



January 23, 2019

Renee Couture, P.E.  
Interim City Traffic Engineer  
City of Corpus Christi  
1201 Leopard Street, 3<sup>rd</sup> Floor  
Corpus Christi, Texas 78401

**RE: Bronx Avenue- Urban Transportation Plan Amendment Submittal**


Dear Mrs. Couture:

Hanson Professional Services, Inc. is requesting the removal of the Bronx Avenue roadway between Lipes Boulevard and Master Channel 31 from the Urban Transportation Plan and a modification to the Strategic Plan for Active Mobility Phase 1: Bicycle Mobility Plan to have an Off-Road Multi-Use Trail.

- Reasons for requesting removal:
  - A. The street is not needed as an access point for our property
  - B. The collector street, if developed, would be a dead end street as the portion south of Master Channel 31 has been previously removed from the Urban Transportation Plan.
  - C. The developer would lose 86,950.18 SF (2 Acres) of land that could otherwise be developed into single-family lots. This is on average 78.54' of land along his northwest boundary that would be undevelopable.
  - D. When the Airline Crossing preliminary plat was approved in 2006, the alignment of Bronx Avenue was to the west of the subdivision. Since then, the alignment has been moved to the east by a developer to the north. Units 1 and 2 of Airline Crossing have both been developed following the approved preliminary plat.
- Current cross section:
  - 60' wide C1 collector right of way: 40' back of curb to back of curb roadway (as per UDC), 1 way cycle track (both sides) (as per Strategic Plan for Active Mobility, Phase 1: Active Mobility Plan page 38 and 59): 4' sidewalk, 5' bike lane, 1' buffer on both sides, centerline aligned approximately on average 48.54' off from the west boundary of development
- Proposed cross section:
  - 12' off road multi-use trail hike/bike path aligned along west boundary of development in a dedicated ROW with an average width of 18'.
- Merits of the proposal
  - Still including the multi-use trail allows for connectivity as per the Strategic Plan for Active Mobility Plan
  - Positive impact- avoids the chance of a car driving to the dead end of Bronx Drive, reduce maintenance of unnecessary roadway
- Impact of proposal:
  - Circulation: No impact as it does not increase connectivity within the current network
  - Environmental: less impermeable cover therefore avoiding increase of runoff during rainfall
- Proposal's effect on our developer's property
  - Allows for more land to be developed into single-family lots with greater taxable value.
- Improve mobility and access: will let developer proceed forward with single-family design for Airline Crossing Unit 3 and lead to the construction of the hike/bike lane.



Sincerely,  
Hanson Professional Services, Inc.

  
Craig B. Thompson, P.E.  
Project Engineer

Attachments:

A- Area Maps

- a. Urban Transportation Plan
- b. Active Mobility Plan

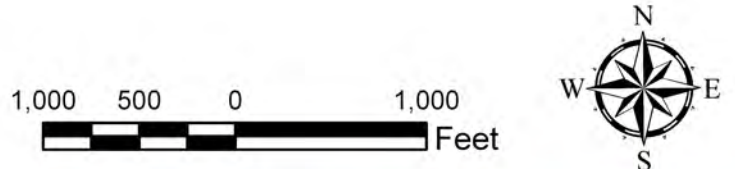
B- Proposed UTP Amendment and Exhibits in Digital Format

- a. Existing and Proposed Cross Sections
- b. One-Way Cycle Track, Both Sides Description
- c. Off-Road Multi-Use Trail Description
- d. Existing Urban Transportation Plan
- e. Proposed Urban Transportation Plan
- f. 2006 Approved Preliminary Plat
- g. Shapefile of alignment of hike/bike dedication boundary



