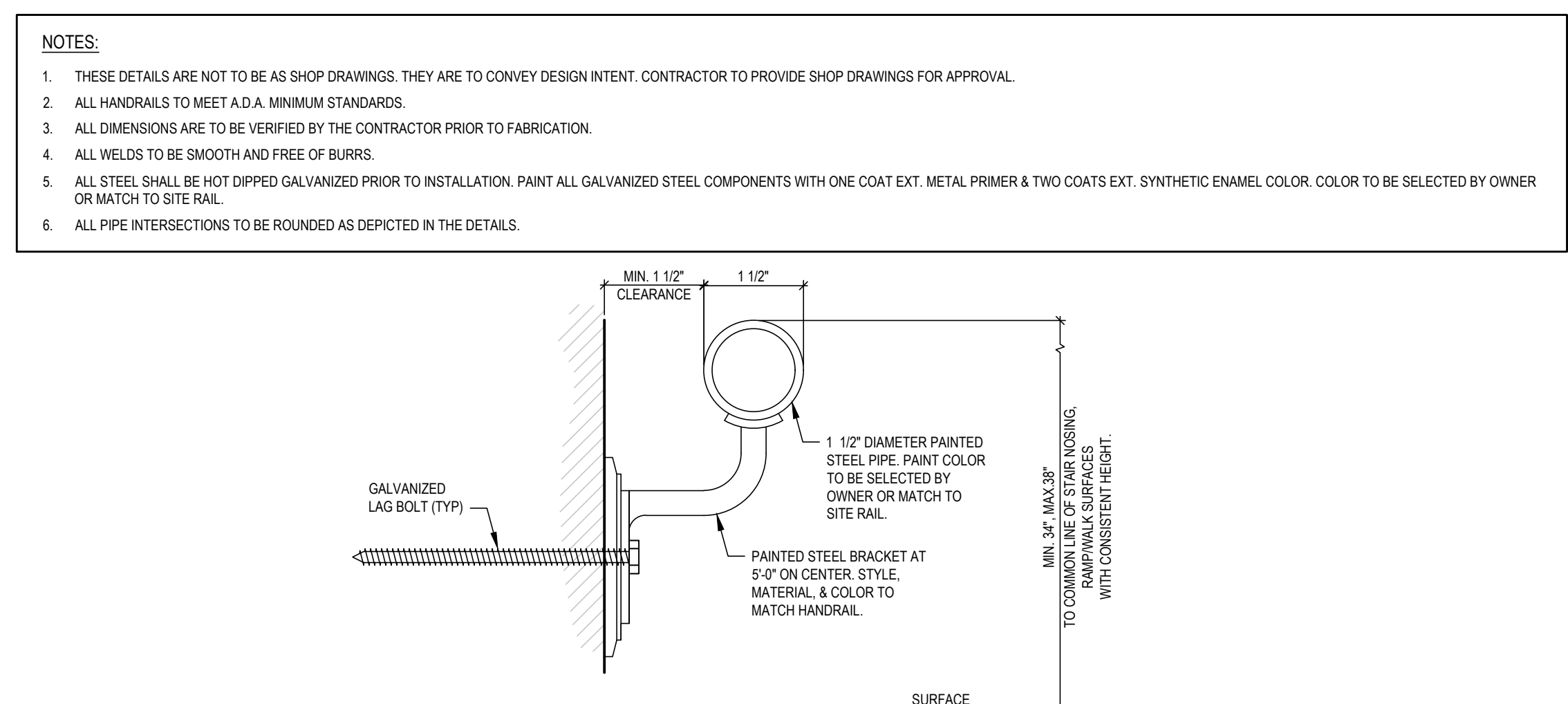


- NOTE:
1. WALL DESIGN TO BE REVIEWED BY STRUCTURAL ENGINEER PRIOR TO INSTALLATION.
 2. COMPACTOR ENCLOSURE HOPPER'S EXACT LOCATION AND HEIGHT TO BE DETERMINED BY COMPACTOR MANUFACTURER'S GUIDELINE.
 3. ALL COMPACTOR SUPPORTS SHALL BE SUPPLIED BY THE COMPACTOR MANUFACTURER.
 4. CONTRACTOR SHALL SUBMIT TRASH COMPACTOR SHOP DRAWINGS TO ARCHITECT FOR REVIEW & APPROVAL PRIOR TO PURCHASE & INSTALL.
 5. ACCESSIBILITY TO COMPACTOR SHALL BE REVIEWED BY CIVIL ENGINEER PRIOR TO INSTALLATION.
 6. COMPACTOR CHUTE ANGLE SHALL BE 30 DEGREE.
 7. ALL DOORS SHALL BE ABLE TO OPEN, NOT EQUAL TO, BUT GREATER THAN 90 DEGREE.
 8. IF THE CHUTE HAS A DOOR, IT MUST BE LEVER HANDLE AND BE MOUNTED NO HIGHER THAN 48" ABOVE FINISHED FLOOR.
 9. IF ELECTRIC CONTROLS FOR SOMEONE TO CRUSH/DISPLACE DEBRIS AT THE CHUTE OPENING, THEY MAY NOT BE MOUNTED NO HIGHER THAN 48" ABOVE FINISHED FLOOR.
 10. MINIMUM HEIGHT OF THE ENCLOSURE SHALL MEET OR EXCEED THE HIGHEST POINT OF ANY COMPACTOR, DUMPSTER, OR BIN.

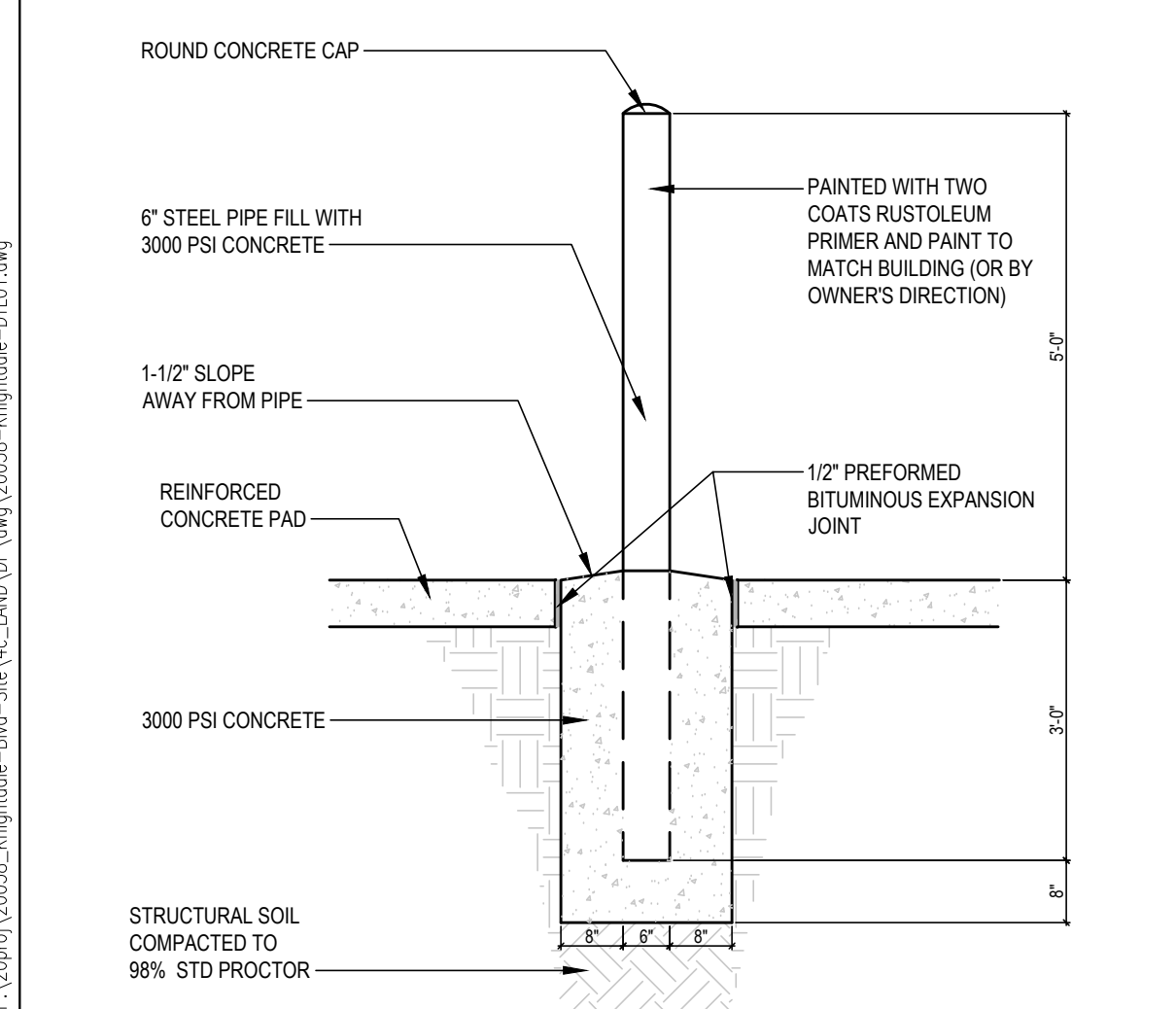
TYPICAL REFUSE ENCLOSURE
SCALE: NTS 8



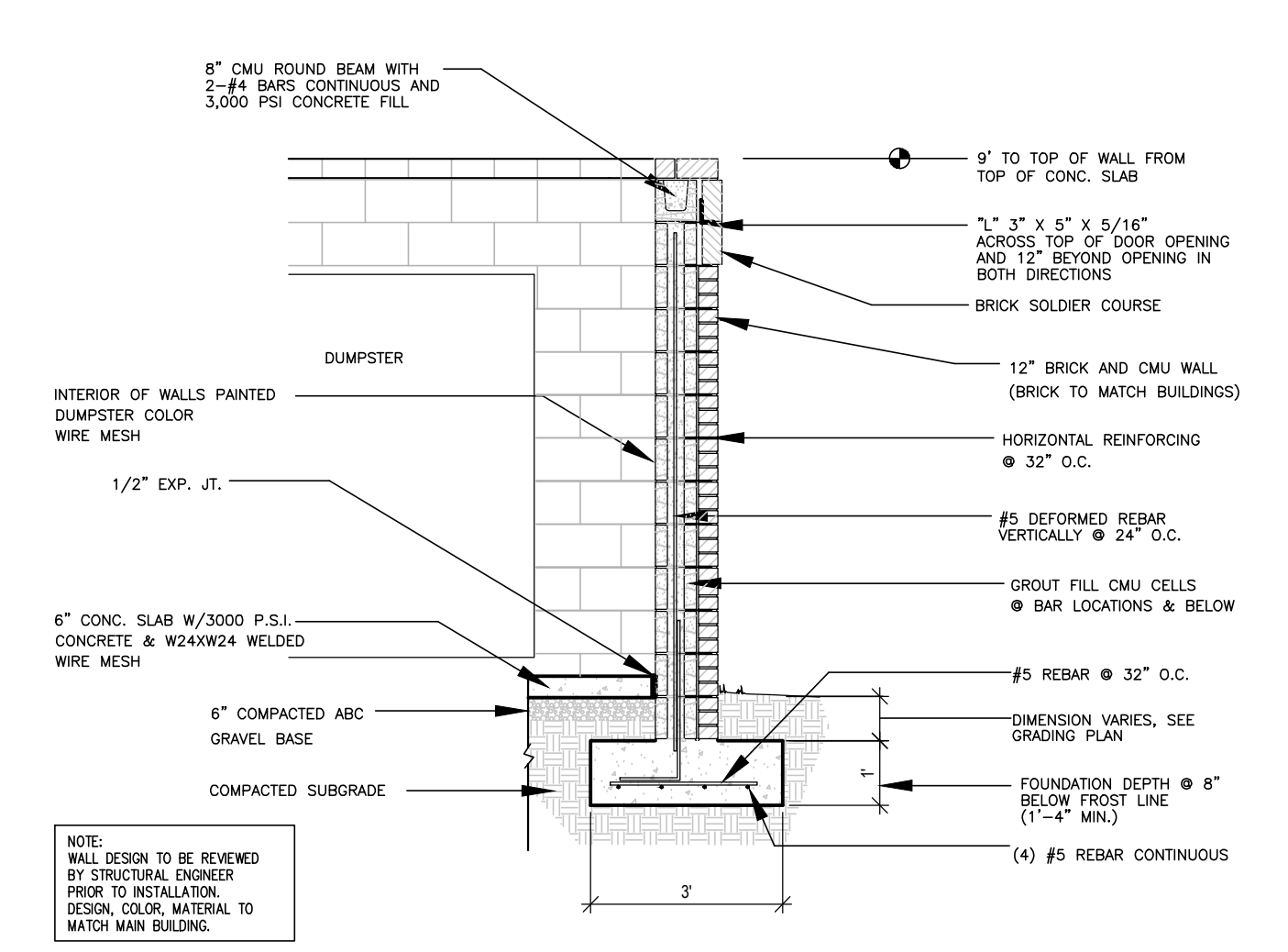
REFUSE ECLOSURE GATE
SCALE: NTS 7



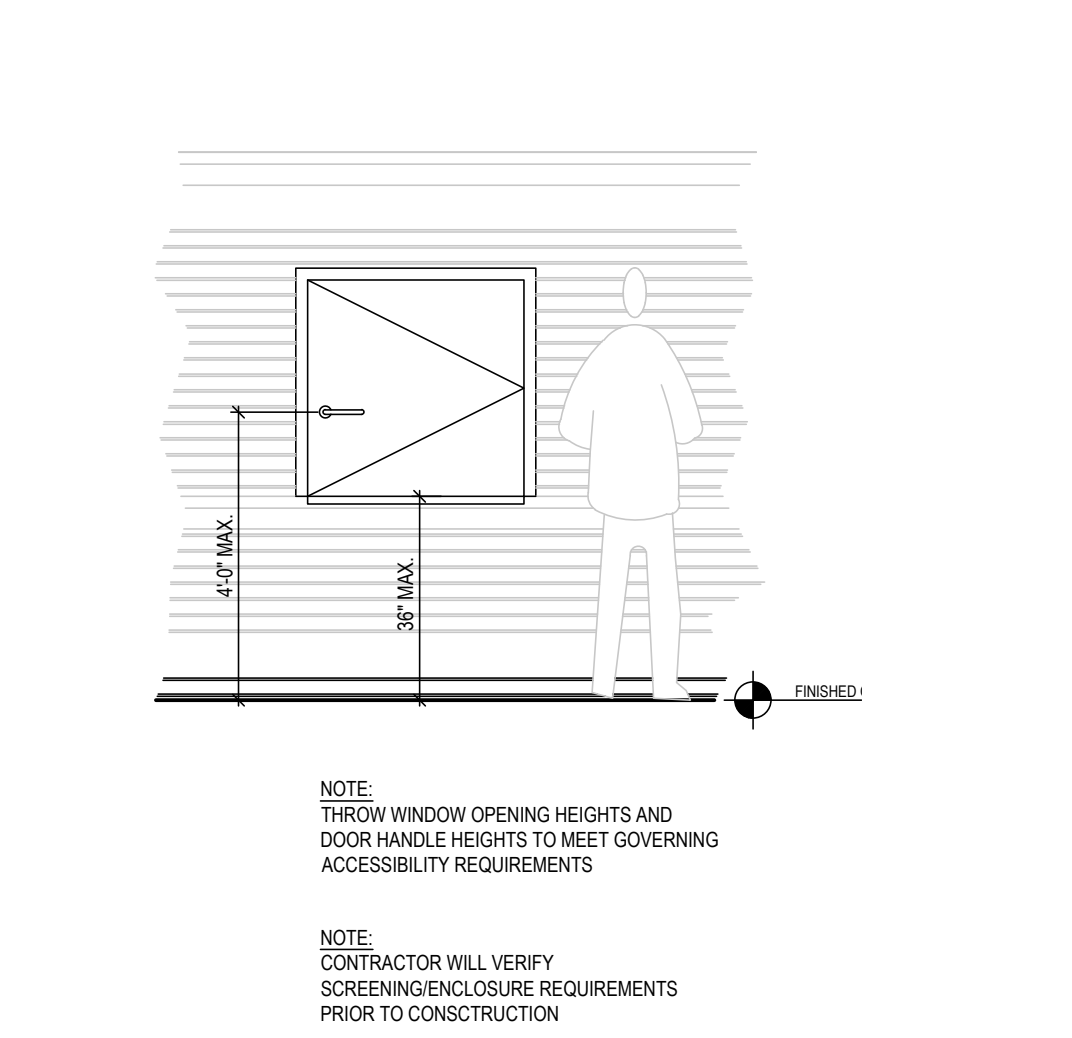
TYPICAL HANDRAIL & BRACKET
SCALE: NTS 6



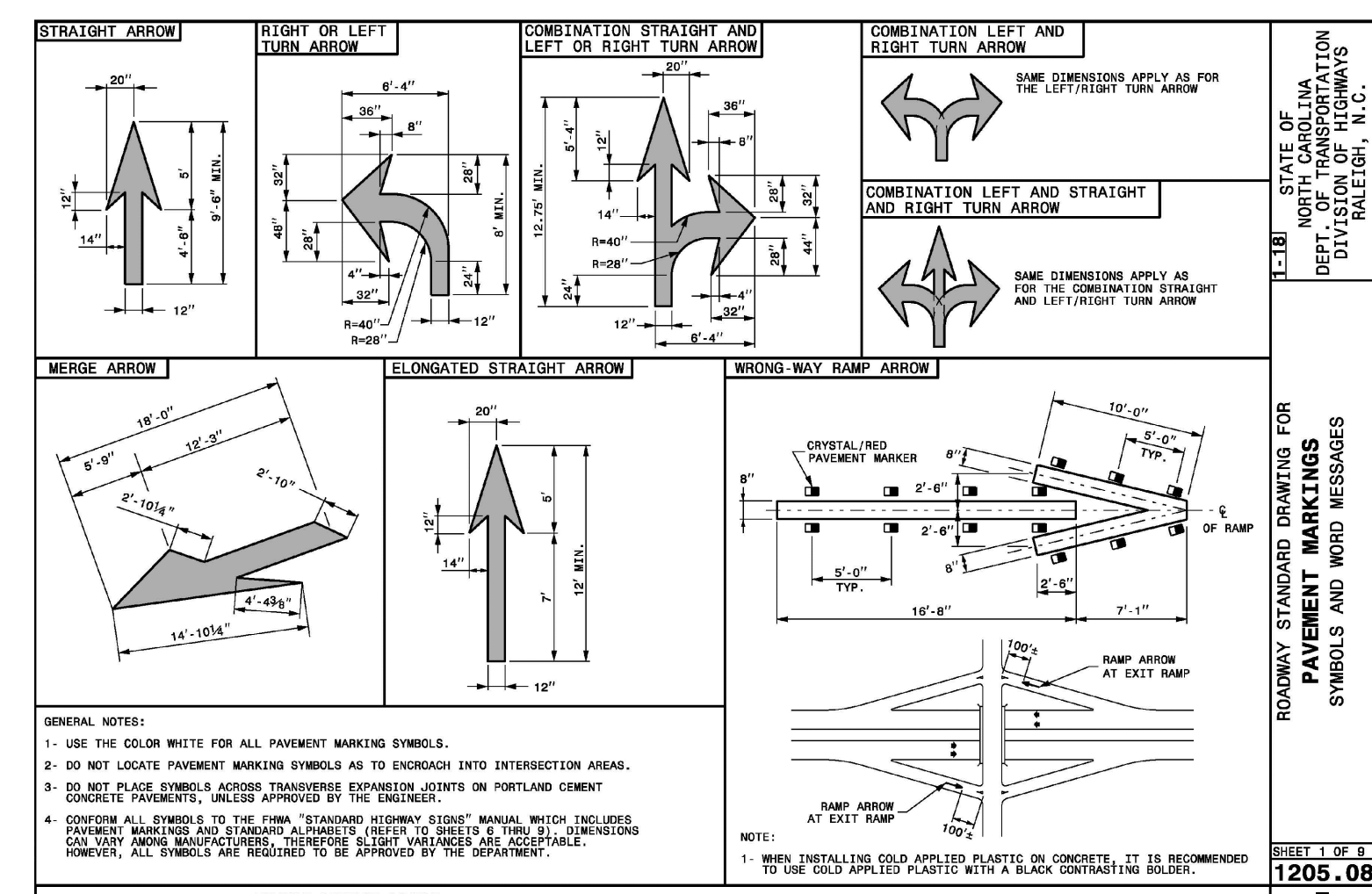
BOLLARD
SCALE: NTS 5



TYPICAL REFUSE SCREEN
SCALE: NTS 4



COMPACTOR THROW WINDOW
SCALE: NTS 3



NCDOT DETAILS
SCALE: NTS 1

a. **Town Certification.** This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale.

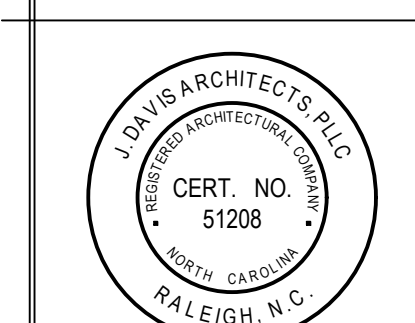
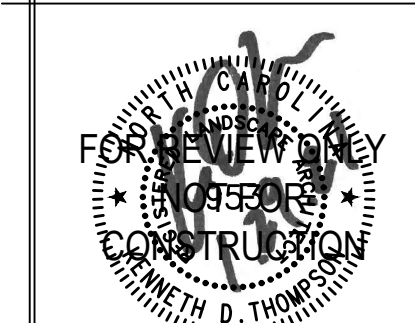
By: _____ Date: _____
Town Engineer

These plans are approved by the Town of Knightdale and serve as construction plans for this project.

By: _____ Date: _____
Administrator

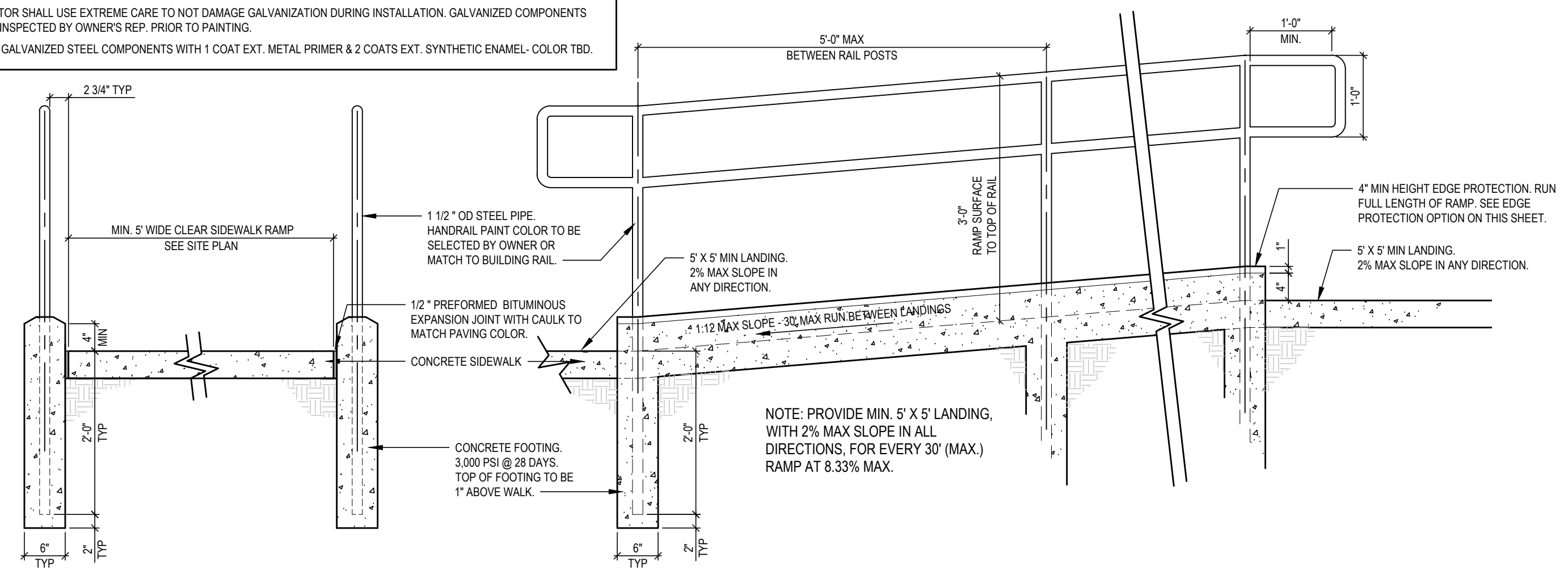
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FOR SITE DEVELOPMENT APPROVAL



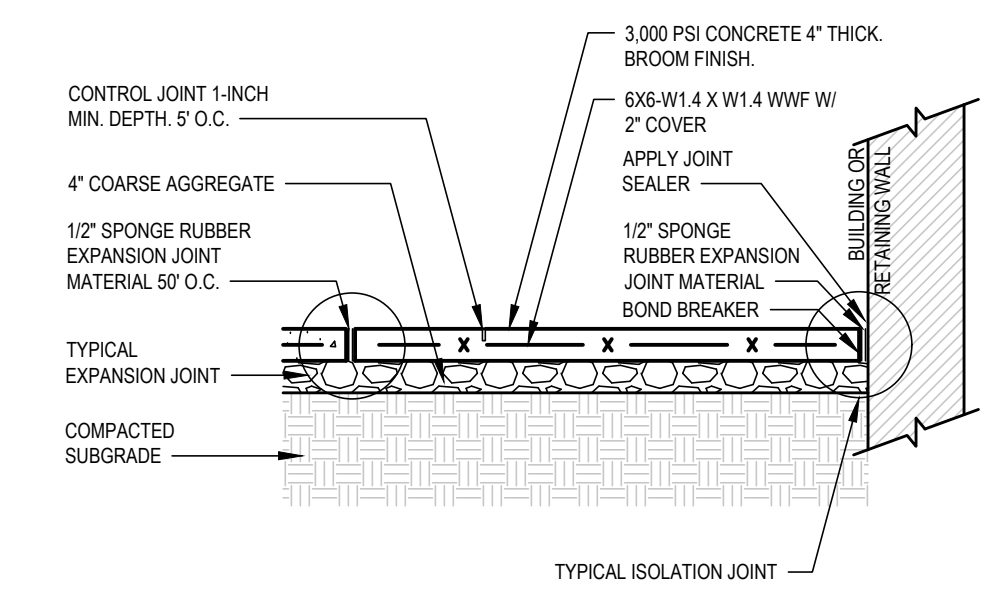
PROJECT:	BIP-20038	DATE:	
ISSUE:	Sketch Plan	12.04.2019	
	PUD - Master Plan	06.22.2020	
	Site Develop. Approval	01.29.2021	
REVISIONS:			
DRAWN BY:	YM, SB		
CHECKED BY:	KT		
CONTENT:	WALL (IN BUFFER) DETAILS		

- NOTES:**
- ALL GUARDRAILS SHALL BE HOT DIPPED GALVANIZED PRIOR TO INSTALLATION. HOLES CUT INTO STEEL TUBE FOR GALVANIZING SHALL BE REPAIRED AND TOUCHED WITH A ZINC RICH PRIMER. THE FINAL QUENCH OF THE GALVANIZING PROCESS SHALL BE ELIMINATED.
 - CONTRACTOR SHALL USE EXTREME CARE TO NOT DAMAGE GALVANIZING DURING INSTALLATION. GALVANIZED COMPONENTS SHALL BE INSPECTED BY OWNER'S REP. PRIOR TO PAINTING.
 - PAIN ALL GALVANIZED STEEL COMPONENTS WITH 1 COAT EXT. METAL PRIMER & 2 COATS EXT. SYNTHETIC ENAMEL-COLOR TBD.



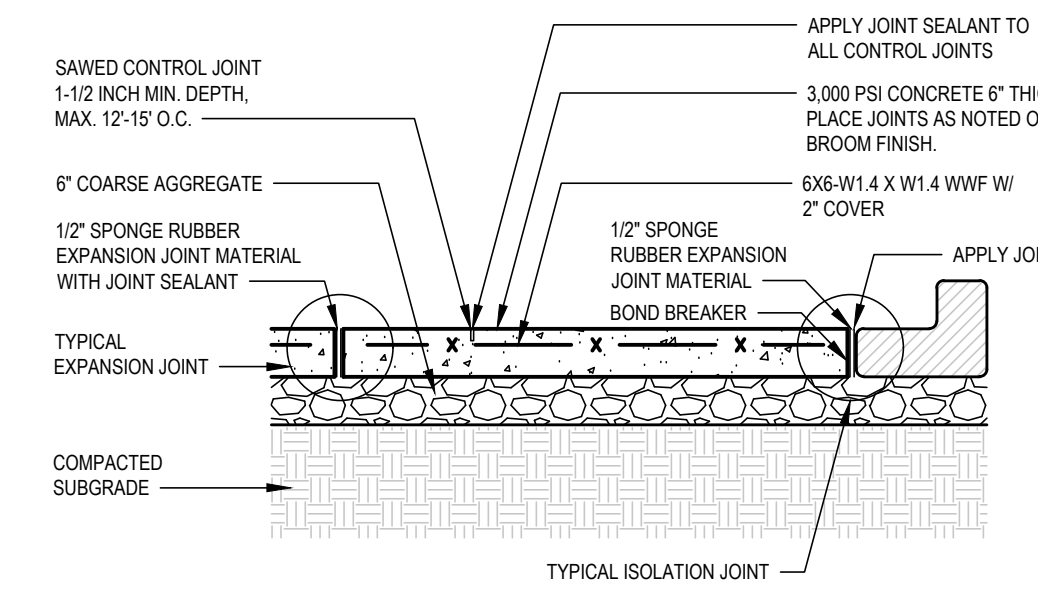
TYPICAL RAMP AND HANDRAIL
SCALE: NTS 10

- NOTES:**
- PROPER COMPACTION MUST BE ACHIEVED PRIOR TO POURING AND INSTALLATION OF THE SIDEWALK. THE INSPECTOR WILL ENSURE THIS IS ACHIEVED AND CAN REQUIRE ADDITIONAL MEASURES IF IT IS NOT ACHIEVED.
 - ALL CONCRETE TO BE 3,000 PSI AND FINISHED WITH CURING COMPOUND.
 - A 6" DEPTH IS REQUIRED AT LOCATIONS OF DRIVEWAYS CROSSINGS, AT STREET INTERSECTIONS (ALONG THE LENGTH OF RADIUS CURB RETURNS) AND IN THE HANDICAP RAMPS.

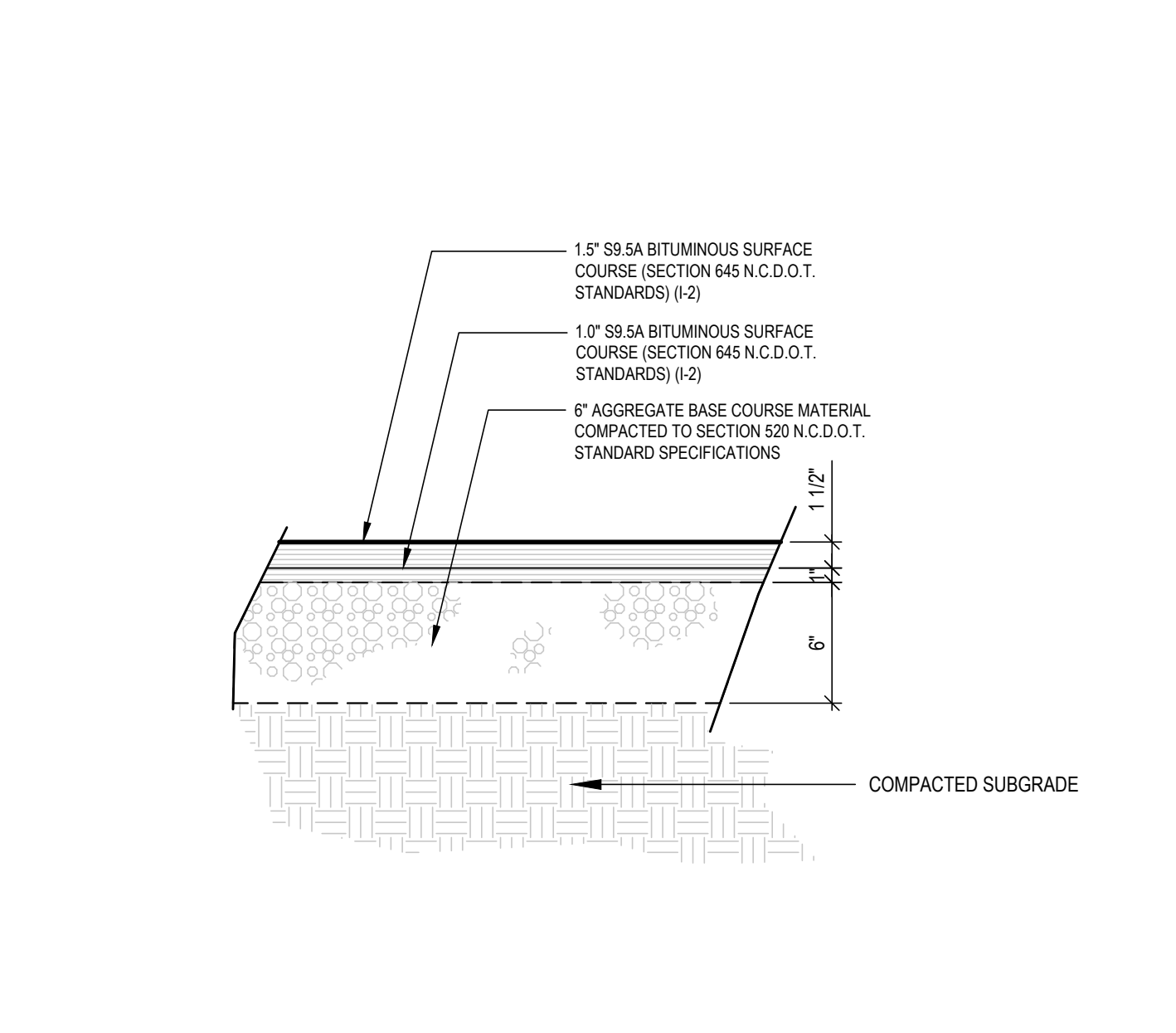


STANDARD 4" CONCRETE SIDEWALK
SCALE: NTS 9

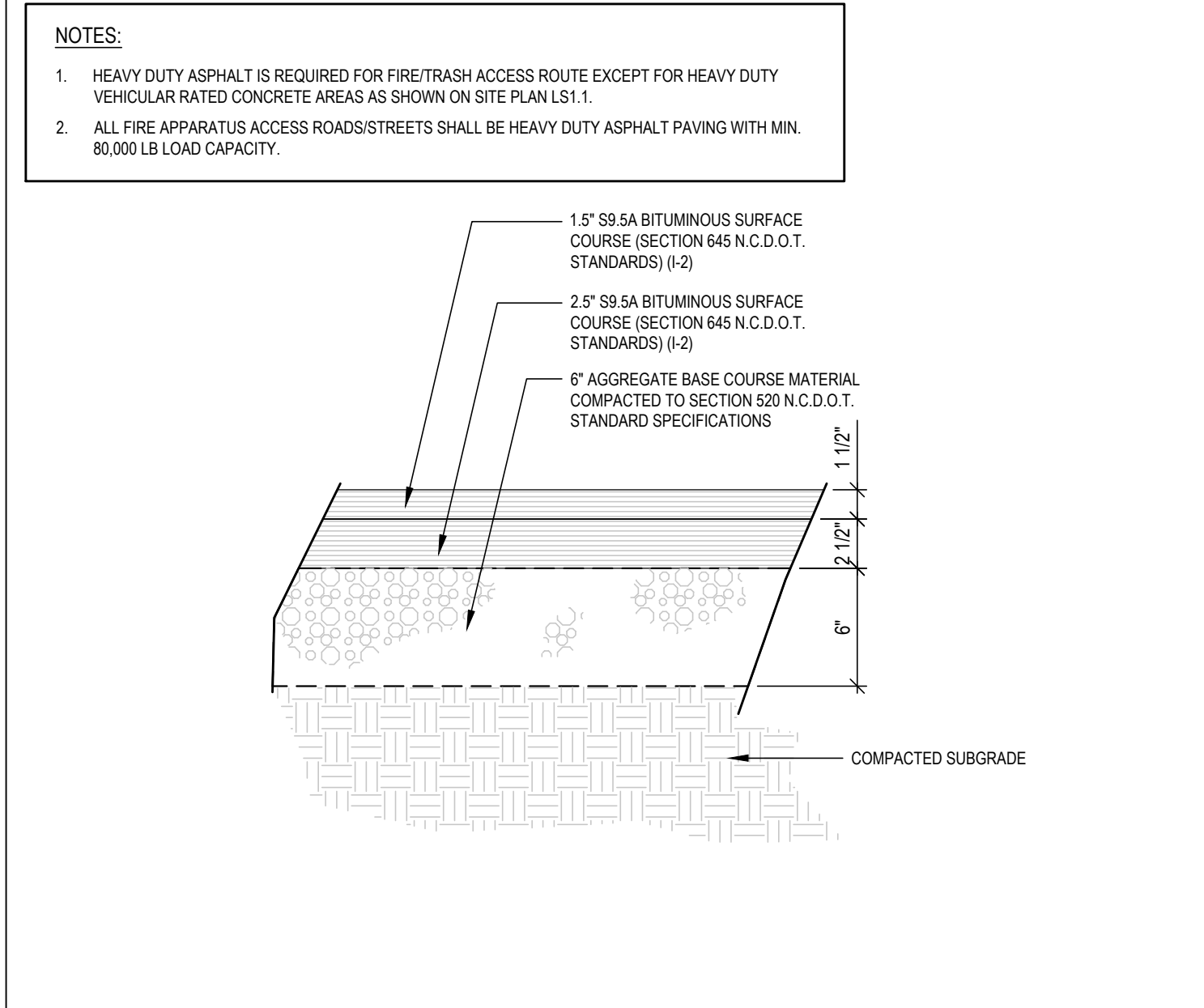
- NOTES:**
- PROPER COMPACTION MUST BE ACHIEVED PRIOR TO POURING AND INSTALLATION OF THE SIDEWALK. THE INSPECTOR WILL ENSURE THIS IS ACHIEVED AND CAN REQUIRE ADDITIONAL MEASURES IF IT IS NOT ACHIEVED.
 - ALL CONCRETE TO BE 3,000 PSI AND FINISHED WITH CURING COMPOUND.
 - A 6" DEPTH IS REQUIRED AT LOCATIONS OF DRIVEWAY CROSSINGS, AT STREET INTERSECTIONS (ALONG THE LENGTHS OF RADIUS CURB RETURNS) AND IN THE HANDICAP RAMPS.



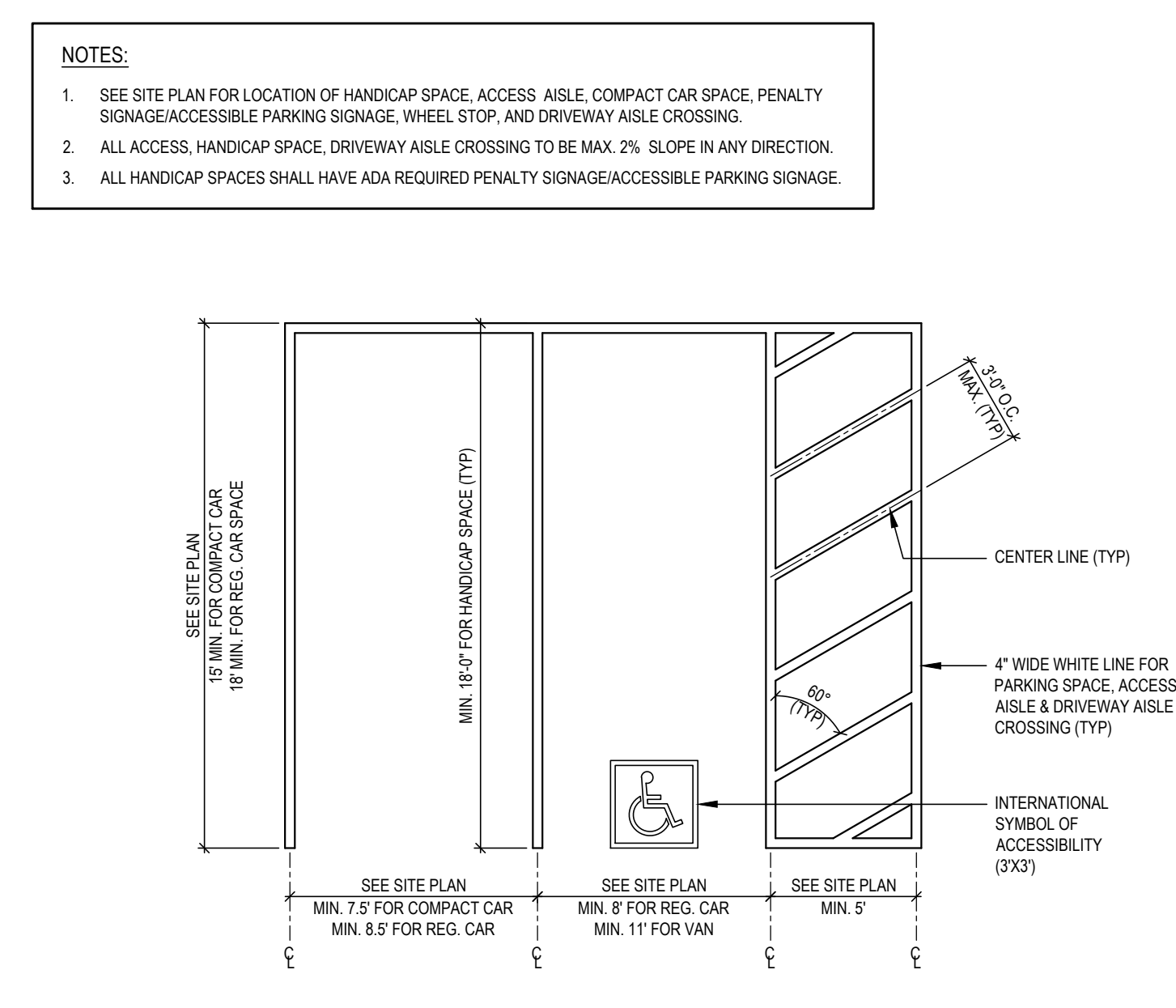
6" VEHICULAR RATED CONCRETE PAVEMENT
SCALE: NTS 8



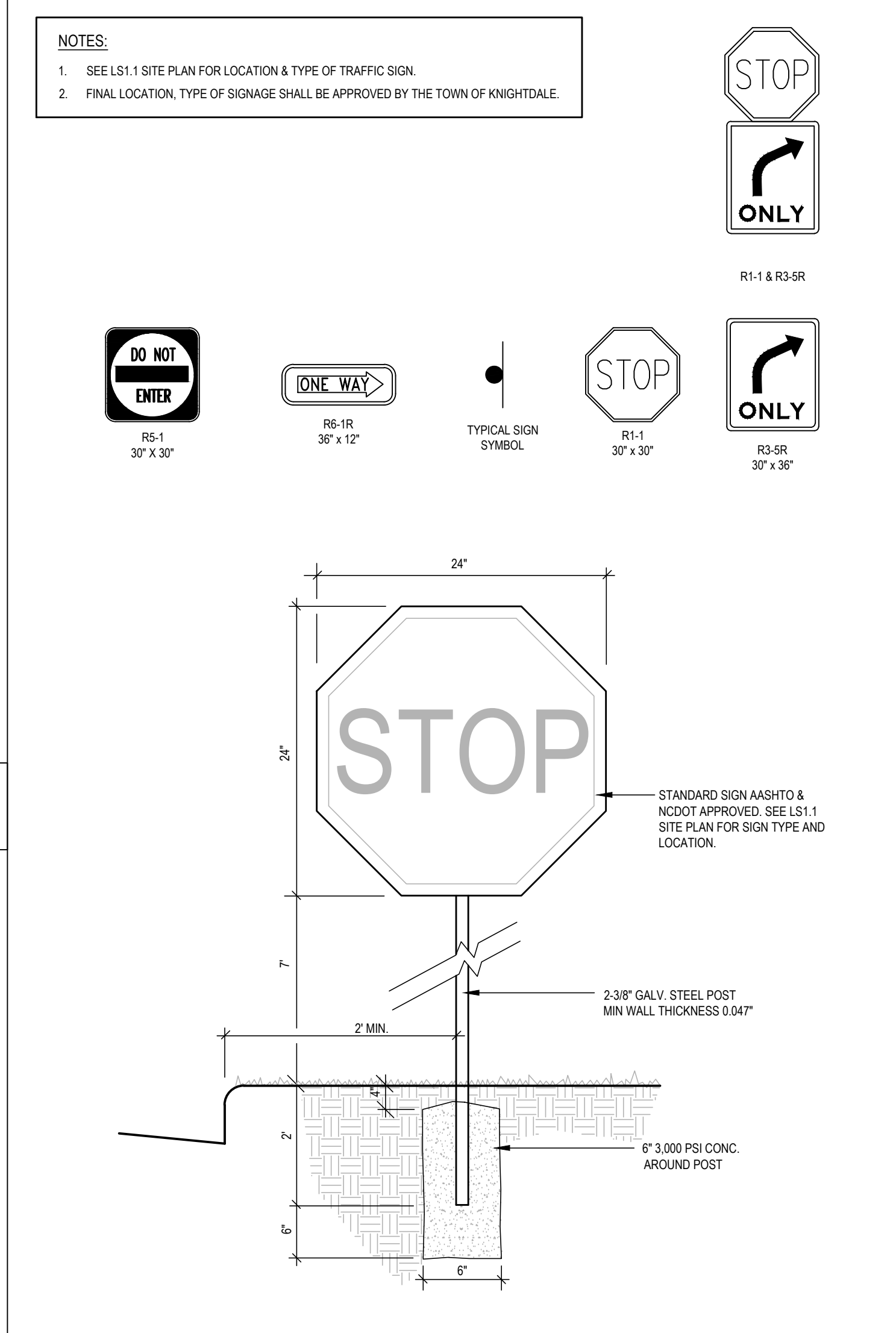
ASPHALT PVMT FOR PRIVATE ST/PRKG AREAS
SCALE: NTS 7



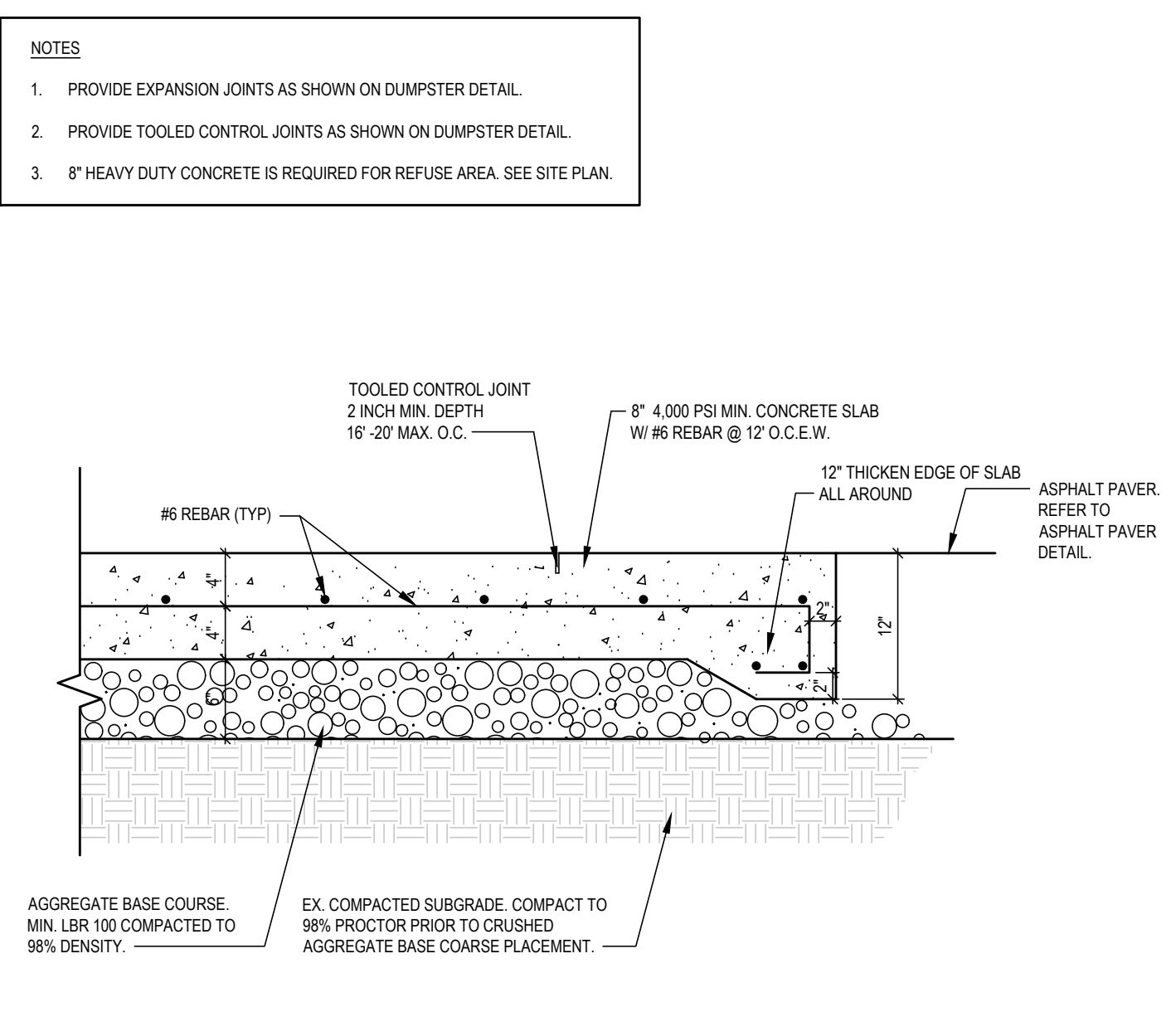
HEAVY DUTY ASPHALT PAVEMENT
SCALE: NTS 6



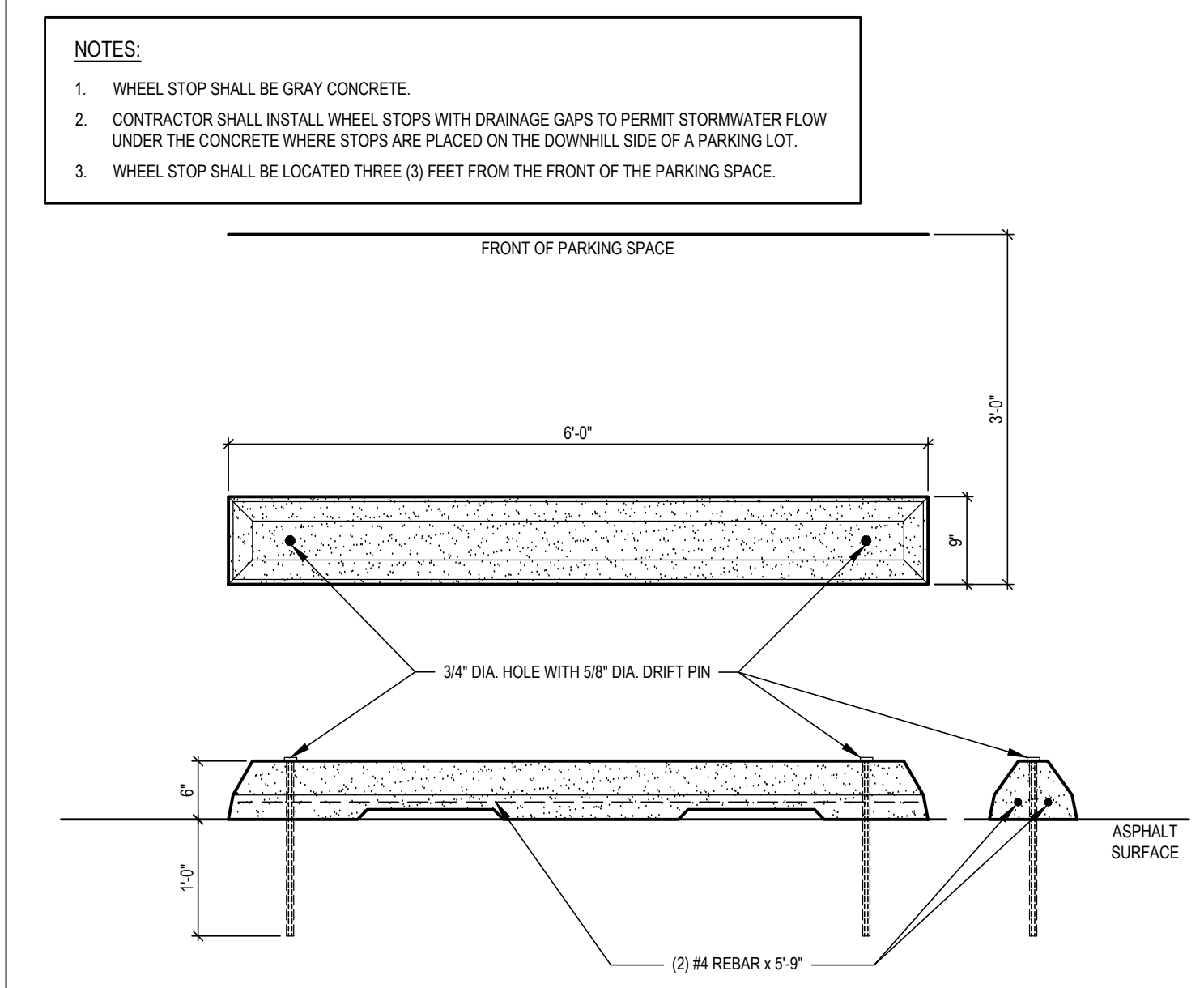
PARKING MARKING
SCALE: NTS 5



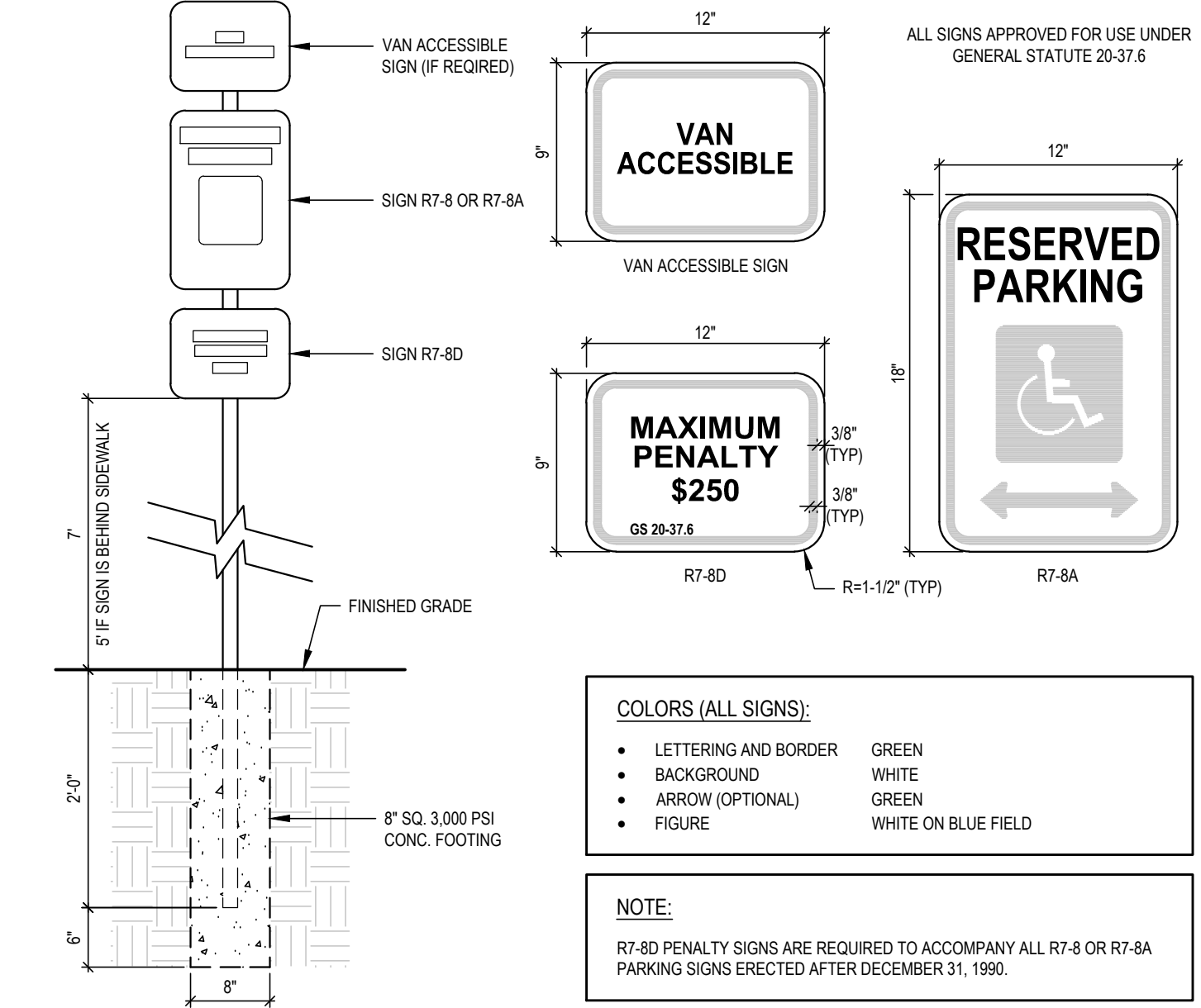
TRAFFIC SIGNAGE ON POST
SCALE: NTS 1



8" HEAVY DUTY CONCRETE PAVEMENT
SCALE: NTS 4



WHEEL STOP
SCALE: NTS 3



HANDICAP SIGNAGE
SCALE: NTS 2

Town Certification. This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale.