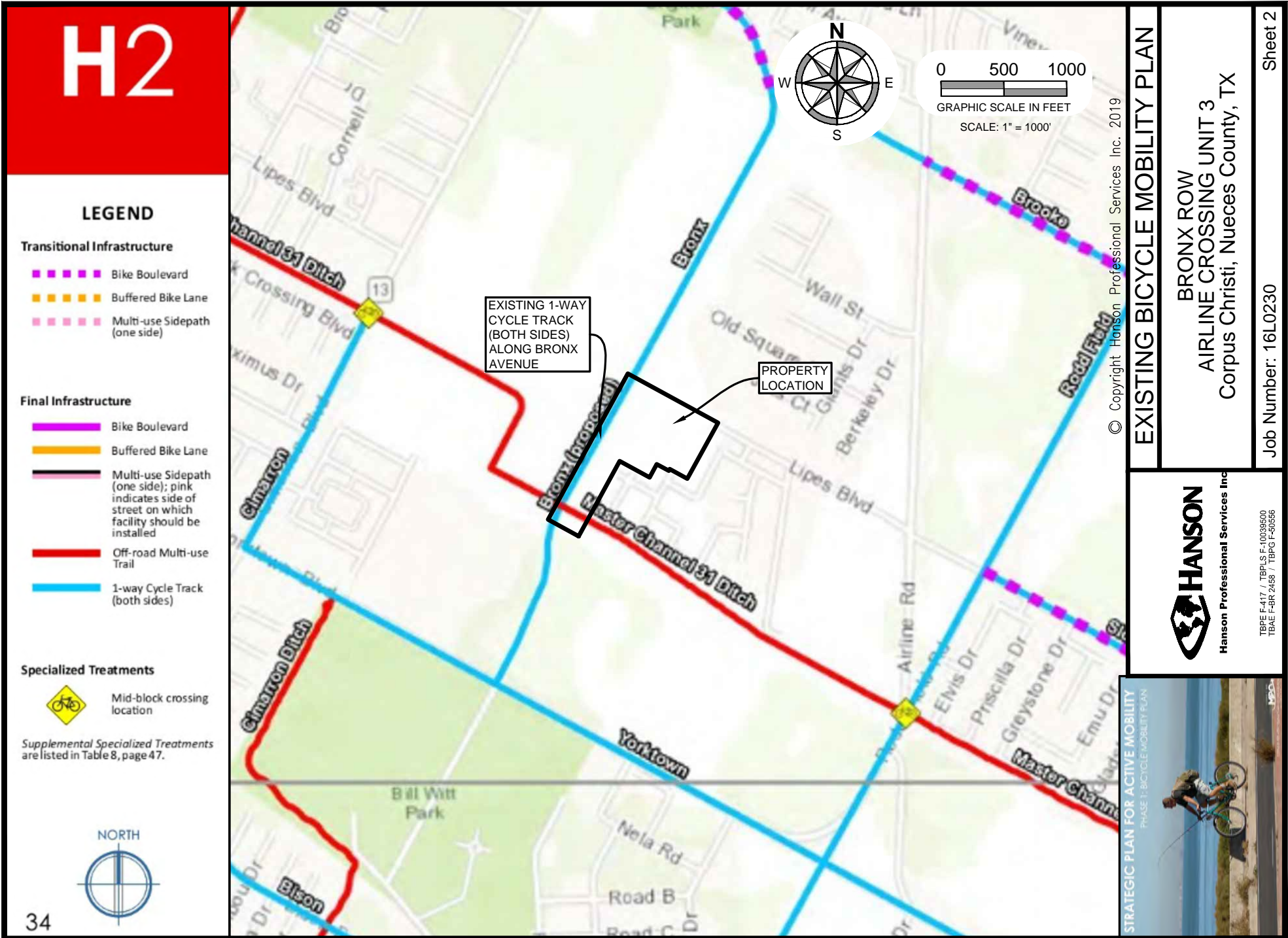
- EXISTING BRONX DR.
- PROPERTY LOCATION
- EXISTING ROADWAY URBAN TRANSPORTATION PLAN
- EXISTING PARCELS