By: _____ Date: _____
Town Engineer

These plans are approved by the Town of Knightdale and serve as construction plans for this project.

By: _____ Date: _____
Administrator

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Brown Investment Properties
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Knightdale, North Carolina 27545

FOR SITE DEVELOPMENT APPROVAL

PROJECT: BIP-20038 DATE: 12.04.2019
ISSUE: Sketch Plan 06.22.2020
PUD - Master Plan 06.22.2020
Site Develop. Approval 01.29.2021

REVISIONS:

DRAWN BY: SB
CHECKED BY: KT
CONTENT: SITE DETAILS

LS3.6

Reference: ZMA-1-20

SITE PLAN DOCUMENTS

FOR



PROPOSED THE LOFTS AT KNIGHTDALE STATION

LOCATION OF SITE
7630 KNIGHTDALE BLVD
KNIGHTDALE, NC 27545
WAKE COUNTY
PIN NUMBER: 1754-65-5899

DEED PAGE 008139, PAGE NUMBER 00672

PLAN REFERENCES AND CONTACTS

REFERENCES

- ALTA NSPS LAND TITLE SURVEY: BOHLER ENGINEERING NC, PLLC, 4130 PARKLAKE AVENUE, SUITE 130, RALEIGH, NC 27612. DATED: 1/12/2021. JOB # NSR192091. ELEVATIONS: NAVD83. CONTACT: TOM TEABO. PHONE: (919) 578-9000.
- GEOTECHNICAL INVESTIGATION REPORT: NOVA ENGINEERING AND ENVIRONMENTAL, INC., 2201 BRENTWOOD ROAD, SUITE 105, RALEIGH, NC 27604. DATED: 11/2/2020. CONTACT: THOMAS R. BARTLETT. PHONE: (984) 242-1950.
- ARCHITECTURAL PLAN: J DAVIS, 510 S. WILMINGTON STREET, RALEIGH, NC 27601. CONTACT: SAWAKO BUSH. PHONE: (919) 835-1500.
- TOWN OF KNIGHTDALE DEVELOPMENT SERVICES, 950 STEEPLE SQUARE CT., KNIGHTDALE, NC 27545. PHONE: (919) 217-2200.
- BUILDING DEPARTMENT, 950 STEEPLE SQUARE CT., KNIGHTDALE, NC 27545. PHONE: (919) 217-2200.
- FIRE DEPARTMENT, 979 STEEPLE SQUARE CT., KNIGHTDALE, NC 27545. PHONE: (919) 217-2271.
- ELECTRIC, DUKE ENERGY PROGRESS, PHONE: (800) 452-2777.
- GAS, PUBLIC SERVICE GAS COMPANY, PHONE: (877) 776-2427.
- WATER & SEWER, CITY OF RALEIGH PUBLIC UTILITIES, 1 EXCHANGE PLAZA, SUITE 620, RALEIGH, NC 27601. PHONE: (919) 996-3245. EMAIL: PUBLICUTILTYINFO@RALEIGHNC.GOV.

GOVERNING AGENCIES

- TOWN OF KNIGHTDALE DEVELOPMENT SERVICES, 950 STEEPLE SQUARE CT., KNIGHTDALE, NC 27545. PHONE: (919) 217-2200.

THE ABOVE REFERENCED DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THESE PLANS. HOWEVER, BOHLER DOES NOT CERTIFY THE ACCURACY OF THE WORK REFERENCED OR DERIVED FROM THESE DOCUMENTS, BY OTHERS.

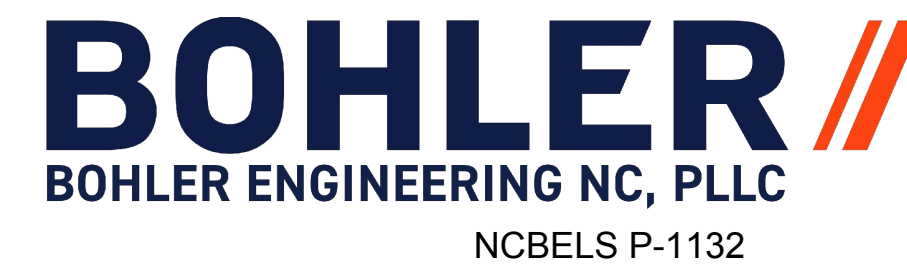


LOCATION MAP
SCALE: 1" = 1000'

OWNER
BROWN INVESTMENT PROPERTIES, INC.
W440 W MARKET ST
GREENSBORO, NC 27401
ATTN: CHESTER BROWN, III

DEVELOPER
BROWN INVESTMENT PROPERTIES, INC.
440 WEST MARK STREET
GREENSBORO, NC 27401
CONTACT: CHESTER BROWN III
PHONE: (336) 210-2946
EMAIL: CHETBROWN@BIPINC.COM

PREPARED BY



CONTACT: CHARLIE YOWELL, P.E.

PHONE: (919) 578-9000

EMAIL: CYOWELL@BOHLERENG.COM

Sheet List Table	
Sheet Number	Sheet Title
C-101	COVER SHEET
C-102	GENERAL NOTES
---	ALATA NSPS LAND TITLE SURVEY
C-201	EXISTING CONDITIONS & DEMOLITION PLAN
C-401	GRADING & DRAINAGE PLAN
C-501	UTILITY PLAN
C-502	UTILITY DETAILS

WATER ALLOCATION POLICY	
BASE POINTS	
MIXED USE DEVELOPMENT (GREENFIELD)	50
BONUS POINTS	
SECTION 2B - PARKING LOTS AND STORMWATER BMP'S: PROVISIONS OF ON-STREET PUBLIC PARKING (1 POINT PER STALL UP TO 4 MAX)	4
SECTION 4B - POOL- RESORT STYLE POOL	2
SECTION 4C - OUTDOOR DECK/PATIO/ DECK/PATIO - MORE THAN 2000 SF	2
SECTION 4E - CLUBHOUSE- MEETING SPACE WITHOUT KITCHEN MORE THAN 3500 SQUARE FEET	8
TOTAL POINTS:	66

a. **TOWN APPROVED STANDARDS SHALL CONTROL.** IN THE EVENT OF A CONFLICT OR INCONSISTENCY BETWEEN THESE CONSTRUCTION DRAWINGS AND THE TOWN OF KNIGHTDALE'S APPROVED STANDARDS FOR THIS PROJECT, THE APPROVED STANDARDS SHALL CONTROL. TOWN OF KNIGHTDALE APPROVED STANDARDS SHALL MEAN ALL DEVELOPMENT DOCUMENTS NECESSARY FOR APPROVAL FOR THE PROPERTY INCLUDING, BUT NOT LIMITED TO, ANY SPECIAL USE PERMIT, SUBDIVISION PLAN, SITE PLAN, SUBDIVISION PLAT(S), PHASING SCHEDULE, DEVELOPMENT AGREEMENT, UTILITY ALLOCATION AGREEMENT, ANNEXATION AGREEMENT, THE TOWN OF KNIGHTDALE STANDARD SPECIFICATION AND DETAILS MANUAL AND APPLICABLE PROVISIONS OF THE NORTH CAROLINA STATE BUILDING CODE.

b. **PROFESSIONAL DESIGN ENGINEER CERTIFICATION.** THESE IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING DRAWINGS AND WITH THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.
I, Charlie Howell, P.E. CERTIFY THAT THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE HAVE BEEN THOROUGHLY CHECKED AND FOUND TO BE APPLICABLE TO THIS PROJECT. ALL EXCEPTIONS TO THE APPLICABLE TOWN STANDARDS HAVE BEEN PREVIOUSLY APPROVED BY THE TOWN OF KNIGHTDALE AND SAID EXCEPTIONS ARE SHOWN ON SHEET(S) _____ OF THESE DRAWINGS.

SEAL: _____ BY: Charlie Howell, P.E. DATE: 1/28/21



a. **TOWN CERTIFICATION.** THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
TOWN ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

BOHLER
BOHLER ENGINEERING NC, PLLC

SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY

811
Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

NOT APPROVED FOR CONSTRUCTION

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: NCR1902091
DRAWN BY: TGH
CHECKED BY: WES
DATE: 01/15/2021
CAD ID: SDP-0

PROJECT:

SITE PLAN DOCUMENTS

FOR

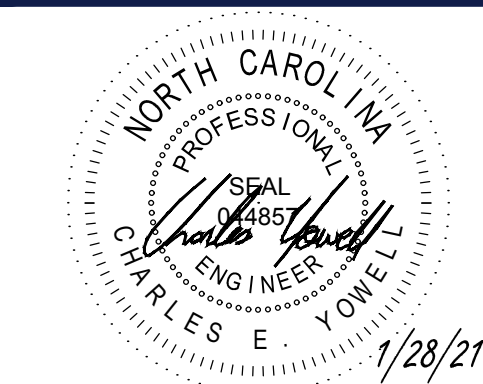


7630 KNIGHTDALE BLVD
KNIGHTDALE, NC 27545
WAKE COUNTY

BOHLER
BOHLER ENGINEERING NC, PLLC
NCBELS P-1132

4130 PARKLAKE AVENUE, SUITE 130
RALEIGH, NC 27612
Phone: (919) 578-9000

NC@BohlerEng.com



SHEET TITLE:

COVER SHEET

SHEET NUMBER:

C-101

ORG. DATE - 01/15/2021

NOTES:

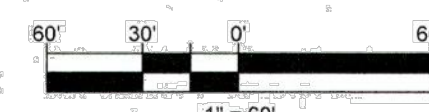
- 1) THE FIRM HAS RELIED UPON TITLE COMMITMENT BY METRO TITLE COMPANY DATED JANUARY 4TH, 2021 AT 8:00AM, COMMITMENT NO.: MET2019-01768, WHILE AND IN PREPARING THIS SURVEY. THE SURVEYOR IS NOT RESPONSIBLE FOR ANY TITLE EXCEPTIONS NOT DISCLOSED BY THE REFERENCED TITLE COMMITMENT.
- 2) AREAS COMPUTED BY COORDINATE METHOD.
- 3) PROPERTY SHOWN HEREON IS SUBJECT TO ALL RIGHTS-OF-WAY, EASEMENTS AND RESTRICTIONS OF RECORD.
- 4) ALL DISTANCES SHOWN ON SURVEY ARE HORIZONTAL GROUND DISTANCES UNLESS OTHERWISE NOTED.
- 5) RIGHTS-OF-WAY INFORMATION IS BASED ON DEEDS AND MAPS OF RECORD.
- 6) NC GRID COORDINATES (NAD83) OBTAINED BY USING GPS. PRE THE NCVRS NETWORK.
- 7) BASIS OF BEARING SHOWN HEREON IS NC GRID (NAD 83 NSRS 2011).
- 8) VERTICAL DATUM SHOWN HEREON IS NAVD88.
- 9) THE PROPERTY SHOWN HEREON IS LOCATED IN FLOODZONE "ZONE X", AREA OF MINIMAL FLOODING, PER FLOOD INSURANCE RATE MAP 3720175400J, PANEL 1754 EFFECTIVE DATE MARCH 2, 2006.
- 10) NO OBSERVED ENCROACHMENTS WERE FOUND AT THE TIME OF SURVEY.
- 11) THE PROPERTY SHOWN HEREON IS LOCATED OUTSIDE OF TOWN OF KNIGHTDALE LIMITS, PER WAKE COUNTY GIS.
- 12) THE ADJACENT PROPERTIES ARE LOCATED INSIDE OF TOWN OF KNIGHTDALE LIMITS, PER WAKE COUNTY GIS.
- 13) ENVIRONMENTAL SURVEY PRODUCED BY NOVA ENGINEERING AND ENVIRONMENTAL, INC., DATED NOVEMBER 13, 2019.
- 14) NO WETLANDS, BUFFERS, OR WATERSHED PROTECTION DISTRICTS WERE OBSERVED AT THE TIME OF THE SURVEY.
- 15) ACCESS TO THE SUBJECT PROPERTY IS AVAILABLE FROM PUBLIC RIGHT OF WAY OF U.S. HIGHWAY 64 AND KNIGHTDALE STATION RUN.
- 16) SUBJECT PROPERTY IS ZONED AS HB' HIGHWAY BUSINESS PER TOWN OF KNIGHTDALE UDO (UNIFORM DEVELOPMENT ORDINANCE).

TITLE COMMITMENT
 METRO TITLE COMPANY
 COMMITMENT NUMBER: MET2019-01768
 COMMITMENT DATE: JANUARY 4, 2021 AT 8:00AM
 SCHEDULE B - SECTION II - EXCEPTIONS

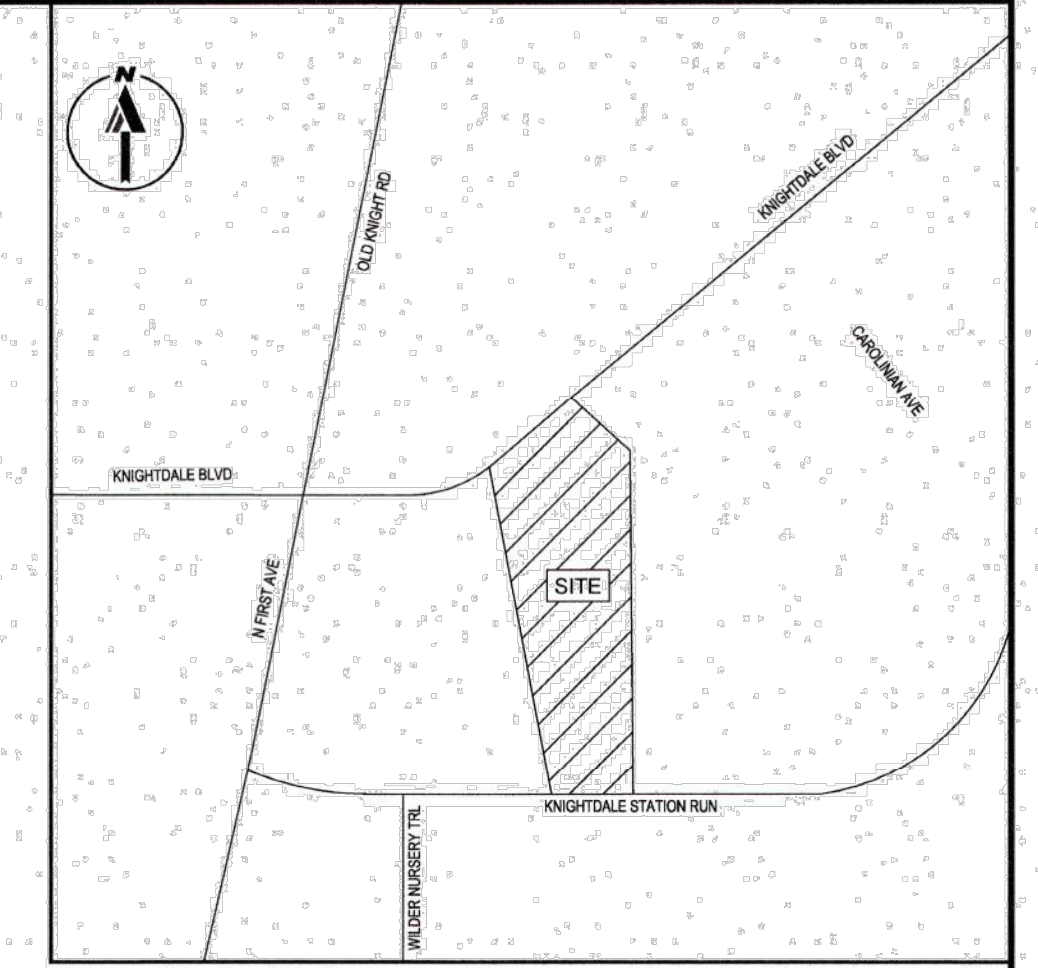
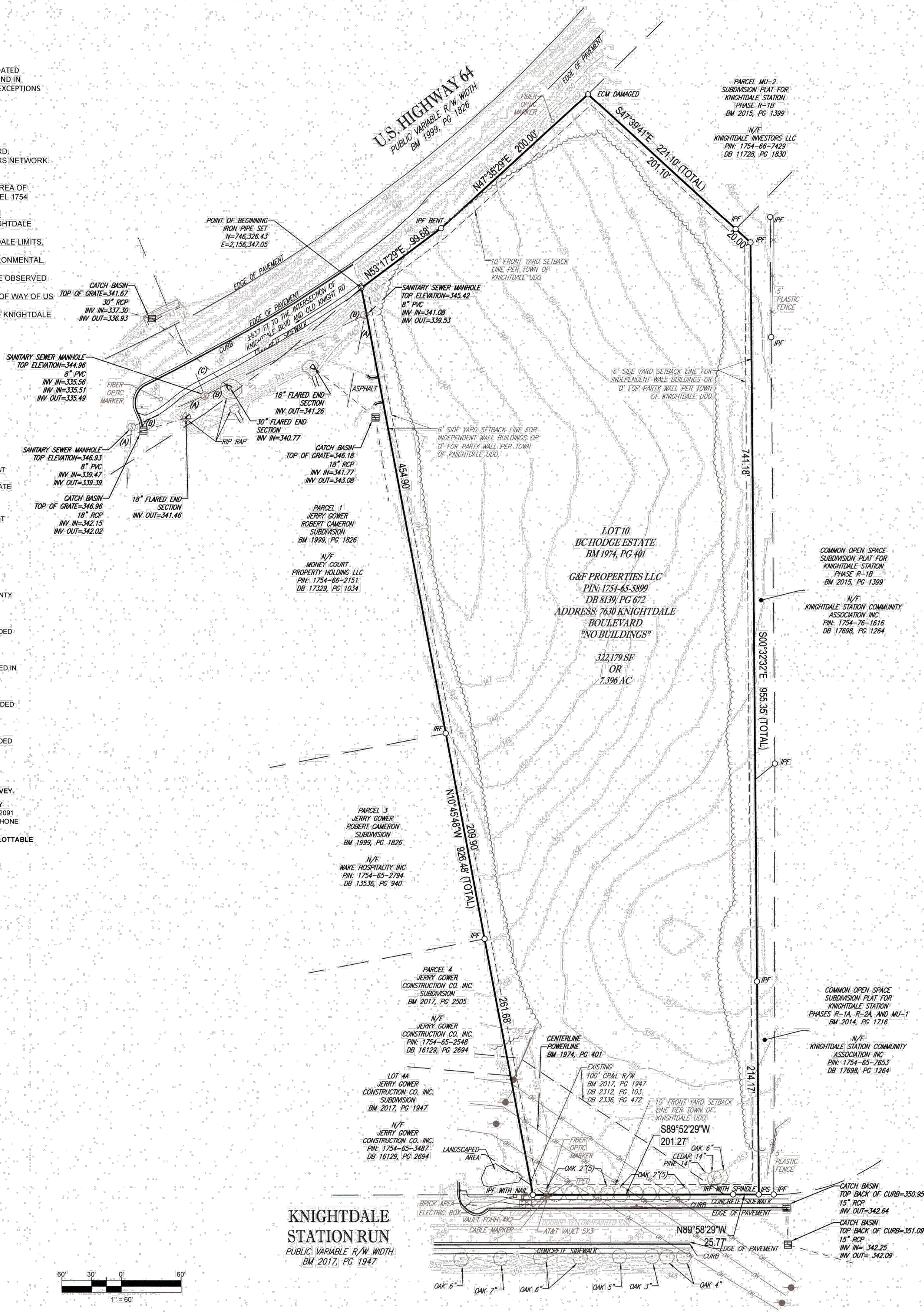
1. ANY DEFECT, LIEN, ENCUMBRANCE, ADVERSE CLAIM, OR OTHER MATTER THAT APPEARS FOR THE FIRST TIME IN THE PUBLIC RECORDS OR IS CREATED, ATTACHES, OR IS DISCLOSED BETWEEN THE COMMITMENT DATE AND THE DATE ON WHICH ALL OF THE SCHEDULE B, PART I REQUIREMENTS ARE MET.
NOT A SURVEY MATTER.
2. TAXES AND ASSESSMENTS FOR THE YEAR 2021 AND SUBSEQUENT YEARS, NOT YET DUE AND PAYABLE.
NOT A SURVEY MATTER.
3. EASEMENTS, SETBACK LINES AND ANY OTHER MATTERS SHOWN ON PLAT RECORDED IN PLAT BOOK 1974, PAGE 401, WAKE COUNTY REGISTRY.
AFFECTS SUBJECT PROPERTY. PLOTTED AND SHOWN ON THE SURVEY.
4. ELECTRIC POWER LINE RIGHT OF WAY EASEMENT TO WAKE ELECTRIC MEMBERSHIP CORPORATION RECORDED IN BOOK 2312, PAGE 103, WAKE COUNTY REGISTRY.
AFFECTS SUBJECT PROPERTY. PLOTTED AND SHOWN ON THE SURVEY.
5. CONSENT JUDGMENT FILED BY CAROLINA POWER & LIGHT COMPANY RECORDED IN BOOK 2276, PAGE 821, WAKE COUNTY REGISTRY.
AFFECTS SUBJECT PROPERTY. NOT A PLOTTABLE MATTER.
6. EASEMENT(S) IN FAVOR OF CAROLINA POWER & LIGHT COMPANY AS RECORDED IN BOOK 2336, PAGE 472, WAKE COUNTY REGISTRY.
AFFECTS SUBJECT PROPERTY. PLOTTED AND SHOWN ON THE SURVEY.
7. CONSENT JUDGMENT FILED BY CAROLINA POWER & LIGHT COMPANY RECORDED IN BOOK 2383, PAGE 29, WAKE COUNTY REGISTRY.
AFFECTS SUBJECT PROPERTY NOT A PLOTTABLE MATTER.
8. CONSENT JUDGMENT FILED BY CAROLINA POWER & LIGHT COMPANY RECORDED IN BOOK 2299, PAGE 674, WAKE COUNTY REGISTRY.
AFFECTS SUBJECT PROPERTY NOT A PLOTTABLE MATTER.
9. NO COVERAGE IS PROVIDED AS TO THE AMOUNT OF ACREAGE OR SQUARE FOOTAGE OF THE LAND.
BOUNDARY, SQUARE FOOTAGE, AND ACREAGE ARE SHOWN ON THE SURVEY.
10. THE FOLLOWING MATTERS AS SHOWN ON THE ALTA/NSPS LAND TITLE SURVEY DATED JANUARY 8, 2021, BY THOMAS E. TEABO, PLS, BEARING FILE NO. NSR192091 (THE SURVEY): (A) OVERHEAD ELECTRIC LINES, FIBER OPTIC MARKER TELEPHONE PEDESTAL, CABLE MARKER, UTILITY VAULTS, UTILITY POLES, GUY WIRE. THE ABOVE INFORMATION IS PLOTTED AND SHOWN ON THE SURVEY, AS PLOTTABLE AND APPLICABLE.
11. THIS POLICY SPECIFICALLY EXCLUDES ANY CLOSING PROTECTION SERVICES (COVERAGE OR INSURANCE) AS THEY APPLY TO THIS TRANSACTION.
NOT A SURVEY MATTER.

LEGEND

- EXISTING CONTOUR
- LINE SURVEYED
- LINE NOT SURVEYED
- WATER VALVE
- OVERHEAD WIRES
- GRATE TOP INLET
- UTILITY POLE
- IRON PIPE SET
- IRON PIPE FOUND
- IRON REBAR FOUND
- EXISTING CONCRETE MONUMENT
- SIGN
- FENCE
- AREA LIGHT
- GUY WIRE
- SANITARY MANHOLE
- PAINTED ARROWS



BOHLER ENGINEERING, ALL RIGHTS RESERVED. OTHER THAN THE ORIGINAL PROJECT OR THE PURPOSE ORIGINALLY INTENDED, WITHOUT THE WRITTEN PERMISSION OF BOHLER ENGINEERING, IS PROHIBITED.



LOCATION MAP
NOT TO SCALE

REFERENCES:

- BM 1974, PG 401
- BM 1999, PG 1826
- BM 2014, PG 1716
- BM 2015, PG 1389
- BM 2017, PG 1947
- BM 2017, PG 2505
- DB 8139, PG 672
- DB 2312, PG 103
- DB 2336, PG 472
- DB 17229, PG 1034
- DB 13536, PG 940
- DB 16129, PG 2694
- DB 11728, PG 1830
- DB 15318, PG 648

SURVEYOR CERTIFICATION

I, THOMAS E. TEABO, PLS, HEREBY CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION, FROM DEED AND MAP REFERENCES AS NOTED ON SAID MAP. THAT THE BOUNDARIES NOT SURVEYED ARE CLEARLY INDICATED AS DRAWN FROM INFORMATION FROM DEED AND MAP REFERENCES AS NOTED ON SAID MAP.

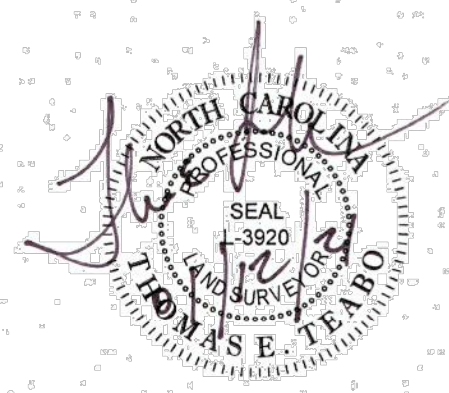
THAT THE RATIO OF PRECISION OR POSITIONAL ACCURACY OF THE SURVEY AS CALCULATED IS 1:10,000+. THAT THE BOUNDARIES NOT SURVEYED ARE SHOWN AS BROKEN LINES PLOTTED FROM INFORMATION OF RECORD. THAT THIS MAP WAS PREPARED IN ACCORDANCE WITH TITLE 21, CHAPTER 56, NCAG, AS AMENDED.

I HEREBY CERTIFY THAT THIS MAP WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL GPS SURVEY MADE UNDER MY SUPERVISION AND THE FOLLOWING INFORMATION WAS USED TO PERFORM THE SURVEY:

- (1) CLASS OF SURVEY: "CLASS A"
- (2) POSITIONAL ACCURACY: 0.04
- (3) TYPE OF GPS FIELD PROCEDURE: REAL-TIME KINEMATIC NETWORKS-NCVRS
- (4) DATES OF SURVEY: 10/07/2020-10/08/2020
- (5) DATUM/EPOCH: NAD 83 (2011) EPOCH 2010.00
- (6) PUBLISHED/FIXED-CONTROL USE: NCVRS
- (7) GEOID MODEL: 2015 (CONUS)
- (8) COMBINED GRID FACTOR(S): 0.999996081
- (9) UNITS: US SURVEY FEET

WITNESS MY ORIGINAL SIGNATURE, LICENSE NUMBER AND SEAL THIS 12TH DAY OF JANUARY A.D., 2021.

Thomas E. Teabo
 SURVEYOR NC L-3920



KNIGHTDALE STATION RUN
 PUBLIC VARIABLE R/W WIDTH
 BM 2017, PG 1947

G&F PROPERTIES, LLC, METRO TITLE COMPANY, COMMONWEALTH LAND TITLE INSURANCE COMPANY, KNIGHTDALE APARTMENT RENTAL PROPERTIES, LLC.

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 8, 13 & 14, OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON OCTOBER 8, 2020.

Thomas E. Teabo
THOMAS E. TEABO, PLS
 NORTH CAROLINA PROFESSIONAL LAND SURVEYOR NO. L-3920

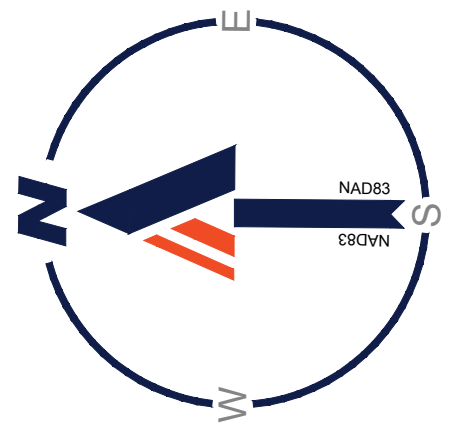
THIS CERTIFICATION IS MADE TO ONLY NAMED PARTIES FOR PURCHASE AND/OR MORTGAGE OF HEREIN DELINEATED PROPERTY BY THE NAMED PURCHASER. NO RESPONSIBILITY OR LIABILITY IS ASSUMED BY SURVEYOR FOR THE USE OF SURVEY FOR ANY OTHER PURPOSE INCLUDING, BUT NOT LIMITED TO, USE OF SURVEY AFFIDAVIT, RESALE OF PROPERTY, OR TO ANY OTHER PERSON NOT LISTED IN CERTIFICATION, EITHER DIRECTLY OR INDIRECTLY.

ALTA/NSPS LAND TITLE SURVEY
 PROPERTY OF
G & F PROPERTIES, LLC

PIN: 1754-65-5899
 DB 8139, PG 672
 TOWN OF KNIGHTDALE
 ST. MATTHEWS TOWNSHIP
 WAKE COUNTY, NORTH CAROLINA

FILE NO: NSR192091	DATE: 01/12/2021	FIELD DATE: 10/08/2020	CREW CHIEF: RJ	DRAWN: JT/FS	REVIEWED: TET	APPROVED: TET	SCALE: 1" = 60'	DWG. NO.:
								1 OF 1

BOHLER
 4130 PARKLAKE AVENUE, SUITE 130
 RALEIGH, NORTH CAROLINA 27612-9153
 www.bohlerengineering.com



GRADING LEGEND

EXISTING NOTE	TYPICAL NOTE TEXT	PROPOSED NOTE
120 125	CONTOUR LINE	120 125
SPOT ELEVATIONS		FC 516.00 BC 515.55
STORM LABEL		STIM #
STORM SEWER		
TYPICAL END SECTION		
YARD INLET		
CURB INLET		

BOHLER
BOHLER ENGINEERING NC, PLLC

SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY

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PROJECT No.: NCR1902091
DRAWN BY: TGH
DATE: 01/15/2024
CAD ID: GDP-0

SITE PLAN DOCUMENTS

FOR

BROWN INVESTMENT PROPERTIES
COMMERCIAL REAL ESTATE

7630 KNIGHTDALE BLVD
KNIGHTDALE, NC 27545
WAKE COUNTY

BOHLER
BOHLER ENGINEERING NC, PLLC
NCBELS P-1132

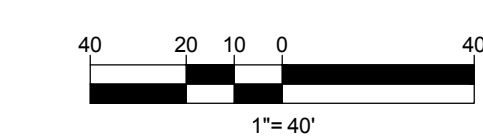
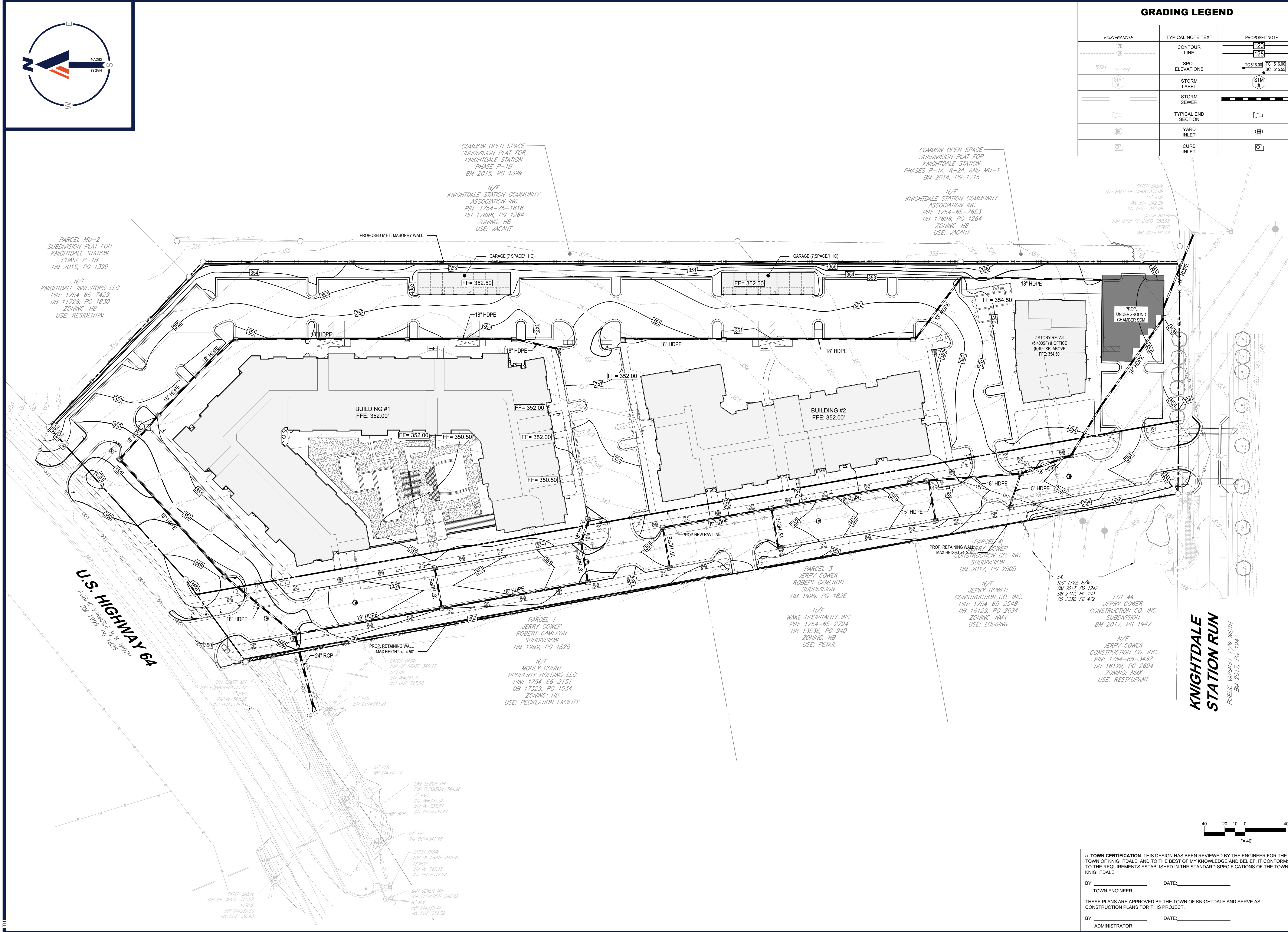
4130 PARKLAKE AVENUE, SUITE 130
RALEIGH, NC 27612
Phone: (919) 578-9000
NC@BohlerEng.com

NORTH CAROLINA PROFESSIONAL ENGINEERS
CARLES E. YONEL
1/28/21

GRADING & DRAINAGE PLAN

SHEET NUMBER:
C-401

ORG. DATE - 01/15/2024



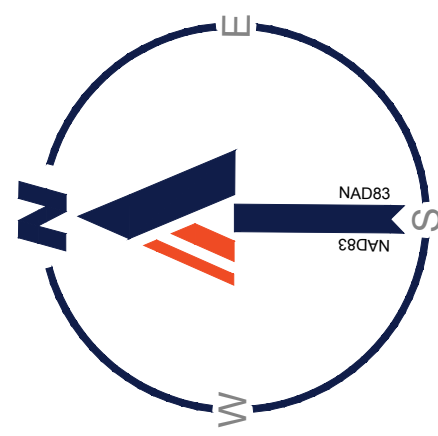
a. **TOWN CERTIFICATION.** THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
TOWN ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

Jan 28, 2024
 H:\2024\1902091\DRAWINGS\PLAN SET\SSITE PLAN DOCUMENTS\NCR1902091 - GDP - 0 - LAYOUT - C-401 GRADING & DRAINAGE PLAN



SITE PERMITTING APPROVAL

Water and Sewer Permits (if applicable)

The City of Raleigh consents to the connection and extension of the City's **Public Sewer System** as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. **City of Raleigh Public Utilities Department Permit #** _____

The City of Raleigh consents to the connection and extension of the City's **Public Water System** as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. **City of Raleigh Public Utilities Department Permit #** _____

The City of Raleigh consents to the connection to its public sewer system and extension of the private sewer collection system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. **City of Raleigh Public Utilities Department Permit #** _____

City of Raleigh Public Utilities Department Permit # _____

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

Plans for the proposed use have been reviewed for general compliance with applicable codes. This limited review, and authorization for construction is not to be considered to represent total compliance with all legal requirements for development and construction. The property owner, design consultants, and contractors are each responsible for compliance with all applicable City, State and Federal laws. This specific authorization below is not a permit, nor shall it be construed to permit any violation of City, State or Federal Law. All Construction must be in accordance with all Local, State, and Federal Rules and Regulations.

Electronic Approval: This approval is being issued electronically. This approval is valid only upon the signature of a City of Raleigh Review Officer below. The City will retain a copy of the approved plans. Any work authorized by this approval must proceed in accordance with the plans kept on file with the City. This electronic approval may not be edited once issued. Any modification to this approval once issued will invalidate this approval.

City of Raleigh Development Approval _____

City of Raleigh Review Officer _____

WATER ALLOCATION POLICY

BASE POINTS	
MIXED USE DEVELOPMENT (GREENFIELD)	50
BONUS POINTS	
SECTION 2B - PARKING LOTS AND STORMWATER BMP'S PROVISIONS OF ON-STREET PUBLIC PARKING (1 POINT PER STALL UP TO 4 MAX)	4
SECTION 4B - POOL, RESORT STYLE POOL	2
SECTION 4C - OUTDOOR DECK/PATIO: DECK/PATIO - MORE THAN 2000 SF	2
SECTION 4E - CLUBHOUSE/MEETING SPACE WITHOUT KITCHEN MORE THAN 3500 SQUARE FEET	8
TOTAL POINTS:	66

COMMON OPEN SPACE
SUBDIVISION PLAT FOR
KNIGHTDALE STATION
PHASE R-1B
BM 2015, PG 1399

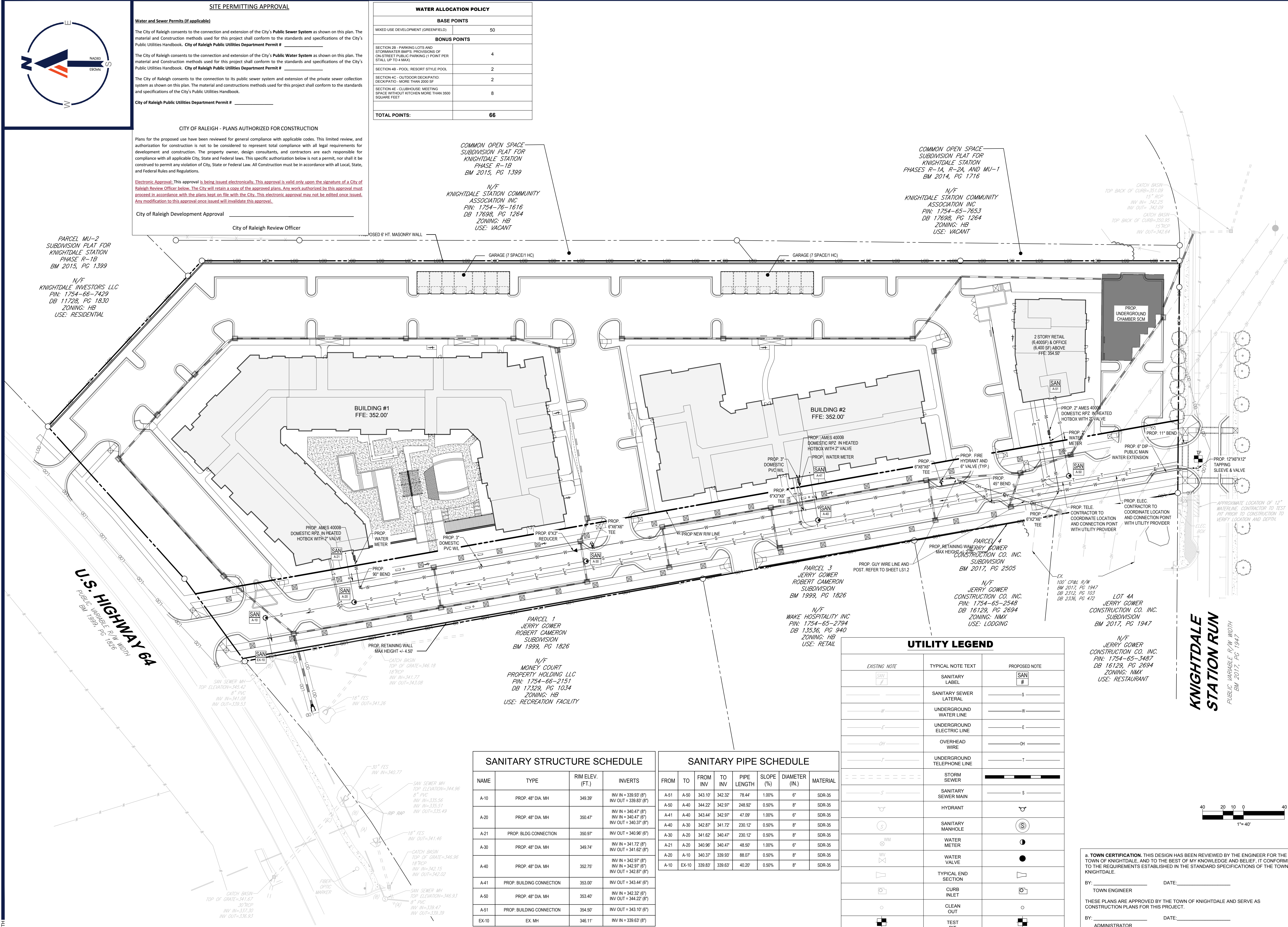
N/F
KNIGHTDALE STATION COMMUNITY
ASSOCIATION INC
PIN: 1754-76-1616
DB 1769B, PG 1264
ZONING: HB
USE: VACANT

COMMON OPEN SPACE
SUBDIVISION PLAT FOR
KNIGHTDALE STATION
PHASES R-1A, R-2A, AND MU-1
BM 2014, PG 1716

N/F
KNIGHTDALE STATION COMMUNITY
ASSOCIATION INC
PIN: 1754-65-7653
DB 1769B, PG 1264
ZONING: HB
USE: VACANT

PARCEL MU-2
SUBDIVISION PLAT FOR
KNIGHTDALE STATION
PHASE R-1B
BM 2015, PG 1399

N/F
KNIGHTDALE INVESTORS LLC
PIN: 1754-66-7429
DB 1172B, PG 1830
ZONING: HB
USE: RESIDENTIAL



U.S. HIGHWAY 64
PUBLIC WARE R/W WIDTH
BM 1999, PG 1826

KNIGHTDALE STATION RUN
PUBLIC VARIABLE R/W WIDTH
BM 2017, PG 1947

PARCEL 1
JERRY GOWER
ROBERT CAMERON
SUBDIVISION
BM 1999, PG 1826

N/F
MONEY COURT
PROPERTY HOLDING LLC
PIN: 1754-66-2151
DB 17329, PG 1034
ZONING: HB
USE: RECREATION FACILITY

PARCEL 3
JERRY GOWER
ROBERT CAMERON
SUBDIVISION
BM 1999, PG 1826

N/F
WAKE HOSPITALITY INC
PIN: 1754-65-2794
DB 13536, PG 940
ZONING: HB
USE: RETAIL

PARCEL 4
JERRY GOWER
CONSTRUCTION CO. INC.
SUBDIVISION
BM 2017, PG 2505

N/F
JERRY GOWER
CONSTRUCTION CO. INC.
PIN: 1754-65-2548
DB 16129, PG 2694
ZONING: NMX
USE: LODGING

LOT 4A
JERRY GOWER
CONSTRUCTION CO. INC.
SUBDIVISION
BM 2017, PG 1947

N/F
JERRY GOWER
CONSTRUCTION CO. INC.
PIN: 1754-65-3487
DB 16129, PG 2694
ZONING: NMX
USE: RESTAURANT

SANITARY STRUCTURE SCHEDULE

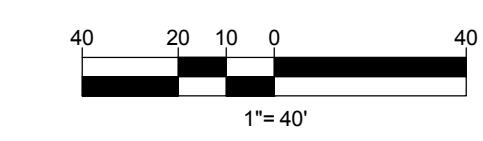
NAME	TYPE	RIM ELEV. (FT.)	INVERTS
A-10	PROP. 48" DIA. MH	349.39'	INV IN = 339.93' (8") INV OUT = 339.83' (8")
A-20	PROP. 48" DIA. MH	350.47'	INV IN = 340.47' (8") INV IN = 340.47' (6") INV OUT = 340.37' (8")
A-21	PROP. BLDG CONNECTION	350.97'	INV OUT = 340.96' (6")
A-30	PROP. 48" DIA. MH	349.74'	INV IN = 341.72' (8") INV OUT = 341.62' (8")
A-40	PROP. 48" DIA. MH	352.75'	INV IN = 342.97' (8") INV IN = 342.97' (6") INV OUT = 342.87' (8")
A-41	PROP. BUILDING CONNECTION	353.00'	INV OUT = 343.44' (6")
A-50	PROP. 48" DIA. MH	353.40'	INV IN = 342.32' (6") INV OUT = 344.22' (8")
A-51	PROP. BUILDING CONNECTION	354.50'	INV OUT = 343.10' (6")
EX-10	EX. MH	346.11'	INV IN = 339.63' (8")

SANITARY PIPE SCHEDULE

FROM	TO	FROM INV	TO INV	PIPE LENGTH	SLOPE (%)	DIAMETER (IN.)	MATERIAL
A-51	A-50	343.10'	342.32'	78.44'	1.00%	8"	SDR-35
A-50	A-40	344.22'	342.97'	248.92'	0.50%	8"	SDR-35
A-41	A-40	343.44'	342.97'	47.09'	1.00%	6"	SDR-35
A-40	A-30	342.87'	341.72'	230.12'	0.50%	8"	SDR-35
A-30	A-20	341.62'	340.47'	230.12'	0.50%	8"	SDR-35
A-21	A-20	340.96'	340.47'	48.50'	1.00%	6"	SDR-35
A-20	A-10	340.37'	339.93'	88.07'	0.50%	8"	SDR-35
A-10	EX-10	339.83'	339.63'	40.20'	0.50%	8"	SDR-35

UTILITY LEGEND

EXISTING NOTE	TYPICAL NOTE TEXT	PROPOSED NOTE
[Symbol]	SANITARY LABEL	[Symbol]
[Symbol]	SANITARY SEWER LATERAL	-S-
[Symbol]	UNDERGROUND WATER LINE	-W-
[Symbol]	UNDERGROUND ELECTRIC LINE	-E-
[Symbol]	OVERHEAD WIRE	-OH-
[Symbol]	UNDERGROUND TELEPHONE LINE	-T-
[Symbol]	STORM SEWER	[Symbol]
[Symbol]	SANITARY SEWER MAIN	-S-
[Symbol]	HYDRANT	[Symbol]
[Symbol]	SANITARY MANHOLE	[Symbol]
[Symbol]	WATER METER	[Symbol]
[Symbol]	WATER VALVE	[Symbol]
[Symbol]	TYPICAL END SECTION	[Symbol]
[Symbol]	CURB INLET	[Symbol]
[Symbol]	CLEAN OUT	[Symbol]
[Symbol]	TEST PIT	[Symbol]



TOWN CERTIFICATION. THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
TOWN ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY

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THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: NCR1902091
DRAWN BY: TGH
CHECKED BY: WES
DATE: 01/15/2021
CAD ID: UTP-0