# AREA MAP

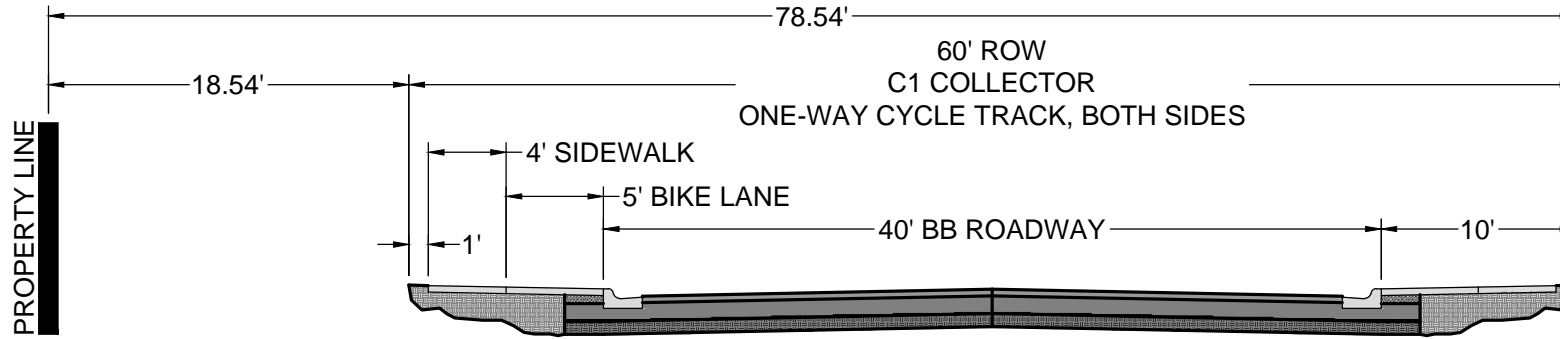


Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

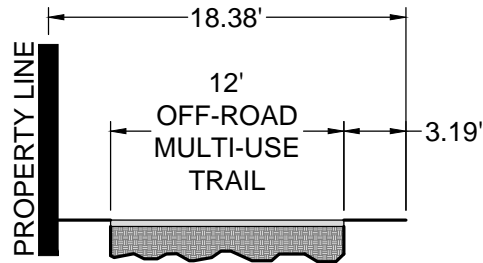




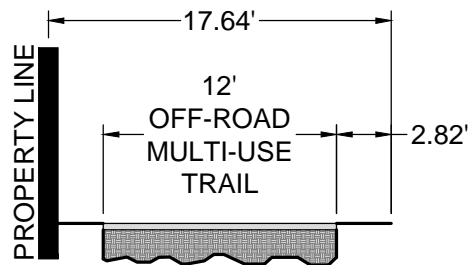
## EXISTING REQUIRED BRONX AVENUE CROSS SECTION (AT EXISTING ALIGNMENT), CROSS SECTION A



## PROPOSED TRAIL ALIGNMENT, CROSS SECTION B



## PROPOSED TRAIL ALIGNMENT, CROSS SECTION C



© Copyright Hanson Professional Services Inc. 2019

### CROSS SECTIONS

BRONX ROW  
AIRLINE CROSSING UNIT 3  
Corpus Christi, Nueces County, TX

Job Number: 16L0230

Sheet 3



TBPE F-417 / TBPLS F-10039500  
TBPE F-417 / TBPLS F-10039500  
TBPE F-417 / TBPLS F-10039500



EXISTING REQUIREMENT AT SITE

## ONE-WAY CYCLE TRACK, BOTH SIDES

### Description:

A one-way cycle track is a bikeway provided on both sides of the street that is physically separated from the vehicular travel lanes that provides exclusive use by bicycles in the direction of motor vehicle travel. Separated bikeways may be placed at either street level, at sidewalk level, or at an intermediate level; the preferred placement in the Corpus Christi metro area is at sidewalk level adjacent to or in close proximity to the sidewalk.

### Features:

- Typically specified on streets with higher traffic speeds and/or volumes
- Dedicated bicycle facility separated from motor vehicle traffic by a physical barrier (e.g. the curb)
- Differentiated from the sidewalk by way of material choice or surface treatment (e.g. green pigmented concrete) and, where space allows, by a strip (1') of differentiated texture (e.g. pavers or stamped concrete)
- Preferred width for one-way cycle track 6 feet; minimum width is 5 feet
- A setback (buffer), preferably grass or otherwise vegetated, of 2 feet (minimum) to 6 feet (preferred) between the back of the curb and the one-way cycle track is preferred to enhance separation between motor vehicles and cyclists and to allow for installation of utility poles, fire hydrants, mailboxes, transit stops, driveway aprons, trash receptacles, etc.

### Benefits:

- Physical separation from motor vehicle traffic appeals to users of a range of abilities
- Where sidewalk level cycle tracks are installed in lieu of on-street bike lanes, cost savings (estimated at \$1/2M per mile) may be realized during street reconstruction (with additional savings during maintenance) if the curb to curb street width is reduced

### Challenges:

- Every street or driveway crossing presents a potential conflict point that merit additional mitigation; extreme care should be taken in the design of cycle tracks along streets with many driveways and street crossings (especially high traffic volume locations); conflict mitigation includes strict access management and specific design treatments to improve visibility, reduce speed, and separate movements at conflict points
- Sidewalk level cycle tracks placed at the back of curb or within a couple feet of the back of curb may necessitate:
  - Revised driveway design to minimize intrusion into cycle track
  - Additional consideration of utility poles placement, fire hydrants, traffic signal cabinets, street trees, trash receptacles, mailboxes, etc.
- Design of curb ramps necessitates additional consideration to accommodate both the cycle track and sidewalk, particularly when the cycle track is placed at the back of curb

### Design and Maintenance Guidance:

- National Association of City Transportation Officials (NACTO). 2014. *Urban Bikeway Design Guide, 2nd Edition*.
- Caltrans Division of Research, Innovation and System Information (DRISI). 2015. *Comprehensive Design Guidance for Cycle Tracks, Preliminary Investigation*.
- Massachusetts Department of Transportation. 2015. *Separated Bike Lane Planning and Design Guide*.
- Federal Highway Administration. 2015. *Separated Bike Lane Planning and Design Guide*.