SITE PLAN DOCUMENTS

FOR

BROWN INVESTMENT PROPERTIES
COMMERCIAL REAL ESTATE

7630 KNIGHTDALE BLVD
KNIGHTDALE, NC 27545
WAKE COUNTY

BOHLER
BOHLER ENGINEERING NC, PLLC
NCBELS P-1132

4130 PARKLAKE AVENUE, SUITE 130
RALEIGH, NC 27612
Phone: (919) 578-9000
NC@BohlerEng.com

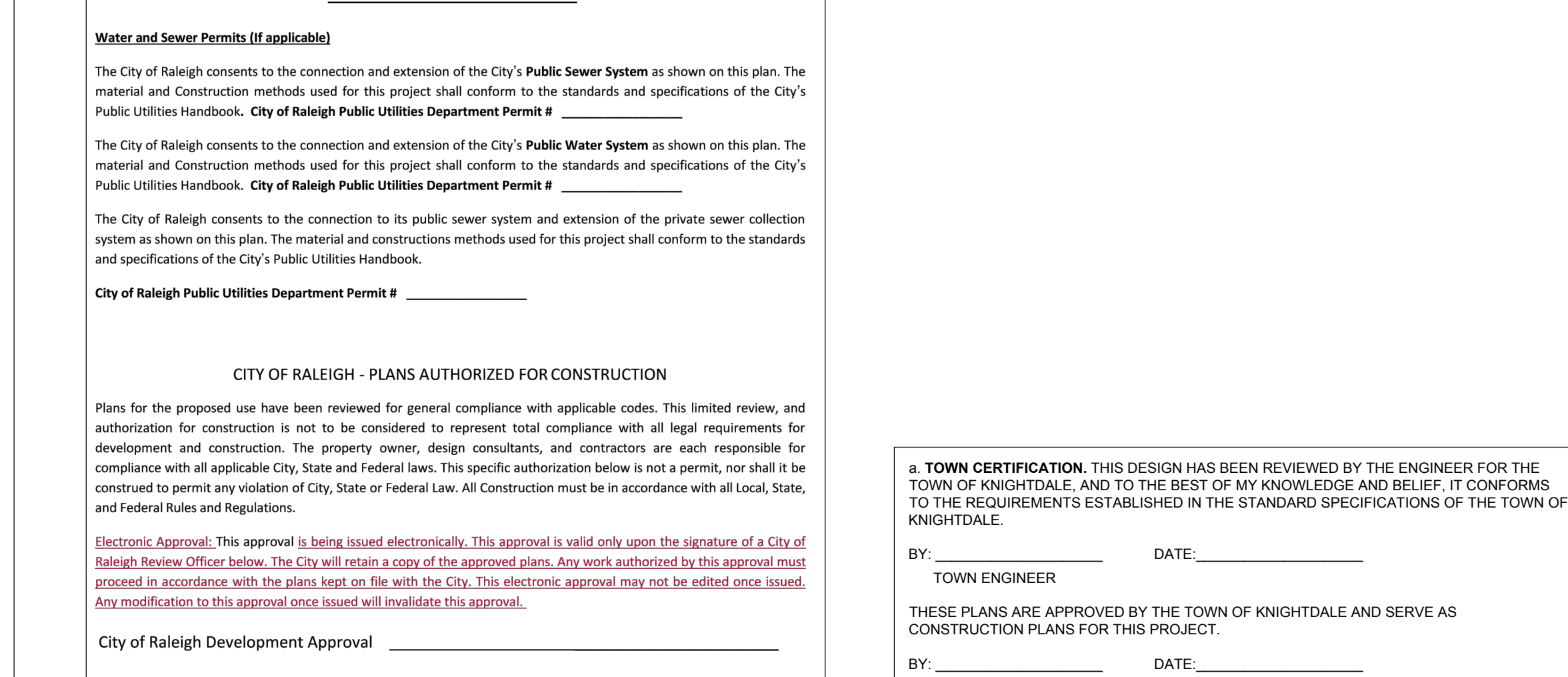
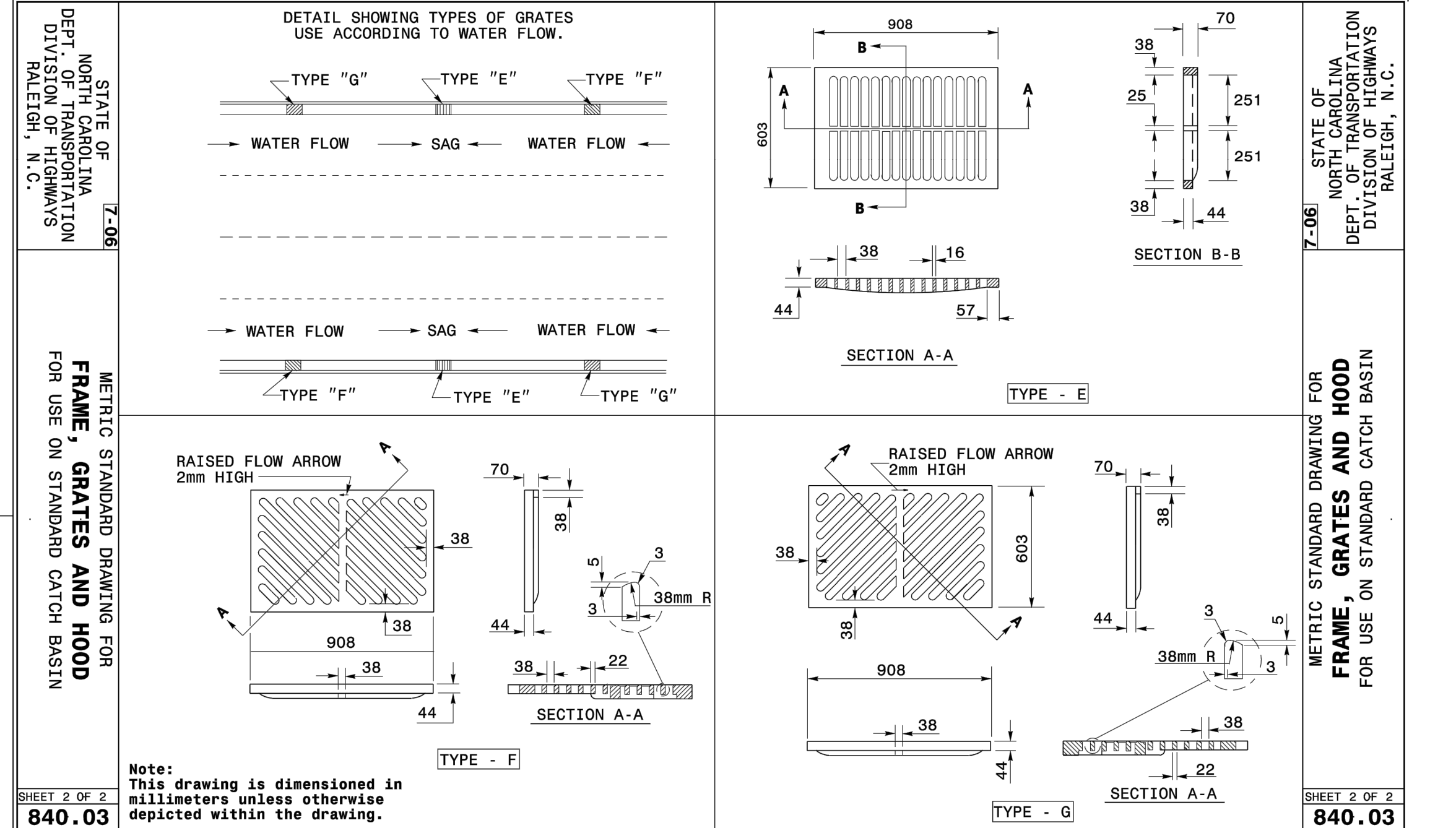
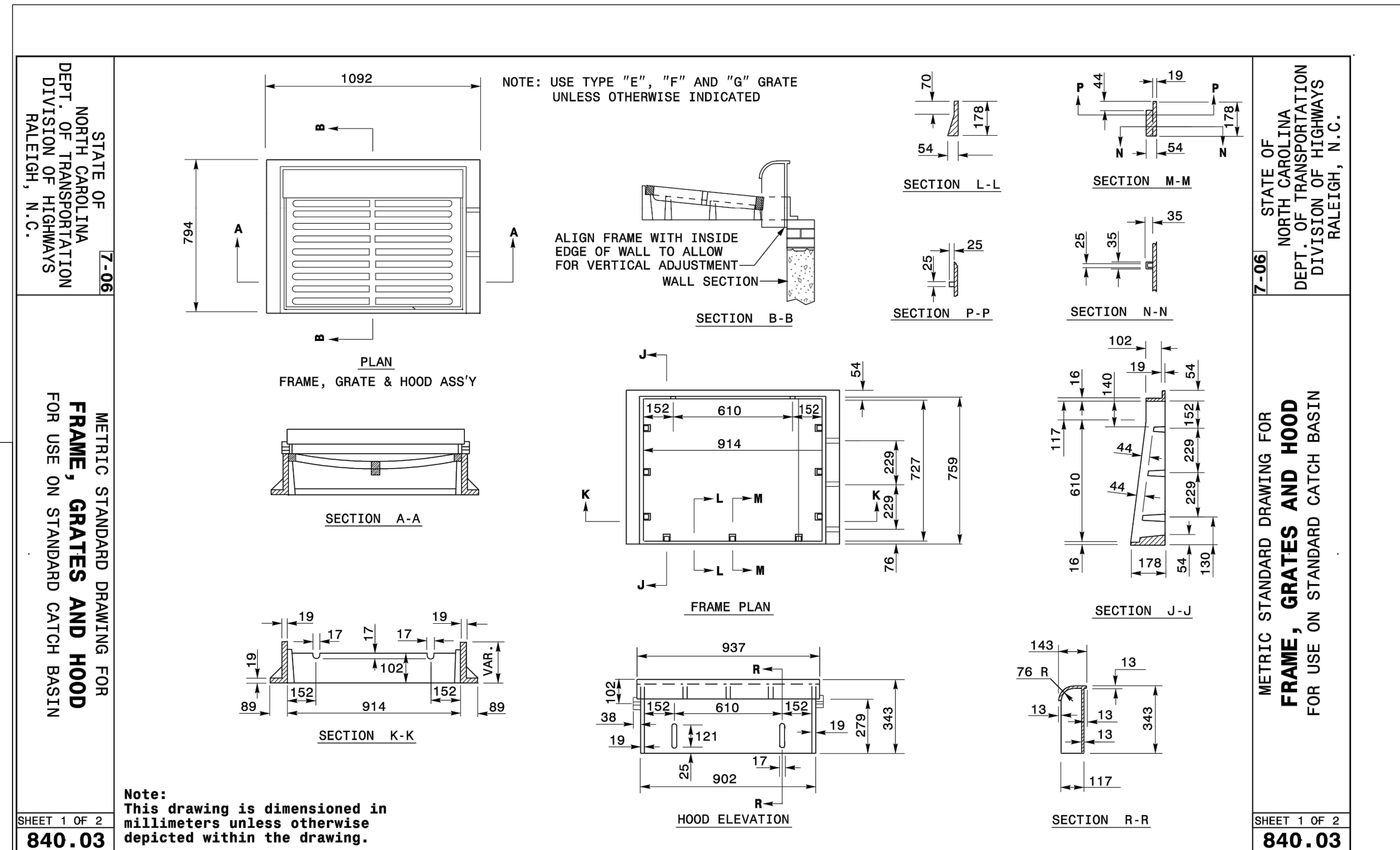
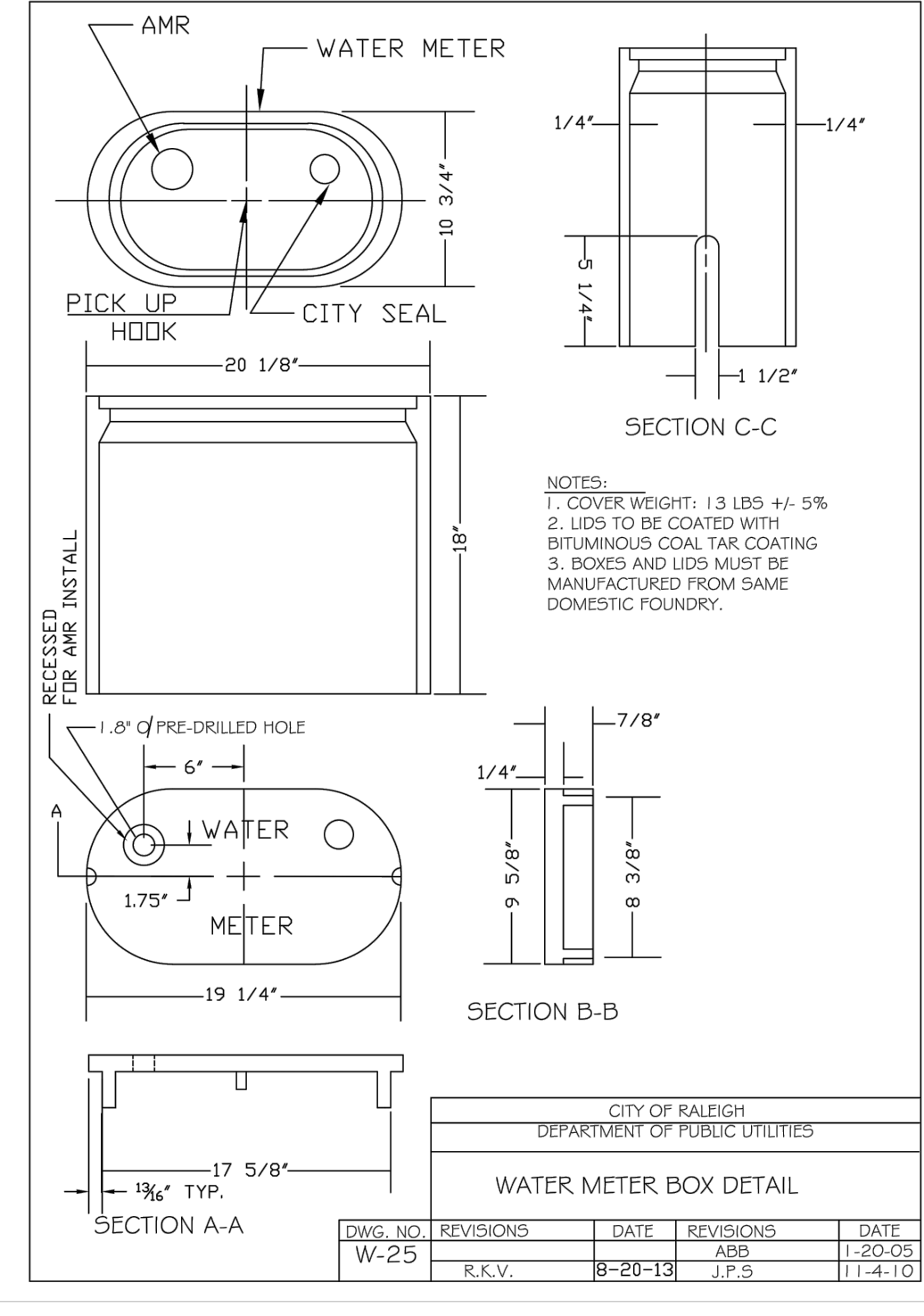
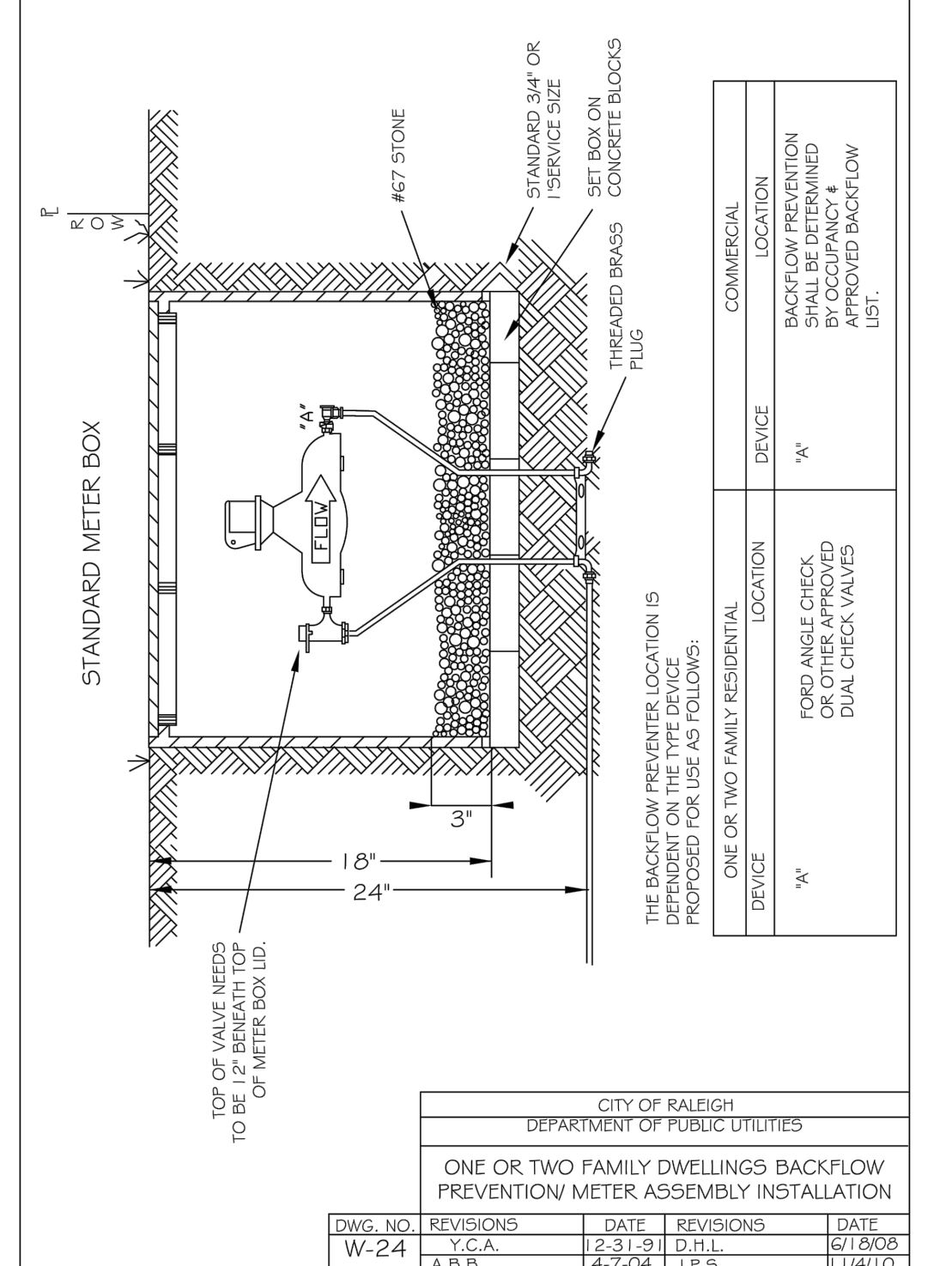
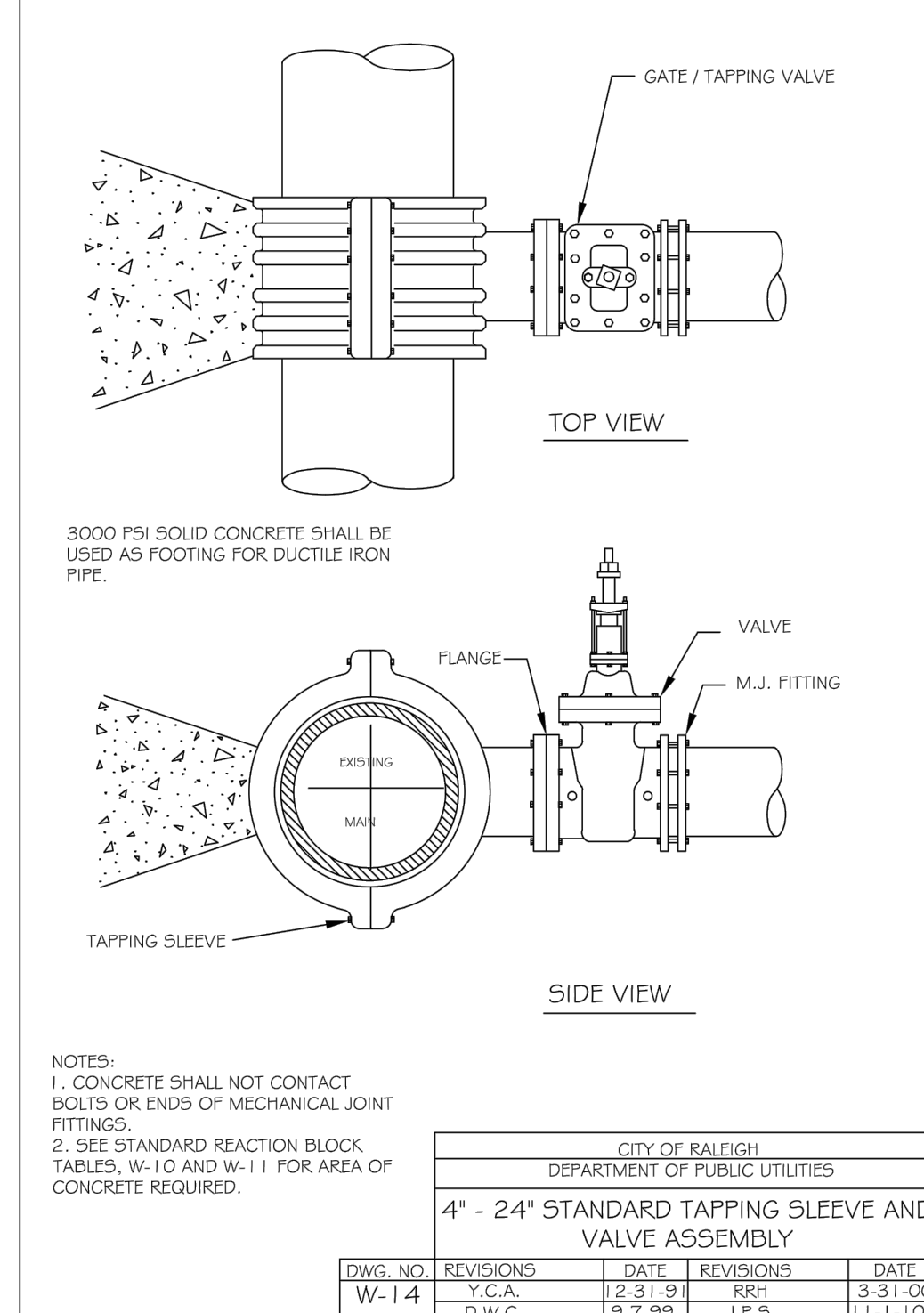
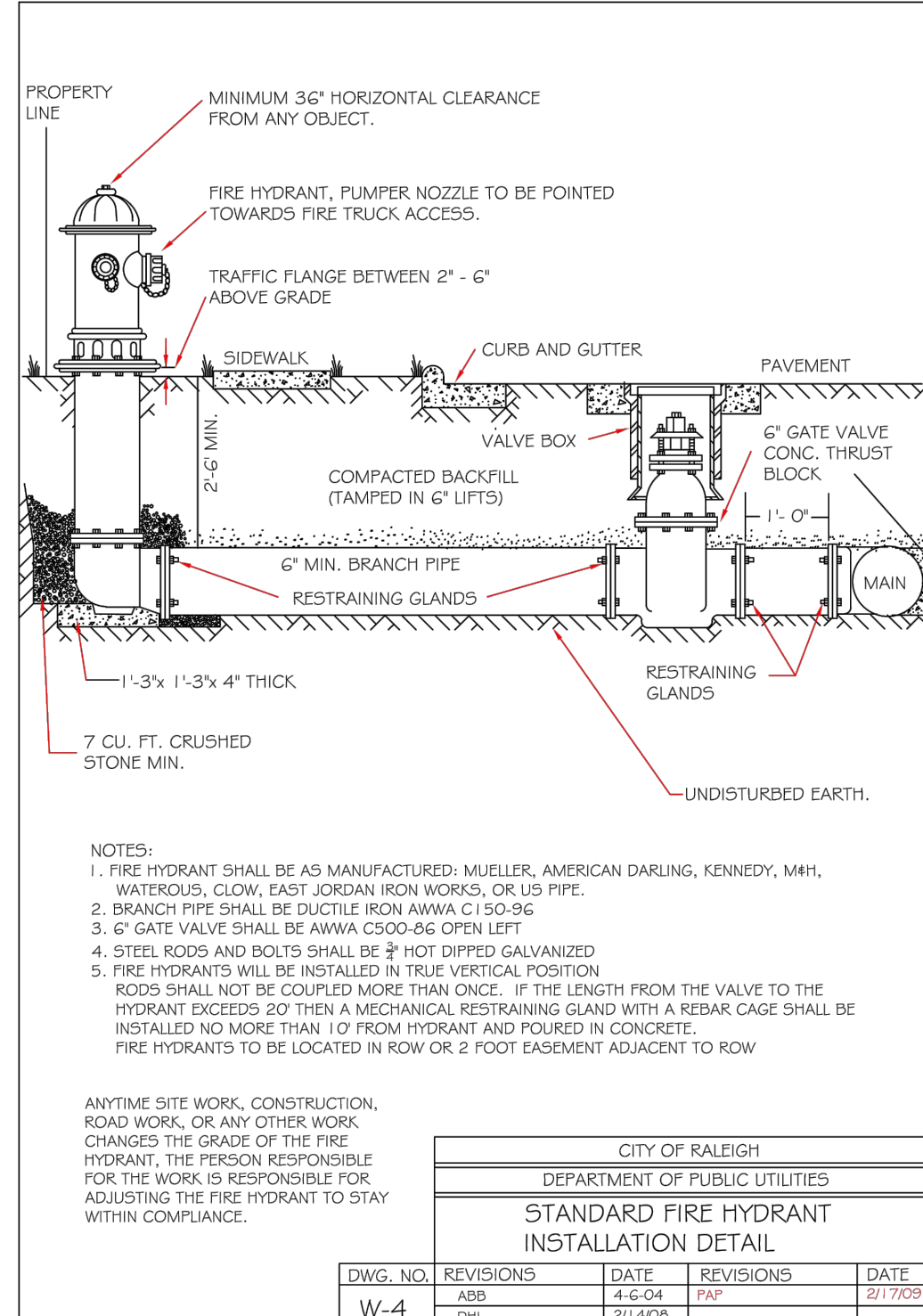
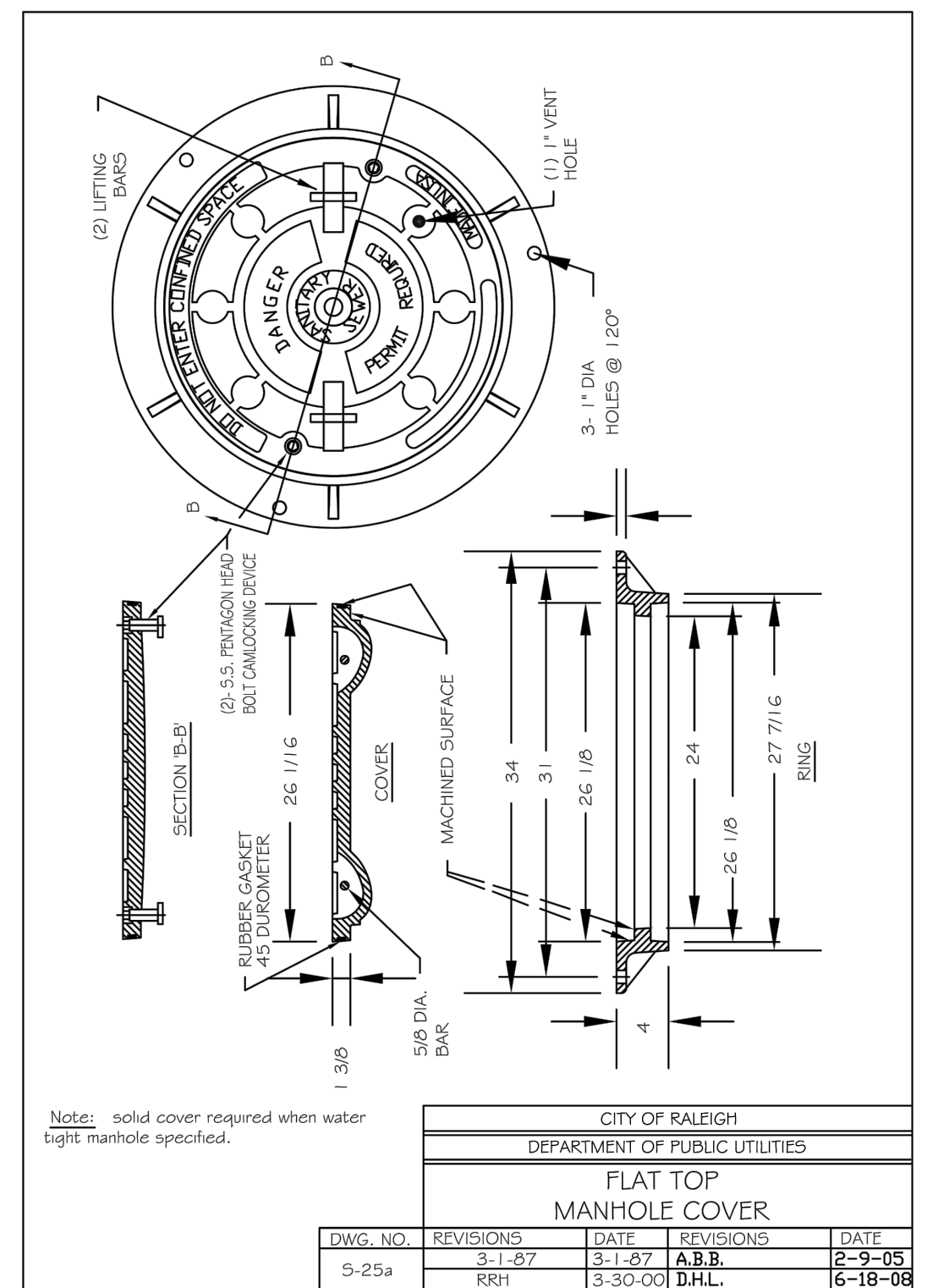
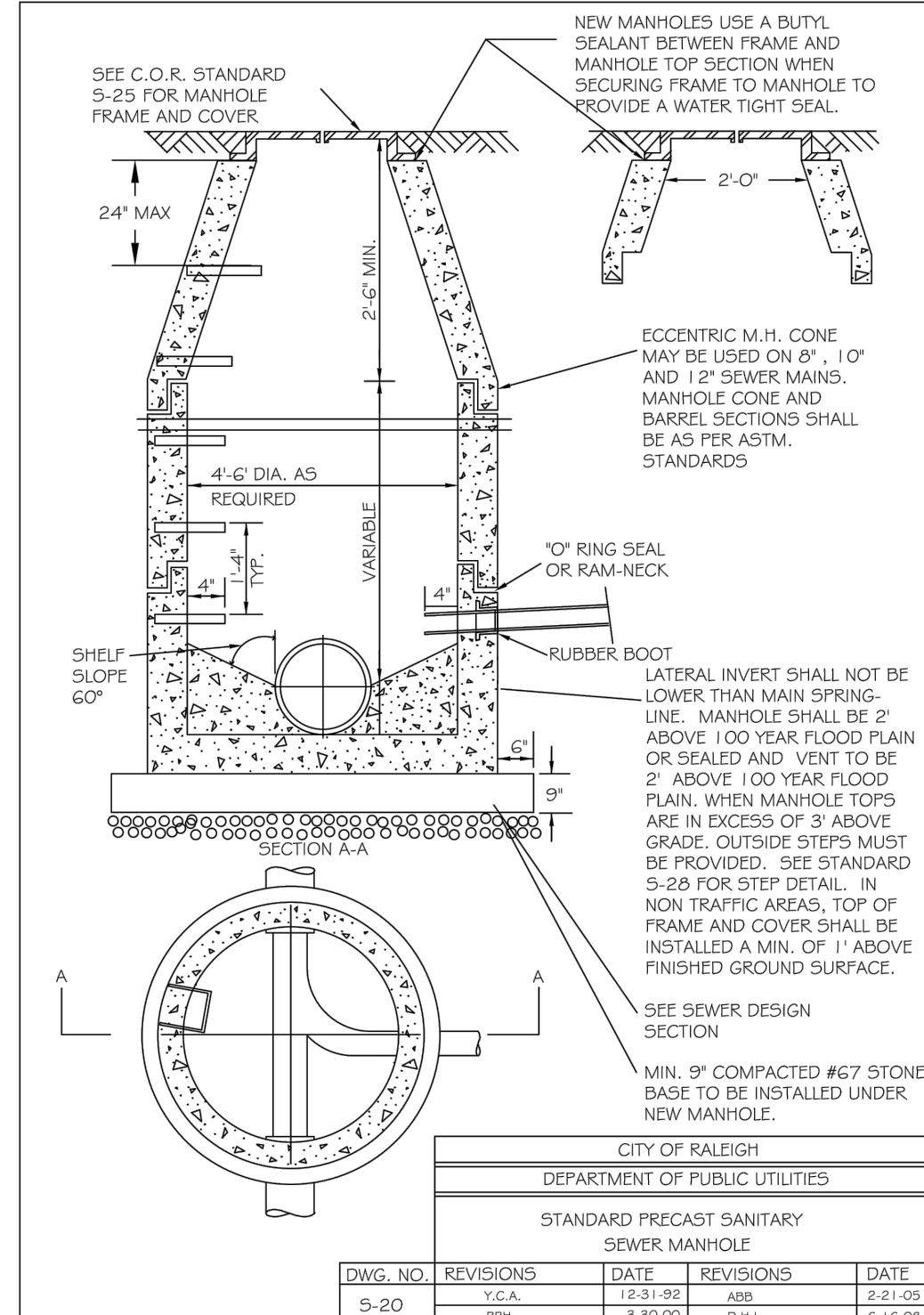
NORTH CAROLINA PROFESSIONAL ENGINEERS
PAUL BOHLER
714 LESLIE YONKE

1/28/21

UTILITY PLAN

SHEET NUMBER:
C-501

ORG. DATE - 01/15/2021



BOHLER
BOHLER ENGINEERING NC, PLLC

SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS				
REV	DATE	COMMENT	DRAWN BY	CHECKED BY

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PROJECT No.:	NCR1902091
DRAWN BY:	TGH
CHECKED BY:	WES
DATE:	01/15/2024
CAD ID:	UTP-0