### Relative Cost:

- Varies. Typically commensurate with sidewalk construction when constructed at sidewalk grade adjacent to sidewalk

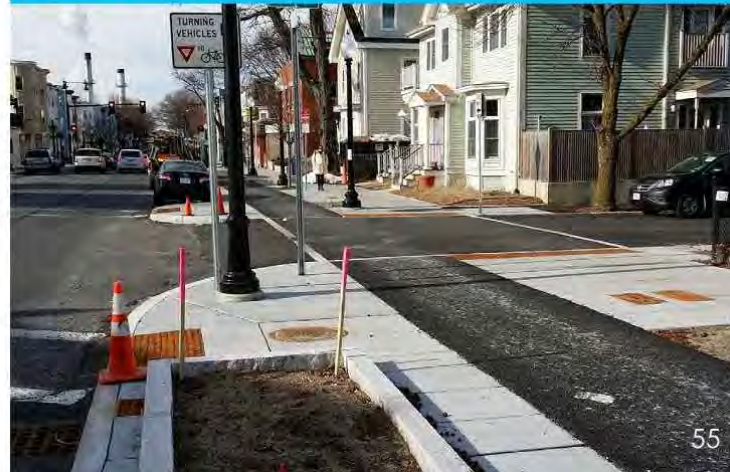
INFRASTRUCTURE ILLUSTRATIONS



▲ ONE-WAY CYCLE TRACK, MISSOULA, MT



▼ ONE-WAY CYCLE TRACK, CAMBRIDGE, MA



© Copyright 2019, Hanson Professional Services Inc.

ONE-WAY CYCLE TRACK, BOTH SIDES

BRONX ROW  
AIRLINE CROSSING UNIT 3  
Corpus Christi, Nueces County, TX



Hanson Professional Services Inc.

TBPE F-417 / TBPLS F-10039500  
TBPE F-417 / TBPLS F-10039500

Job Number: 16L0230

Sheet 4

STRATEGIC PLAN FOR ACTIVE MOBILITY  
PHASE 1: BICYCLE MOBILITY PLAN

55



## OFF-ROAD MULTI-USE TRAIL

### Description:

A path, typically found along greenways, waterways, active or abandoned railways, and utility easements, within a right-of-way that is independent and physically separated from motor vehicle traffic by an open space or barrier. Multi-use paths are not dedicated bicycle facilities and thus also serve pedestrians, inline skaters, wheelchair users, joggers, and other non-motorized users.

### Features:

- Provides a separated path for non-motorized users along a linear corridor that is independent of the roadway network
- Preferred width for a multi-use path accommodating two-way, non-motorized traffic is 12-14 feet; minimum width is 10 feet
- Width of 8 feet may be acceptable to provide short linkages between other, more robust facilities or where rights-of-way are severely constrained

### Benefits:

- Highly versatile facility
- Independence from roadway network creates high quality user experience

### Challenges:

- Intersections of trails with roadways present potential conflict points that may merit dedicated crossing treatments
- Presence of users of a wide variety of non-motorized modes and abilities and two-way traffic may reduce predictability operation and increase potential for conflicts, necessitating additional interventions, such as path user speed limits
- Right-of-way acquisition may be costly and/or complicated
- Topography and drainage can greatly impact design, construction, and maintenance
- Personal safety measures, such as emergency call boxes and lighting, must be considered due to distance from roadways

### Design and Maintenance Guidance:

- American Association of State Highway and Transportation Officials (AASHTO). 2012. *Guide for the Development of Bicycle Facilities*, 4th Edition.

### Relative Cost:

- Typically \$400,000 - \$600,000 per mile, depending on width and material, not including amenities such as trailheads or supplemental safety measures

INFRASTRUCTURE ILLUSTRATIONS

PROPOSED REQUIREMENT AT SITE



▲ OFF-ROAD MULTI-USE PATH. LITTLE ECON GREEWAY, ORLANDO, FL

OFF-ROAD  
MULTI-USE TRAIL

▼ OFF-ROAD MULTI-USE PATH. MEAD GARDEN TRAIL, ORLANDO, FL



© Copyright Hanson Professional Services Inc. 2019

OFF-ROAD MULTI-USE TRAIL

BRONX ROW  
AIRLINE CROSSING UNIT 3  
Corpus Christi, Nueces County, TX

Job Number: 16L0230

Sheet 5



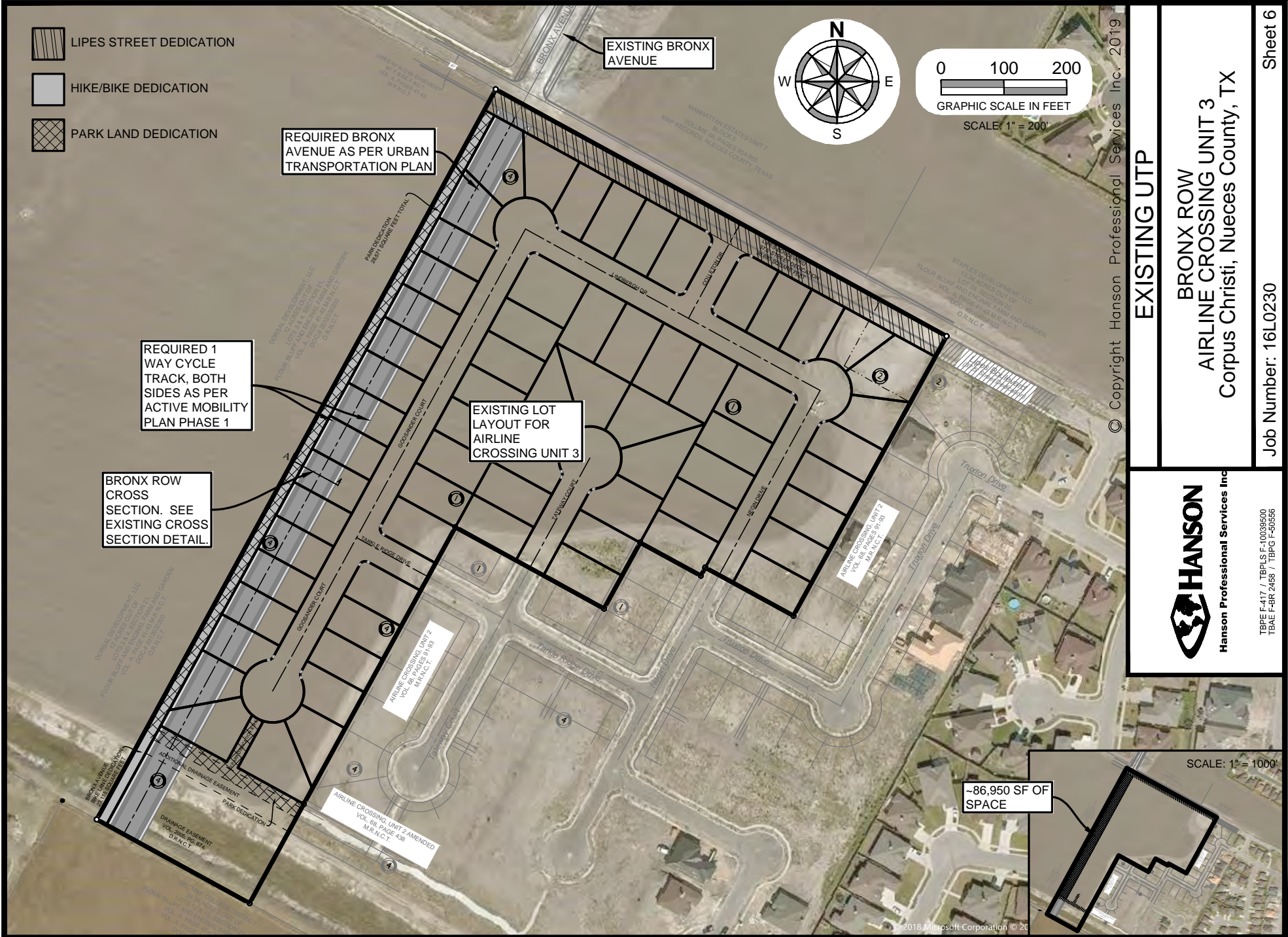
Hanson Professional Services Inc.