SITE PLAN DOCUMENTS

FOR _____

BROWN INVESTMENT PROPERTIES
COMMERCIAL REAL ESTATE

7630 KNIGHTDALE BLVD
KNIGHTDALE, NC 27545
WAKE COUNTY

BOHLER
BOHLER ENGINEERING NC, PLLC
NCBELS P-1132

4130 PARKLAKE AVENUE, SUITE 130
RALEIGH, NC 27612
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NC@BohlerEng.com

1/28/21

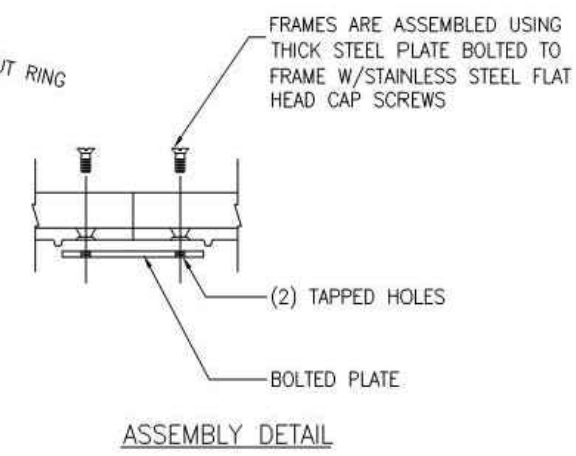
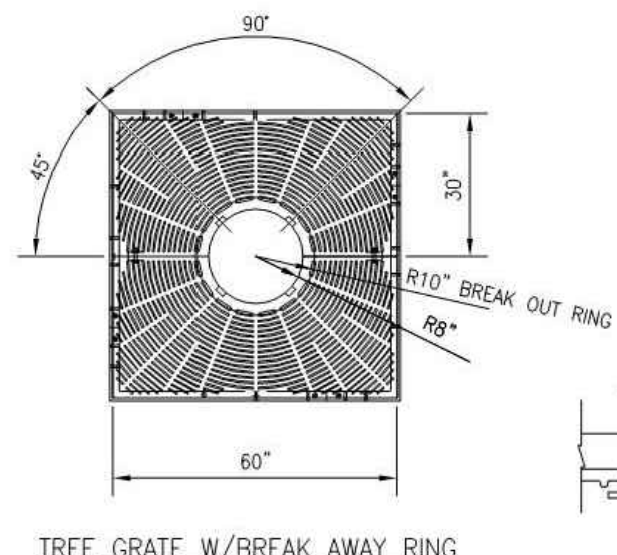
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UTILITY DETAILS

SHEET NUMBER:

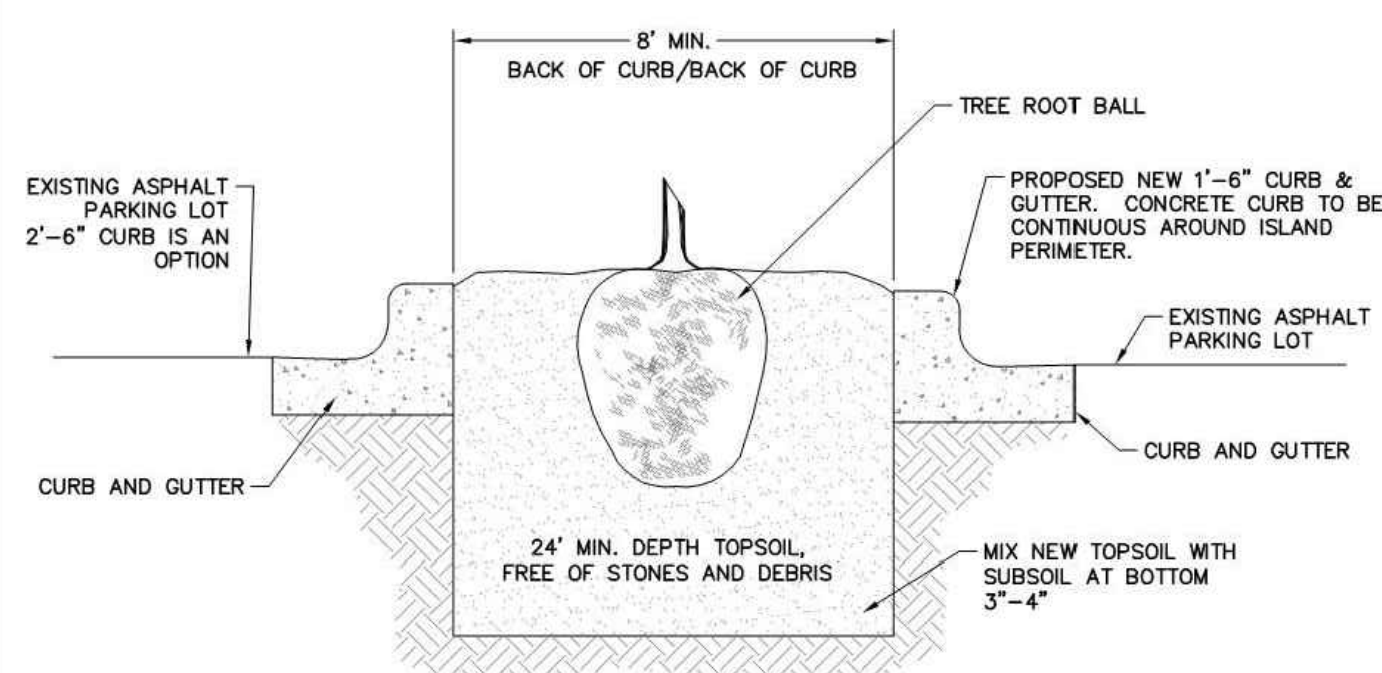
C-502

ORG. DATE - 01/15/2024



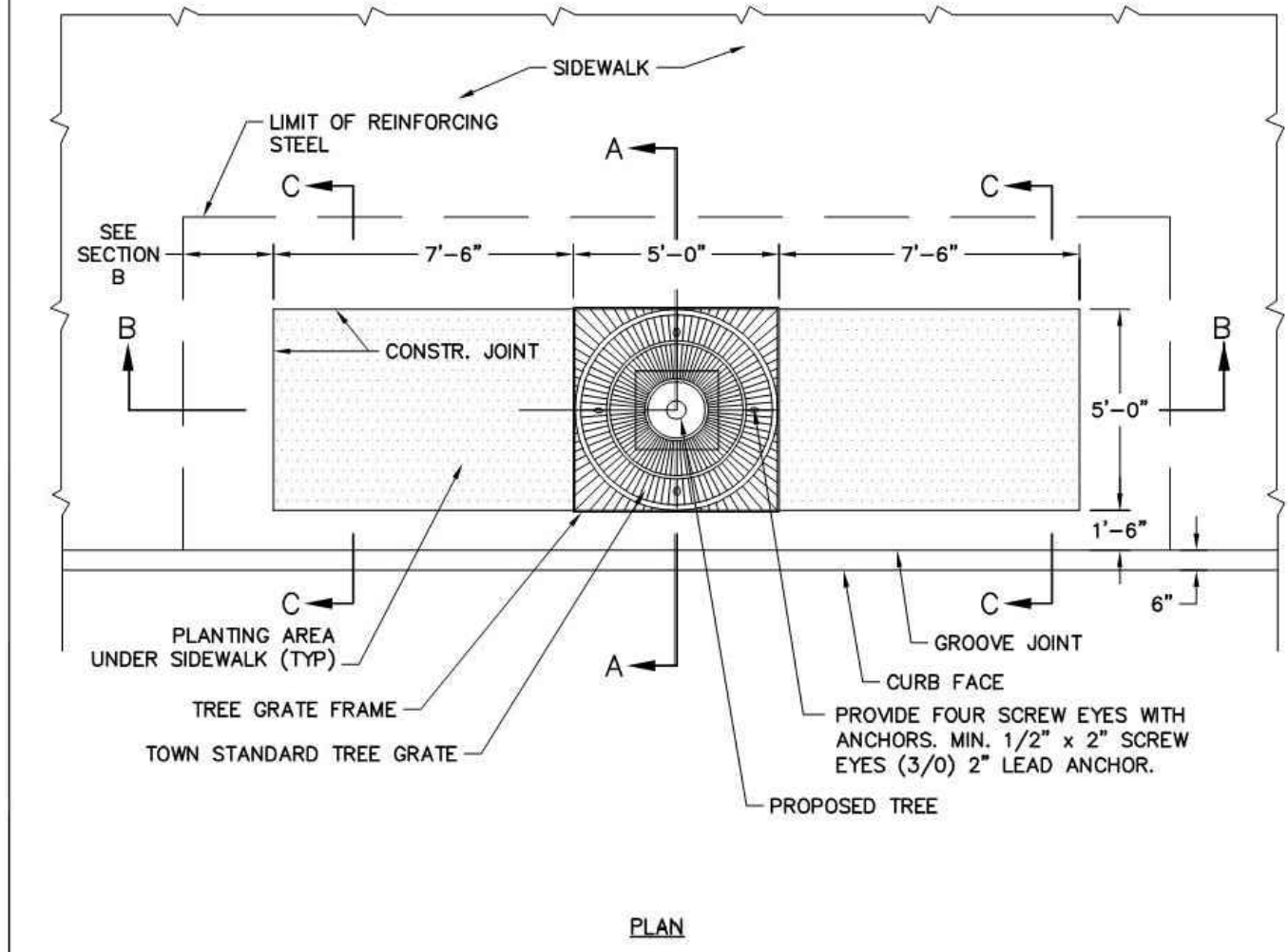
- NOTES:**
- TREE GRATES ARE REQUIRED AT VARIOUS LOCATIONS IN TOWN TO COMPLY WITH ZONING REQUIREMENTS. ALL OTHER INSTALLATIONS OF TREE GRATES WITHIN THE R/W OF STATE MAINTAINED STREETS REQUIRE AN ENCROACHMENT AGREEMENT EXECUTED THROUGH NCDOT.
 - INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 - MATERIAL SHALL BE CAST GRAY IRON ASTM A-48, CLASS 35B WITH A NON PAINTED FINISH.
 - AN INSPECTION SCHEDULE IS NEEDED FOR TREES THAT WILL BE PLANTED IN THE STREET R/W DUE TO ZONING OR OTHER REQUIREMENTS. LANDSCAPE INSPECTION INCLUDES THE FOLLOWING:
 TREE PIT/WELL OR PLANTING STRIP INSPECTION
 SOIL MIX APPROVALS/INSPECTIONS
 TREE APPROVALS/INSPECTIONS - PRIOR TO PURCHASING THE TREES, TO BE MADE BY TOWN TREE PLANTING INSPECTION FINAL WALK THROUGH
 - ALL OF THE ABOVE INSPECTIONS WILL BE PERFORMED BY THE TOWN

REVISIONS		STD. NO.
DATE	DESCRIPTION	
TOWN OF KNIGHTDALE STANDARD DETAILS	TREE GRATE DETAIL	3.22

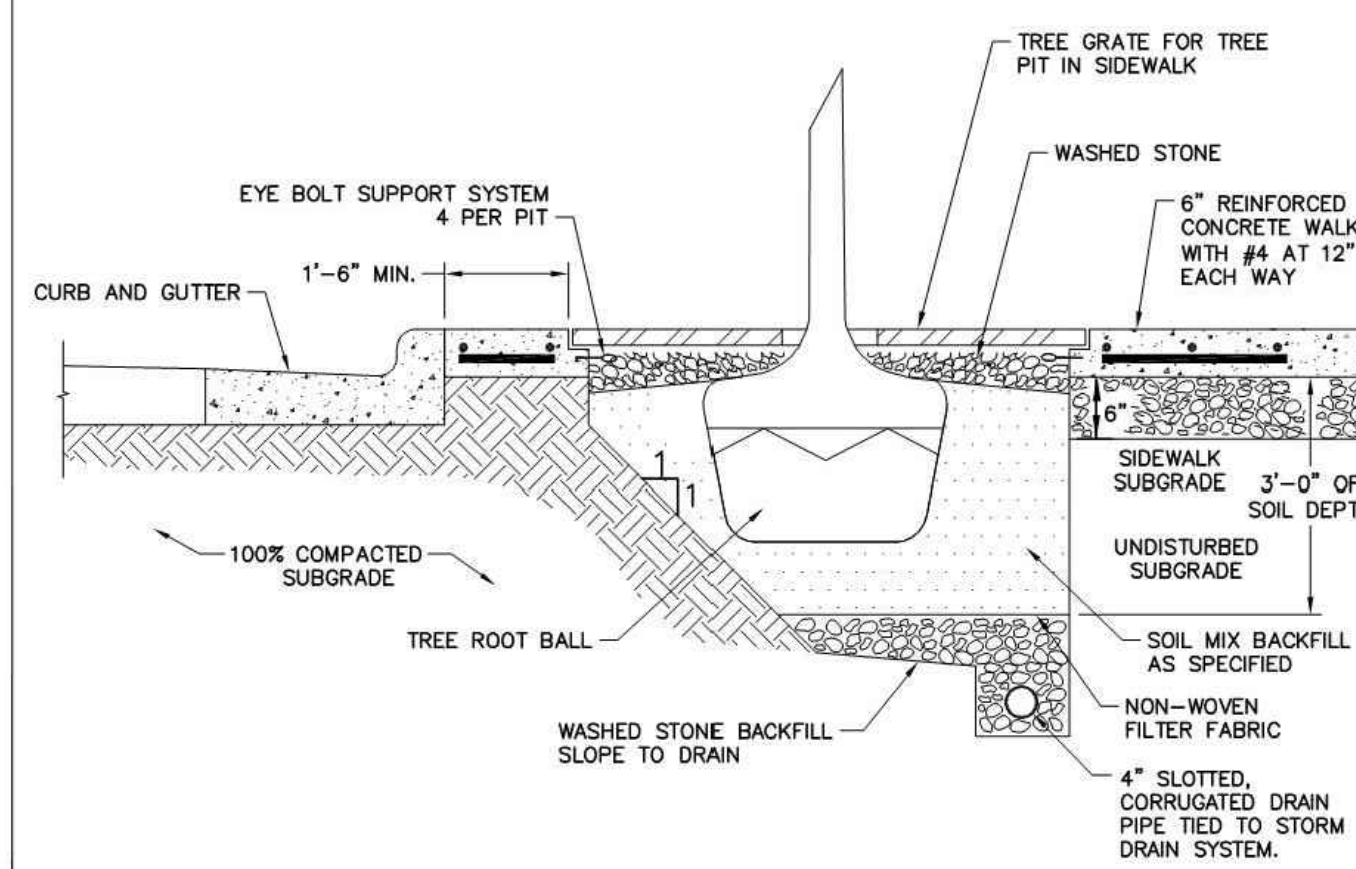


- NOTES:**
- 300 SF MIN. TOTAL REQUIRED AREA PER TREE.
 - FOR NEW PLANTING AREAS, REMOVE ALL PAVEMENT, GRAVEL SUB-BASE AND CONSTRUCTION DEBRIS BEFORE PREPARING SOIL AND PLANTING TREES.
 - REMOVE COMPACTED SOIL AND ADD 24" NEW OR TOPSOIL/PLANTING MIX OR UNCOMPACT AND AMEND TOP 24" OF EXISTING SOIL TO MEET TOPSOIL/PLANTING MIX STANDARDS FOR TREES.

REVISIONS		STD. NO.
DATE	DESCRIPTION	
TOWN OF KNIGHTDALE STANDARD DETAILS	TREE PLANTING ISLAND IN PARKING LOTS	3.23

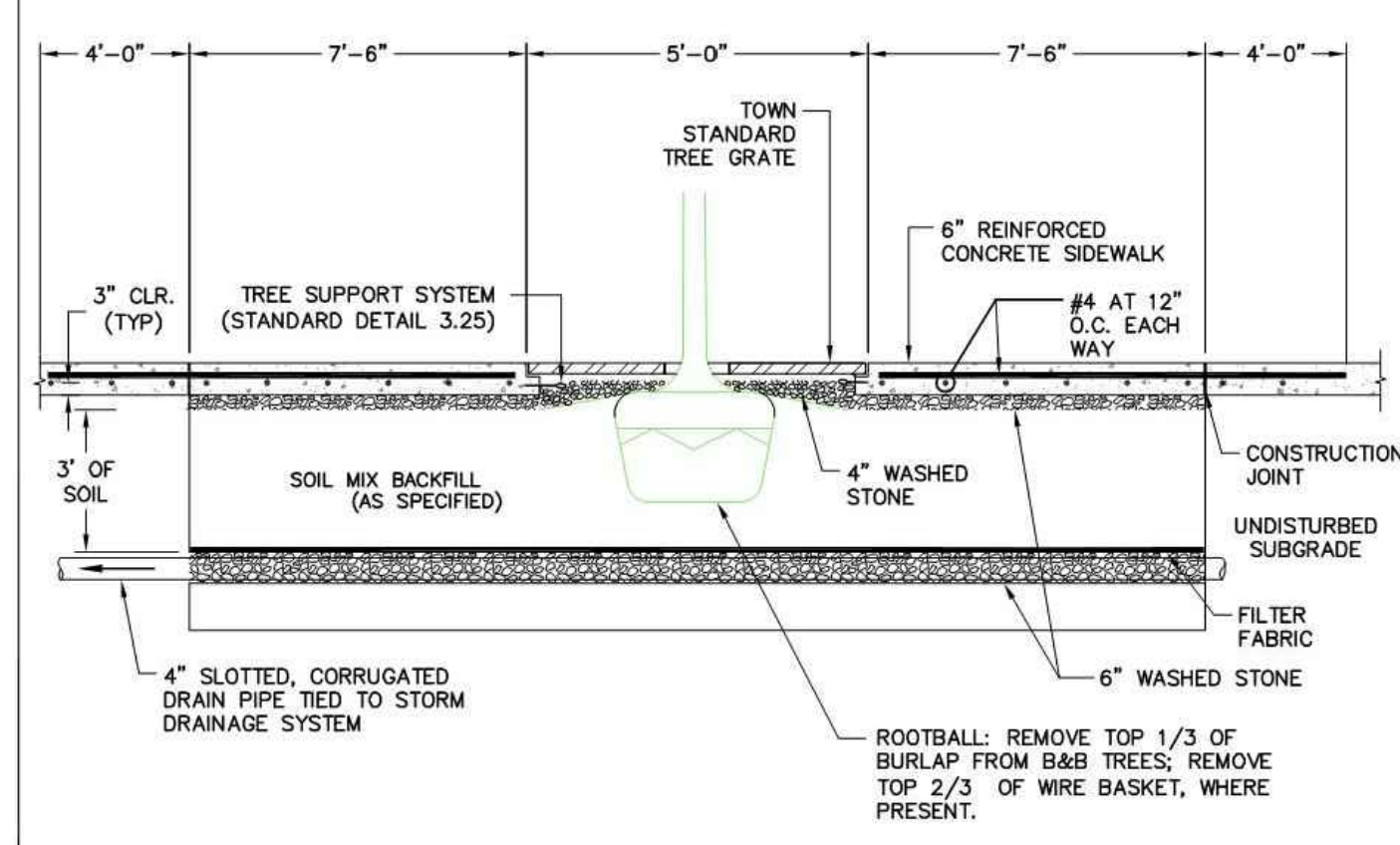


REVISIONS		STD. NO.
DATE	DESCRIPTION	
TOWN OF KNIGHTDALE STANDARD DETAILS	TREE PIT WITH GRATE IN SIDEWALK	3.24

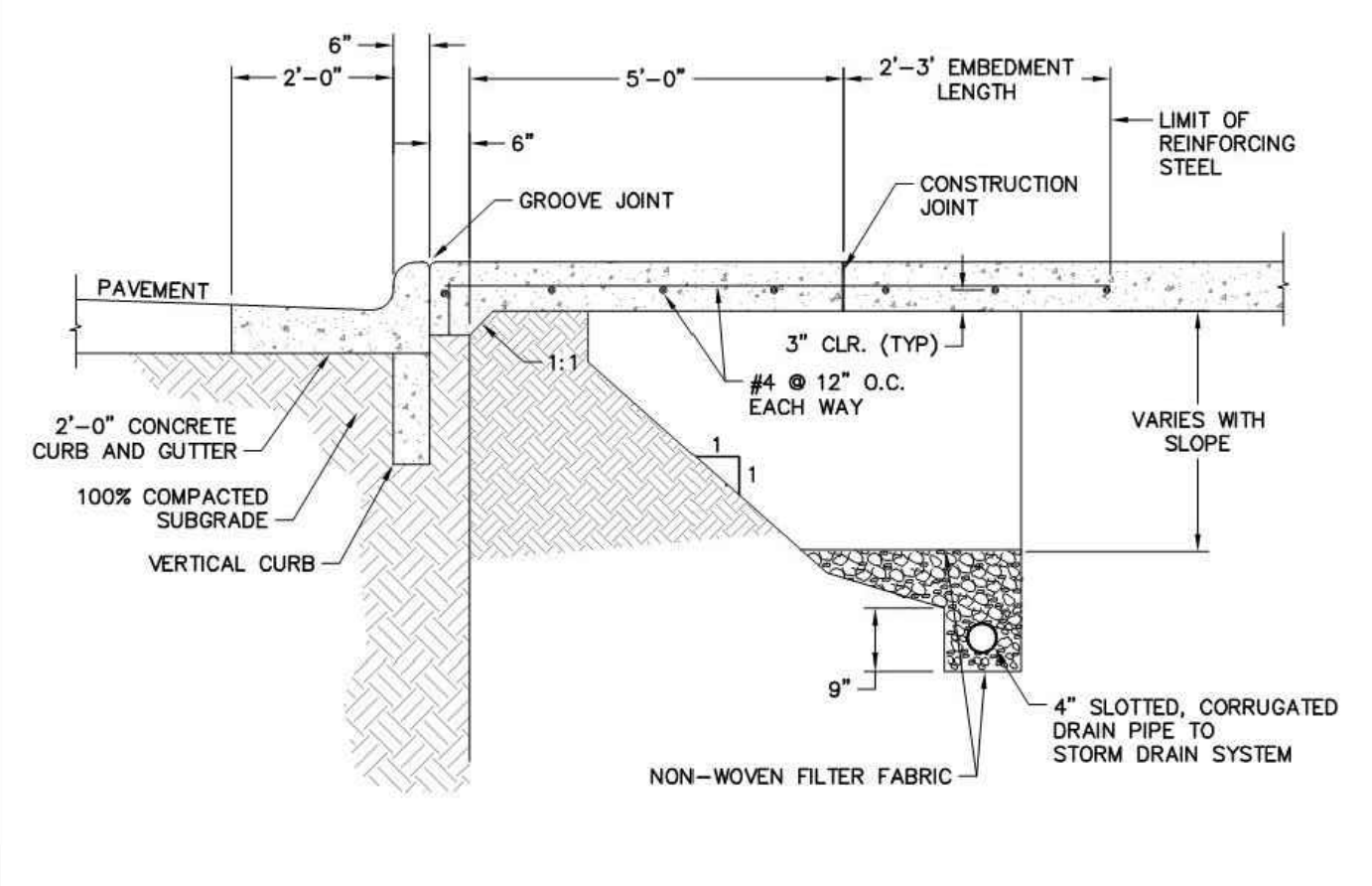


NOTE:
SIDEWALK SUBBASE SHALL BE A 70 PERCENT AGGREGATE TO 50 PERCENT SANDY SOIL MIXTURE PER TOWN STANDARD SPECIFICATIONS.

REVISIONS		STD. NO.
DATE	DESCRIPTION	
TOWN OF KNIGHTDALE STANDARD DETAILS	TREE PIT WITH GRATE IN SIDEWALK	3.24



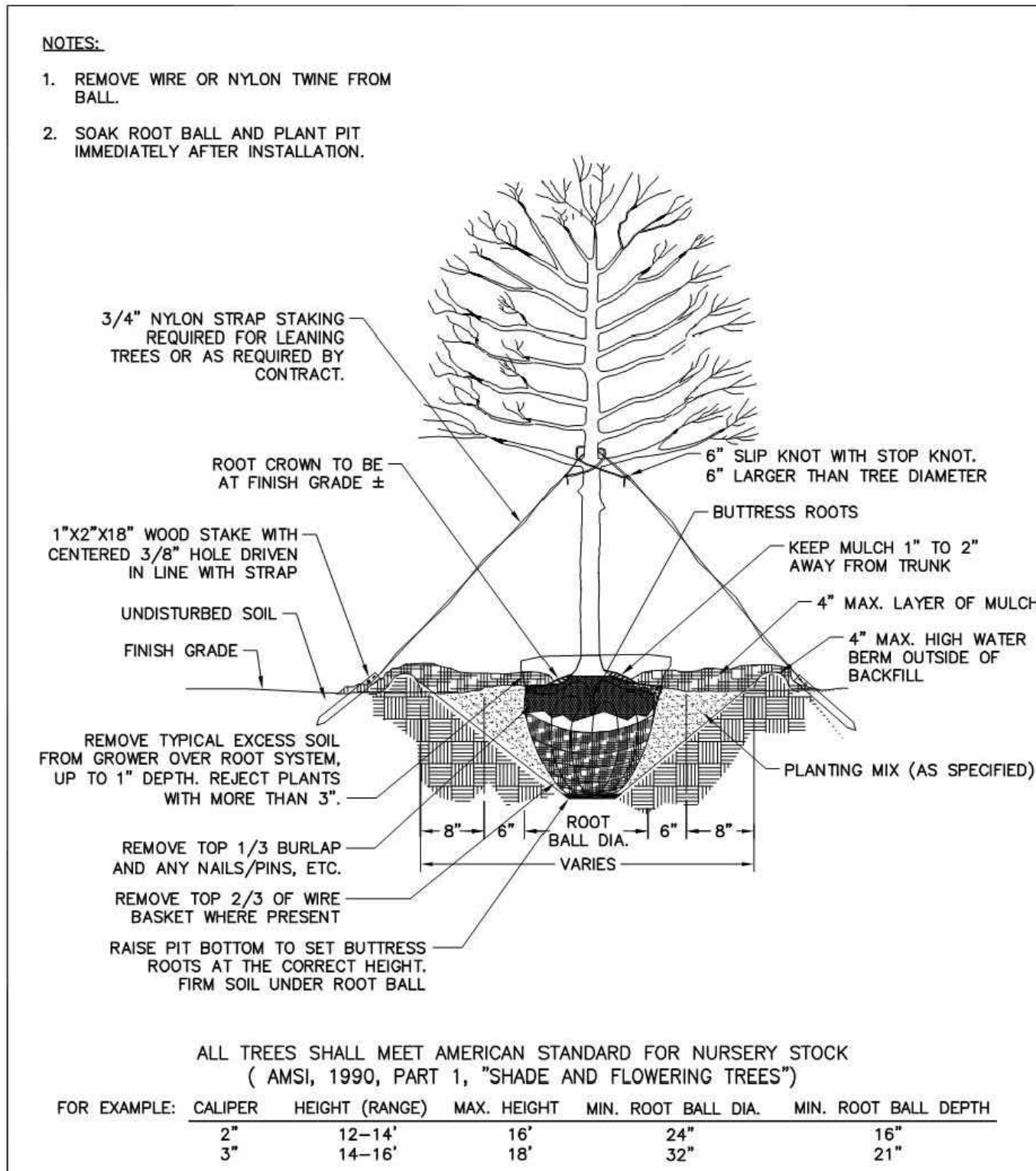
REVISIONS		STD. NO.
DATE	DESCRIPTION	
TOWN OF KNIGHTDALE STANDARD DETAILS	TREE PIT WITH GRATE IN SIDEWALK	3.24



NOTES:

- EXPANSION JOINTS ARE PERMITTED AT 40' MIN. SPACING AND NOT LESS THAN 12'-6" FROM CENTER OF TREE GRATE.
- SEE STANDARD DETAIL 4.04 (2 OF 2) FOR GROOVE JOINT.
- CONCRETE SHALL BE 3600 PSI IN 28 DAYS.
- ALL REINFORCING STEEL SHALL BE GRADE 60.
- USE REINFORCED STEEL BAR SUPPORTS IN COMPLIANCE WITH NCDOT STANDARD SPECIFICATION 970-4.