TBPE F-417 / TBPLS F-10039500  
TBAE F-BR 2458 / TBPG F-50556

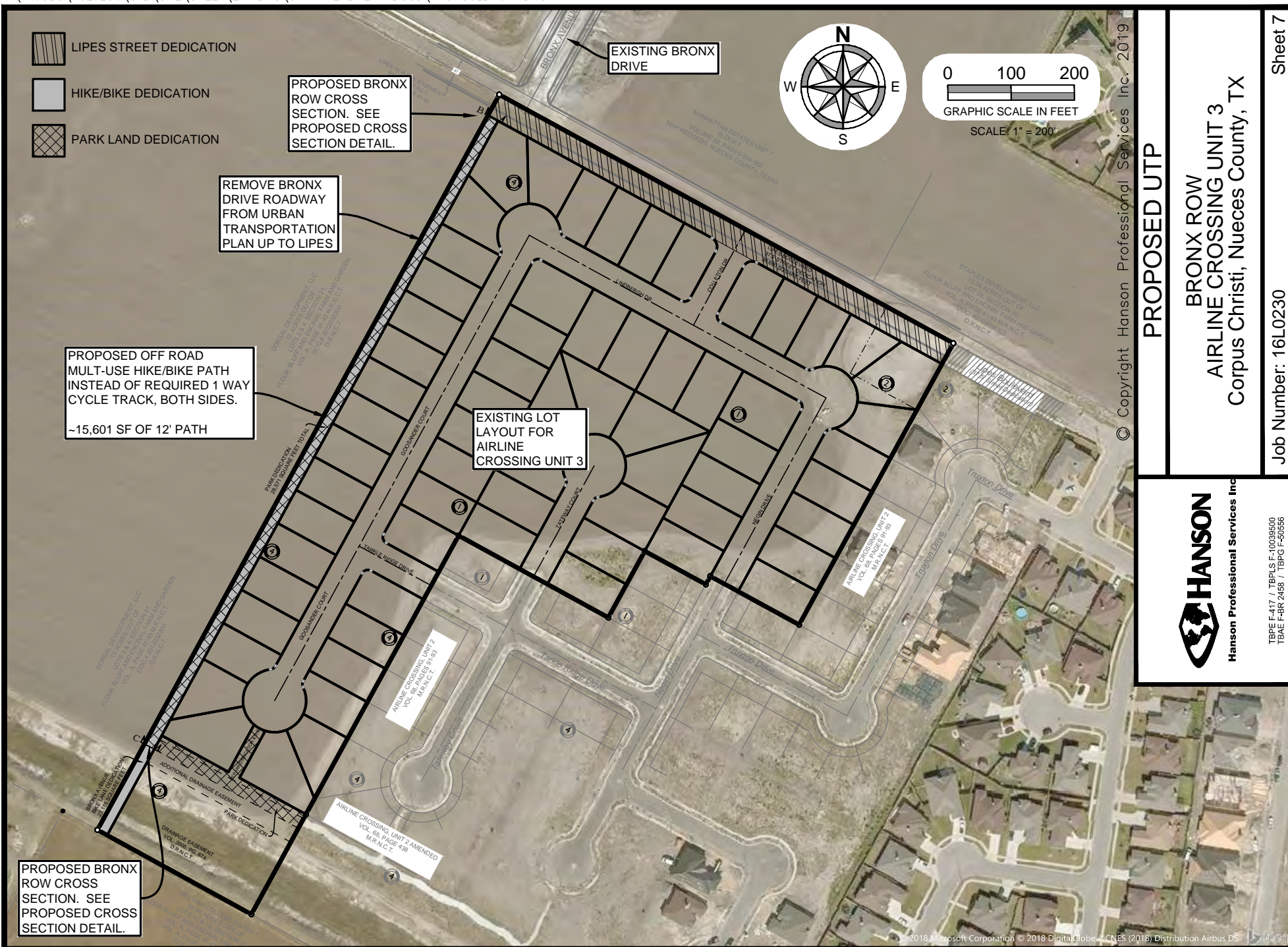
STRATEGIC PLAN FOR ACTIVE MOBILITY  
PHASE 1: BICYCLE MOBILITY PLAN



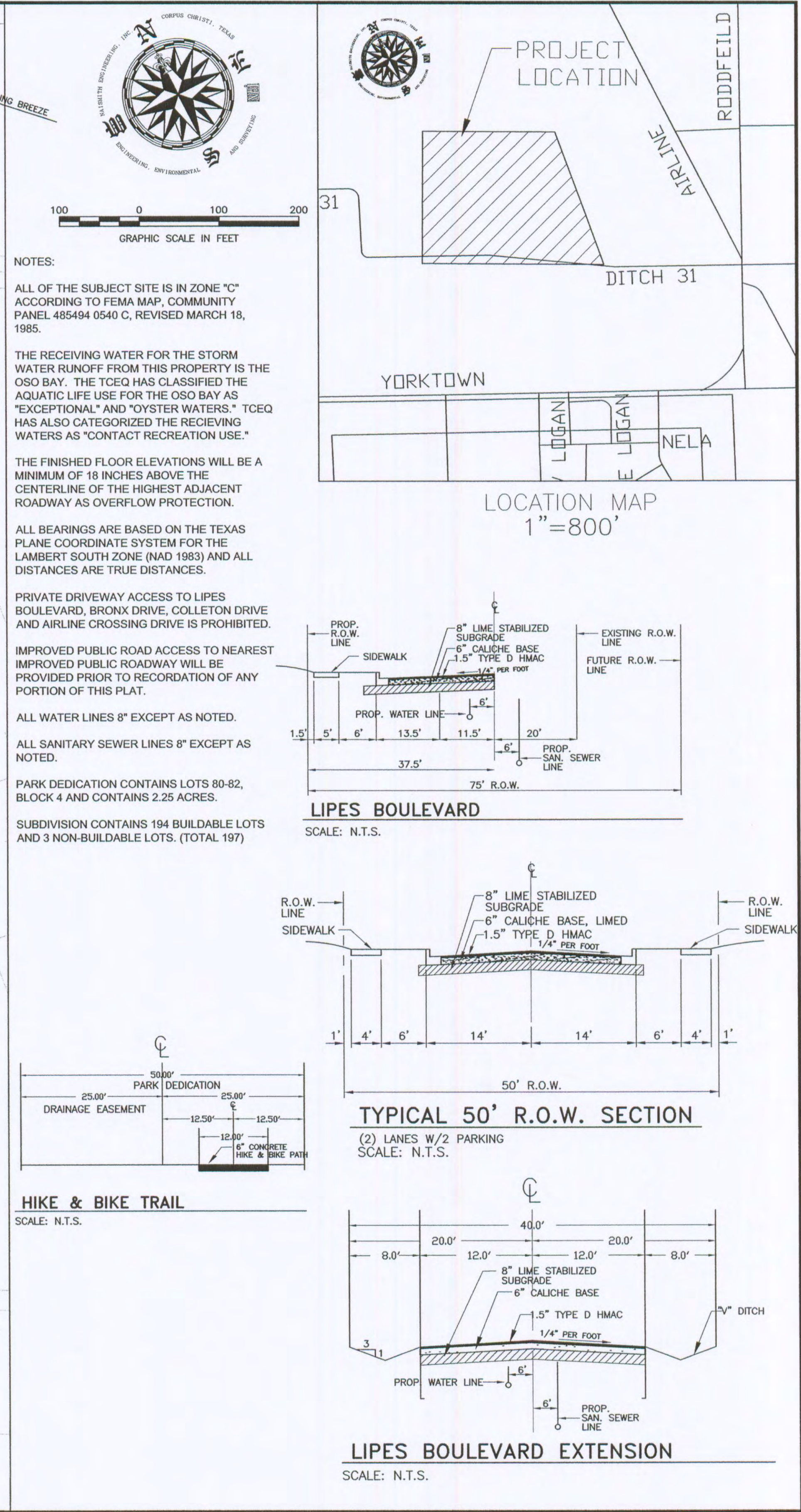
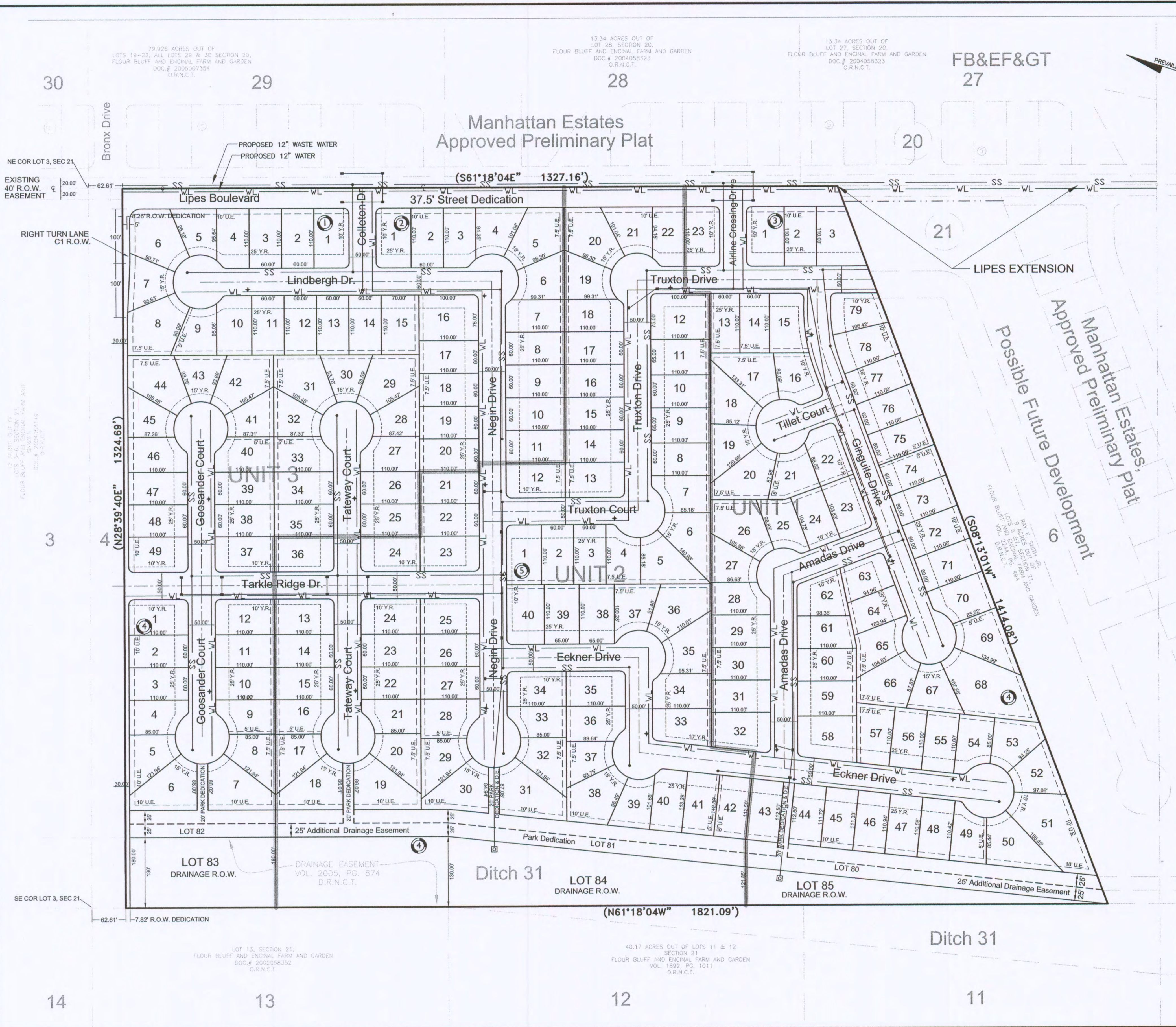