REVISIONS		STD. NO.
DATE	DESCRIPTION	
TOWN OF KNIGHTDALE STANDARD DETAILS	TREE PIT WITH GRATE IN SIDEWALK	3.24



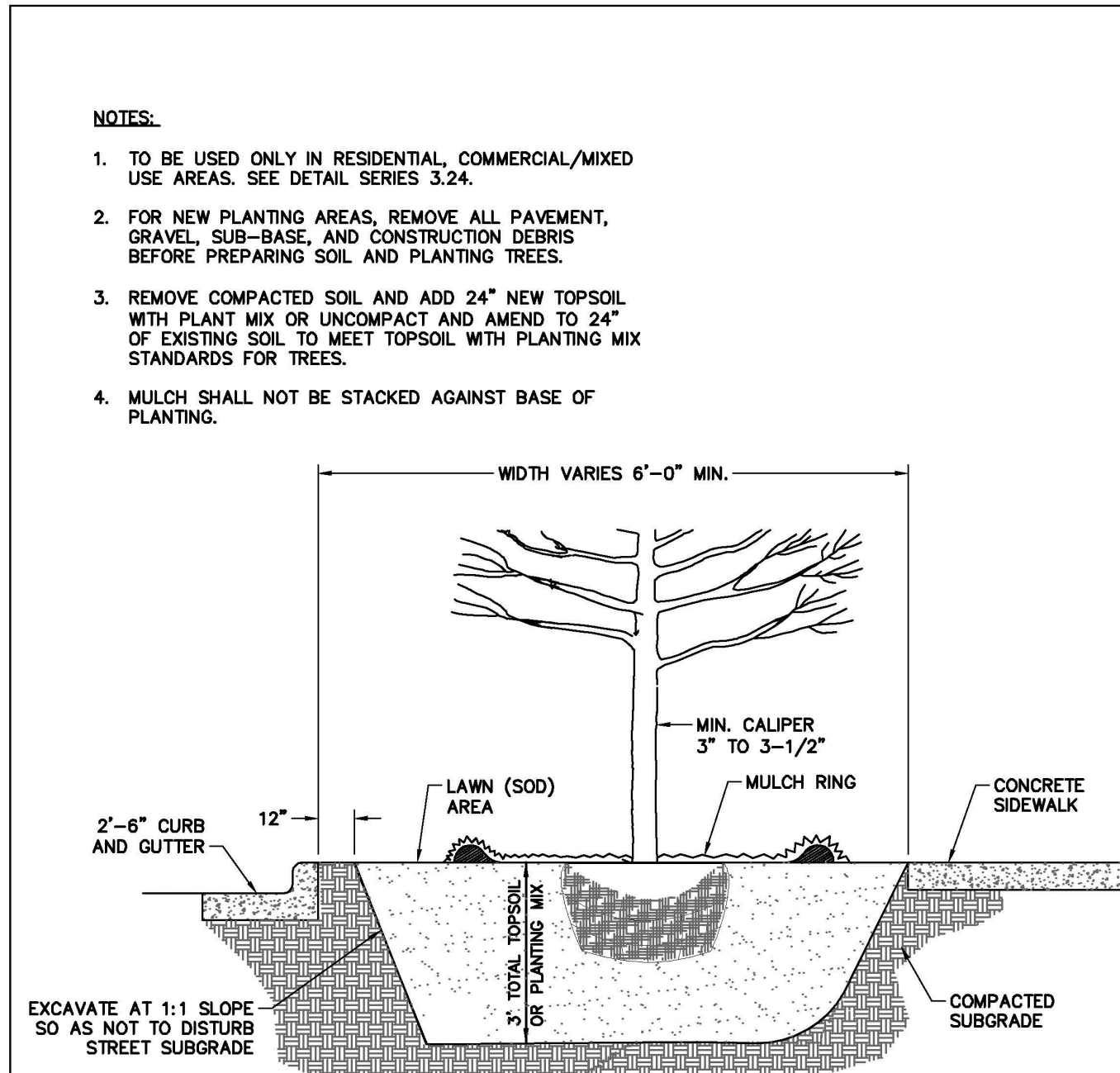
NOTES:

- REMOVE WIRE OR NYLON TWINE FROM BALL.
- SOAK ROOT BALL AND PLANT PIT IMMEDIATELY AFTER INSTALLATION.

ALL TREES SHALL MEET AMERICAN STANDARD FOR NURSERY STOCK (AMSI, 1990, PART 1, "SHADE AND FLOWERING TREES")
 FOR EXAMPLE: CALIPER (RANGE) MAX. HEIGHT MIN. ROOT BALL DIA. MIN. ROOT BALL DEPTH

2"	12-14'	16"	24"	16"
3"	14-16'	18"	32"	21"

REVISIONS		STD. NO.
DATE	DESCRIPTION	
TOWN OF KNIGHTDALE STANDARD DETAILS	TREE PLANTING (FOR SINGLE AND MULTI-STEM TREES)	3.25



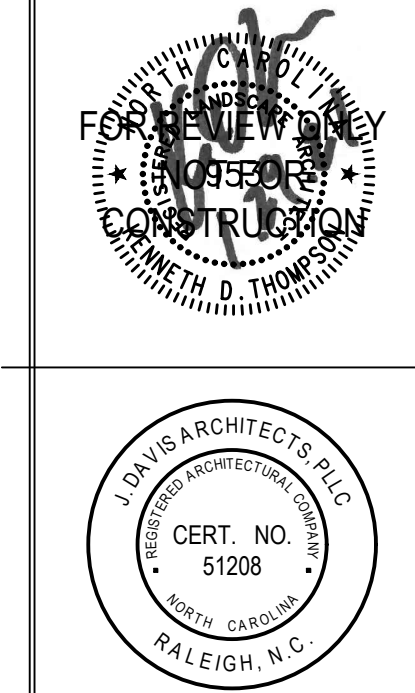
REVISIONS		STD. NO.
DATE	DESCRIPTION	
TOWN OF KNIGHTDALE STANDARD DETAILS	6' TREE PLANTING MIXED USE AREAS	3.26

a. Town Certification. This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale.

By: _____ Date: _____
 Town Engineer

These plans are approved by the Town of Knightdale and serve as construction plans for this project.

By: _____ Date: _____
 Administrator



FOR SITE DEVELOPMENT APPROVAL

PROJECT:	BIP-20038	DATE
ISSUE:	Sketch Plan	12.04.2019
	PUD - Master Plan	06.22.2020
	Site Develop. Approval	01.29.2021
REVISIONS:		

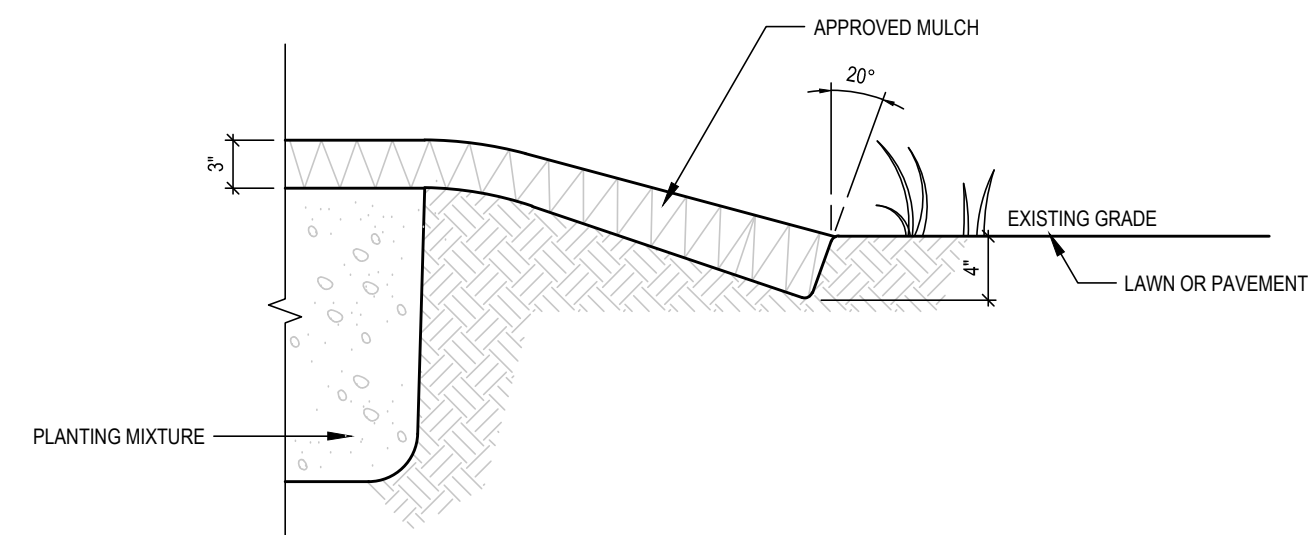
DRAWN BY: JD, SB
 CHECKED BY: KT
 CONTENT: TOWN OF KNIGHTDALE
 LANDSCAPE DETAILS

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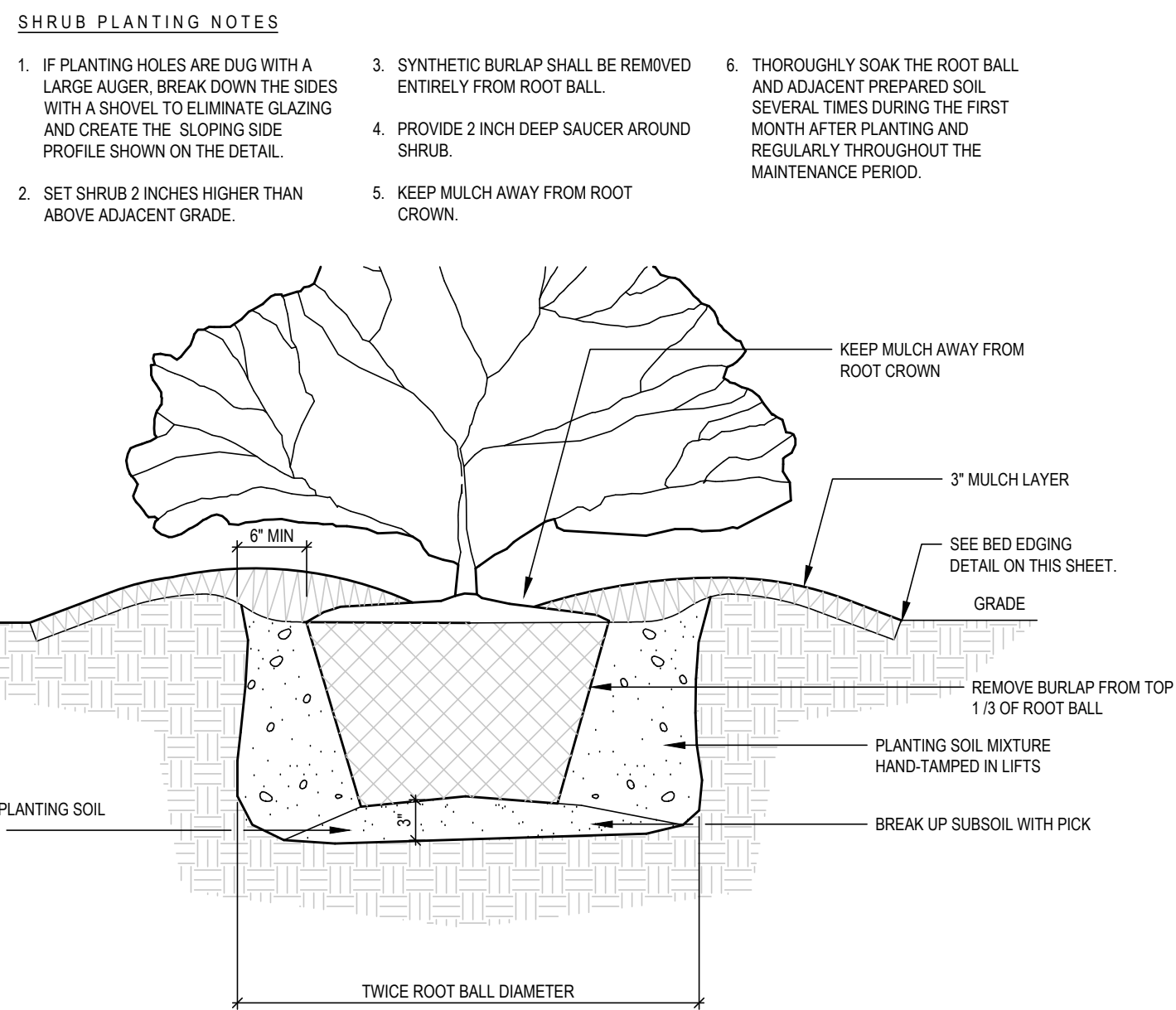
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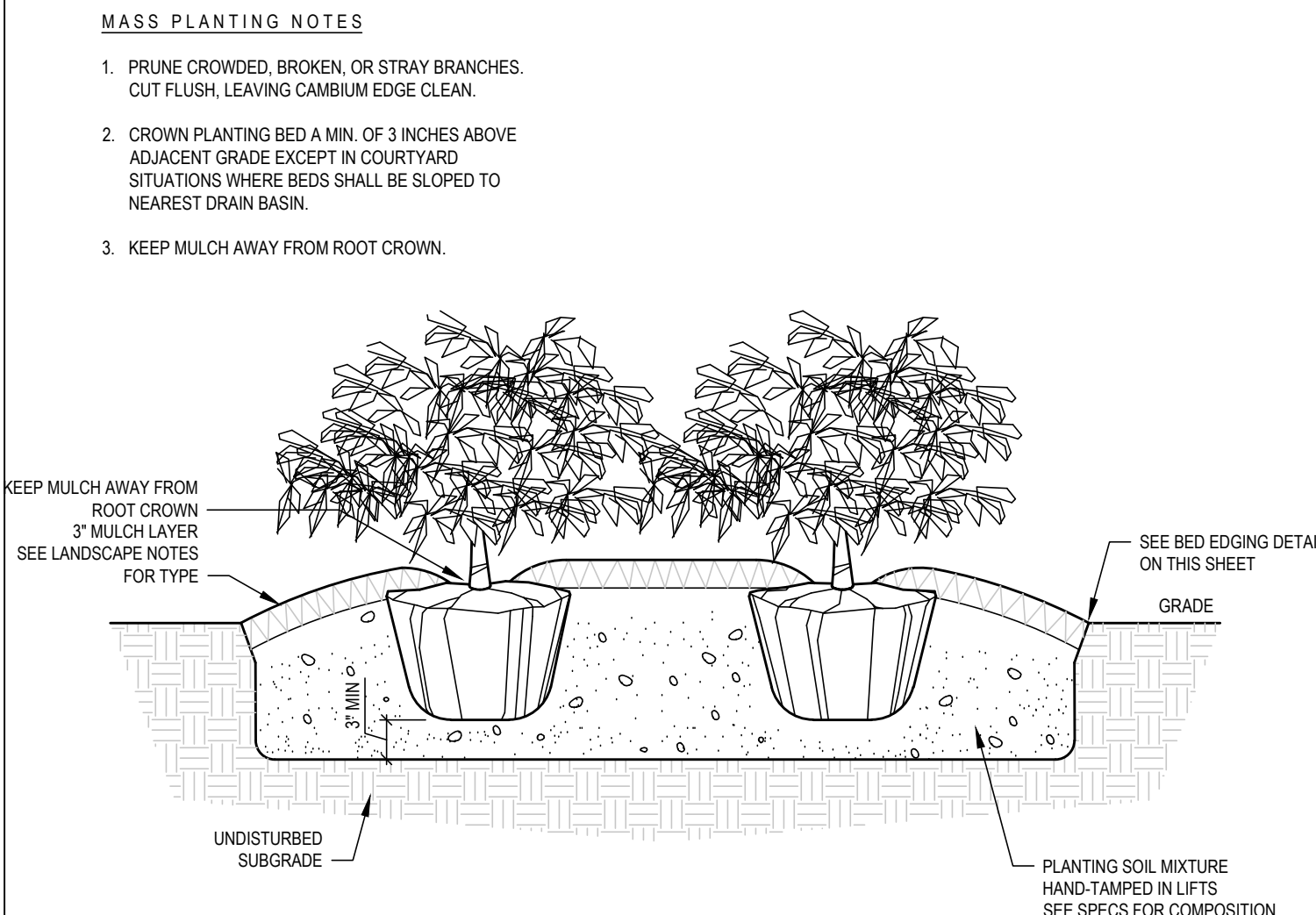
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TITLE SCALE: NTS	5
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TITLE SCALE: NTS	2
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TITLE SCALE: NTS	8
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TITLE SCALE: NTS	1
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TITLE SCALE: NTS	1
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LANDSCAPE NOTES:

- THE PLAN DEPICTS PLANTINGS REQUIRED BY THE TOWN OF KNIGHTDALE.
- ALL LANDSCAPING AND CONSTRUCTION WITHIN AND AROUND DUKE POWER EASEMENT WILL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE TOWN OF KNIGHTDALE TO THE EXTENT PERMITTED BY DUKE ENERGY.
- FINAL STREET TREE PLANTINGS ALONG U.S. HIGHWAY/KNIGHTDALE BOULEVARD TO BE APPROVED BY NCDOT AND REQUIRED TO OBTAIN PERMIT FROM NCDOT.
- CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH OF UTILITIES PRIOR TO INSTALLATION.
- ALL PLANT MATERIAL TO COMPLY WITH AMERICAN STANDARD FOR NURSERY STOCK BY THE AMERICAN ASSOCIATION OF NURSEYMEN, INC.
- ALL PLANTS TO BE COMPACT, UNIFORM AND WELL GROWN. ALL TREES AND SHRUBS SHALL BE FULL, WELL-BRANCHED PLANTS CHARACTERISTIC OF THE SPECIES. PROVIDE SIZES OF PLANTS AS SHOWN OR SCHEDULED CONFORMING TO ANSI Z60.1, "AMERICAN STANDARD FOR NURSERY STOCK" FOR SHAPE AND QUALITY.
- VERIFICATION OF TOTAL LANDSCAPE MATERIAL QUANTITIES AS SHOWN ON THE LANDSCAPE PLANS AND IN THE PLANT LIST SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR. THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO FINAL BIDDING OR INSTALLATION.
- THE DEVELOPER/LANDSCAPE ARCHITECT SHALL BE NOTIFIED IN WRITING OF ANY PROPOSED PLANT SUBSTITUTIONS BY THE LANDSCAPE CONTRACTOR. NO SUBSTITUTIONS SHALL BE MADE UNDER ANY CIRCUMSTANCES WITHOUT PRIOR APPROVAL.
- ALL PLANT MATERIALS AND PLANTING BEDS SHALL BE LOCATED BY SCALED DIMENSIONS FROM BUILDINGS, CURBS, PAVEMENTS, ETC. LOCATION OF ALL PLANTS SHALL BE REVIEWED IN THE FIELD BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. THE CONTRACTOR SHALL PROVIDE 48 HOURS NOTICE FOR REVIEW.
- ALL TREE SAUCERS SHALL BE CONSTRUCTED TO THE SIZES SHOWN ON THE LANDSCAPE PLAN. ALL SAUCERS SHALL BE SOAKED WITH WATER AND MULCHED IMMEDIATELY FOLLOWING INSTALLATION.
- IF TREE GUYING TO BE PERFORMED, IT SHALL BE PERFORMED WITHIN FORTY EIGHT (48) HOURS OF PLANTING. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL TREE GUYING WIRES, RUBBER HOSES, AND STAKES AFTER THE FIRST FULL GROWING SEASON OR ONE YEAR, WHICHEVER COMES FIRST.
- ALL PLANTING BEDS ARE TO BE MULCHED TO A DEPTH OF 3" MINIMUM AND 4" MAXIMUM WITH AGED TRIPLE SHREDDED HARDWOOD MULCH FROM A SINGLE SOURCE COMMERCIAL VENDOR WITH A MAXIMUM PARTICLE SIZE OF 2 INCHES. FREE OF WEED SEED AND WASTE MATERIALS. NO PINE STRAW PERMITTED. KEEP MULCH 4 TO 6 INCHES AWAY FROM TREE TRUNKS AND STEMS.
- PLANTING BEDS AND SAUCERS SHALL BE EDGED TO PROVIDE A THREE INCH (3") DEEP "V" CUT ALONG ITS BORDER WITH SODDED OR SEEDED AREAS.
- ALL LAWN AREAS TO BE SEEDED OR/AND SODDED AS PER MANUFACTURER'S SPECIFICATIONS. REFER TO LANDSCAPE PLAN(S). ALL DISTURBED AREA SHALL EITHER BE MULCH OR LAWN. NO DENUDED AREAS AREA ACCEPTABLE.
- WITHIN THE SIGHT TRIANGLES SHOWN ON THIS PLAN, THERE SHALL BE NO SIGHT OBSTRUCTING OR PARTLY OBSTRUCTING WALL, FENCE, SIGN, FOLIAGE, BERMS, OR PARKED VEHICLES BETWEEN THE HEIGHTS OF 24 INCHES AND EIGHT FEET ABOVE THE CURB LINE ELEVATION OR THE NEAREST TRAVELED WAY IF NO CURBING EXISTS.
- ALL ABOVE-GROUND HVAC EQUIPMENT AND UTILITY DEVICES (TO INCLUDE, BUT NOT LIMITED TO TELEPHONE AND CABLE PEDESTALS, ELECTRICAL TRANSFORMERS, BACKFLOW DEVICE HOTBOX, ETC) SHALL BE SCREENED FROM OFF-SITE VIEW BY EVERGREEN SHRUBS, FENCE OR WALL.
- ALL HVAC EQUIPMENTS OF THIS PROJECT TO BE LOCATED ON THE ROOF OF BUILDINGS AND SCREENED WITH PARAPETS.
- ALL CONFLICTS BETWEEN PROPOSED LANDSCAPE, UTILITIES AND STORMWATER WILL BE RESOLVED PRIOR TO APPLICATION FOR BUILDING PERMITS. UTILITY AND STORMWATER PLANS DEPICTED IN THIS SUBMITTAL ARE PRELIMINARY AND ARE SUBJECT TO CHANGE WITH THE DEVELOPMENT OF CONSTRUCTION DOCUMENTS.
- MIN. 20' DISTANCE SHALL BE PROVIDED BETWEEN LIGHT POLES AND TREE TRUNKS.
- TREES SHALL BE 30' MIN FROM STOP SIGNS AND 10' MIN FROM DRIVEWAYS AND UTILITY POLES.
- TREES SHALL NOT BE IN THE CURVE TRANSITIONING FROM ONE STREET TO ANOTHER.
- TREES WITHIN 20 FT. OF OVERHEAD POWER LINE(S) SHALL BE UNDERSTORY TREES.
- CONTRACTOR SHALL NOT PLANT TREES/SHRUBS AT ANY LOCATION WHERE THEY WILL INTERFERE WITH PEDESTRIANS EXITING AUTOS PARKED IN PARALLEL SPACES.
- A TREE IMPACT PERMIT IS REQUIRED FOR TREES INSTALLED IN THE PUBLIC RIGHT-OF-WAY PRIOR TO ISSUANCE OF ANY BUILDING PERMITS.
- FIELD ADJUSTMENTS TO THIS PLAN MAY BE REQUIRED BY TOWN OF KNIGHTDALE INSPECTOR AS NEEDED DURING CONSTRUCTION.
- THE SITE SHALL BE STABILIZED AND SEEDED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY (CO).
- THE CONTRACTOR SHALL REPAIR ANY DAMAGES TO ADJACENT PROPERTIES AND RESTORE IT TO PREVIOUS OR BETTER CONDITION.

LANDSCAPE NOTES
SCALE: NTS

1. **Town Certification.** This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale.
By: _____ Date: _____
Town Engineer

These plans are approved by the Town of Knightdale and serve as construction plans for this project.
By: _____ Date: _____
Administrator

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FOR SITE DEVELOPMENT APPROVAL

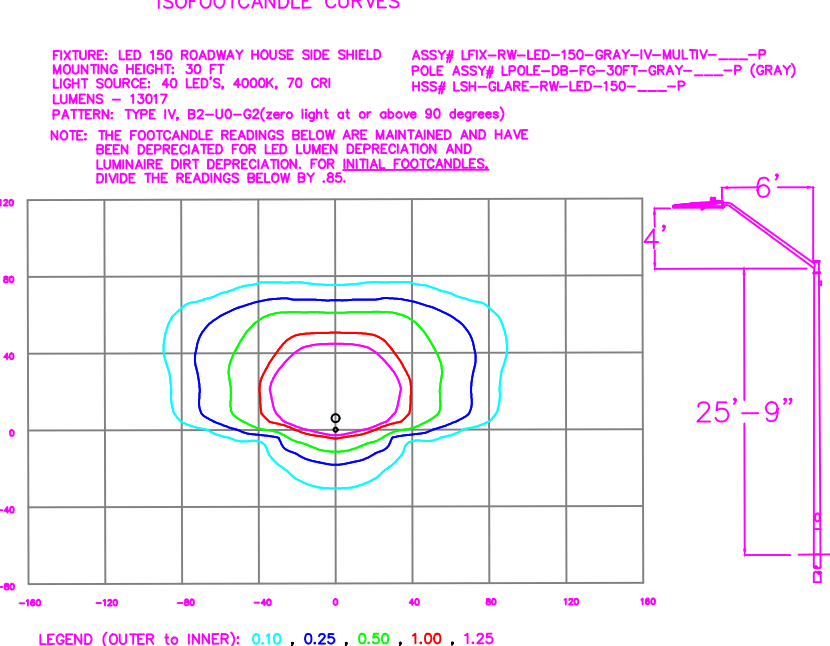
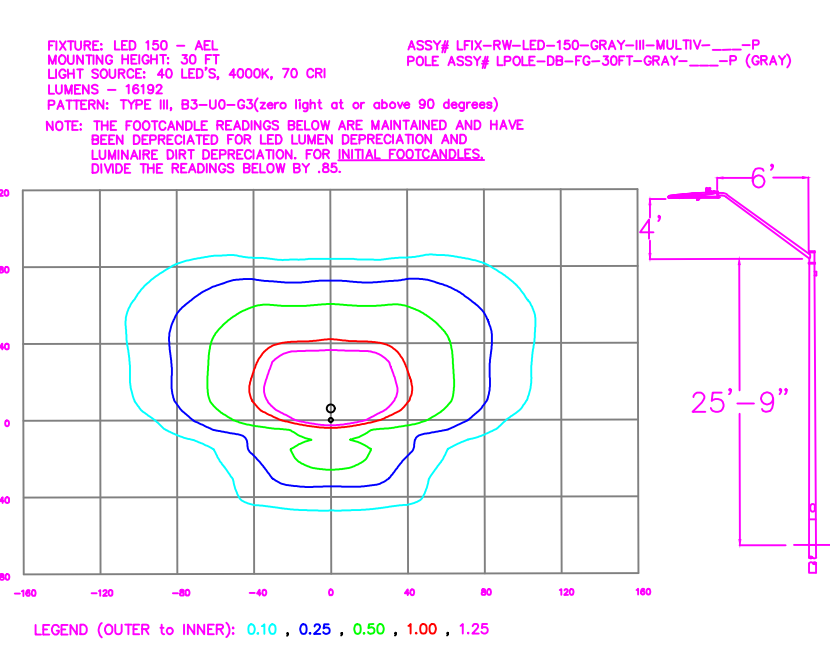
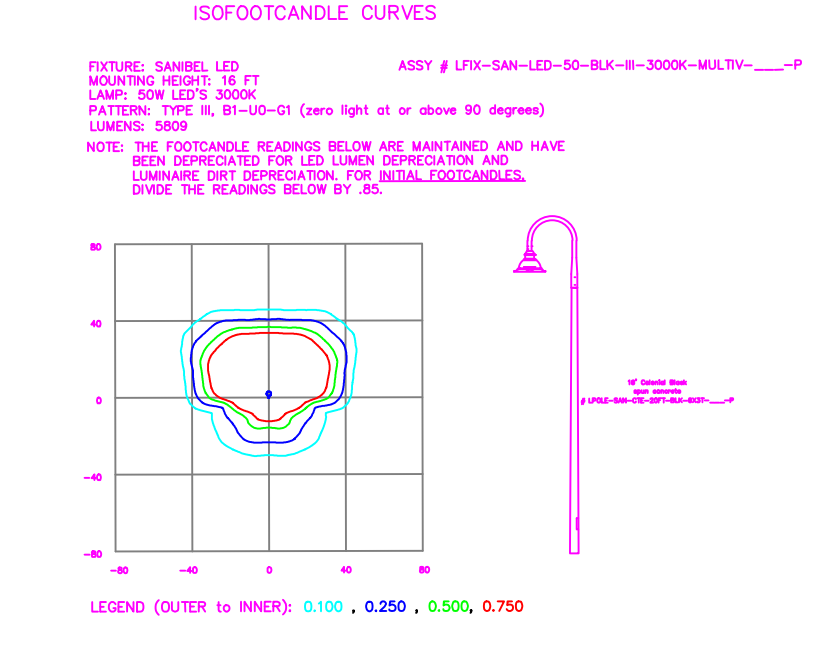
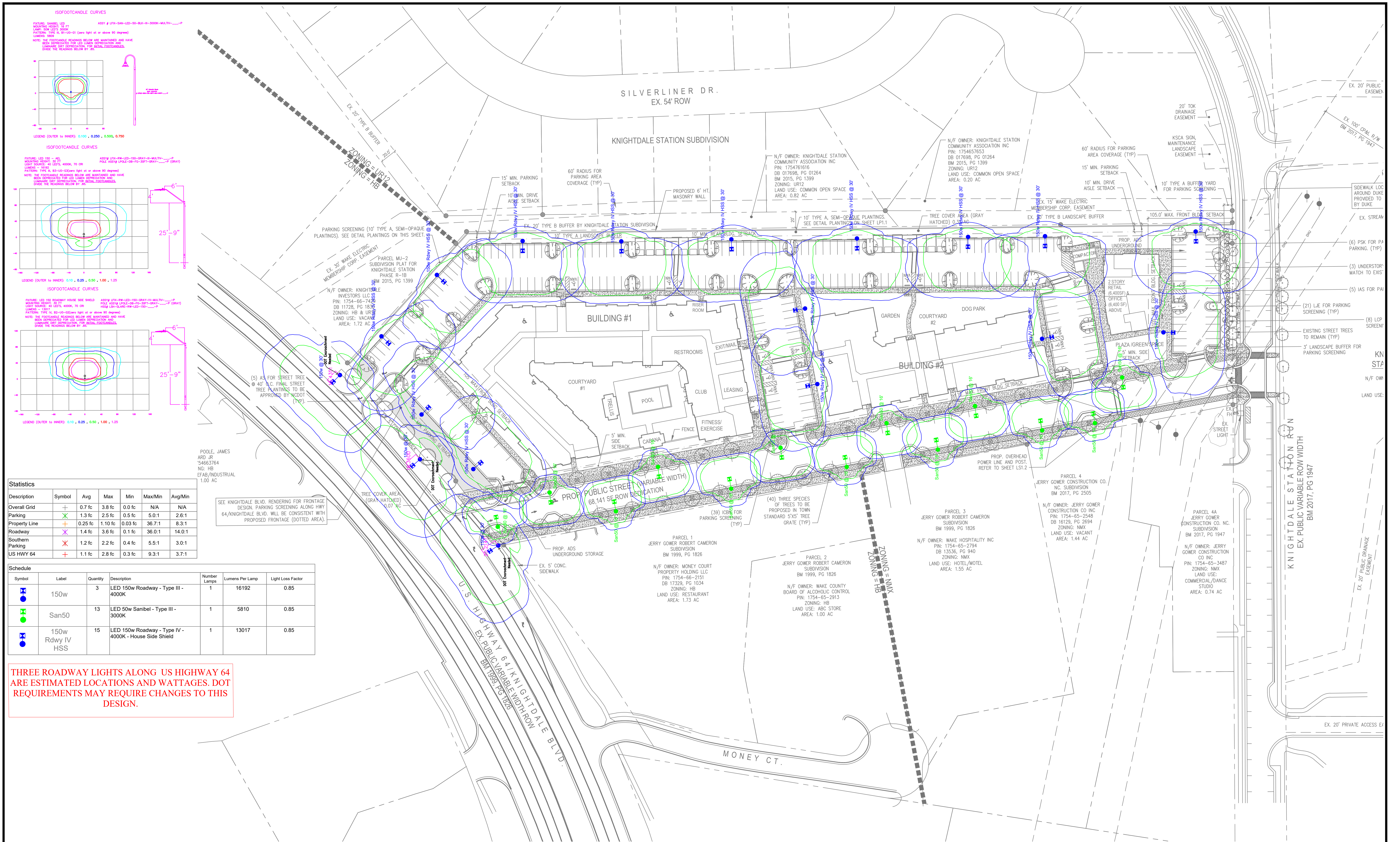
PROJECT:	BIP-20038	DATE:	
ISSUE:	Sketch Plan		12.04.2019
	PUD - Master Plan		06.22.2020
	Site Develop. Approval		01.29.2021
REVISIONS:			
DRAWN BY:	SB		
CHECKED BY:	KT		
CONTENT:	LANDSCAPE DETAILS AND NOTES		