REV.	REVISIONS	APPR.	DATE	Drawn By : DMU/SCR	OFFICE LOCATION :	OWNER: AL MOSTAGHASI	PRELIMINARY PLAT	Dwg. No. PRELIMINARY
				Checked By : DMU	4501 Goliath Rd.	ENGINEER: NAISMITH ENGINEERING, INC.	AIRLINE CROSSING	1
				Approved By: DMU	Corpus Christi, Texas 78411	ZONING: R-1B	BEING 47.87 ACRES OUT OF A PORTION OF LOTS 4 & 6 AND ALL OF LOT 5, SECTION 21, FLOUR BLUFF ENCINAL FARM AND GARDEN TRACTS, VOLUME A, PAGES 41 - 43, MAP RECORDS, NUECES COUNTY, TEXAS.	Sheet 1 Of 1
				Project No. : 7539	P.O. Box 3099			
				Scale : 1"=100'	Corpus Christi, Texas 78463			
				Date : 5/17/2006	(361)-814-9900			
				Revision : 4				

STATE OF TEXAS

DAVID M. UNDERBRINK, SR.

59537

LICENSED PROFESSIONAL ENGINEER

5/17/06

NAISMITH ENGINEERING, INC.

ENGINEERING • ENVIRONMENTAL • SURVEYING

APPROVED

MAY 17 2006

PLANNING COMMISSION

RECEIVED

MAY 17 2006

DEVELOPMENT SERVICES

SPECIAL SERVICES