LP3.2

JDAVIS
510 South Wilmington Street | Raleigh, NC 27601 | Tel: 919.835.1500
1218 Chestnut Street, 7th Floor | Philadelphia, PA 19107 | Tel: 215.545.0121

Brown Investment Properties
The Lofts at Knightdale Station
7630 Knightdale Boulevard
Knightdale, North Carolina 27545

Reference: ZMA-1-20



Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Overall Grid	+	0.7 fc	3.8 fc	0.0 fc	N/A	N/A
Parking	+	1.3 fc	2.5 fc	0.5 fc	5.0:1	2.6:1
Property Line	+	0.25 fc	1.10 fc	0.03 fc	36.7:1	8.3:1
Roadway	+	1.4 fc	3.6 fc	0.1 fc	36.0:1	14.0:1
Southern Parking	X	1.2 fc	2.2 fc	0.4 fc	5.5:1	3.0:1
US HWY 64	+	1.1 fc	2.8 fc	0.3 fc	9.3:1	3.7:1

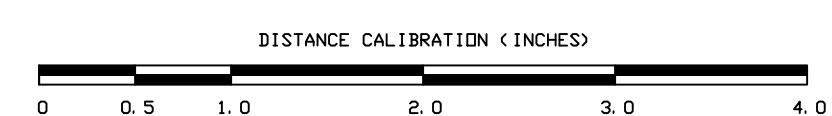
Schedule

Symbol	Label	Quantity	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor
150w	150w	3	LED 150w Roadway - Type III - 4000K	1	16192	0.85
San50	San50	13	LED 50w Sanibel - Type III - 3000K	1	5810	0.85
150w Rdwy IV HSS	150w Rdwy IV HSS	15	LED 150w Roadway - Type IV - 4000K - House Side Shield	1	13017	0.85

THREE ROADWAY LIGHTS ALONG US HIGHWAY 64 ARE ESTIMATED LOCATIONS AND WATTAGES. DOT REQUIREMENTS MAY REQUIRE CHANGES TO THIS DESIGN.

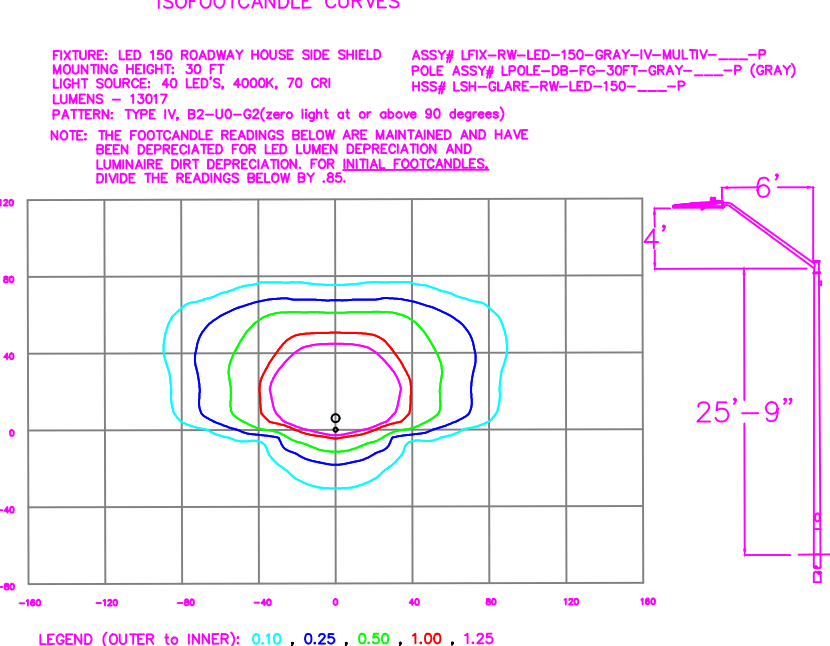
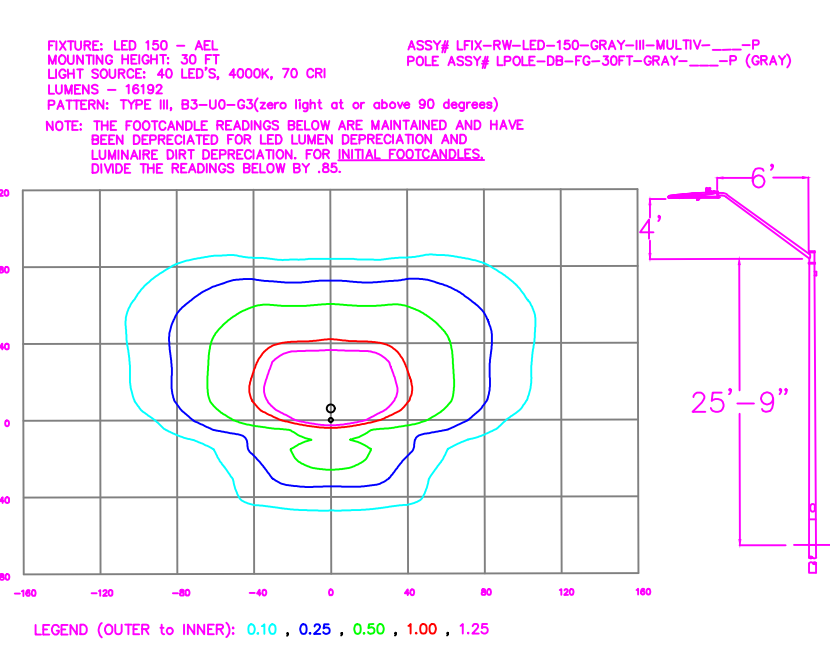
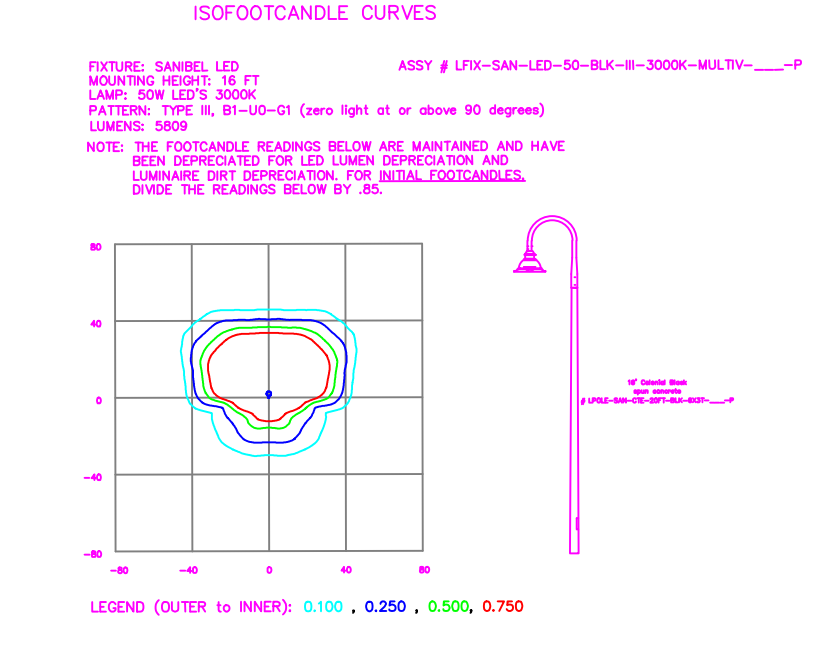
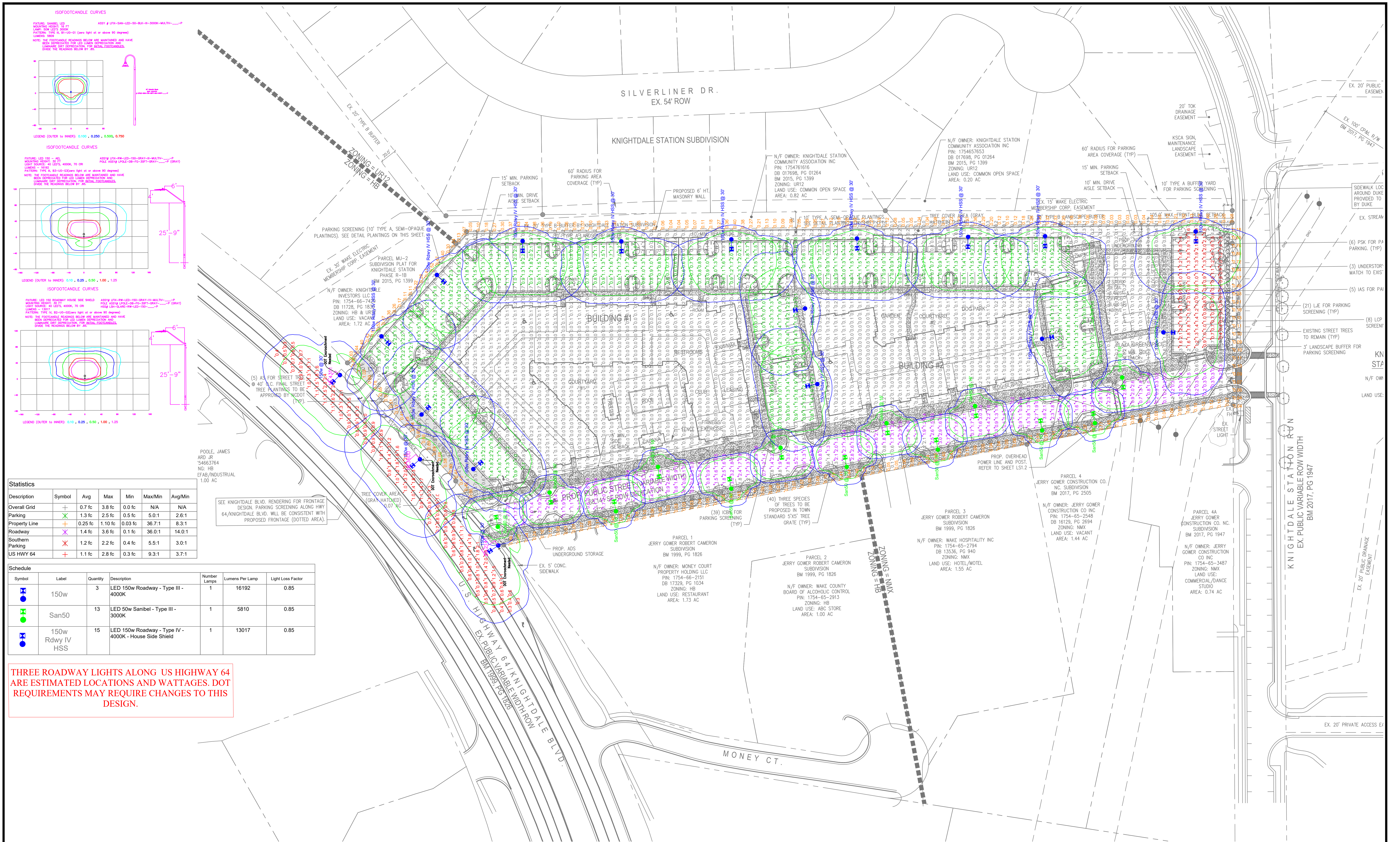
LIGHTING DESIGN TOLERANCE
 The calculated footcandle light levels in this lighting design are predicted values and are based on specific information that has been supplied to Duke Energy Progress. Any inaccuracies in the supplied information, differences in luminaire installation, lighted area geometry including elevation differences, reflective properties of surrounding surfaces, obstructions (foliage or otherwise) in the lighted area, or lighting from sources other than listed in this design may produce different results from the predicted values. Normal tolerances of voltage, lamp output, and ballast and luminaire manufacture will also affect results.

Customer approval _____ Date _____



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The Lofts at Knightdale Station	
Knightdale, NC	
SITE LIGHTING PLAN	
Designed by DEP LIGHTING SOLUTIONS	
Reviewed by T. Ferguson	Scale 1" = 50'
Date 01/06/2020	Size "Arch D"
Description LED 150w Roadway	
Drawing No. 20-0177D	Sht. 1 OF 1



Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Overall Grid	+	0.7 fc	3.8 fc	0.0 fc	N/A	N/A
Parking	+	1.3 fc	2.5 fc	0.5 fc	5.0:1	2.6:1
Property Line	+	0.25 fc	1.10 fc	0.03 fc	36.7:1	8.3:1
Roadway	+	1.4 fc	3.6 fc	0.1 fc	36.0:1	14.0:1
Southern Parking	X	1.2 fc	2.2 fc	0.4 fc	5.5:1	3.0:1
US HWY 64	+	1.1 fc	2.8 fc	0.3 fc	9.3:1	3.7:1

Schedule

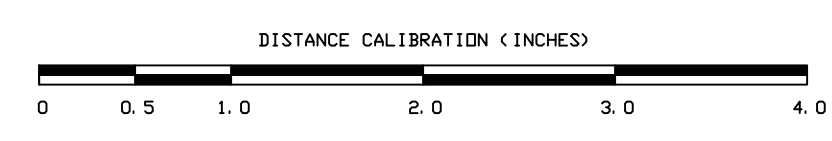
Symbol	Label	Quantity	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor
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LIGHTING DESIGN TOLERANCE

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Customer approval _____ Date _____



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The Lofts at Knightdale Station	
Knightdale, NC	
SITE LIGHTING PLAN	
Designed by	DEP LIGHTING SOLUTIONS
Reviewed by	T. Ferguson
Date	01/06/2020
Description	LED 150w Roadway
Drawing No.	20-0177D
Sht.	1 OF 1



BUILDING 1: SOUTH ELEVATION
SCALE: 3/32" = 1'-0"

4



BUILDING 1: NORTH WEST ELEVATION
SCALE: 3/32" = 1'-0"

3



BUILDING 1: NORTH COURTYARD ELEVATION
SCALE: 3/32" = 1'-0"

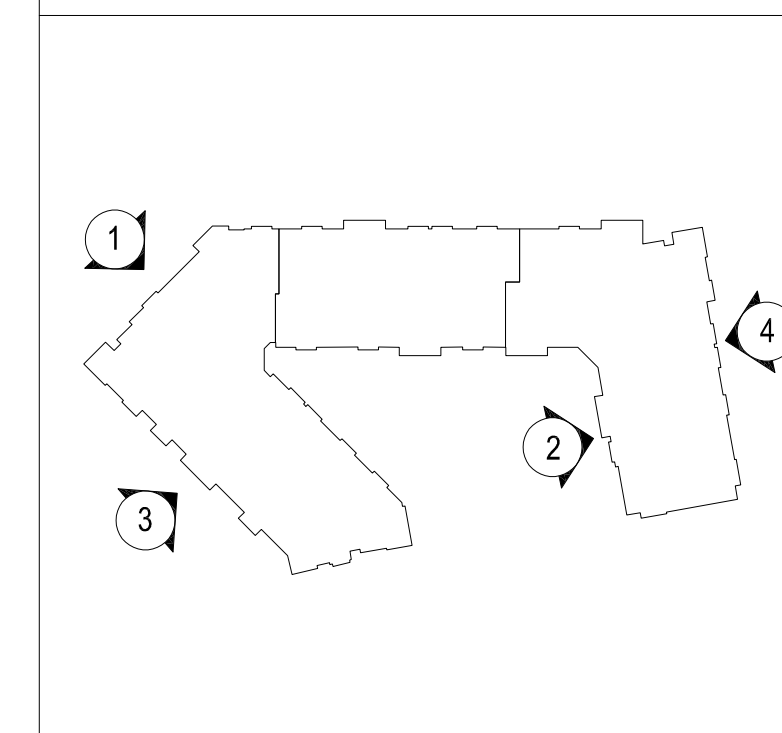
2



BUILDING 1: NORTH EAST ELEVATION
SCALE: 3/32" = 1'-0"

1

KEY PLAN



a. Town Certification. This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale.
By: _____ Date: _____
Town Engineer
These plans are approved by the Town of Knightdale and serve as construction plans for this project.
By: _____ Date: _____
Administrator

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REVISIONS:	DATE
PROJECT:	20037
ISSUE:	Sketch Plan 12.04.2019
	PUD - Master Plan 06.22.2020
	Site Develop. Approval 01.29.2021
DRAWN BY:	LB
CHECKED BY:	
CONTENT:	BUILDING 1: ELEVATIONS



TYPICAL COLORED ELEVATION
SCALE: N.T.S.

3

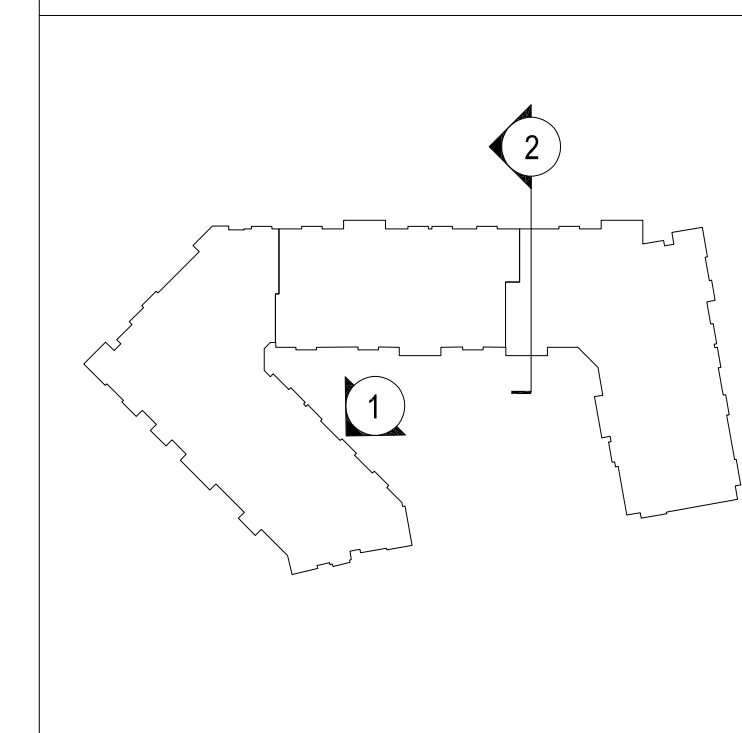


BUILDING 1: SITE SECTION
SCALE: 3/32" = 1'-0"

2



KEY PLAN



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Administrator

BUILDING 1: NORTH COURTYARD ELEVATION
SCALE: 3/32" = 1'-0"

1



PROJECT:	20037	DATE
ISSUE:	Sketch Plan	12.04.2019
	PUD - Master Plan	06.22.2020
	Site Develop. Approval	01.29.2021

REVISIONS:	

DRAWN BY: LB
CHECKED BY:
CONTENT: BUILDING 1: ELEVATIONS

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BUILDING 2: WEST ELEVATION
SCALE: 3/32" = 1'-0"

4



BUILDING 2: EAST ELEVATION
SCALE: 3/32" = 1'-0"

3



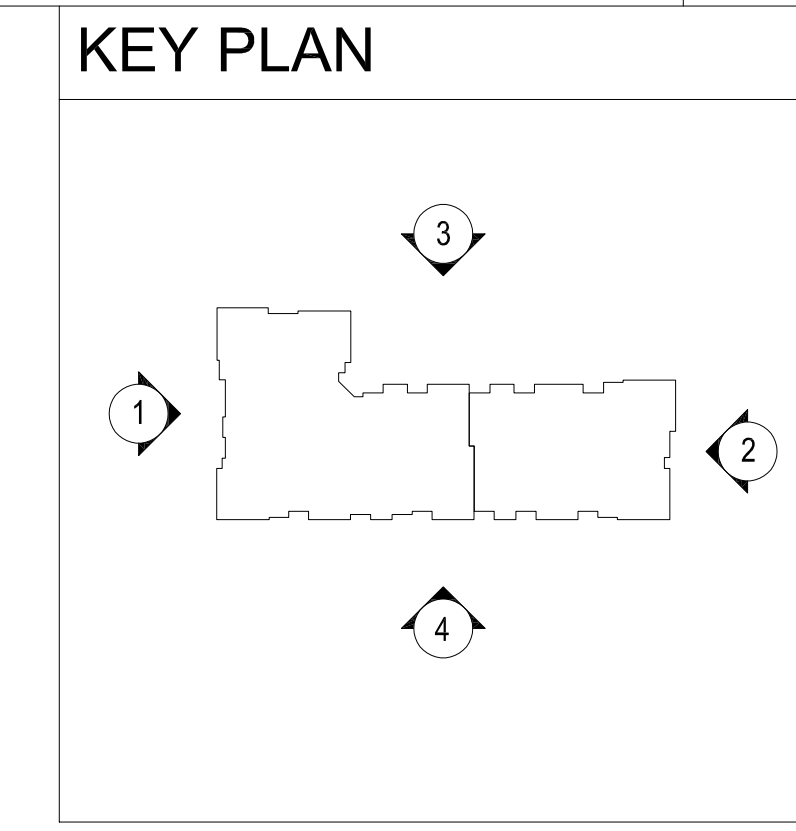
BUILDING 2: SOUTH ELEVATION
SCALE: 3/32" = 1'-0"

2



BUILDING 2: NORTH ELEVATION
SCALE: 3/32" = 1'-0"

1



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	Site Develop. Approval 01.29.2021
DRAWN BY:	LB
CHECKED BY:	
CONTENT:	BUILDING 2: ELEVATIONS

A3.04

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NEW PUBLIC STREETSCAPE VIEW
SCALE: N.T.S.

5



BUILDING 3: WEST ELEVATION
SCALE: 3/32" = 1'-0"

4



BUILDING 3: EAST ELEVATION
SCALE: 3/32" = 1'-0"

3



BUILDING 3: SOUTH ELEVATION
SCALE: 3/32" = 1'-0"

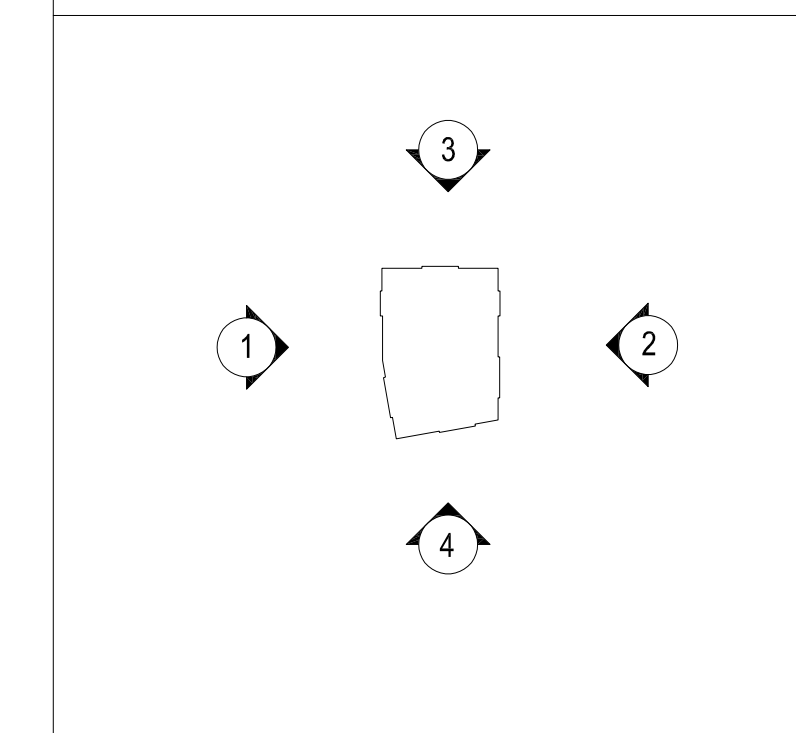
2



BUILDING 3: NORTH ELEVATION
SCALE: 3/32" = 1'-0"

1

KEY PLAN



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PROJECT:	20037	DATE
ISSUE:	Sketch Plan	12.04.2019
	PUD - Master Plan	06.22.2020
	Site Develop. Approval	01.29.2021
REVISIONS:		
DRAWN BY:	LB	
CHECKED BY:		
CONTENT:	BUILDING 3: ELEVATIONS	